Manual No.'19 • KX-T-310

MITSUBISHI HEAVY INDUSTRIES

TECHNICAL MANUAL

VRF INVERTER MULTI-SYSTEM AIR-CONDITIONERS
(INDOOR UNIT)

Ceiling cassette-4 way type
FDT28KXZE1
36KXZE1
45KXZE1
56KXZE1
71KXZE1
90KXZE1
112KXZE1
140KXZE1
160KXZE1

Ceiling cassette-4 way compact type
FDTC15KXZE1
22KXZE1
28KXZE1
36KXZE1
45KXZE1
56KXZE1

Ceiling cassette-2 way type
FDTW28KXE6F
45KXE6F
56KXE6F
71KXE6F
90KXE6F
112KXE6F
140KXE6F

Ceiling cassette-1 way type
FDTS45KXE6F
71KXE6F

Duct connected-High static pressure type
FDU45KXE6F
56KXE6F
71KXE6F
90KXE6F
112KXE6F
140KXE6F
160KXE6F
224KXZE1
280KXZE1

Duct connected-Low/Middle static pressure type
FDUM22KXE6F
28KXE6F
36KXE6F
45KXE6F
56KXE6F
71KXE6F
90KXE6F
112KXE6F
140KXE6F
160KXE6F

Duct connected (thin)-Low static pressure type
FDUT71KXE6F-E

Wall mounted type
FDK15KXZE1
22KXZE1
28KXZE1
36KXZE1
45KXZE1
56KXZE1
71KXZE1
90KXZE1

Ceiling suspended type
FDE36KXZE1
45KXZE1
56KXZE1
71KXZE1
112KXZE1
140KXZE1

Outdoor air processing unit
FDU650FKXZE1
1100FKXZE1
1800FKXZE1
2400FKXZE1

・Note:
(1) This document describes the indoor units with service code /F (with motion sensor system function).

MITSUBISHI HEAVY INDUSTRIES THERMAL SYSTEMS, LTD.

PREFACE

Combination table for KX4 series and KX6 series

( ) Date of launching in the market

Category	Outdoor unit	Connectable remote control		Indoor unit: Same series	Same series	Same series	Mixed series	Mixed series	Mixed series	Same or Mixed series	Mixed series	Same series
		3-wire type	RC-E1	KXE4	KXE4(A)	KXE4A	KXE4A	KXE4A	KXE4A			
		3-wire type	RC-E1R				KXE4R KXE4BR KXE5R	KXE4R KXE4BR KXE5R	KXE4R KXE4BR KXE5R	KXE4R KXE4BR KXE5R	KXE4R KXE4BR KXE5R	
		2-wire type	RC-E3 RC-E4 RC-E5 RC-EX1A RC-EX3					KXE6 KXE6A KXE6B KXE6D KXE6F KXZE1	KXE6 KXE6A KXE6B KXE6D KXE6F KXZE1		KXE6 KXE6A KXE6B KXE6D KXE6F KXZE1	KXE6 KXE6A KXE6B KXE6D KXE6F KXZE1
Heat pump (2-pipe) systems	FDCA-HKXE4 5HP	(2004.4-)		YES [C]	YES [C]	YES [C]	NO	NO	NO	NO	NO	NO
	FDCA-HKXE4 8-48HP	(2004.4-)		NO	YES [C]	YES [C]	NO	NO	NO	NO	NO	NO
	FDCA-HKXE4A 5HP	(2006.2-)		NO	YES [C]	YES [C]	YES [C]*1	NO	NO	YES [C]*1	NO	NO
	FDCA-HKXE4R 5,6HP	(2006.5-)										
	FDCA-HKXE4A 8-48HP	(2006.2-)		NO	YES [C]	YES [C]	YES [C]	YES [C]	YES [C]	YES [C]	YES [C]	YES [C]
	FDCA-HKXE4R 8-48HP	(2006.5-)										
	FDCA-HKXE4BR 8-48HP	(2007.4-)										
	FDCA-HKXE4D 8-48HP	(2008.7-)										
	FDC-KXE6 4,5,6HP	(2008.3-)		NO	NO	NO	NO	NO	NO	NO	NO	YES [A]*6
	FDC-KXE6 8-12HP	(2009.2-)		NO	NO	NO	NO	NO	NO	YES [B]	YES [B]	YES [A]
	FDC-KXE6 14-48HP	(2009.1-)		NO	NO	NO	NO	NO	NO	YES [B]	YES [B]	YES [A]
	FDC-KXZE1 4,5,6HP	(2018.2-)		NO	NO	NO	NO	NO	NO	NO	NO	YES [A]*6
	FDC-KXZE1 10-60HP	(2017.4-)		NO	NO	NO	NO	NO	NO	NO	NO	YES [A]
	FDC-KXZME1 8-12HP	(2019.1-)		NO	NO	NO	NO	NO	NO	NO	NO	YES [A]
	FDC-KXZEN/S1 4HP	(2019.4-)		NO	NO	NO	NO	NO	NO	NO	NO	YES [A]
Heat recovery (3-pipe) systems [Note(3)]	FDCA-HKXRE4 8-48HP	(2004.11-)		NO	NO	YES [C]	NO	NO	NO	NO	NO	NO
	FDCA-HKXRE4A 8-48HP	(2006.2-)		NO	NO	YES [C]	YES [C]	YES [C]	YES [C]	YES [C]	YES [C]	YES [C]
	FDCA-HKXRE4R 8-48HP	(2006.6-)										
	FDCA-HKXRE4BR 8-48HP	(2007.4-)										
	FDCA-HKXRE4D 8-48HP	(2008.7-)										
	FDC-KXRE6 8-48HP	(2009.5-)		NO	NO	NO	NO	NO	NO	YES [B]	YES [B]	YES [A]
	FDC-KXZRE1 8-60HP	(2017.4-)		NO	NO	NO	NO	NO	NO	NO	NO	YES [A]

Notes (1) YES: Connectable (See following table in detail), NO: Not connectable

*1 except FDKA71KXE5R

	Outdoor unit	Connected Indoor unit: Same series	Connected Indoor unit: Mixed series	DIP switch setting of outdoor unit KXE6	Superlink protocol	Limitation
YES [A]*2	KXE6&KXZ	KXE6&KXZ		Ⅱ(New)	New (for KX6)	New (for KX6)
YES [B]		KXE4 series	KXE6 & KXE4 series	Ⅰ(Previous)	Previous (for KX4)	Previous (for KX4)
YES [C]	KXE4 series	KXE4 series	KXE4 series		Previous (for KX4)	Previous (for KX4)

*2 If Outdoor unit system (YES [A]) is connected to other outdoor unit systems (YES [B] and/or YES [C]) in one Superlink network, the dip switch of outdoor unit KXE6 of (YES [A]) should be set from Ⅱ(New) to (Previous). In this case the Superlink protocol and limitation of outdoor unit system (YES [A]) are switched to Previous (for KX4).

(2) Combination with new central control, PC windows central control and BMS interface unit

		Central control, PC windows central control and BMS interface unit: SC-SL1N-E	SC-SL2NA-E	SC-SL4N-AE/BE	SC-WGWN-A/B	SC-LGWN-A	SC-BGWN-A/B
YES [A]	Connectable I/U	16	64	128 (128x1)	128 (64x2)*3	96 (48x2)	128 (64x2)*3
	Superlink protocol	New	New	New	New	New	New
	Connectable network	1	1	1	2	2	2
YES[B] & YES[C]	Connectable I/U	16	48	144 (48x3)	96 (48x2)*4	96 (48x2)*4	96 (48x2)*4
	Superlink*5 protocol	Previous	Previous	Previous	Previous	Previous	Previous
	Connectable network	1	1	3	2	2	2

*3 Maximum number of AC cell is limited up to 96.
In case the number of connected indoor units are more than 96, some AC cells should hold 2 or more indoor units.
*4 In case of other central control like SC-SLxN-E is connected in the same network, the connectable indoor unit is limited up to 64 (32x2).
*5 In case of previous Superlink protocol, the Superlink mode of new central control should be set "Previous".
*6 In case of YES[A], previous central control is available to use. But the limitation of connectable indoor unit and so on is complied with the rule of previous Superlink.

(3) The compatibility of PFD (refrigerant flow branching control) is mentioned in following table.

Connectable PFD control		Indoor unit: KXE4 & KXE5 series	KXE6 & KXZE1 series
Outdoor unit	KXRE4 series	PFD-E PFD-ER	PFD-E PFD∗∗∗3-E PFD-ER PFD∗∗∗4-E
	KXRE6 series	PFD-E PFD-ER	PFD∗∗∗3-E PFD∗∗∗4-E
	KXZRE1 series		PFD∗∗∗3-E PFD∗∗∗4-E

Note:
All indoor unit downstream PFD box must be same series, KXZR,KX6 series or KX4/5 series

(4) Compatibility of the PFD control extension cables is as per the following table.

	PFD-control series: PFD ∗∗∗ 3-E	PFD ∗∗∗ 4-E
PFD-15WR-E	Yes	No
PFD4-15WR-E	No	Yes

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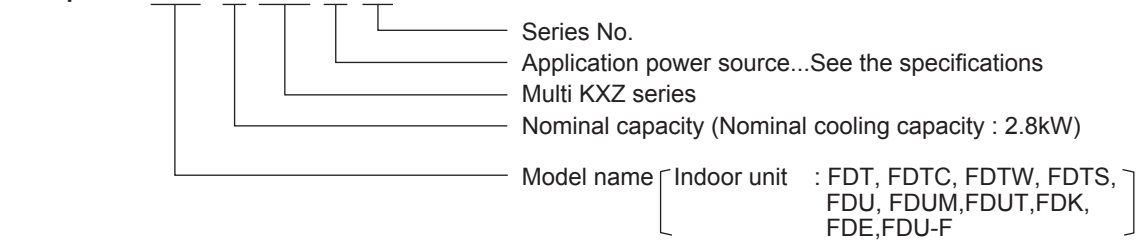
1. INFORMATION

1.1 Model description

Example: **FDT 28 KXZ E 1**



(1) Table of indoor units panel (Option)

Model	Capacity	Parts Model
FDT	28,36,45,56,71,90,112,140,160	T-PSA-5AW-E
FDTC	15,22,28,36,45,56	TC-PSA-5AW-E
FDTW	28,45,56,71	TW-PSA-26W-E
	90,112,140	TW-PSA-46W-E
FDTS	45,71	TS-PSA-3AW-E

(2) Table of remote control (Option)

(a) Wired remote control

Model	Remote control model	Type
All models	RC-EX3A	Eco touch
	RC-E5	Standard
	RCH-E3	Simple

(b) Wireless kit (Wireless remote control)

Model		Wireless kit
FDT		RCN-T-5AW-E2
FDTC		RCN-TC-5AW-E2
FDTW		RCN-TW-E2
FDTS		RCN-TS-E2
FDK	15 - 56	RCN-K-E2
	71, 90	RCN-K71-E2
FDE		RCN-E-E3
FDU,FDUM,FDUT,FDU-F		RCN-KIT4-E2

(c) Motion sensor kit

Model	Motion sensor kit
FDT	LB-T-5W-E
FDTC	LB-TC-5W-E
FDTW	LB-TW-6W
FDE	LB-E
FDTS,FDU,FDUM,FDUT,FDK,FDU-F	LB-KIT

1.2 1.5kW-indoor units connection

(1) 1.5kW-indoor units

Model
FDTC15KXZE1
FDK15KXZE1

(2) Compatibility with outdoor units

Category	Indoor unit / Outdoor unit	FDK15KXZE1
Heat pump (2- Pipe) systems	FDC112-155KXE6	**NO**
	FDC112-155KXZE1	**Yes**
	FDC224-335KXE6 **(service code A and there after)**	**Yes**
	FDC400-1360KXE6 **(service code F and there after)**	**Yes**
	FDCR224-280KXE6 (Refresh)	**NO**
	FDC224-280KXZPE1	**NO**
	FDC280-1680KXZE1	**Yes**
Heat recovery (3-Pipe) systems	FDC-KXRE6	**NO**
	FDC-KXZRE1	**Yes**

① **Connectable**
- KXZ series (KXZ, KXZX, KXZPE1, KXZR) are connectable.
- FDC224-335KXE6 (service code A and there after) and FDC400-1360KXE6 (service code F and there after) are connectable.

② **Non-Connecctable**
- FDC112-155KXE6, KXR and refresh KX series are not connectable.
- In case of connection with not the connectable outdoor units, error display (E22) will be appeared on the remote control.

(3) Installation limitation on 1.5kW-indoor unit connection

(a) Connectable KX6 outdoor units

① KX6 outdoor unit must have total indoor unit connection capacity ratio of 100% or more.
<Example>
FDC680KXE6 / service code F connecting with one or more 1.5kW-indoor units must have total indoor unit capacity 680 or more.

② Total piping length between outdoor unit and indoor units must be 150m or more, including both main and branch piping.

③ When one or more 1.5kW-indoor units are in the system, outdoor temperature condition in the cooling operation must be 10°C or more. Without 1.5kW-indoor units connection in the system, the outdoor lowest temperature for FDC112-335KXE6 is -15°C and that for FDC400 - 1360KXE6 is -5°C.

(b) KXZ outdoor units

- KXZ series (KXZ, KXZX, KXZR) does not have installation limitation on 1.5kW-indoor unit connection.

2. SPECIFICATIONS

(1) Ceiling cassette-4 way type (FDT)

Models FDT28KXZE1, 36KXZE1, 45KXZE1, 56KXZE1, 71KXZE1

Model			FDT28KXZE1	FDT36KXZE1	FDT45KXZE1	FDT56KXZE1	FDT71KXZE1
Panel model (Option)			Standard: T-PSA-5AW-E Draft prevention: T-PSAE-5AW-E	Standard: T-PSA-5AW-E Draft prevention: T-PSAE-5AW-E	Standard: T-PSA-5AW-E Draft prevention: T-PSAE-5AW-E	Standard: T-PSA-5AW-E Draft prevention: T-PSAE-5AW-E	Standard: T-PSA-5AW-E Draft prevention: T-PSAE-5AW-E
Nominal cooling capacity*1		kW	2.8	3.6	4.5	5.6	7.1
Nominal heating capacity*2			3.2	4.0	5.0	6.3	8.0
Power source			1 Phase 220-240V 50Hz / 220V 60Hz	1 Phase 220-240V 50Hz / 220V 60Hz	1 Phase 220-240V 50Hz / 220V 60Hz	1 Phase 220-240V 50Hz / 220V 60Hz	1 Phase 220-240V 50Hz / 220V 60Hz
Power consumption	Cooling	kW	0.04 - 0.04 / 0.04	0.04 - 0.04 / 0.04	0.04 - 0.04 / 0.04	0.07 - 0.07 / 0.07	0.08 - 0.08 / 0.08
	Heating		0.04 - 0.04 / 0.04	0.04 - 0.04 / 0.04	0.04 - 0.04 / 0.04	0.07 - 0.07 / 0.07	0.08 - 0.08 / 0.08
Running current	Cooling	A	0.36 - 0.33 / 0.36	0.36 - 0.33 / 0.36	0.36 - 0.33 / 0.36	0.62 - 0.57 / 0.62	0.70 - 0.64 / 0.70
	Heating		0.36 - 0.33 / 0.36	0.36 - 0.33 / 0.36	0.36 - 0.33 / 0.36	0.62 - 0.57 / 0.62	0.70 - 0.64 / 0.70
Sound pressure level		dB(A)	P-Hi : 38 Hi : 33 Me : 30 Lo : 28	P-Hi : 38 Hi : 33 Me : 30 Lo : 28	P-Hi : 38 Hi : 33 Me : 31 Lo : 29	P-Hi : 44 Hi : 33 Me : 31 Lo : 29	P-Hi : 47 Hi : 35 Me : 32 Lo : 28
Sound power level			55	55	55	60	62
Exterior dimensions Height x Width x Depth		mm	Unit : 236 × 840 × 840 Panel : 35 × 950 × 950	Unit : 236 × 840 × 840 Panel : 35 × 950 × 950	Unit : 236 × 840 × 840 Panel : 35 × 950 × 950	Unit : 236 × 840 × 840 Panel : 35 × 950 × 950	Unit : 236 × 840 × 840 Panel : 35 × 950 × 950
Exterior appearance (Munsell color)			Plaster white (6.8Y8.9/0.2) near equivalent	Plaster white (6.8Y8.9/0.2) near equivalent	Plaster white (6.8Y8.9/0.2) near equivalent	Plaster white (6.8Y8.9/0.2) near equivalent	Plaster white (6.8Y8.9/0.2) near equivalent
Net weight*3		kg	Unit : 20 Standard panel : 5	Unit : 20 Standard panel : 5	Unit : 20 Standard panel : 5	Unit : 21.5 Standard panel : 5	Unit : 21.5 Standard panel : 5
Refrigerant equipment Heat exchanger			Louver fin & inner grooved tubing	Louver fin & inner grooved tubing	Louver fin & inner grooved tubing	Louver fin & inner grooved tubing	Louver fin & inner grooved tubing
Refrigerant control			Electronic expansion valve	Electronic expansion valve	Electronic expansion valve	Electronic expansion valve	Electronic expansion valve
Air handling equipment Fan type & Q'ty			Turbo fan × 1	Turbo fan × 1	Turbo fan × 1	Turbo fan × 1	Turbo fan × 1
Fan motor		W	58	58	58	58	58
Starting method			Direct line start	Direct line start	Direct line start	Direct line start	Direct line start
Air flow (Standard)		m^3/min	P-Hi : 20 Hi : 14 Me : 12 Lo : 10	P-Hi : 20 Hi : 14 Me : 12 Lo : 10	P-Hi : 20 Hi : 15 Me : 13 Lo : 10	P-Hi : 26 Hi : 16 Me : 13 Lo : 11	P-Hi : 28 Hi : 17 Me : 14 Lo : 12
Available static pressure		Pa	0	0	0	0	0
Outside air intake			Possible	Possible	Possible	Possible	Possible
Air filter, Q'ty			Pocket plastic net× 1 (Washable)	Pocket plastic net× 1 (Washable)	Pocket plastic net× 1 (Washable)	Pocket plastic net× 1 (Washable)	Pocket plastic net× 1 (Washable)
Shock & vibration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for fan motor)	Rubber sleeve(for fan motor)	Rubber sleeve(for fan motor)	Rubber sleeve(for fan motor)
Insulation (Noise & heat)			Polyurethane form	Polyurethane form	Polyurethane form	Polyurethane form	Polyurethane form
Operation control Remote control switch (Option)			Wired : RC-EX3A, RC-E5, RCH-E3 Wireless : RCN-T-5AW-E2	Wired : RC-EX3A, RC-E5, RCH-E3 Wireless : RCN-T-5AW-E2	Wired : RC-EX3A, RC-E5, RCH-E3 Wireless : RCN-T-5AW-E2	Wired : RC-EX3A, RC-E5, RCH-E3 Wireless : RCN-T-5AW-E2	Wired : RC-EX3A, RC-E5, RCH-E3 Wireless : RCN-T-5AW-E2
Room temperature control			Thermostat by electronics	Thermostat by electronics	Thermostat by electronics	Thermostat by electronics	Thermostat by electronics
Safety equipment			Overload protection for fan motor Frost protection thermostat	Overload protection for fan motor Frost protection thermostat	Overload protection for fan motor Frost protection thermostat	Overload protection for fan motor Frost protection thermostat	Overload protection for fan motor Frost protection thermostat
Installation data Refrigerant piping size	Liquid line Gas line		ϕ 6.35 (1/4") <Flare piping> ϕ 9.52 (3/8") <Flare piping>	ϕ 6.35 (1/4") <Flare piping> ϕ 12.7 (1/2") <Flare piping>	ϕ 6.35 (1/4") <Flare piping> ϕ 12.7 (1/2") <Flare piping>	ϕ 6.35 (1/4") <Flare piping> ϕ 12.7 (1/2") <Flare piping>	ϕ 9.52 (3/8") <Flare piping> ϕ 15.88 (5/8") <Flare piping>
Connecting method			Flare piping	Flare piping	Flare piping	Flare piping	Flare piping
Refrigerant			R410A	R410A	R410A	R410A	R410A
Drain pump			Built-in drain pump	Built-in drain pump	Built-in drain pump	Built-in drain pump	Built-in drain pump
Drain hose			Connectable with VP25	Connectable with VP25	Connectable with VP25	Connectable with VP25	Connectable with VP25
Insulation for piping			Necessary(both Liquid & Gas line)	Necessary(both Liquid & Gas line)	Necessary(both Liquid & Gas line)	Necessary(both Liquid & Gas line)	Necessary(both Liquid & Gas line)
Accessories			Mounting kit,Drain hose	Mounting kit,Drain hose	Mounting kit,Drain hose	Mounting kit,Drain hose	Mounting kit,Drain hose
Exterior dimensions			PJF000Z417	PJF000Z417	PJF000Z417	PJF000Z417	PJF000Z417
Electrical wiring			PJF000Z421	PJF000Z421	PJF000Z421	PJF000Z421	PJF000Z421

Notes (1) The data are measured at the following conditions.

Adapted to **RoHS** directive

Item	Indoor air temperature		Outdoor air temperature		Standards
Operation	DB	WB	DB	WB	ISO-T1
Cooling*1	27℃	19℃	35℃	24℃	
Heating*2	20℃		7℃	6℃	

(2) This packaged air-conditioner is manufactured and tested in conformity with the following standard.
ISO-T1 "UNITARY AIR-CONDITIONERS"
(3) Draft prevention panel weight*3 : 6kg
(4) Option : Motion sensor kit (LB-T-5W-E)

PJF000Z416

Models FDT90KXZE1, 112KXZE1, 140KXZE1, 160KXZE1

Model			FDT90KXZE1	FDT112KXZE1	FDT140KXZE1	FDT160KXZE1
Panel model (Option)			Standard: T-PSA-5AW-E Draft prevention: T-PSAE-5AW-E	Standard: T-PSA-5AW-E Draft prevention: T-PSAE-5AW-E	Standard: T-PSA-5AW-E Draft prevention: T-PSAE-5AW-E	Standard: T-PSA-5AW-E Draft prevention: T-PSAE-5AW-E
Nominal cooling capacity*1		kW	9.0	11.2	14.0	16.0
Nominal heating capacity*2			10.0	12.5	16.0	18.0
Power source			1 Phase 220-240 50Hz / 220V 60Hz	1 Phase 220-240V 50Hz / 220V 60Hz	1 Phase 220-240V 50Hz / 220V 60Hz	1 Phase 220-240V 50Hz / 220V 60Hz
Power consumption	Cooling	kW	0.13 - 0.13 / 0.13	0.14 - 0.14 / 0.14	0.14 - 0.14 / 0.14	0.14 - 0.14 / 0.14
	Heating		0.13 - 0.13 / 0.13	0.14 - 0.14 / 0.14	0.14 - 0.14 / 0.14	0.14 - 0.14 / 0.14
Running current	Cooling	A	1.04 - 0.95 / 1.04	1.12 - 1.02 / 1.12	1.12 - 1.02 / 1.12	1.12 - 1.02 / 1.12
	Heating		1.04 - 0.95 / 1.04	1.12 - 1.02 / 1.12	1.12 - 1.02 / 1.12	1.12 - 1.02 / 1.12
Sound pressure level		dB(A)	P-Hi : 49 Hi : 38 Me : 36 Lo : 31	P-Hi : 49 Hi : 39 Me : 37 Lo : 31	P-Hi : 49 Hi : 42 Me : 39 Lo : 32	P-Hi : 49 Hi : 42 Me : 39 Lo : 33
Sound power level			65	66	66	66
Exterior dimensions Height x Width x Depth		mm	Unit : 298 × 840 × 840 Panel : 35 × 950 × 950	Unit : 298 × 840 × 840 Panel : 35 × 950 × 950	Unit : 298 × 840 × 840 Panel : 35 × 950 × 950	Unit : 298 × 840 × 840 Panel : 35 × 950 × 950
Exterior appearance (Munsell color)			Plaster white (6.8Y8.9/0.2) near equivalent	Plaster white (6.8Y8.9/0.2) near equivalent	Plaster white (6.8Y8.9/0.2) near equivalent	Plaster white (6.8Y8.9/0.2) near equivalent
Net weight*3		kg	Unit : 25 Standard panel : 5	Unit : 25 Standard panel : 5	Unit : 25 Standard panel : 5	Unit : 25 Standard panel : 5
Refrigerant equipment Heat exchanger			Louver fin & inner grooved tubing	Louver fin & inner grooved tubing	Louver fin & inner grooved tubing	Louver fin & inner grooved tubing
Refrigerant control			Electronic expansion valve	Electronic expansion valve	Electronic expansion valve	Electronic expansion valve
Air handling equipment Fan type & Q'ty			Turbo fan × 1	Turbo fan × 1	Turbo fan × 1	Turbo fan × 1
Fan motor		W	120	120	120	120
Starting method			Direct line start	Direct line start	Direct line start	Direct line start
Air flow (Standard)		m^3/min	P-Hi : 37 Hi : 25 Me : 22 Lo : 15	P-Hi : 38 Hi : 26 Me : 23 Lo : 17	P-Hi : 38 Hi : 28 Me : 25 Lo : 18	P-Hi : 38 Hi : 29 Me : 26 Lo : 19
Available static pressure		Pa	0	0	0	0
Outside air intake			Possible	Possible	Possible	Possible
Air filter, Q'ty			Pocket plastic net× 1 (Washable)	Pocket plastic net× 1 (Washable)	Pocket plastic net× 1 (Washable)	Pocket plastic net× 1 (Washable)
Shock & vibration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for fan motor)	Rubber sleeve(for fan motor)	Rubber sleeve(for fan motor)
Insulation (Noise & heat)			Polyurethane form	Polyurethane form	Polyurethane form	Polyurethane form
Operation control Remote control switch (Option)			Wired : RC-EX3A, RC-E5, RCH-E3 Wireless : RCN-T-5AW-E2	Wired : RC-EX3A, RC-E5, RCH-E3 Wireless : RCN-T-5AW-E2	Wired : RC-EX3A, RC-E5, RCH-E3 Wireless : RCN-T-5AW-E2	Wired : RC-EX3A, RC-E5, RCH-E3 Wireless : RCN-T-5AW-E2
Room temperature control			Thermostat by electronics	Thermostat by electronics	Thermostat by electronics	Thermostat by electronics
Safety equipment			Overload protection for fan motor Frost protection thermostat	Overload protection for fan motor Frost protection thermostat	Overload protection for fan motor Frost protection thermostat	Overload protection for fan motor Frost protection thermostat
Installation data Refrigerant piping size	Liquid line		ϕ 9.52 (3/8") <Flare piping>	ϕ 9.52 (3/8") <Flare piping>	ϕ 9.52 (3/8") <Flare piping>	ϕ 9.52 (3/8") <Flare piping>
	Gas line		ϕ 15.88 (5/8") <Flare piping>	ϕ 15.88 (5/8") <Flare piping>	ϕ 15.88 (5/8") <Flare piping>	ϕ 15.88 (5/8") <Flare piping>
Connecting method			Flare piping	Flare piping	Flare piping	Flare piping
Refrigerant			R410A	R410A	R410A	R410A
Drain pump			Built-in drain pump	Built-in drain pump	Built-in drain pump	Built-in drain pump
Drain hose			Connectable with VP25	Connectable with VP25	Connectable with VP25	Connectable with VP25
Insulation for piping			Necessary(both Liquid & Gas line)	Necessary(both Liquid & Gas line)	Necessary(both Liquid & Gas line)	Necessary(both Liquid & Gas line)
Accessories			Mounting kit,Drain hose	Mounting kit,Drain hose	Mounting kit,Drain hose	Mounting kit,Drain hose
Exterior dimensions			PJF000Z418	PJF000Z418	PJF000Z418	PJF000Z418
Electrical wiring			PJF000Z421	PJF000Z421	PJF000Z421	PJF000Z421

Notes (1) The data are measured at the following conditions.

Item	Indoor air temperature		Outdoor air temperature		Standards
Operation	DB	WB	DB	WB	ISO-T1
Cooling*1	27℃	19℃	35℃	24℃	
Heating*2	20℃		7℃	6℃	

Adapted to **RoHS** directive

(2) This packaged air-conditioner is manufactured and tested in conformity with the following standard.
ISO-T1 "UNITARY AIR-CONDITIONERS"
(3) Draft prevention panel weight*3 : 6kg
(4) Option : Motion sensor kit (LB-T-5W-E)

PJF000Z416 C

(2) Ceiling cassette-4 way compact type (FDTC)

Models FDTC15KXZE1, 22KXZE1, 28KXZE1, 36KXZE1, 45KXZE1, 56KXZE1

Model			FDTC15KXZE1	FDTC22KXZE1	FDTC28KXZE1	FDTC36KXZE1	FDTC45KXZE1	FDTC56KXZE1
Panel model (Option)			Standard: TC-PSA-5AW-E Draft prevention: TC-PSAE-5AW-E	Standard: TC-PSA-5AW-E Draft prevention: TC-PSAE-5AW-E	Standard: TC-PSA-5AW-E Draft prevention: TC-PSAE-5AW-E	Standard: TC-PSA-5AW-E Draft prevention: TC-PSAE-5AW-E	Standard: TC-PSA-5AW-E Draft prevention: TC-PSAE-5AW-E	Standard: TC-PSA-5AW-E Draft prevention: TC-PSAE-5AW-E
Nominal cooling capacity*1		kW	1.5	2.2	2.8	3.6	4.5	5.6
Nominal heating capacity*2			1.7	2.5	3.2	4.0	5.0	6.3
Power source			1 Phase 220-240V 50Hz / 220V 60Hz	1 Phase 220-240V 50Hz / 220V 60Hz	1 Phase 220-240V 50Hz / 220V 60Hz	1 Phase 220-240V 50Hz / 220V 60Hz	1 Phase 220-240V 50Hz / 220V 60Hz	1 Phase 220-240V 50Hz / 220V 60Hz
Power consumption	Cooling	kW	0.03 - 0.03 / 0.03	0.03 - 0.03 / 0.03	0.03 - 0.03 / 0.03	0.04 - 0.04 / 0.04	0.05 - 0.05 / 0.05	0.06 - 0.06 / 0.06
	Heating		0.03 - 0.03 / 0.03	0.03 - 0.03 / 0.03	0.03 - 0.03 / 0.03	0.04 - 0.04 / 0.04	0.05 - 0.05 / 0.05	0.06 - 0.06 / 0.06
Running current	Cooling	A	0.25 - 0.22 / 0.25	0.25 - 0.22 / 0.25	0.25 - 0.22 / 0.25	0.38 - 0.35 / 038	0.43 - 0.40 / 0.43	0.54 - 0.50 / 0.54
	Heating		0.25 - 0.22 / 0.25	0.25 - 0.22 / 0.25	0.25 - 0.22 / 0.25	0.38 - 0.35 / 038	0.43 - 0.40 / 0.43	0.54 - 0.50 / 0.54
Sound pressure level	Cooling	dB(A)	P-Hi: 33 Hi: 30 Me: 28 Lo: 25	P-Hi: 35 Hi: 32 Me: 29 Lo: 25	P-Hi: 35 Hi: 32 Me: 29 Lo: 25	P-Hi: 39 Hi: 36 Me: 31 Lo: 26	P-Hi: 43 Hi: 39 Me: 36 Lo: 28	P-Hi: 47 Hi: 43 Me: 39 Lo: 31
	Heating		P-Hi: 33 Hi: 30 Me: 26 Lo: 22	P-Hi: 35 Hi: 32 Me: 29 Lo: 25	P-Hi: 35 Hi: 32 Me: 29 Lo: 25	P-Hi: 39 Hi: 36 Me: 31 Lo: 26	P-Hi: 43 Hi: 39 Me: 36 Lo: 28	P-Hi: 47 Hi: 43 Me: 39 Lo: 31
Sound power level	Cooling		47	49	49	54	58	60
	Heating		46	49	49	53	57	60
Exterior dimensions Height x Width x Depth		mm	Unit: 248 × 570 × 570 Panel: 10 × 620 × 620	Unit: 248 × 570 × 570 Panel: 10 × 620 × 620	Unit: 248 × 570 × 570 Panel: 10 × 620 × 620	Unit: 248 × 570 × 570 Panel: 10 × 620 × 620	Unit: 248 × 570 × 570 Panel: 10 × 620 × 620	Unit: 248 × 570 × 570 Panel: 10 × 620 × 620
Exterior appearance (Munsell color) (RAL color)			Fine snow (8.0Y9.3/0.1)near equivalent (RAL 9001)near equivalent	Fine snow (8.0Y9.3/0.1)near equivalent (RAL 9001)near equivalent	Fine snow (8.0Y9.3/0.1)near equivalent (RAL 9001)near equivalent	Fine snow (8.0Y9.3/0.1)near equivalent (RAL 9001)near equivalent	Fine snow (8.0Y9.3/0.1)near equivalent (RAL 9001)near equivalent	Fine snow (8.0Y9.3/0.1)near equivalent (RAL 9001)near equivalent
Net weight*3		kg	Unit: 12.5 Standard panel: 2.5	Unit: 13 Standard panel: 2.5	Unit: 13 Standard panel: 2.5	Unit: 14 Standard panel: 2.5	Unit: 14 Standard panel: 2.5	Unit: 14 Standard panel: 2.5
Refrigerant equipment Heat exchanger			Louver fin & inner grooved tubing	Louver fin & inner grooved tubing	Louver fin & inner grooved tubing	Louver fin & inner grooved tubing	Louver fin & inner grooved tubing	Louver fin & inner grooved tubing
Refrigerant control			Electronic expansion valve	Electronic expansion valve	Electronic expansion valve	Electronic expansion valve	Electronic expansion valve	Electronic expansion valve
Air handling equipment Fan type & Q'ty			Turbo fan ×1	Turbo fan ×1	Turbo fan ×1	Turbo fan ×1	Turbo fan ×1	Turbo fan ×1
Fan motor		W	50	50	50	50	50	50
Starting method			Direct line start	Direct line start	Direct line start	Direct line start	Direct line start	Direct line start
Air flow(Standard)	Cooling	m^3/min	P-Hi: 8 Hi: 7 Me: 6 Lo: 5	P-Hi: 9 Hi: 8 Me: 7 Lo: 6	P-Hi: 9 Hi: 8 Me: 7 Lo: 6	P-Hi: 10 Hi: 9 Me: 8 Lo: 6	P-Hi: 12 Hi: 10 Me: 9 Lo: 7	P-Hi: 14 Hi: 12 Me: 10 Lo: 8
	Heating		P-Hi: 8 Hi: 7 Me: 6 Lo: 5	P-Hi: 9 Hi: 8 Me: 7 Lo: 6	P-Hi: 9 Hi: 8 Me: 7 Lo: 6	P-Hi: 10 Hi: 9 Me: 8 Lo: 6	P-Hi: 12 Hi: 10 Me: 9 Lo: 7	P-Hi: 14 Hi: 12 Me: 10 Lo: 8
Available static pressure		Pa	0	0	0	0	0	0
Outdoor air intake			Possible	Possible	Possible	Possible	Possible	Possible
Air filter, Q'ty			Pocket plastic net ×1(Washable)	Pocket plastic net ×1(Washable)	Pocket plastic net ×1(Washable)	Pocket plastic net ×1(Washable)	Pocket plastic net ×1(Washable)	Pocket plastic net ×1(Washable)
Shock & vibration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for fan motor)	Rubber sleeve(for fan motor)	Rubber sleeve(for fan motor)	Rubber sleeve(for fan motor)	Rubber sleeve(for fan motor)
Insulation (Noise & heat)			Polyurethane form	Polyurethane form	Polyurethane form	Polyurethane form	Polyurethane form	Polyurethane form
Operation control Remote control switch (Option)			Wired : RC-E5, RC-EX3A, RCH-E3 Wireless : RCN-TC-5AW-E2	Wired : RC-E5, RC-EX3A, RCH-E3 Wireless : RCN-TC-5AW-E2	Wired : RC-E5, RC-EX3A, RCH-E3 Wireless : RCN-TC-5AW-E2	Wired : RC-E5, RC-EX3A, RCH-E3 Wireless : RCN-TC-5AW-E2	Wired : RC-E5, RC-EX3A, RCH-E3 Wireless : RCN-TC-5AW-E2	Wired : RC-E5, RC-EX3A, RCH-E3 Wireless : RCN-TC-5AW-E2
Room temperature control			Thermostat by electronics	Thermostat by electronics	Thermostat by electronics	Thermostat by electronics	Thermostat by electronics	Thermostat by electronics
Safety equipment			Overload protection for fan motor Frost protection thermostat	Overload protection for fan motor Frost protection thermostat	Overload protection for fan motor Frost protection thermostat	Overload protection for fan motor Frost protection thermostat	Overload protection for fan motor Frost protection thermostat	Overload protection for fan motor Frost protection thermostat
Installation data Refrigerant piping size	Liquid line		φ 6.35 (1/4") <Flare piping>	φ 6.35 (1/4") <Flare piping>	φ 6.35 (1/4") <Flare piping>	φ 6.35 (1/4") <Flare piping>	φ 6.35 (1/4") <Flare piping>	φ 6.35 (1/4") <Flare piping>
	Gas line		φ 9.52 (3/8") <Flare piping>	φ 9.52 (3/8") <Flare piping>	φ 9.52 (3/8") <Flare piping>	φ 12.7 (1/2") <Flare piping>	φ 12.7 (1/2") <Flare piping>	φ 12.7 (1/2") <Flare piping>
Connecting method			Flare piping	Flare piping	Flare piping	Flare piping	Flare piping	Flare piping
Refrigerant			R410A	R410A	R410A	R410A	R410A	R410A
Drain pump			Built-in drain pump	Built-in drain pump	Built-in drain pump	Built-in drain pump	Built-in drain pump	Built-in drain pump
Drain hose			Connectable with VP25	Connectable with VP25	Connectable with VP25	Connectable with VP25	Connectable with VP25	Connectable with VP25
Insulation for piping			Necessary(both Liquid & Gas line)	Necessary(both Liquid & Gas line)	Necessary(both Liquid & Gas line)	Necessary(both Liquid & Gas line)	Necessary(both Liquid & Gas line)	Necessary(both Liquid & Gas line)
Accessories			Mounting kit,Drain hose	Mounting kit,Drain hose	Mounting kit,Drain hose	Mounting kit,Drain hose	Mounting kit,Drain hose	Mounting kit,Drain hose
Exterior dimensions			PJF000Z501	PJF000Z501	PJF000Z501	PJF000Z501	PJF000Z501	PJF000Z501
Electrical wiring			PJF000Z504	PJF000Z504	PJF000Z504	PJF000Z504	PJF000Z504	PJF000Z504

Notes (1) The data are measured at the following conditions.

Adapted to **RoHS** directive

Item	Indoor air temperature		Outdoor air temperature		Standards
	DB	WB	DB	WB	
Operation					
Cooling*1	27°C	19°C	35°C	24°C	ISO-T1
Heating*2	20°C		7°C	6°C	

(2) This packaged air-conditioner is manufactured and tested in conformity with the following standard.
ISO-T1 "UNITARY AIR-CONDITIONERS"
(3) Draft prevention panel weight*3 : 3.0kg
(4) Option : Motion sensor kit (LB-TC-5W-E)

PJF000Z498

(3) Ceiling cassette-2 way type (FDTW)

Models FDTW28KXE6F, 45KXE6F, 56KXE6F, 71KXE6F

Model			FDTW28KXE6F	FDTW45KXE6F	FDTW56KXE6F	FDTW71KXE6F
Panel model (Option)			TW-PSA-26W-E	TW-PSA-26W-E	TW-PSA-26W-E	TW-PSA-26W-E
Nominal cooling capacity*1		kW	2.8	4.5	5.6	7.1
Nominal heating capacity*2			3.2	5.0	6.3	8.0
Power source			1 Phase 220 - 240V 50Hz / 220V 60Hz	1 Phase 220 - 240V 50Hz / 220V 60Hz	1 Phase 220 - 240V 50Hz / 220V 60Hz	1 Phase 220 - 240V 50Hz / 220V 60Hz
Power consumption	Cooling	kW	0.090 - 0.090 / 0.090	0.100 - 0.100 / 0.100	0.100 - 0.100 / 0.100	0.140 - 0.140 / 0.140
	Heating		0.090 - 0.090 / 0.090	0.100 - 0.100 / 0.100	0.100 - 0.100 / 0.100	0.140 - 0.140 / 0.140
Running current	Cooling	A	0.45 - 0.45 / 0.45	0.55 - 0.55 / 0.55	0.55 - 0.55 / 0.55	0.75 - 0.75 / 0.75
	Heating		0.45 - 0.45 / 0.45	0.55 - 0.55 / 0.55	0.55 - 0.55 / 0.55	0.75 - 0.75 / 0.75
Sound power level	Cooling	dB(A)	58	58	58	58
	Heating		58	58	58	58
Sound pressure level	Cooling		P-Hi: 42 Hi: 38 Me: 34 Lo: 31	P-Hi: 42 Hi: 38 Me: 34 Lo: 31	P-Hi: 42 Hi: 38 Me: 34 Lo: 31	P-Hi: 42 Hi: 38 Me: 34 Lo : 31
	Heating		P-Hi: 42 Hi: 38 Me: 34 Lo: 31	P-Hi: 42 Hi: 38 Me: 34 Lo: 31	P-Hi: 42 Hi: 38 Me: 34 Lo: 31	P-Hi: 42 Hi: 38 Me: 34 Lo : 31
Exterior dimensions Height x Width x Depth		mm	Unit: 325 × 820 × 620 Panel: 20 × 1,120 × 680	Unit: 325 × 820 × 620 Panel: 20 × 1,120 × 680	Unit: 325 × 820 × 620 Panel: 20 × 1,120 × 680	Unit: 325 × 820 × 620 Panel: 20 × 1,120 × 680
Exterior appearance (Munsell color)			Plaster white (6.8Y8.9/0.2)near equivalent	Plaster white (6.8Y8.9/0.2)near equivalent	Plaster white (6.8Y8.9/0.2)near equivalent	Plaster white (6.8Y8.9/0.2) near equivalent
Net weight		kg	Unit: 20 Panel: 8.5	Unit: 21 Panel: 8.5	Unit: 21 Panel: 8.5	Unit: 23 Panel: 8.5
Refrigerant equipment Heat exchanger			Louver fin & inner grooved tubing	Louver fin & inner grooved tubing	Louver fin & inner grooved tubing	Louver fin & inner grooved tubing
Refrigerant control			Electronic expansion valve	Electronic expansion valve	Electronic expansion valve	Electronic expansion valve
Air handling equipment Fan type & Q'ty			Turbo fan	Turbo fan	Turbo fan	Turbo fan
Fan motor <Starting method>		W	30 < Direct line start >	35 < Direct line start >	35 < Direct line start >	40 < Direct line start >
Air flow(Standard)	Cooling	m^3/min	P-Hi: 14.5 Hi: 12 Me: 10 Lo: 9	P-Hi: 14.5 Hi: 12 Me: 10 Lo: 9	P-Hi: 14.5 Hi: 12 Me: 10 Lo: 9	P-Hi: 14.5 Hi: 12 Me: 10 Lo: 9
	Heating		P-Hi: 14.5 Hi: 12 Me: 10 Lo: 9	P-Hi: 14.5 Hi: 12 Me: 10 Lo: 9	P-Hi: 14.5 Hi: 12 Me: 10 Lo: 9	P-Hi: 14.5 Hi: 12 Me: 10 Lo: 9
Available static pressure		Pa	0	0	0	0
Outdoor air intake			Possible	Possible	Possible	Possible
Air filter, Q'ty			Pocket plastic net ×2 (Washable)	Pocket plastic net ×2 (Washable)	Pocket plastic net ×2 (Washable)	Pocket plastic net ×2 (Washable)
Shock & vibration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for fan motor)	Rubber sleeve(for fan motor)	Rubber sleeve(for fan motor)
Insulation (Noise & heat)			Polyurethane form	Polyurethane form	Polyurethane form	Polyurethane form
Operation control Remote control switch (Option)			Wired : RC-EX3A,RC-E5 Wireless : RCN-TW-E2	Wired : RC-EX3A,RC-E5 Wireless : RCN-TW-E2	Wired : RC-EX3A,RC-E5 Wireless : RCN-TW-E2	Wired : RC-EX3A,RC-E5 Wireless : RCN-TW-E2
Room temperature control			Thermostat by electronics	Thermostat by electronics	Thermostat by electronics	Thermostat by electronics
Safety equipment			Overload protection for fan motor Frost protection thermostat	Overload protection for fan motor Frost protection thermostat	Overload protection for fan motor Frost protection thermostat	Overload protection for fan motor Frost protection thermostat
Installation data Refrigerant piping size	Liquid line		ϕ6.35 (1/4") <Flare piping>	ϕ6.35 (1/4") <Flare piping>	ϕ6.35 (1/4") <Flare piping>	ϕ9.52 (3/8") <Flare piping>
	Gas line		ϕ9.52 (3/8") <Flare piping>	ϕ12.7 (1/2") <Flare piping>	ϕ12.7 (1/2") <Flare piping>	ϕ15.88 (5/8") <Flare piping>
Refrigerant			R410A	R410A	R410A	R410A
Drain pump			Built-in drain pump	Built-in drain pump	Built-in drain pump	Built-in drain pump
Drain hose			Connectable with VP25 (I.D.25,O.D.32)	Connectable with VP25 (I.D.25,O.D.32)	Connectable with VP25 (I.D.25,O.D.32)	Connectable with VP25 (I.D.25,O.D.32)
Insulation for piping			Necessary(both Liquid & Gas line)	Necessary(both Liquid & Gas line)	Necessary(both Liquid & Gas line)	Necessary(both Liquid & Gas line)
Accessories			Mounting kit, Drain hose	Mounting kit, Drain hose	Mounting kit, Drain hose	Mounting kit, Drain hose
Exterior dimensions			PJB001Z713	PJB001Z713	PJB001Z713	PJB001Z713
Electrical wiring			PJB001Z830	PJB001Z830	PJB001Z830	PJB001Z830

Notes (1) The data are measured at the following conditions.

Item	Indoor air temperature		Outdoor air temperature		Standards
	DB	WB	DB	WB	
Operation	27°C	19°C	35°C	24°C	ISO-T1
Cooling*1					
Heating*2	20°C		7°C	6°C	

(2) This packaged air-conditioner is manufactured and tested in conformity with the standard. ISO-T1 "UNITARY AIR-CONDITIONERS" SPECIFICATION

(3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.

(4) Select the breaker size according to the own national standard.

OPTION

		Model	Specification
Remote control	Wired	RC-EX3A	PJZ000Z333
	Wired	RC-E5	PJZ000Z295
	Wired	RCH-E3	PJZ000Z272
	Wireless	RCN-TW-E2	PJB001Z798
Motion sensor		LB-TW-6W	PJB001Z818

Adapted to **RoHS** directive

PJB001Z829

Models FDTW90KXE6F, 112KXE6F, 140KXE6F

Model			FDTW90KXE6F	FDTW112KXE6F	FDTW140KXE6F
Panel model (Option)			TW-PSA-46W-E	TW-PSA-46W-E	TW-PSA-46W-E
Nominal cooling capacity*1		kW	9.0	11.2	14.0
Nominal heating capacity*2			10.0	12.5	16.0
Power source			1 Phase 220 - 240V 50Hz / 220V 60Hz	1 Phase 220 - 240V 50Hz / 220V 60Hz	1 Phase 240V 50Hz / 220V 60Hz
Power consumption	Cooling	kW	0.190 - 0.190 / 0.190	0.190 - 0.190 / 0.190	0.190 - 0.190 / 0.190
	Heating		0.190 - 0.190 / 0.190	0.190 - 0.190 / 0.190	0.190 - 0.190 / 0.190
Running current	Cooling	A	1.00 - 1.00 / 1.00	1.00 - 1.00 / 1.00	1.00 - 1.00 / 1.00
	Heating		1.00 - 1.00 / 1.00	1.00 - 1.00 / 1.00	1.00 - 1.00 / 1.00
Sound power level	Cooling	dB(A)	65	65	65
	Heating		65	65	65
Sound pressure level	Cooling		P-Hi : 48 Hi : 45 Me : 41 Lo : 37	P-Hi : 48 Hi : 45 Me : 41 Lo : 37	P-Hi : 48 Hi : 45 Me : 41 Lo : 37
	Heating		P-Hi : 48 Hi : 45 Me : 41 Lo : 37	P-Hi : 48 Hi : 45 Me : 41 Lo : 37	P-Hi : 48 Hi : 45 Me : 41 Lo : 37
Exterior dimensions Height x Width x Depth		mm	Unit : 325 × 1,535 × 620 Panel : 20 × 1,835 × 680	Unit : 325 × 1,535 × 620 Panel : 20 × 1,835 × 680	Unit : 325 × 1,535 × 620 Panel : 20 × 1,835 × 680
Exterior appearance (Munsell color)			Plaster white (6.8Y8.9/0.2) near equivalent	Plaster white (6.8Y8.9/0.2) near equivalent	Plaster white (6.8Y8.9/0.2) near equivalent
Net weight		kg	Unit : 35 Panel : 13	Unit : 35 Panel : 13	Unit : 35 Panel : 13
Refrigerant equipment Heat exchanger			Louver fin & inner grooved tubing	Louver fin & inner grooved tubing	Louver fin & inner grooved tubing
Refrigerant control			Electronic expansion valve	Electronic expansion valve	Electronic expansion valve
Air handling equipment Fan type & Q'ty			Turbo fan	Turbo fan × 2	Turbo fan × 2
Fan motor <Starting method>		W	35 ×2 < Direct line start >	35 × 2 < Direct line start >	35 × 2 < Direct line start >
Air flow(Standard)	Cooling	m^3/min	P-Hi : 31 Hi : 27 Me : 23 Lo : 20	P-Hi : 31 Hi : 27 Me : 23 Lo : 20	P-Hi : 31 Hi : 27 Me : 23 Lo : 20
	Heating		P-Hi : 31 Hi : 27 Me : 23 Lo : 20	P-Hi : 31 Hi : 27 Me : 23 Lo : 20	P-Hi : 31 Hi : 27 Me : 23 Lo : 20
Available static pressure		Pa	0	0	0
Outdoor air intake			Possible	Possible	Possible
Air filter, Q'ty			Pocket plastic net × 3 (Washable)	Pocket plastic net × 3 (Washable)	Pocket plastic net × 3 (Washable)
Shock & vibration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for fan motor)	Rubber sleeve(for fan motor)
Insulation (Noise & heat)			Polyurethane form	Polyurethane form	Polyurethane form
Operation control Remote control switch (Option)			Wired : RC-EX3A,RC-E5 Wireless : RCN-TW-E2	Wired : RC-EX3A,RC-E5 Wireless : RCN-TW-E2	Wired : RC-EX3A,RC-E5 Wireless : RCN-TW-E2
Room temperature control			Thermostat by electronics	Thermostat by electronics	Thermostat by electronics
Safety equipment			Overload protection for fan motor Frost protection thermostat	Overload protection for fan motor Frost protection thermostat	Overload protection for fan motor Frost protection thermostat
Installation data Refrigerant piping size	Liquid line		ϕ 9.52 (3/8") <Flare piping>	ϕ 9.52 (3/8") <Flare piping>	ϕ 9.52 (3/8") <Flare piping>
	Gas line		ϕ 15.88 (5/8") <Flare piping>	ϕ 15.88 (5/8") <Flare piping>	ϕ 15.88 (5/8") <Flare piping>
Refrigerant			R410A	R410A	R410A
Drain pump			Built-in drain pump	Built-in drain pump	Built-in drain pump
Drain hose			Connectable with VP25 (I.D.25,O.D.32)	Connectable with VP25 (I.D.25,O.D.32)	Connectable with VP25 (I.D.25,O.D.32)
Insulation for piping			Necessary(both Liquid & Gas line)	Necessary(both Liquid & Gas line)	Necessary(both Liquid & Gas line)
Accessories			Mounting kit, Drain hose	Mounting kit, Drain hose	Mounting kit, Drain hose
Exterior dimensions			PJB001Z714	PJB001Z714	PJB001Z714
Electrical wiring			PJB001Z831	PJB001Z831	PJB001Z831

Notes (1) The data are measured at the following conditions.

Item	Indoor air temperature		Outdoor air temperature		Standards
Operation	DB	WB	DB	WB	ISO-T1
Cooling*1	27℃	19℃	35℃	24℃	
Heating*2	20℃		7℃	6℃	

(2) This packaged air-conditioner is manufactured and tested in conformity with the standard. ISO-T1 "UNITARY AIR-CONDITIONERS"
(3) Sound level indicates the value in an anechoic chamber.
During operation these value are somewhat higher due to ambient conditions.
(4) Select the breaker size according to the own national standard.

OPTION

	Model	Specification
Remote control	Wired	RC-EX3A	PJZ000Z333
	Wired	RC-E5	PJZ000Z295
	Wired	RCH-E3	PJZ000Z272
	Wireless	RCN-TW-E2	PJB001Z798
Motion sensor		LB-TW-6W	PJB001Z818

Adapted to **RoHS** directive

PJB001Z829

(4) Ceiling cassette-1 way type (FDTS)

Models FDTS45KXE6F, 71KXE6F

Model			FDTS45KXE6F	FDTS71KXE6F
Panel model (Option)			TS-PSA-3AW-E	TS-PSA-3AW-E
Nominal cooling capacity*1		kW	4.5	7.1
Nominal heating capacity*2		kW	5.0	8.0
Power source			1 Phase 220-240V 50Hz / 220V 60Hz	1 Phase 220-240V 50Hz / 220V 60Hz
Power consumption	Cooling	kW	0.040 - 0.040 / 0.040	0.090 - 0.090 / 0.090
	Heating		0.040 - 0.040 / 0.040	0.090 - 0.090 / 0.090
Running current	Cooling	A	0.27 - 0.25 / 0.27	0.60 - 0.55 / 0.60
	Heating		0.27 - 0.25 / 0.27	0.60 - 0.55 / 0.60
Sound power level	Cooling	dB(A)	60	61
	Heating		60	61
Sound pressure level	Cooling		P-Hi : 42 Hi : 40 Me : 38 Lo : 35	P-Hi : 49 Hi : 46 Me : 41 Lo : 36
	Heating		P-Hi : 42 Hi : 40 Me : 38 Lo : 35	P-Hi : 49 Hi : 46 Me : 41 Lo : 36
Exterior dimensions Height x Width x Depth		mm	Unit : 220 × 1,150 × 565 Panel : 35 × 1,250 × 650	Unit : 220 × 1,150 × 565 Panel : 35 × 1,250 × 650
Exterior appearance (Munsell color)			Plaster white (6.8Y8.9/0.2) near equivalent	Plaster white (6.8Y8.9/0.2) near equivalent
Net weight		kg	Unit : 27 Panel : 5	Unit : 28 Panel : 5
Refrigerant equipment Heat exchanger			Louver fin & inner grooved tubing	Louver fin & inner grooved tubing
Refrigerant control			Electronic expansion valve	Electronic expansion valve
Air handling equipment Fan type & Q'ty			Centrifugal fan ×4	Centrifugal fan ×4
Fan motor <Starting method>		W	35 < Direct line start >	70 < Direct line start >
Air flow(Standard)	Cooling	m^3/min	P-Hi : 13 Hi : 12 Me : 11 Lo : 9.5	P-Hi : 17 Hi : 15 Me : 12 Lo : 10
	Heating		P-Hi : 13 Hi : 12 Me : 11 Lo : 9.5	P-Hi : 17 Hi : 15 Me : 12 Lo : 10
Available static pressure		Pa	0	0
Outdoor air intake			Possible	Possible
Air filter, Q'ty			Pocket plastic net ×2(Washable)	Pocket plastic net ×2(Washable)
Shock & vibration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for fan motor)
Insulation (Noise & heat)			Polyurethane form	Polyurethane form
Operation control Remote control switch (Option)			Wired : RC-EX3A,RC-E5 Wireless : RCN-TS-E2	Wired : RC-EX3A,RC-E5 Wireless : RCN-TS-E2
Room temperature control			Thermostat by electronics	Thermostat by electronics
Safety equipment			Overload protection for fan motor Frost protection thermostat	Overload protection for fan motor Frost protection thermostat
Installation data Liquid line Refrigerant piping size Gas line			ϕ6.35 (1/4") <Flare piping> ϕ12.7 (1/2") <Flare piping>	ϕ9.52 (3/8") <Flare piping> ϕ15.88 (5/8") <Flare piping>
Refrigerant			R410A	R410A
Drain hose			Connectable with VP25 (I.D.25.O.D.32)	Connectable with VP25 (I.D.25.O.D.32)
Insulation for piping			Necessary(both Liquid & Gas line)	Necessary(both Liquid & Gas line)
Accessories			Mounting kit, Drain hose	Mounting kit, Drain hose
Exterior dimensions			PJC0012352	PJC0012352
Electrical wiring			PJC0012434	PJC0012434

Notes (1) The data are measured at the following conditions.

Item	Indoor air temperature		Outdoor air temperature		Standards
	DB	WB	DB	WB	
Operation	27℃	19℃	35℃	24℃	ISO-T1
Cooling*1					
Heating*2	20℃		7℃	6℃	

(2) This packaged air-conditioner is manufactured and tested in conformity with the standard. ISO-T1 "UNITARY AIR-CONDITIONERS"

(3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.

(4) Select the breaker size according to the own national standard.

OPTION

		Model	Specification
Remote control	Wired	RC-EX3A	PJZ000Z333
	Wired	RC-E5	PJZ000Z295
	Wired	RCH-E3	PJZ000Z272
	Wireless	RCN-TS-E2	PJC001Z410
Motion sensor		LB-KIT	PJZ000Z331

Adapted to **RoHS** directive

PJC001Z433

(5) Duct connected-High static pressure type (FDU)

Models FDU45KXE6F, 56KXE6F, 71KXE6F, 90KXE6F

Model			FDU45KXE6F	FDU56KXE6F	FDU71KXE6F	FDU90KXE6F
Nominal cooling capacity*1		kW	4.5	5.6	7.1	9.0
Nominal heating capacity*2			5.0	6.3	8.0	10.0
Power source			1 Phase 220-240V 50Hz / 220V 60Hz	1 Phase 220-240V 50Hz / 220V 60Hz	1 Phase 220-240V 50Hz / 220V 60Hz	1 Phase 220-240V 50Hz / 220V 60Hz
Power consumption	Cooling	kW	0.100 - 0.100 / 0.100	0.100 - 0.100 / 0.100	0.240 - 0.250 / 0.240	0.240 - 0.250 / 0.240
	Heating		0.100 - 0.100 / 0.100	0.100 - 0.100 / 0.100	0.240 - 0.250 / 0.240	0.240 - 0.250 / 0.240
Running current	Cooling	A	0.63 - 0.58 / 0.63	0.63 - 0.58 / 0.63	1.80 - 1.70 / 1.80	1.80 - 1.70 / 1.80
	Heating		0.63 - 0.58 / 0.63	0.63 - 0.58 / 0.63	1.80 - 1.70 / 1.80	1.80 - 1.70 / 1.80
Sound power level	Cooling	dB(A)	60	60	65	65
	Heating		60	60	65	65
Sound pressure level	Cooling		P-Hi : 37 Hi : 32 Me : 29 Lo : 26	P-Hi : 37 Hi : 32 Me : 29 Lo : 26	P-Hi : 38 Hi : 33 Me : 29 Lo : 25	P-Hi : 38 Hi : 33 Me : 29 Lo : 25
	Heating		P-Hi : 37 Hi : 32 Me : 29 Lo : 26	P-Hi : 37 Hi : 32 Me : 29 Lo : 26	P-Hi : 38 Hi : 33 Me : 29 Lo : 25	P-Hi : 38 Hi : 33 Me : 29 Lo : 25
Exterior dimensions Height x Width x Depth		mm	280 × 750 × 635	280 × 750 × 635	280 × 950 × 635	280 × 950 × 635
Net weight		kg	29	29	34	34
Refrigerant equipment Heat exchanger			Louver fin & inner grooved tubing	Louver fin & inner grooved tubing	Louver fin & inner grooved tubing	Louver fin & inner grooved tubing
Refrigerant control			Electronic expansion valve	Electronic expansion valve	Electronic expansion valve	Electronic expansion valve
Air handling equipment Fan type & Q'ty			Centrifugal fan ×1	Centrifugal fan ×1	Centrifugal fan ×2	Centrifugal fan ×2
Fan motor <Starting method>		W	100 < Direct line start >	100 < Direct line start >	130 < Direct line start >	130 < Direct line start >
Air flow(Standard)	Cooling	m^3/min	P-Hi : 13 Hi : 10 Me : 9 Lo : 8	P-Hi : 13 Hi : 10 Me : 9 Lo : 8	P-Hi : 24 Hi : 19 Me : 15 Lo : 10	P-Hi : 24 Hi : 19 Me : 15 Lo : 10
	Heating		P-Hi : 13 Hi : 10 Me : 9 Lo : 8	P-Hi : 13 Hi : 10 Me : 9 Lo : 8	P-Hi : 24 Hi : 19 Me : 15 Lo : 10	P-Hi : 24 Hi : 19 Me : 15 Lo : 10
Available static pressure		Pa	200 (at 13 m^3/min)	200 (at 13 m^3/min)	200 (at 24 m^3/min)	200 (at 24 m^3/min)
Outdoor air intake			Possible	Possible	Possible	Possible
Air filter, Q'ty			Procure locally	Procure locally	Procure locally	Procure locally
Shock & vibration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for fan motor)	Rubber sleeve(for fan motor)	Rubber sleeve(for fan motor)
Insulation (Noise & heat)			Polyurethane form	Polyurethane form	Polyurethane form	Polyurethane form
Operation control Remote control switch (Option)			Wired : RC-EX3A,RC-E5 Wireless : RCN-KIT4-E2	Wired : RC-EX3A,RC-E5 Wireless : RCN-KIT4-E2	Wired : RC-EX3A,RC-E5 Wireless : RCN-KIT4-E2	Wired : RC-EX3A,RC-E5 Wireless : RCN-KIT4-E2
Room temperature control			Thermostat by electronics	Thermostat by electronics	Thermostat by electronics	Thermostat by electronics
Safety equipment			Overload protection for fan motor Frost protection thermostat	Overload protection for fan motor Frost protection thermostat	Overload protection for fan motor Frost protection thermostat	Overload protection for fan motor Frost protection thermostat
Installation data Refrigerant piping size	Liquid line		φ6.35 (1/4") <Flare piping>	φ6.35 (1/4") <Flare piping>	φ9.52 (3/8") <Flare piping>	φ9.52 (3/8") <Flare piping>
	Gas line		φ12.7 (1/2") <Flare piping>	φ12.7 (1/2") <Flare piping>	φ15.88 (5/8") <Flare piping>	φ15.88 (5/8") <Flare piping>
Refrigerant			R410A	R410A	R410A	R410A
Drain pump			Built-in drain pump	Built-in drain pump	Built-in drain pump	Built-in drain pump
Drain hose			Connectable with VP25 (I.D.25,O.D.32)	Connectable with VP25 (I.D.25,O.D.32)	Connectable with VP25 (I.D.25,O.D.32)	Connectable with VP25 (I.D.25,O.D.32)
Insulation for piping			Necessary(both Liquid & Gas line)	Necessary(both Liquid & Gas line)	Necessary(both Liquid & Gas line)	Necessary(both Liquid & Gas line)
Accessories			Mounting kit, Drain hose	Mounting kit, Drain hose	Mounting kit, Drain hose	Mounting kit, Drain hose
Exterior dimensions			PJG000Z056	PJG000Z056	PJG000Z057	PJG000Z057
Electrical wiring			PJG000Z539	PJG000Z539	PJG000Z540	PJG000Z540

Notes (1) The data are measured at the following conditions.

Item	Indoor air temperature		Outdoor air temperature		Standards	External static pressure of indoor unit (Pa)
Operation	DB	WB	DB	WB	ISO-T1	35
Cooling*1	27℃	19℃	35℃	24℃		
Heating*2	20℃		7℃	6℃		

(2) This packaged air-conditioner is manufactured and tested in conformity with the standard. ISO-T1 "UNITARY AIR-CONDITIONERS"
(3) Sound level indicates the value in an anechoic chamber.
During operation these value are somewhat higher due to ambient conditions.
(4) The factory E.S.P. setting is set within the range of 80 - 150 Pa.If SW8-4 is turned to "ON", E.S.P. setting range can be changed to 10 - 200 Pa.(For RC-EX3A and RC-E5 only)
(5) Select the breaker size according to the own national standard.

OPTION

	Model	Specification
Remote control	Wired RC-EX3A	PJZ000Z333
	Wired RC-E5	PJZ000Z295
	Wired RCH-E3	PJZ000Z272
	Wireless RCN-KIT4-E2	PJZ000Z323
Motion sensor	LB-KIT	PJZ000Z331

Adapted to **RoHS** directive

PJG000Z538

Models FDU112KXE6F, 140KXE6F, 160KXE6F

Model			FDU112KXE6F	FDU140KXE6F	FDU160KXE6F
Nominal cooling capacity*1		kW	11.2	14.0	16.0
Nominal heating capacity*2			12.5	16.0	18.0
Power source			1 Phase 220-240V 50Hz / 220V 60Hz	1 Phase 220-240V 50Hz / 220V 60Hz	1 Phase 220-240V 50Hz / 220V 60Hz
Power consumption	Cooling	kW	0.310 - 0.320 / 0.310	0.350 - 0.360 / 0.350	0.420 - 0.430 / 0.420
	Heating		0.310 - 0.320 / 0.310	0.350 - 0.360 / 0.350	0.420 - 0.430 / 0.420
Running current	Cooling	A	2.00 - 2.00 / 2.00	2.30 - 2.20 / 2.30	2.70 - 2.50 / 2.70
	Heating		2.00 - 2.00 / 2.00	2.30 - 2.20 / 2.30	2.70 - 2.50 / 2.70
Sound power level	Cooling	dB(A)	71	72	74
	Heating		71	72	74
Sound pressure level	Cooling		P-Hi : 44 Hi : 38 Me : 36 Lo : 30	P-Hi : 45 Hi : 40 Me : 34 Lo : 29	P-Hi : 47 Hi : 40 Me : 35 Lo : 30
	Heating		P-Hi : 44 Hi : 38 Me : 36 Lo : 30	P-Hi : 45 Hi : 40 Me : 34 Lo : 29	P-Hi : 47 Hi : 40 Me : 35 Lo : 30
Exterior dimensions Height x Width x Depth		mm	280 × 1,368 × 740	280 × 1,368 × 740	280 × 1,368 × 740
Net weight		kg	54	54	54
Refrigerant equipment Heat exchanger			Louver fin & inner grooved tubing	Louver fin & inner grooved tubing	Louver fin & inner grooved tubing
Refrigerant control			Electronic expansion valve	Electronic expansion valve	Electronic expansion valve
Air handling equipment Fan type & Q'ty			Centrifugal fan ×3	Centrifugal fan ×3	Centrifugal fan ×3
Fan motor <Starting method>		W	100 + 130 < Direct line start >	100 + 200 < Direct line start >	100 + 200 < Direct line start >
Air flow(Standard)	Cooling	m^3/min	P-Hi : 36 Hi : 28 Me : 25 Lo : 19	P-Hi : 39 Hi : 32 Me : 26 Lo : 20	P-Hi : 48 Hi : 35 Me : 28 Lo : 22
	Heating		P-Hi : 36 Hi : 28 Me : 25 Lo : 19	P-Hi : 39 Hi : 32 Me : 26 Lo : 20	P-Hi : 48 Hi : 35 Me : 28 Lo : 22
Available static pressure		Pa	200 (at 36 m^3/min)	200 (at 39 m^3/min)	200 (at 48 m^3/min)
Outdoor air intake			Possible	Possible	Possible
Air filter, Q'ty			Procure locally	Procure locally	Procure locally
Shock & vibration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for fan motor)	Rubber sleeve(for fan motor)
Insulation (Noise & heat)			Polyurethane form	Polyurethane form	Polyurethane form
Operation control Remote control switch (Option)			Wired : RC-EX3A,RC-E5 Wireless : RCN-KIT4-E2	Wired : RC-EX3A,RC-E5 Wireless : RCN-KIT4-E2	Wired : RC-EX3A,RC-E5 Wireless : RCN-KIT4-E2
Room temperature control			Thermostat by electronics	Thermostat by electronics	Thermostat by electronics
Safety equipment			Overload protection for fan motor Frost protection thermostat	Overload protection for fan motor Frost protection thermostat	Overload protection for fan motor Frost protection thermostat
Installation data	Liquid line		ϕ 9.52 (3/8") <Flare piping>	ϕ 9.52 (3/8") <Flare piping>	ϕ 9.52 (3/8") <Flare piping>
Refrigerant piping size	Gas line		ϕ 15.88 (5/8") <Flare piping>	ϕ 15.88 (5/8") <Flare piping>	ϕ 15.88 (5/8") <Flare piping>
Refrigerant			R410A	R410A	R410A
Drain pump			Built-in drain pump	Built-in drain pump	Built-in drain pump
Drain hose			Connectable with VP25 (I.D.25,O.D.32)	Connectable with VP25 (I.D.25,O.D.32)	Connectable with VP25 (I.D.25,O.D.32)
Insulation for piping			Necessary(both Liquid & Gas line)	Necessary(both Liquid & Gas line)	Necessary(both Liquid & Gas line)
Accessories			Mounting kit, Drain hose	Mounting kit, Drain hose	Mounting kit, Drain hose
Exterior dimensions			PJG000Z058	PJG000Z058	PJG000Z058
Electrical wiring			PJG000Z541	PJG000Z541	PJG000Z541

Notes (1) The data are measured at the following conditions.

Item	Indoor air temperature		Outdoor air temperature		Standards	External static pressure of indoor unit (Pa)
Operation	DB	WB	DB	WB	ISO-T1	60
Cooling*1	27℃	19℃	35℃	24℃		
Heating*2	20℃		7℃	6℃		

(2) This packaged air-conditioner is manufactured and tested in conformity with the standard. ISO-T1 "UNITARY AIR-CONDITIONERS"
(3) Sound level indicates the value in an anechoic chamber.
During operation these value are somewhat higher due to ambient conditions.
(4) The factory E.S.P. setting is set within the range of 80 - 150 Pa.If SW8-4 is turned to "ON", E.S.P. setting range can be changed to 10 - 200 Pa.(For RC-EX3A and RC-E5 only)
(5) Select the breaker size according to the own national standard.

OPTION

		Model	Specification
Remote control	Wired	RC-EX3A	PJZ000Z333
	Wired	RC-E5	PJZ000Z295
	Wired	RCH-E3	PJZ000Z272
	Wireless	RCN-KIT4-E2	PJZ000Z323
Motion sensor		LB-KIT	PJZ000Z331

Adapted to **RoHS** directive

PJG000Z538

Models FDU224KXZE1, 280KXZE1

Model			FDU224KXZE1	FDU280KXZE1
Nominal cooling capacity*1		kW	22.4	28.0
Nominal heating capacity*2			25.0	31.5
Power source			1 Phase 220-240V 50Hz / 220V 60Hz	1 Phase 220-240V 50Hz / 220V 60Hz
Power consumption	Cooling	kW	1.160 - 1.200 / 1.160	1.160 - 1.200 / 1.160
	Heating		1.160 - 1.200 / 1.160	1.160 - 1.200 / 1.160
Running current	Cooling	A	6.80 - 6.50 / 6.80	6.80 - 6.50 / 6.80
	Heating		6.80 - 6.50 / 6.80	6.80 - 6.50 / 6.80
Sound power level	Cooling	dB(A)	75	75
	Heating		75	75
Sound pressure level	Cooling		P-Hi : 52 Hi : 50 Me : 47 Lo : 45	P-Hi : 52 Hi : 50 Me : 47 Lo : 45
	Heating		P-Hi : 52 Hi : 50 Me : 47 Lo : 45	P-Hi : 52 Hi : 50 Me : 47 Lo : 45
Exterior dimensions Height x Width x Depth		mm	379 × 1,600 × 893	379 × 1,600 × 893
Net weight		kg	89	89
Refrigerant equipment Heat exchanger			Louver fin & inner grooved tubing	Louver fin & inner grooved tubing
Refrigerant control			Electronic expansion valve	Electronic expansion valve
Air handling equipment Fan type & Q'ty			Centrifugal fan ×3	Centrifugal fan ×3
Fan motor <Starting method>		W	130 + 350 < Direct line start >	130 + 350 < Direct line start >
Air flow(Standard)	Cooling	m^3/min	P-Hi : 80 Hi : 72 Me : 64 Lo : 56	P-Hi : 80 Hi : 72 Me : 64 Lo : 56
	Heating		P-Hi : 80 Hi : 72 Me : 64 Lo : 56	P-Hi : 80 Hi : 72 Me : 64 Lo : 56
Available static pressure		Pa	200 (at 80 m^3/min)	200 (at 80 m^3/min)
Outdoor air intake			Possible	Possible
Air filter, Q'ty			Procure locally	Procure locally
Shock & vibration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for fan motor)
Insulation (Noise & heat)			Polyurethane form	Polyurethane form
Operation control Remote control switch (Option)			Wired : RC-EX3A,RC-E5 Wireless : RCN-KIT4-E2	Wired : RC-EX3A,RC-E5 Wireless : RCN-KIT4-E2
Room temperature control			Thermostat by electronics	Thermostat by electronics
Safety equipment			Overload protection for fan motor Frost protection thermostat	Overload protection for fan motor Frost protection thermostat
Installation data	Liquid line		ϕ 9.52 (3/8") <Brazing>	ϕ 9.52 (3/8") <Brazing>
Refrigerant piping size	Gas line		ϕ 19.05 (3/4") <Brazing>	ϕ 22.22 (7/8") <Brazing>
Refrigerant			R410A	R410A
Drain pump			-	-
Drain hose			Connectable with VP25 (O.D.32)	Connectable with VP25 (O.D.32)
Insulation for piping			Necessary(both Liquid & Gas line)	Necessary(both Liquid & Gas line)
Accessories			Mounting kit	Mounting kit
Exterior dimensions			PJG000Z287	PJG000Z287
Electrical wiring			PJG000Z543	PJG000Z543

Notes (1) The data are measured at the following conditions.

Item	Indoor air temperature		Outdoor air temperature		Standards	External static pressure of indoor unit (Pa)
	DB	WB	DB	WB		
Operation	27°C	19°C	35°C	24°C	ISO-T1	72
Cooling*1						
Heating*2	20°C		7°C	6°C		

(2) This packaged air-conditioner is manufactured and tested in conformity with the standard. ISO-T1 "UNITARY AIR-CONDITIONERS"

(3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.

(4) The factory E.S.P. setting is set within the range of 80 - 150 Pa.If SW8-4 is turned to "ON", E.S.P. setting range can be changed to 10 - 200 Pa.(For RC-EX3A and RC-E5 only)

(5) Select the breaker size according to the own national standard.

OPTION

		Model	Specification
Remote control	Wired	RC-EX3A	PJZ000Z333
	Wired	RC-E5	PJZ000Z295
	Wired	RCH-E3	PJZ000Z272
	Wireless	RCN-KIT4-E2	PJZ000Z323
Motion sensor		LB-KIT	PJZ000Z331

Adapted to **RoHS** directive

PJG000Z542

(6) Duct connected Low/Middle static pressure type (FDUM)

Models FDUM22KXE6F, 28KXE6F, 36KXE6F, 45KXE6F, 56KXE6F

Model			FDUM22KXE6F	FDUM28KXE6F	FDUM36KXE6F	FDUM45KXE6F	FDUM56KXE6F
Nominal cooling capacity*1		kW	2.2	2.8	3.6	4.5	5.6
Nominal heating capacity*2			2.5	3.2	4.0	5.0	6.3
Power source			1 Phase 220-240V 50Hz / 220V 60Hz	1 Phase 220-240V 50Hz / 220V 60Hz	1 Phase 220-240V 50Hz / 220V 60Hz	1 Phase 220-240V 50Hz / 220V 60Hz	1 Phase 220-240V 50Hz / 220V 60Hz
Power consumption	Cooling	kW	0.100 - 0.100 / 0.100	0.100 - 0.100 / 0.100	0.100 - 0.100 / 0.100	0.100 - 0.100 / 0.100	0.100 - 0.100 / 0.100
	Heating		0.100 - 0.100 / 0.100	0.100 - 0.100 / 0.100	0.100 - 0.100 / 0.100	0.100 - 0.100 / 0.100	0.100 - 0.100 / 0.100
Running current	Cooling	A	0.46 - 0.42 / 0.46	0.46 - 0.42 / 0.46	0.46 - 0.42 / 0.46	0.46 - 0.42 / 0.46	0.46 - 0.42 / 0.46
	Heating		0.46 - 0.42 / 0.46	0.46 - 0.42 / 0.46	0.46 - 0.42 / 0.46	0.46 - 0.42 / 0.46	0.46 - 0.42 / 0.46
Sound power level	Cooling	dB(A)	60	60	60	60	60
	Heating		60	60	60	60	60
Sound pressure level	Cooling		P-Hi : 37 Hi : 32 Me : 29 Lo : 26	P-Hi : 37 Hi : 32 Me : 29 Lo : 26	P-Hi : 37 Hi : 32 Me : 29 Lo : 26	P-Hi : 37 Hi : 32 Me : 29 Lo : 26	P-Hi : 37 Hi : 32 Me : 29 Lo : 26
	Heating		P-Hi : 37 Hi : 32 Me : 29 Lo : 26	P-Hi : 37 Hi : 32 Me : 29 Lo : 26	P-Hi : 37 Hi : 32 Me : 29 Lo : 26	P-Hi : 37 Hi : 32 Me : 29 Lo : 26	P-Hi : 37 Hi : 32 Me : 29 Lo : 26
Exterior dimensions Height x Width x Depth		mm	280 × 750 × 635	280 × 750 × 635	280 × 750 × 635	280 × 750 × 635	280 × 750 × 635
Net weight		kg	29	29	29	29	29
Refrigerant equipment Heat exchanger			Louver fin & inner grooved tubing	Louver fin & inner grooved tubing	Louver fin & inner grooved tubing	Louver fin & inner grooved tubing	Louver fin & inner grooved tubing
Refrigerant control			Electronic expansion valve	Electronic expansion valve	Electronic expansion valve	Electronic expansion valve	Electronic expansion valve
Air handling equipment Fan type & Q'ty			Centrifugal fan ×1	Centrifugal fan ×1	Centrifugal fan ×1	Centrifugal fan ×1	Centrifugal fan ×1
Fan motor <Starting method>		W	100 < Direct line start >	100 < Direct line start >	100 < Direct line start >	100 < Direct line start >	100 < Direct line start >
Air flow(Standard)	Cooling	m^3/min	P-Hi : 13 Hi : 10 Me : 9 Lo : 8	P-Hi : 13 Hi : 10 Me : 9 Lo : 8	P-Hi : 13 Hi : 10 Me : 9 Lo : 8	P-Hi : 13 Hi : 10 Me : 9 Lo : 8	P-Hi : 13 Hi : 10 Me : 9 Lo : 8
	Heating		P-Hi : 13 Hi : 10 Me : 9 Lo : 8	P-Hi : 13 Hi : 10 Me : 9 Lo : 8	P-Hi : 13 Hi : 10 Me : 9 Lo : 8	P-Hi : 13 Hi : 10 Me : 9 Lo : 8	P-Hi : 13 Hi : 10 Me : 9 Lo : 8
Available static pressure		Pa	100 (at 13 m^3/min)	100 (at 13 m^3/min)	100 (at 13 m^3/min)	100 (at 13 m^3/min)	100 (at 13 m^3/min)
Outdoor air intake			Possible	Possible	Possible	Possible	Possible
Air filter, Q'ty			Procure locally	Procure locally	Procure locally	Procure locally	Procure locally
Shock & vibration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for fan motor)	Rubber sleeve(for fan motor)	Rubber sleeve(for fan motor)	Rubber sleeve(for fan motor)
Insulation (Noise & heat)			Polyurethane form	Polyurethane form	Polyurethane form	Polyurethane form	Polyurethane form
Operation control Remote control switch (Option)			Wired : RC-EX3A,RC-E5 Wireless : RCN-KIT4-E2	Wired : RC-EX3A,RC-E5 Wireless : RCN-KIT4-E2	Wired : RC-EX3A,RC-E5 Wireless : RCN-KIT4-E2	Wired : RC-EX3A,RC-E5 Wireless : RCN-KIT4-E2	Wired : RC-EX3A,RC-E5 Wireless : RCN-KIT4-E2
Room temperature control			Thermostat by electronics	Thermostat by electronics	Thermostat by electronics	Thermostat by electronics	Thermostat by electronics
Safety equipment			Overload protection for fan motor Frost protection thermostat	Overload protection for fan motor Frost protection thermostat	Overload protection for fan motor Frost protection thermostat	Overload protection for fan motor Frost protection thermostat	Overload protection for fan motor Frost protection thermostat
Installation data Refrigerant piping size	Liquid line		ϕ 6.35 (1/4") <Flare piping>	ϕ 6.35 (1/4") <Flare piping>	ϕ 6.35 (1/4") <Flare piping>	ϕ 6.35 (1/4") <Flare piping>	ϕ 6.35 (1/4") <Flare piping>
	Gas line		ϕ 9.52 (3/8") <Flare piping>	ϕ 9.52 (3/8") <Flare piping>	ϕ 12.7 (1/2") <Flare piping>	ϕ 12.7 (1/2") <Flare piping>	ϕ 12.7 (1/2") <Flare piping>
Refrigerant			R410A	R410A	R410A	R410A	R410A
Drain pump			Built-in drain pump	Built-in drain pump	Built-in drain pump	Built-in drain pump	Built-in drain pump
Drain hose			Connectable with VP25 (I.D.25,O.D.32)	Connectable with VP25 (I.D.25,O.D.32)	Connectable with VP25 (I.D.25,O.D.32)	Connectable with VP25 (I.D.25,O.D.32)	Connectable with VP25 (I.D.25,O.D.32)
Insulation for piping			Necessary(both Liquid & Gas line)	Necessary(both Liquid & Gas line)	Necessary(both Liquid & Gas line)	Necessary(both Liquid & Gas line)	Necessary(both Liquid & Gas line)
Accessories			Mounting kit, Drain hose	Mounting kit, Drain hose	Mounting kit, Drain hose	Mounting kit, Drain hose	Mounting kit, Drain hose
Exterior dimensions			PJG000Z016	PJG000Z016	PJG000Z016	PJG000Z016	PJG000Z016
Electrical wiring			PJG000Z526	PJG000Z526	PJG000Z526	PJG000Z526	PJG000Z526

Notes (1) The data are measured at the following conditions.

Item	Indoor air temperature		Outdoor air temperature		Standards	External static pressure of indoor unit (Pa)
Operation	DB	WB	DB	WB		
Cooling*1	27°C	19°C	35°C	24°C	ISO-T1	35
Heating*2	20°C		7°C	6°C		

(2) This packaged air-conditioner is manufactured and tested in conformity with the standard. ISO-T1 "UNITARY AIR-CONDITIONERS"
(3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
(4) Initial static pressure values of optional air filter "UM-FL□EF" are 5Pa.
(5) Select the breaker size according to the own national standard.

OPTION

		Model	Specification
Remote control	Wired	RC-EX3A	PJZ000Z333
	Wired	RC-E5	PJZ000Z295
	Wired	RCH-E3	PJZ000Z272
	Wireless	RCN-KIT4-E2	PJZ000Z323
Motion sensor		LB-KIT	PJZ000Z331
Air filter (For 22-56)		UM-FL1EF	—

Adapted to **RoHS** directive

PJG000Z525

Models FDUM71KXE6F, 90KXE6F, 112KXE6F, 140KXE6F, 160KXE6F

Model			FDUM71KXE6F	FDUM90KXE6F	FDUM112KXE6F	FDUM140KXE6F	FDUM160KXE6F
Nominal cooling capacity*1		kW	7.1	9.0	11.2	14.0	16.0
Nominal heating capacity*2			8.0	10.0	12.5	16.0	18.0
Power source			1 Phase 220-240V 50Hz / 220V 60Hz	1 Phase 220-240V 50Hz / 220V 60Hz	1 Phase 220-240V 50Hz / 220V 60Hz	1 Phase 220-240V 50Hz / 220V 60Hz	1 Phase 220-240V 50Hz / 220V 60Hz
Power consumption	Cooling	kW	0.200 - 0.200 / 0.200	0.200 - 0.200 / 0.200	0.290 - 0.290 / 0.290	0.330 - 0.330 / 0.330	0.450 - 0.450 / 0.450
	Heating		0.200 - 0.200 / 0.200	0.200 - 0.200 / 0.200	0.290 - 0.290 / 0.290	0.330 - 0.330 / 0.330	0.450 - 0.450 / 0.450
Running current	Cooling	A	0.91 - 0.83 / 0.91	0.91 - 0.83 / 0.91	1.32 - 1.21 / 1.32	1.50 - 1.38 / 1.50	2.05 - 1.88 / 2.05
	Heating		0.91 - 0.83 / 0.91	0.91 - 0.83 / 0.91	1.32 - 1.21 / 1.32	1.50 - 1.38 / 1.50	2.05 - 1.88 / 2.05
Sound power level	Cooling	dB(A)	65	65	71	72	74
	Heating		65	65	71	72	74
Sound pressure level	Cooling		P-Hi : 38 Hi : 33 Me : 29 Lo : 25	P-Hi : 38 Hi : 33 Me : 29 Lo : 25	P-Hi : 44 Hi : 38 Me : 36 Lo : 30	P-Hi : 45 Hi : 40 Me : 34 Lo : 29	P-Hi : 47 Hi : 40 Me : 35 Lo : 30
	Heating		P-Hi : 38 Hi : 33 Me : 29 Lo : 25	P-Hi : 38 Hi : 33 Me : 29 Lo : 25	P-Hi : 44 Hi : 38 Me : 36 Lo : 30	P-Hi : 45 Hi : 40 Me : 34 Lo : 29	P-Hi : 47 Hi : 40 Me : 35 Lo : 30
Exterior dimensions Height x Width x Depth		mm	280 × 950 × 635	280 × 950 × 635	280 × 1,368 × 740	280 × 1,368 × 740	280 × 1,368 × 740
Net weight		kg	34	34	54	54	54
Refrigerant equipment Heat exchanger			Louver fin & inner grooved tubing	Louver fin & inner grooved tubing	Louver fin & inner grooved tubing	Louver fin & inner grooved tubing	Louver fin & inner grooved tubing
Refrigerant control			Electronic expansion valve	Electronic expansion valve	Electronic expansion valve	Electronic expansion valve	Electronic expansion valve
Air handling equipment Fan type & Q'ty			Centrifugal fan ×2	Centrifugal fan ×2	Centrifugal fan ×3	Centrifugal fan ×3	Centrifugal fan ×3
Fan motor <Starting method>		W	130 < Direct line start >	130 < Direct line start >	100 + 130 < Direct line start >	100 + 200 < Direct line start >	100 + 200 < Direct line start >
Air flow(Standard)	Cooling	m^3/min	P-Hi : 24 Hi : 19 Me : 15 Lo : 10	P-Hi : 24 Hi : 19 Me : 15 Lo : 10	P-Hi : 36 Hi : 28 Me : 25 Lo : 19	P-Hi : 39 Hi : 32 Me : 26 Lo : 20	P-Hi : 48 Hi : 35 Me : 28 Lo : 22
	Heating		P-Hi : 24 Hi : 19 Me : 15 Lo : 10	P-Hi : 24 Hi : 19 Me : 15 Lo : 10	P-Hi : 36 Hi : 28 Me : 25 Lo : 19	P-Hi : 39 Hi : 32 Me : 26 Lo : 20	P-Hi : 48 Hi : 35 Me : 28 Lo : 22
Available static pressure		Pa	100 (at 24 m^3/min)	100 (at 24 m^3/min)	100 (at 36 m^3/min)	100 (at 39 m^3/min)	100 (at 48 m^3/min)
Outdoor air intake			Possible	Possible	Possible	Possible	Possible
Air filter, Q'ty			Procure locally	Procure locally	Procure locally	Procure locally	Procure locally
Shock & vibration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for fan motor)	Rubber sleeve(for fan motor)	Rubber sleeve(for fan motor)	Rubber sleeve(for fan motor)
Insulation (Noise & heat)			Polyurethane form	Polyurethane form	Polyurethane form	Polyurethane form	Polyurethane form
Operation control Remote control switch (Option)			Wired : RC-EX3A,RC-E5 Wireless : RCN-KIT4-E2	Wired : RC-EX3A,RC-E5 Wireless : RCN-KIT4-E2	Wired : RC-EX3A,RC-E5 Wireless : RCN-KIT4-E2	Wired : RC-EX3A,RC-E5 Wireless : RCN-KIT4-E2	Wired : RC-EX3A,RC-E5 Wireless : RCN-KIT4-E2
Room temperature control			Thermostat by electronics	Thermostat by electronics	Thermostat by electronics	Thermostat by electronics	Thermostat by electronics
Safety equipment			Overload protection for fan motor Frost protection thermostat	Overload protection for fan motor Frost protection thermostat	Overload protection for fan motor Frost protection thermostat	Overload protection for fan motor Frost protection thermostat	Overload protection for fan motor Frost protection thermostat
Installation data Refrigerant piping size	Liquid line		ϕ 9.52 (3/8") <Flare piping>	ϕ 9.52 (3/8") <Flare piping>	ϕ 9.52 (3/8") <Flare piping>	ϕ 9.52 (3/8") <Flare piping>	ϕ 9.52 (3/8") <Flare piping>
	Gas line		ϕ 15.88 (5/8") <Flare piping>	ϕ 15.88 (5/8") <Flare piping>	ϕ 15.88 (5/8") <Flare piping>	ϕ 15.88 (5/8") <Flare piping>	ϕ 15.88 (5/8") <Flare piping>
Refrigerant			R410A	R410A	R410A	R410A	R410A
Drain pump			Built-in drain pump	Built-in drain pump	Built-in drain pump	Built-in drain pump	Built-in drain pump
Drain hose			Connectable with VP25 (I.D.25,O.D.32)	Connectable with VP25 (I.D.25,O.D.32)	Connectable with VP25 (I.D.25,O.D.32)	Connectable with VP25 (I.D.25,O.D.32)	Connectable with VP25 (I.D.25,O.D.32)
Insulation for piping			Necessary(both Liquid & Gas line)	Necessary(both Liquid & Gas line)	Necessary(both Liquid & Gas line)	Necessary(both Liquid & Gas line)	Necessary(both Liquid & Gas line)
Accessories			Mounting kit, Drain hose	Mounting kit, Drain hose	Mounting kit, Drain hose	Mounting kit, Drain hose	Mounting kit, Drain hose
Exterior dimensions			PJG000Z017	PJG000Z017	PJG000Z018	PJG000Z018	PJG000Z018
Electrical wiring			PJG000Z527	PJG000Z527	PJG000Z528	PJG000Z528	PJG000Z528

Notes (1) The data are measured at the following conditions.

Item	Indoor air temperature		Outdoor air temperature		Standards	External static pressure of indoor unit (Pa)
	DB	WB	DB	WB		
Operation	27°C	19°C	35°C	24°C	ISO-T1	60
Cooling*1						
Heating*2	20°C		7°C	6°C		

(2) This packaged air-conditioner is manufactured and tested in conformity with the standard. ISO-T1 "UNITARY AIR-CONDITIONERS"
(3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.
(4) Initial static pressure values of optional air filter "UM-FL□EF" are 5Pa.
(5) Select the breaker size according to the own national standard.

OPTION

		Model	Specification
Remote control	Wired	RC-EX3A	PJZ000Z333
	Wired	RC-E5	PJZ000Z295
	Wired	RCH-E3	PJZ000Z272
	Wireless	RCN-KIT4-E2	PJZ000Z323
Motion sensor		LB-KIT	PJZ000Z331
Air filter (For 71-90)		UM-FL2EF	—
Air filter (For 112-160)		UM-FL3EF	—

Adapted to **RoHS** directive

PJG000Z525

(7) Duct connected (thin) -Low static pressure type (FDUT)

Model FDUT71KXE6F-E

Model			FDUT71KXE6F-E
Panel model (Option)			Rear air return
Nominal cooling capacity*1		kW	7.1
Nominal heating capacity*2		kW	8.0
Power source			1 Phase 220-240V 50Hz / 220V 60Hz
Power consumption	Cooling	kW	0.080 - 0.080 / 0.080
	Heating	kW	0.070 - 0.070 / 0.070
Running current	Cooling	A	0.42 - 0.42 / 0.42
	Heating	A	0.46 - 0.46 / 0.46
Sound power level			Hi : 59
Sound pressure level ①		dB(A)	Hi : 35 Me : 31 Lo : 28
Sound pressure level ②		dB(A)	Hi : 41 Me : 37 Lo : 32
Exterior dimensions Height x Width x Depth		mm	220 × 1,150 × 565
Net weight		kg	31
Refrigerant equipment Heat exchanger			Louver fin & inner grooved tubing
Refrigerant control			Electronic expansion valve
Air handling equipment Fan type & Q'ty			Centrifugal fan ×4
Fan motor <Starting method>		W	100 < Direct line start >
Air flow(Standard)	Cooling	m^3/min	Hi : 16 Me : 13 Lo : 9.5
	Heating	m^3/min	Hi : 16 Me : 13 Lo : 9.5
Available static pressure		Pa	Standard:10,Max:50
Outdoor air intake			Possible
Suction guard(Air filter), Q'ty			Procure locally
Shock & vibration absorber			Rubber sleeve(for fan motor)
Insulation (Noise & heat)			Polyurethane form
Operation control Remote control switch (Option)			Wired : RC-EX3A,RC-E5 Wireless : RCN-KIT4-E2
Room temperature control			Thermostat by electronics
Safety equipment			Overload protection for fan motor Frost protection thermostat
Installation data Refrigerant piping size	Liquid line		φ 9.52 (3/8") <Flare piping>
	Gas line		φ 15.88 (5/8") <Flare piping>
Refrigerant			R410A
Drain pump			Built-in drain pump
Drain hose			Hose connectable VP25(I.D.25,O.D.32)
Insulation for piping			Necessary(both Liquid & Gas line)
Accessories			Mounting kit, Drain hose
Exterior dimensions			PJH000Z012
Electrical wiring			PJH000Z023

Notes (1) The data are measured at the following conditions.

Item	Indoor air temperature		Outdoor air temperature		Standards	External static pressure of indoor unit (Pa)
	DB	WB	DB	WB		
Operation	20℃		7℃	6℃	ISO-T1	10
Cooling*1	27℃	19℃	35℃	24℃		
Heating*2						

(2) This packaged air-conditioner is manufactured and tested in conformity with the standard. ISO-T1 "UNITARY AIR-CONDITIONERS"

(3) Sound pressure level shows the value when the supply duct of 2m and the return duct of 1m (except the Bottom air return) are connected the unit.

(4) Sound pressure level ① : Mike position is 1.5m below the unit,
② : Mike position is 1m in front and 1m below od the air supply duct.

(5) Initial static pressure value of optional suction guard(Air filter) "UT-FL□EF" is 5Pa.

(6) Select the breaker size according to the own national standard.

OPTION

		Model	Specification
Remote control	Wired	RC-EX3A	PJZ000Z333
	Wired	RC-E5	PJZ000Z295
	Wired	RCH-E3	PJZ000Z272
	Wireless	RCN-KIT4-E2	PJZ000Z323
Motion sensor		LB-KIT	PJZ000Z331
Suction guard(Air filter)		UT-FL3EF(For71)	—

Adapted to **RoHS** directive

PJH000Z022

(8) Wall mounted type (FDK)

Models FDK15KXZE1, 22KXZE1, 28KXZE1, 36KXZE1, 45KXZE1

Model			FDK15KXZE1	FDK22KXZE1	FDK28KXZE1	FDK36KXZE1	FDK45KXZE1
Nominal cooling capacity*1		kW	1.5	2.2	2.8	3.6	4.5
Nominal heating capacity*2			1.7	2.5	3.2	4.0	5.0
Power source			1 Phase 220-240V 50Hz / 220V 60Hz	1 Phase 220-240V 50Hz / 220V 60Hz	1 Phase 220-240V 50Hz / 220V 60Hz	1 Phase 220-240V 50Hz / 220V 60Hz	1 Phase 220-240V 50Hz / 220V 60Hz
Power consumption	Cooling	kW	0.020 - 0.020 / 0.020	0.020 - 0.020 / 0.020	0.020 - 0.020 / 0.020	0.030 - 0.030 / 0.030	0.030 - 0.030 / 0.030
	Heating		0.020 - 0.020 / 0.020	0.020 - 0.020 / 0.020	0.020 - 0.020 / 0.020	0.030 - 0.030 / 0.030	0.030 - 0.030 / 0.030
Running current	Cooling	A	0.18 - 0.16 / 0.18	0.18 - 0.16 / 0.18	0.18 - 0.16 / 0.18	0.27 - 0.25 / 0.27	0.27 - 0.25 / 0.27
	Heating		0.18 - 0.16 / 0.18	0.18 - 0.16 / 0.18	0.18 - 0.16 / 0.18	0.27 - 0.25 / 0.27	0.27 - 0.25 / 0.27
Sound power level	Cooling	dB(A)	54	55	55	58	58
	Heating		54	55	55	58	58
Sound pressure level	Cooling		P-Hi : 38 Hi : 34 Me : 31 Lo : 28	P-Hi : 38 Hi : 36 Me : 32 Lo : 28	P-Hi : 38 Hi : 36 Me : 32 Lo : 28	P-Hi : 40 Hi : 38 Me : 33 Lo : 28	P-Hi : 43 Hi : 41 Me : 36 Lo : 33
	Heating		P-Hi : 38 Hi : 34 Me : 31 Lo : 28	P-Hi : 38 Hi : 36 Me : 32 Lo : 28	P-Hi : 38 Hi : 36 Me : 32 Lo : 28	P-Hi : 40 Hi : 38 Me : 33 Lo : 28	P-Hi : 43 Hi : 41 Me : 36 Lo : 33
Exterior dimensions Height x Width x Depth		mm	290 × 870 × 230	290 × 870 × 230	290 × 870 × 230	290 × 870 × 230	290 × 870 × 230
Exterior appearance (Munsell color)			Fine snow (9.3G8.7/0.1) near equivalent	Fine snow (9.3G8.7/0.1) near equivalent	Fine snow (9.3G8.7/0.1) near equivalent	Fine snow (9.3G8.7/0.1) near equivalent	Fine snow (9.3G8.7/0.1) near equivalent
Net weight		kg	11.5	11	11	11.5	11.5
Refrigerant equipment Heat exchanger			Louver fin & inner grooved tubing	Louver fin & inner grooved tubing	Louver fin & inner grooved tubing	Louver fin & inner grooved tubing	Louver fin & inner grooved tubing
Refrigerant control			Electronic expansion valve	Electronic expansion valve	Electronic expansion valve	Electronic expansion valve	Electronic expansion valve
Air handling equipment Fan type & Q'ty			Tangential fan ×1	Tangential fan ×1	Tangential fan ×1	Tangential fan ×1	Tangential fan ×1
Fan motor <Starting method>		W	42 < Direct line start >	42 < Direct line start >	42 < Direct line start >	42 < Direct line start >	42 < Direct line start >
Air flow(Standard)	Cooling	m^3/min	P-Hi : 5.7 Hi : 5 Me : 4.5 Lo : 3.6	P-Hi : 8.5 Hi : 8 Me : 6 Lo : 5	P-Hi : 8.5 Hi : 8 Me : 6 Lo : 5	P-Hi : 11 Hi : 10 Me : 8 Lo : 7	P-Hi : 12 Hi : 11 Me : 9 Lo : 8
	Heating		P-Hi : 5.7 Hi : 5 Me : 4.5 Lo : 3.6	P-Hi : 8.5 Hi : 8 Me : 6 Lo : 5	P-Hi : 8.5 Hi : 8 Me : 6 Lo : 5	P-Hi : 11 Hi : 10 Me : 8 Lo : 7	P-Hi : 12 Hi : 11 Me : 9 Lo : 8
Available static pressure		Pa	0	0	0	0	0
Outdoor air intake			Not Possible	Not Possible	Not Possible	Not Possible	Not Possible
Air filter, Q'ty			Polypropylene net ×2 (Washable)	Polypropylene net ×2 (Washable)	Polypropylene net ×2 (Washable)	Polypropylene net ×2 (Washable)	Polypropylene net ×2 (Washable)
Shock & vibration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for fan motor)	Rubber sleeve(for fan motor)	Rubber sleeve(for fan motor)	Rubber sleeve(for fan motor)
Insulation (Noise & heat)			Polyurethane form	Polyurethane form	Polyurethane form	Polyurethane form	Polyurethane form
Operation control Remote control switch (Option)			Wired : RC-EX3A Wireless : RCN-K-E2	Wired : RC-EX3A Wireless : RCN-K-E2	Wired : RC-EX3A Wireless : RCN-K-E2	Wired : RC-EX3A Wireless : RCN-K-E2	Wired : RC-EX3A Wireless : RCN-K-E2
Room temperature control			Thermostat by electronics	Thermostat by electronics	Thermostat by electronics	Thermostat by electronics	Thermostat by electronics
Safety equipment			Overload protection for fan motor Frost protection thermostat	Overload protection for fan motor Frost protection thermostat	Overload protection for fan motor Frost protection thermostat	Overload protection for fan motor Frost protection thermostat	Overload protection for fan motor Frost protection thermostat
Installation data Refrigerant piping size	Liquid line		ϕ 6.35 (1/4") <Flare piping>	ϕ 6.35 (1/4") <Flare piping>	ϕ 6.35 (1/4") <Flare piping>	ϕ 6.35 (1/4") <Flare piping>	ϕ 6.35 (1/4") <Flare piping>
	Gas line		ϕ 9.52 (3/8") <Flare piping>	ϕ 9.52 (3/8") <Flare piping>	ϕ 9.52 (3/8") <Flare piping>	ϕ 12.7 (1/2") <Flare piping>	ϕ 12.7 (1/2") <Flare piping>
Refrigerant			R410A	R410A	R410A	R410A	R410A
Drain hose			Connectable with VP16(I.D.16)	Connectable with VP16(I.D.16)	Connectable with VP16(I.D.16)	Connectable with VP16(I.D.16)	Connectable with VP16(I.D.16)
Insulation for piping			Necessary(both Liquid & Gas line)	Necessary(both Liquid & Gas line)	Necessary(both Liquid & Gas line)	Necessary(both Liquid & Gas line)	Necessary(both Liquid & Gas line)
Accessories			Mounting kit, Drain hose	Mounting kit, Drain hose	Mounting kit, Drain hose	Mounting kit, Drain hose	Mounting kit, Drain hose
Exterior dimensions			PHA001Z105	PHA001Z105	PHA001Z105	PHA001Z105	PHA001Z105
Electrical wiring			PHA001Z142	PHA001Z142	PHA001Z142	PHA001Z142	PHA001Z142

Notes (1) The data are measured at the following conditions.

Item	Indoor air temperature		Outdoor air temperature		Standards
	DB	WB	DB	WB	
Operation	27°C	19°C	35°C	24°C	ISO-T1
Cooling*1					
Heating*2	20°C		7°C	6°C	

(2) This packaged air-conditioner is manufactured and tested in conformity with the standard. ISO-T1 "UNITARY AIR-CONDITIONERS"

(3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.

(4) Select the breaker size according to the own national standard.

OPTION

	Model	Specification
Remote control	Wired	RC-EX3A	PJZ000Z333
	Wired	RC-E5	PJZ000Z295
	Wired	RCH-E3	PJZ000Z272
Wireless FDK15-56		RCN-K-E2	PHA001Z123
Wireless FDK71-90		RCN-K71-E2	PHA001Z124
Motion sensor		LB-KIT	PJZ000Z331

Adapted to **RoHS** directive

PHA001Z141

Models FDK56KXZE1, 71KXZE1, 90KXZE1

Model			FDK56KXZE1	FDK71KXZE1	FDK90KXZE1
Nominal cooling capacity*1		kW	5.6	7.1	9.0
Nominal heating capacity*2		kW	6.3	8.0	10.0
Power source			1 Phase 220-240V 50Hz / 220V 60Hz	1 Phase 220-240V 50Hz / 220V 60Hz	1 Phase 220-240V 50Hz / 220V 60Hz
Power consumption	Cooling	kW	0.030 - 0.030 / 0.030	0.040 - 0.040 / 0.040	0.050 - 0.050 / 0.050
	Heating		0.030 - 0.030 / 0.030	0.040 - 0.040 / 0.040	0.050 - 0.050 / 0.050
Running current	Cooling	A	0.27 - 0.25 / 0.27	0.34 - 0.31 / 0.34	0.42 - 0.39 / 0.42
	Heating		0.27 - 0.25 / 0.27	0.34 - 0.31 / 0.34	0.42 - 0.39 / 0.42
Sound power level	Cooling	dB(A)	58	59	61
	Heating		61	59	61
Sound pressure level	Cooling		P-Hi : 43 Hi : 41 Me : 36 Lo : 33	P-Hi : 42 Hi : 40 Me : 37 Lo : 35	P-Hi : 44 Hi : 42 Me : 39 Lo : 35
	Heating		P-Hi : 44 Hi : 42 Me : 37 Lo : 33	P-Hi : 42 Hi : 40 Me : 37 Lo : 35	P-Hi : 44 Hi : 42 Me : 39 Lo : 35
Exterior dimensions Height x Width x Depth		mm	290 × 870 × 230	339 × 1,197 × 262	339 × 1,197 × 262
Exterior appearance (Munsell color)			Fine snow (9.3G8.7/0.1) near equivalent	Fine snow (9.3G8.7/0.1) near equivalent	Fine snow (9.3G8.7/0.1) near equivalent
Net weight		kg	11.5	17	17
Refrigerant equipment Heat exchanger			Louver fin & inner grooved tubing	Louver fin & inner grooved tubing	Louver fin & inner grooved tubing
Refrigerant control			Electronic expansion valve	Electronic expansion valve	Electronic expansion valve
Air handling equipment Fan type & Q'ty			Tangential fan ×1	Tangential fan ×1	Tangential fan ×1
Fan motor <Starting method>		W	42 < Direct line start >	56 < Direct line start >	56 < Direct line start >
Air flow(Standard)	Cooling	m^3/min	P-Hi : 12 Hi : 11 Me : 9 Lo : 8	P-Hi : 21 Hi : 19 Me : 16 Lo : 14	P-Hi : 23 Hi : 21 Me : 19 Lo : 16
	Heating		P-Hi : 13 Hi : 12 Me : 10 Lo : 8	P-Hi : 21 Hi : 19 Me : 16 Lo : 14	P-Hi : 23 Hi : 21 Me : 19 Lo : 16
Available static pressure		Pa	0	0	0
Outdoor air intake			Not Possible	Not Possible	Not Possible
Air filter, Q'ty			Polypropylene net ×2 (Washable)	Polypropylene net ×2 (Washable)	Polypropylene net ×2 (Washable)
Shock & vibration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for fan motor)	Rubber sleeve(for fan motor)
Insulation (Noise & heat)			Polyurethane form	Polyurethane form	Polyurethane form
Operation control Remote control switch (Option)			Wired : RC-EX3A Wireless : RCN-K-E2	Wired : RC-EX3A Wireless : RCN-K71-E2	Wired : RC-EX3A Wireless : RCN-K71-E2
Room temperature control			Thermostat by electronics	Thermostat by electronics	Thermostat by electronics
Safety equipment			Overload protection for fan motor Frost protection thermostat	Overload protection for fan motor Frost protection thermostat	Overload protection for fan motor Frost protection thermostat
Installation data Refrigerant piping size	Liquid line		ϕ 6.35 (1/4") <Flare piping>	ϕ 9.52 (3/8") <Flare piping>	ϕ 9.52 (3/8") < Flare piping >
	Gas line		ϕ 12.7 (1/2") <Flare piping>	ϕ 15.88 (5/8") <Flare piping>	ϕ 15.88 (5/8") < Flare piping >
Refrigerant			R410A	R410A	R410A
Drain hose			Connectable with VP16(I.D.16)	Connectable with VP16(I.D.16)	Connectable with VP16(I.D.16)
Insulation for piping			Necessary(both Liquid & Gas line)	Necessary(both Liquid & Gas line)	Necessary(both Liquid & Gas line)
Accessories			Mounting kit, Drain hose	Mounting kit, Drain hose	Mounting kit, Drain hose
Exterior dimensions			PHA001Z105	PHA001Z106	PHA001Z106
Electrical wiring			PHA001Z142	PHA001Z142	PHA001Z142

Notes (1) The data are measured at the following conditions.

Item	Indoor air temperature		Outdoor air temperature		Standards
Operation	DB	WB	DB	WB	ISO-T1
Cooling*1	27°C	19°C	35°C	24°C	
Heating*2	20°C		7°C	6°C	

(2) This packaged air-conditioner is manufactured and tested in conformity with the standard. ISO-T1 "UNITARY AIR-CONDITIONERS"
(3) Sound level indicates the value in an anechoic chamber.
During operation these value are somewhat higher due to ambient conditions.
(4) Select the breaker size according to the own national standard.

OPTION

	Model	Specification
Remote control	Wired	RC-EX3A	PJZ000Z333
	Wired	RC-E5	PJZ000Z295
	Wired	RCH-E3	PJZ000Z272
Wireless FDK15-56		RCN-K-E2	PHA001Z123
Wireless FDK71-90		RCN-K71-E2	PHA001Z124
Motion sensor		LB-KIT	PJZ000Z331

Adapted to **RoHS** directive

PHA001Z141

(9) Ceiling suspended type (FDE)

Models FDE36KXZE1, 45KXZE1, 56KXZE1, 71KXZE1

Model			FDE36KXZE1	FDE45KXZE1	FDE56KXZE1	FDE71KXZE1
Nominal cooling capacity*1		kW	3.6	4.5	5.6	7.1
Nominal heating capacity*2			4.0	5.0	6.3	8.0
Power source			1 Phase 220-240V 50Hz / 220V 60Hz	1 Phase 220-240V 50Hz / 220V 60Hz	1 Phase 220-240V 50Hz / 220V 60Hz	1 Phase 220-240V 50Hz / 220V 60Hz
Power consumption	Cooling	kW	0.050 - 0.050 / 0.050	0.050 - 0.050 / 0.050	0.050 - 0.050 / 0.050	0.070 - 0.070 / 0.070
	Heating		0.050 - 0.050 / 0.050	0.050 - 0.050 / 0.050	0.050 - 0.050 / 0.050	0.070 - 0.070 / 0.070
Running current	Cooling	A	0.45 - 0.45 / 0.45	0.45 - 0.45 / 0.45	0.45 - 0.45 / 0.45	0.65 - 0.65 / 0.65
	Heating		0.45 - 0.45 / 0.45	0.45 - 0.45 / 0.45	0.45 - 0.45 / 0.45	0.65 - 0.65 / 0.65
Sound power level	Cooling	dB(A)	60	60	60	62
	Heating		60	60	60	62
Sound pressure level	Cooling		P-Hi : 46 Hi : 38 Me : 31 Lo : 26	P-Hi : 46 Hi : 38 Me : 36 Lo : 31	P-Hi : 46 Hi : 38 Me : 36 Lo : 31	P-Hi : 47 Hi : 39 Me : 37 Lo : 32
	Heating		P-Hi : 46 Hi : 38 Me : 31 Lo : 26	P-Hi : 46 Hi : 38 Me : 36 Lo : 31	P-Hi : 46 Hi : 38 Me : 36 Lo : 31	P-Hi : 47 Hi : 39 Me : 37 Lo : 32
Exterior dimensions Height x Width x Depth		mm	210 × 1,070 × 690	210 × 1,070 × 690	210 × 1,070 × 690	210 × 1,320 × 690
Exterior appearance (Munsell color)			Plaster white (6.8Y8.9/0.2) near equivalent	Plaster white (6.8Y8.9/0.2) near equivalent	Plaster white (6.8Y8.9/0.2) near equivalent	Plaster white (6.8Y8.9/0.2) near equivalent
Net weight		kg	28	28	28	33
Refrigerant equipment Heat exchanger			Louver fin & inner grooved tubing	Louver fin & inner grooved tubing	Louver fin & inner grooved tubing	Louver fin & inner grooved tubing
Refrigerant control			Electronic expansion valve	Electronic expansion valve	Electronic expansion valve	Electronic expansion valve
Air handling equipment Fan type & Q'ty			Centrifugal fan ×2	Centrifugal fan ×2	Centrifugal fan ×2	Centrifugal fan ×4
Fan motor <Starting method>		W	30 < Direct line start >	30 < Direct line start >	30 < Direct line start >	50 < Direct line start >
Air flow(Standard)	Cooling	m^3/min	P-Hi : 13 Hi : 10 Me : 9 Lo : 7	P-Hi : 13 Hi : 10 Me : 9 Lo : 7	P-Hi : 13 Hi : 10 Me : 9 Lo : 7	P-Hi : 20 Hi : 15 Me : 13 Lo : 10
	Heating		P-Hi : 13 Hi : 10 Me : 7 Lo : 5.5	P-Hi : 13 Hi : 10 Me : 9 Lo : 7	P-Hi : 13 Hi : 10 Me : 9 Lo : 7	P-Hi : 20 Hi : 15 Me : 13 Lo : 10
Available static pressure		Pa	0	0	0	0
Outdoor air intake			Not possible	Not possible	Not possible	Not possible
Air filter, Q'ty			Pocket plastic net ×2 (Washable)	Pocket plastic net ×2 (Washable)	Pocket plastic net ×2 (Washable)	Pocket plastic net ×2 (Washable)
Shock & vibration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for fan motor)	Rubber sleeve(for fan motor)	Rubber sleeve(for fan motor)
Insulation (Noise & heat)			Polyurethane form	Polyurethane form	Polyurethane form	Polyurethane form
Operation control Remote control switch (Option)			Wired : RC-EX3A,RC-E5 Wireless : RCN-E-E3	Wired : RC-EX3A,RC-E5 Wireless : RCN-E-E3	Wired : RC-EX3A,RC-E5 Wireless : RCN-E-E3	Wired : RC-EX3A,RC-E5 Wireless : RCN-E-E3
Room temperature control			Thermostat by electronics	Thermostat by electronics	Thermostat by electronics	Thermostat by electronics
Safety equipment			Overload protection for fan motor Frost protection thermostat	Overload protection for fan motor Frost protection thermostat	Overload protection for fan motor Frost protection thermostat	Overload protection for fan motor Frost protection thermostat
Installation data	Liquid line		ϕ6.35 (1/4") <Flare piping>	ϕ6.35 (1/4") <Flare piping>	ϕ6.35 (1/4") <Flare piping>	ϕ9.52 (3/8") <Flare piping>
Refrigerant piping size	Gas line		ϕ12.7 (1/2") <Flare piping>	ϕ12.7 (1/2") <Flare piping>	ϕ12.7 (1/2") <Flare piping>	ϕ15.88 (5/8") <Flare piping>
Refrigerant			R410A	R410A	R410A	R410A
Drain hose			Hose connectable with VP20(O.D.26)	Hose connectable with VP20(O.D.26)	Hose connectable with VP20(O.D.26)	Hose connectable with VP20(O.D.26)
Insulation for piping			Necessary(both Liquid & Gas line)	Necessary(both Liquid & Gas line)	Necessary(both Liquid & Gas line)	Necessary(both Liquid & Gas line)
Accessories			Mounting kit, Drain hose	Mounting kit, Drain hose	Mounting kit, Drain hose	Mounting kit, Drain hose
Exterior dimensions			PFA004Z036	PFA004Z036	PFA004Z036	PFA004Z037
Electrical wiring			PFA004Z096	PFA004Z096	PFA004Z096	PFA004Z096

Notes (1) The data are measured at the following conditions.

Item	Indoor air temperature		Outdoor air temperature		Standards
Operation	DB	WB	DB	WB	ISO-T1
Cooling*1	27℃	19℃	35℃	24℃	
Heating*2	20℃		7℃	6℃	

(2) This packaged air-conditioner is manufactured and tested in conformity with the standard. ISO-T1 "UNITARY AIR-CONDITIONERS"

(3) Sound level indicates the value in an anechoic chamber. During operation these value are somewhat higher due to ambient conditions.

(4) Select the breaker size according to the own national standard.

OPTION

		Model	Specification
Remote control	Wired	RC-EX3A	PJZ000Z333
	Wired	RC-E5	PJZ000Z295
	Wired	RCH-E3	PJZ000Z272
	Wireless	RCN-E-E3	PFA004Z079
Motion sensor		LB-E	PFA004Z077

Adapted to **RoHS** directive

PFA004Z095

Models FDE112KXZE1, 140KXZE1

Model			FDE112KXZE1	FDE140KXZE1
Nominal cooling capacity*1		kW	11.2	14.0
Nominal heating capacity*2			12.5	16.0
Power source			1 Phase 220-240V 50Hz / 220V 60Hz	1 Phase 220-240V 50Hz / 220V 60Hz
Power consumption	Cooling	kW	0.100 - 0.100 / 0.100	0.130 - 0.130 / 0.130
	Heating		0.100 - 0.100 / 0.100	0.130 - 0.130 / 0.130
Running current	Cooling	A	0.90 - 0.90 / 0.90	1.20 - 1.20 / 1.20
	Heating		0.90 - 0.90 / 0.90	1.20 - 1.20 / 1.20
Sound power level	Cooling	dB(A)	61	64
	Heating		61	64
Sound pressure level	Cooling		P-Hi : 45 Hi : 42 Me : 38 Lo : 34	P-Hi : 48 Hi : 43 Me : 40 Lo : 35
	Heating		P-Hi : 45 Hi : 42 Me : 38 Lo : 34	P-Hi : 48 Hi : 43 Me : 40 Lo : 35
Exterior dimensions Height x Width x Depth		mm	250 × 1,620 × 690	250 × 1,620 × 690
Exterior appearance (Munsell color)			Plaster white (6.8Y8.9/0.2) near equivalent	Plaster white (6.8Y8.9/0.2) near equivalent
Net weight		kg	43	43
Refrigerant equipment Heat exchanger			Louver fin & inner grooved tubing	Louver fin & inner grooved tubing
Refrigerant control			Electronic expansion valve	Electronic expansion valve
Air handling equipment Fan type & Q'ty			Centrifugal fan ×4	Centrifugal fan ×4
Fan motor <Starting method>		W	65 < Direct line start >	80 < Direct line start >
Air flow(Standard)	Cooling	m^3/min	P-Hi : 28 Hi : 25 Me : 21 Lo : 16.5	P-Hi : 32 Hi : 26 Me : 23 Lo : 17
	Heating		P-Hi : 28 Hi : 25 Me : 21 Lo : 16.5	P-Hi : 32 Hi : 26 Me : 23 Lo : 17
Available static pressure		Pa	0	0
Outdoor air intake			Not possible	Not possible
Air filter, Q'ty			Pocket plastic net ×2 (Washable)	Pocket plastic net ×2 (Washable)
Shock & vibration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for fan motor)
Insulation (Noise & heat)			Polyurethane form	Polyurethane form
Operation control Remote control switch (Option)			Wired : RC-EX3A,RC-E5 Wireless : RCN-E-E3	Wired : RC-EX3A,RC-E5 Wireless : RCN-E-E3
Room temperature control			Thermostat by electronics	Thermostat by electronics
Safety equipment			Overload protection for fan motor Frost protection thermostat	Overload protection for fan motor Frost protection thermostat
Installation data Liquid line Refrigerant piping size Gas line			ϕ 9.52 (3/8") <Flare piping> ϕ 15.88 (5/8") <Flare piping>	ϕ 9.52 (3/8") < Flare piping > ϕ 15.88 (5/8") < Flare piping >
Refrigerant			R410A	R410A
Drain hose			Hose connectable with VP20(O.D.26)	Hose connectable with VP20(O.D.26)
Insulation for piping			Necessary(both Liquid & Gas line)	Necessary(both Liquid & Gas line)
Accessories			Mounting kit, Drain hose	Mounting kit, Drain hose
Exterior dimensions			PFA004Z038	PFA004Z038
Electrical wiring			PFA004Z096	PFA004Z096

Notes (1) The data are measured at the following conditions.

Item	Indoor air temperature		Outdoor air temperature		Standards
Operation	DB	WB	DB	WB	
Cooling*1	27℃	19℃	35℃	24℃	ISO-T1
Heating*2	20℃		7℃	6℃	

(2) This packaged air-conditioner is manufactured and tested in conformity with the standard. ISO-T1 "UNITARY AIR-CONDITIONERS"
(3) Sound level indicates the value in an anechoic chamber.
During operation these value are somewhat higher due to ambient conditions.
(4) Select the breaker size according to the own national standard.

OPTION

		Model	Specification
Remote control	Wired	RC-EX3A	PJZ000Z333
	Wired	RC-E5	PJZ000Z295
	Wired	RCH-E3	PJZ000Z272
	Wireless	RCN-E-E3	PFA004Z079
Motion sensor		LB-E	PFA004Z077

Adapted to **RoHS** directive

PFA004Z095

(10) Outdoor air processing unit (FDU-F)

Models FDU650FKXZE1, 1100FKXZE1, 1800FKXZE1, 2400FKXZE1

Model			FDU650FKXZE1	FDU1100FKXZE1	FDU1800FKXZE1	FDU2400FKXZE1
Nominal cooling capacity*1		kW	9.0	14.0	22.4	28.0
Nominal heating capacity*2			6.5	10.5	16.0	21.5
Power source			1 Phase 220-240V 50Hz / 220V 60Hz	1 Phase 220-240V 50Hz / 220V 60Hz	1 Phase 220-240V 50Hz / 220V 60Hz	1 Phase 220-240V 50Hz / 220V 60Hz
Power consumption	Cooling	kW	0.240 - 0.250 / 0.240	0.350 - 0.360 / 0.350	1.160 - 1.200 / 1.160	1.160 - 1.200 / 1.160
	Heating		0.240 - 0.250 / 0.240	0.350 - 0.360 / 0.350	1.160 - 1.200 / 1.160	1.160 - 1.200 / 1.160
Running current	Cooling	A	1.80 - 1.70 / 1.80	2.30 - 2.20 / 2.30	6.80 - 6.50 / 6.80	6.80 - 6.50 / 6.80
	Heating		1.80 - 1.70 / 1.80	2.30 - 2.20 / 2.30	6.80 - 6.50 / 6.80	6.80 - 6.50 / 6.80
Sound power level	Cooling	dB(A)	Hi : 55	Hi : 62	Hi : 68	Hi : 70
	Heating		Hi : 55	Hi : 62	Hi : 68	Hi : 70
Sound pressure level	Cooling		Hi : 31	Hi : 37	Hi : 42	Hi : 45
	Heating		Hi : 31	Hi : 37	Hi : 42	Hi : 45
Exterior dimensions Height x Width x Depth		mm	280 × 950 × 635	280 × 1,368 × 740	379 × 1,600 × 893	379 × 1,600 × 893
Net weight		kg	34	54	89	89
Refrigerant equipment Heat exchanger			Louver fin & inner grooved tubing	Louver fin & inner grooved tubing	Louver fin & inner grooved tubing	Louver fin & inner grooved tubing
Refrigerant control			Electronic expansion valve	Electronic expansion valve	Electronic expansion valve	Electronic expansion valve
Air handling equipment Fan type & Q'ty			Centrifugal fan ×2	Centrifugal fan ×3	Centrifugal fan ×3	Centrifugal fan ×3
Fan motor <Starting method>		W	130 < Direct line start >	100 + 200 < Direct line start >	130 + 350 < Direct line start >	130 + 350 < Direct line start >
Air flow(Standard)	Cooling	m^3/min	Hi : 11	Hi : 18	Hi : 30	Hi : 40
	Heating		Hi : 11	Hi : 18	Hi : 30	Hi : 40
Available static pressure		Pa	200 (at 11 m^3/min)	200 (at 18 m^3/min)	200 (at 30 m^3/min)	200 (at 40 m^3/min)
Outdoor air intake			Possible	Possible	Possible	Possible
Air filter, Q'ty			Procure locally	Procure locally	Procure locally	Procure locally
Shock & vibration absorber			Rubber sleeve(for fan motor)	Rubber sleeve(for fan motor)	Rubber sleeve(for fan motor)	Rubber sleeve(for fan motor)
Insulation (Noise & heat)			Polyurethane form	Polyurethane form	Polyurethane form	Polyurethane form
Operation control Remote control switch (Option)			Wired : RC-EX3A,RC-E5 Wireless : RCN-KIT4-E2	Wired : RC-EX3A,RC-E5 Wireless : RCN-KIT4-E2	Wired : RC-EX3A,RC-E5 Wireless : RCN-KIT4-E2	Wired : RC-EX3A,RC-E5 Wireless : RCN-KIT4-E2
Room temperature control			Thermostat by electronics	Thermostat by electronics	Thermostat by electronics	Thermostat by electronics
Safety equipment			Overload protection for fan motor Frost protection thermostat	Overload protection for fan motor Frost protection thermostat	Overload protection for fan motor Frost protection thermostat	Overload protection for fan motor Frost protection thermostat
Installation data Refrigerant piping size	Liquid line		ϕ 9.52 (3/8") <Flare piping>	ϕ 9.52 (3/8") <Flare piping>	ϕ 9.52 (3/8") <Brazing>	ϕ 9.52 (3/8") <Brazing>
	Gas line		ϕ 15.88 (5/8") <Flare piping>	ϕ 15.88 (5/8") <Flare piping>	ϕ 19.05 (3/4") <Brazing>	ϕ 22.22 (7/8") <Brazing>
Refrigerant			R410A	R410A	R410A	R410A
Drain pump			Built-in drain pump	Built-in drain pump	-	-
Drain hose			Hose connectable VP25 (I.D.25, O.D.32)	Hose connectable VP25 (I.D.25, O.D.32)	Connectable with VP25 (O.D.32)	Connectable with VP25 (O.D.32)
Insulation for piping			Necessary(both Liquid & Gas line)	Necessary(both Liquid & Gas line)	Necessary(both Liquid & Gas line)	Necessary(both Liquid & Gas line)
Accessories			Mounting kit, Drain hose	Mounting kit, Drain hose	Mounting kit	Mounting kit
Exterior dimensions			PJG000Z295	PJG000Z296	PJG000Z297	PJG000Z297
Electrical wiring			PJG000Z563	PJG000Z564	PJG000Z565	PJG000Z565

Adapted to **RoHS** directive

Notes (1) The data are measured at 33ºCDB 28ºCWB (68%RH) during cooling and 0ºCDB-2.9ºCWB (50%RH) during heating (no frost).
(2) Temperature range of outdoor air must be 20 ~ 40ºCDB (32ºCWB or less) during cooling and -10ºC ~ 24ºCDB during heating.
(3) Sound level indicates the value in an anechoic chamber.
During operation these value are somewhat higher due to ambient conditions.
(4) The factory E.S.P. setting is set within the range of 10 - 120Pa.When SW8-4 is turned to "ON",
E.S.P. setting range can be changed to 10 - 200 Pa.(For RC-EX3A and RC-E5 only)
(5) Select the breaker size according to the own national standard.

OPTION

		Model	Specification
Remote control	Wired	RC-EX3A	PJZ000Z333
	Wired	RC-E5	PJZ000Z295
	Wired	RCH-E3	PJZ000Z272
	Wireless	RCN-KIT4-E2	PJZ000Z323
Motion sensor		LB-KIT	PJZ000Z331

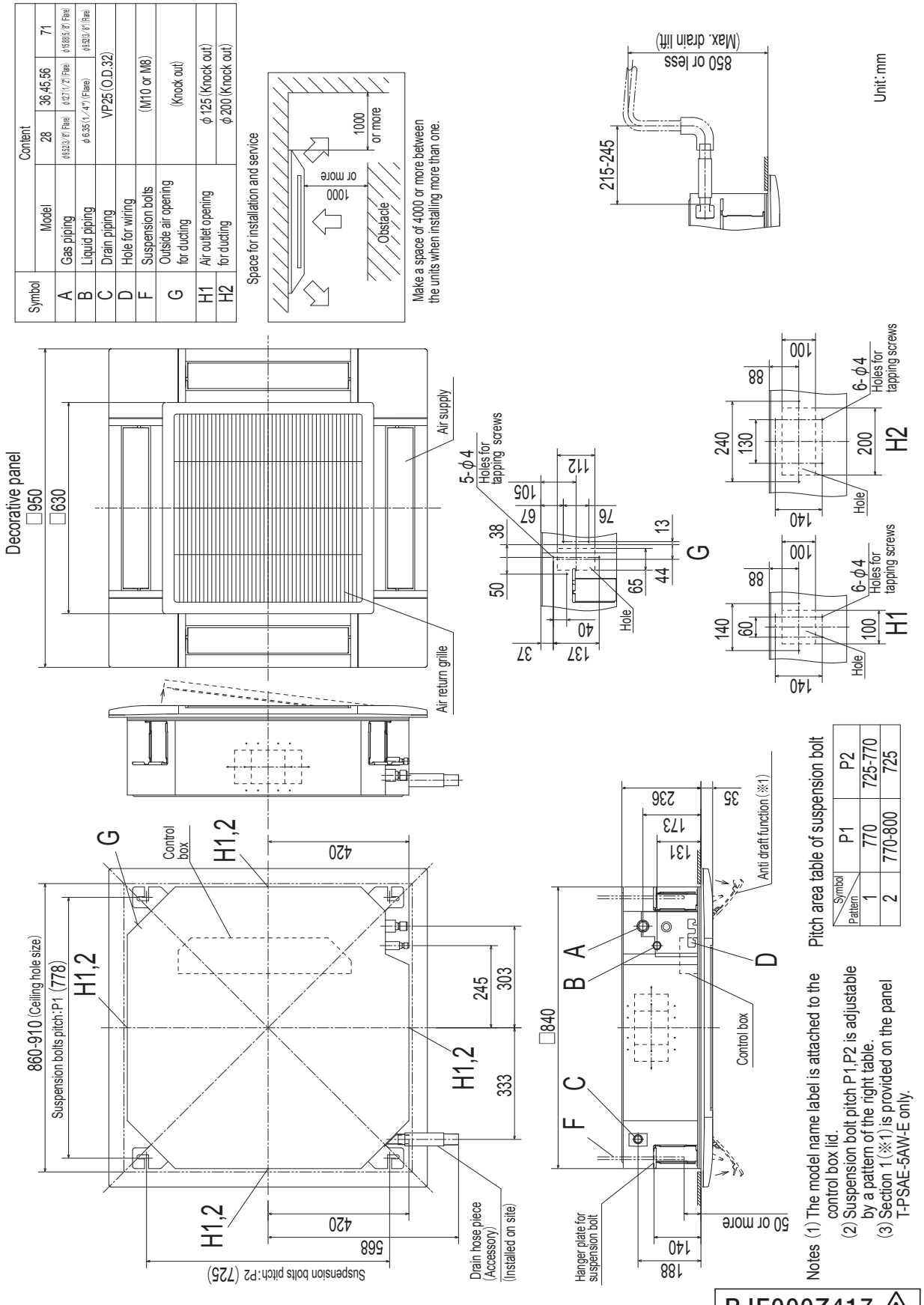
PJG000Z562

3. EXTERIOR DIMENSIONS

3.1 Indoor unit

(1) Ceiling cassette-4 way type (FDT)

Models FDT28KXZE1, 36KXZE1, 45KXZE1, 56KXZE1, 71KXZE1



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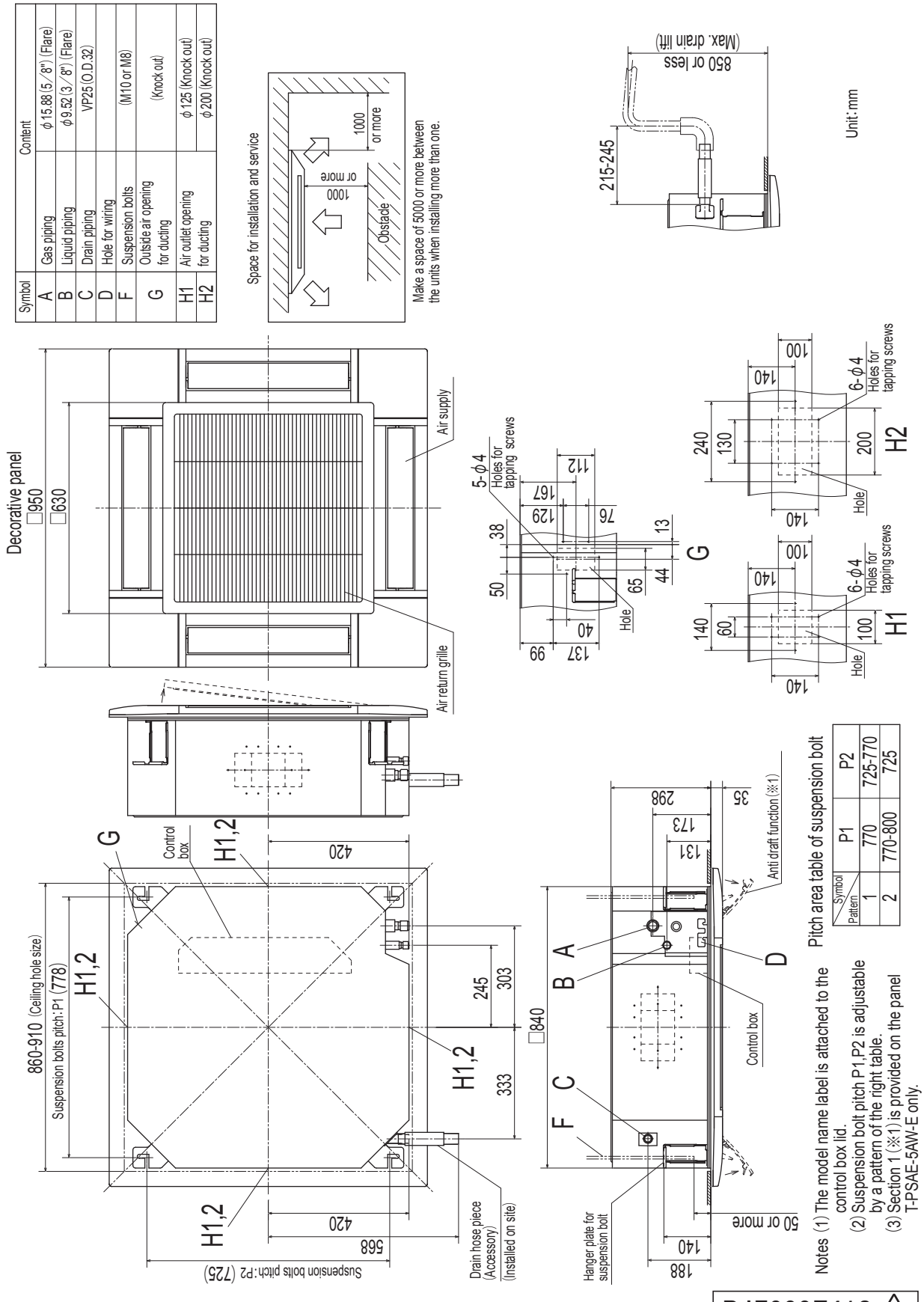
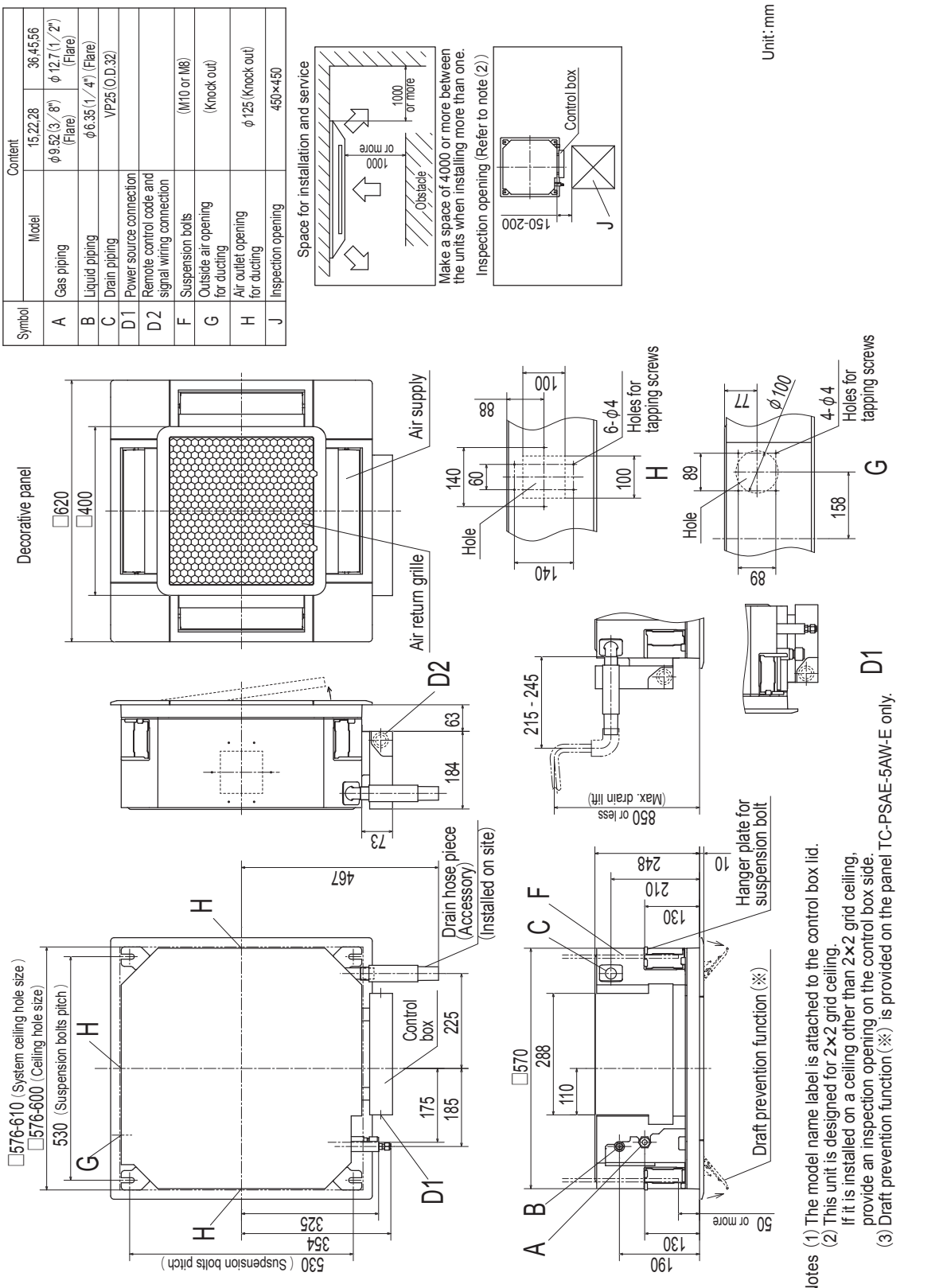
Models FDT90KXZE1, 112KXZE1, 140KXZE1, 160KXZE1



(2) Ceiling cassette-4 way compact type (FDTC)

All models



Notes (1) The model name label is attached to the control box lid.
(2) This unit is designed for 2×2 grid ceiling.
If it is installed on a ceiling other than 2×2 grid ceiling, provide an inspection opening on the control box side.
(3) Draft prevention function (※) is provided on the panel TC-PSAE-5AW-E only.

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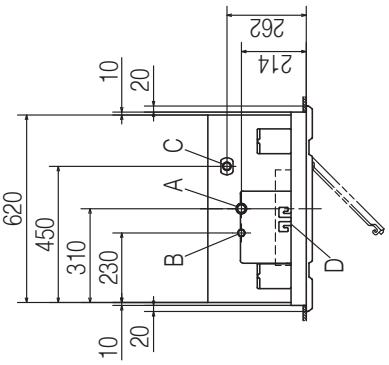
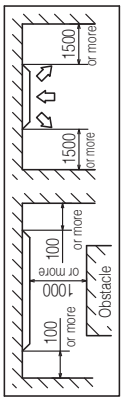
(3) Ceiling cassette-2 way type (FDTW)

Models FDTW28KXE6F, 45KXE6F, 56KXE6F, 71KXE6F

Symbol	Content			
	Model	28	45,56	71
A	Gas piping	ϕ9.52(3/8") (Flare)	ϕ12.7(1/2") (Flare)	ϕ15.88(5/8") (Flare)
B	Liquid piping	ϕ6.35(1/4") (Flare)		ϕ9.52(3/8") (Flare)
C	Drain piping	VP25(O.D.32)		
D	Hole for wiring			
E	Suspension bolts	(M10)		
F	Outside air opening for ducting	(Knock out)		
G	Air outlet opening for ducting	(Knock out)		

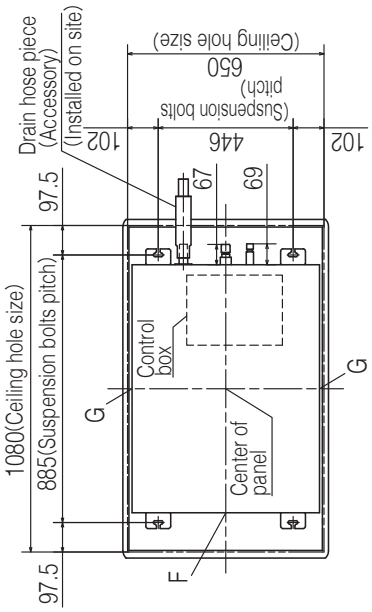


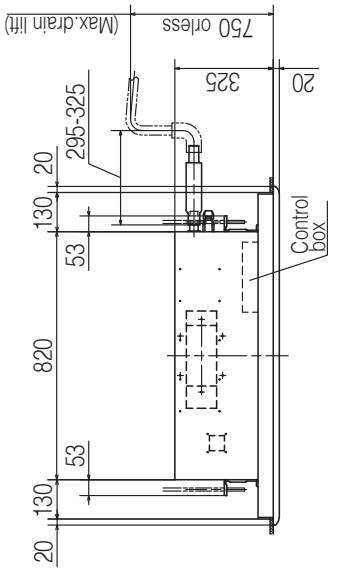
Note (1) The model name label is attached on the lid of the control box.

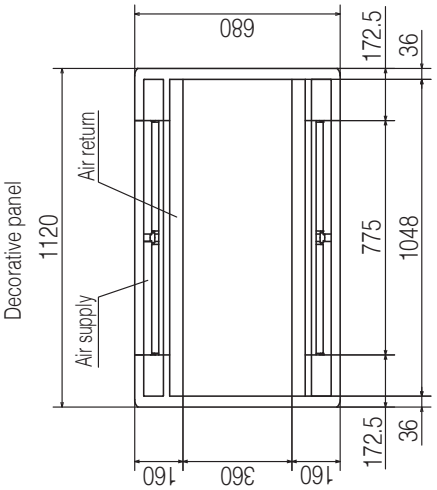


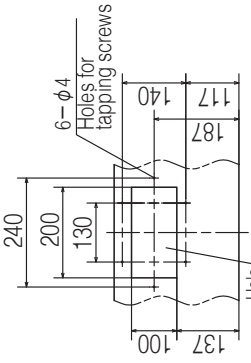
Make a space of 4000 or more between the units when installing more than one.

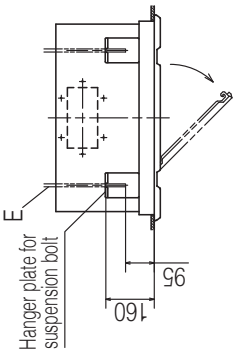
Unit : mm

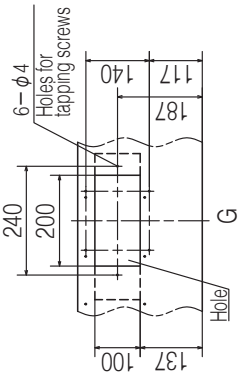












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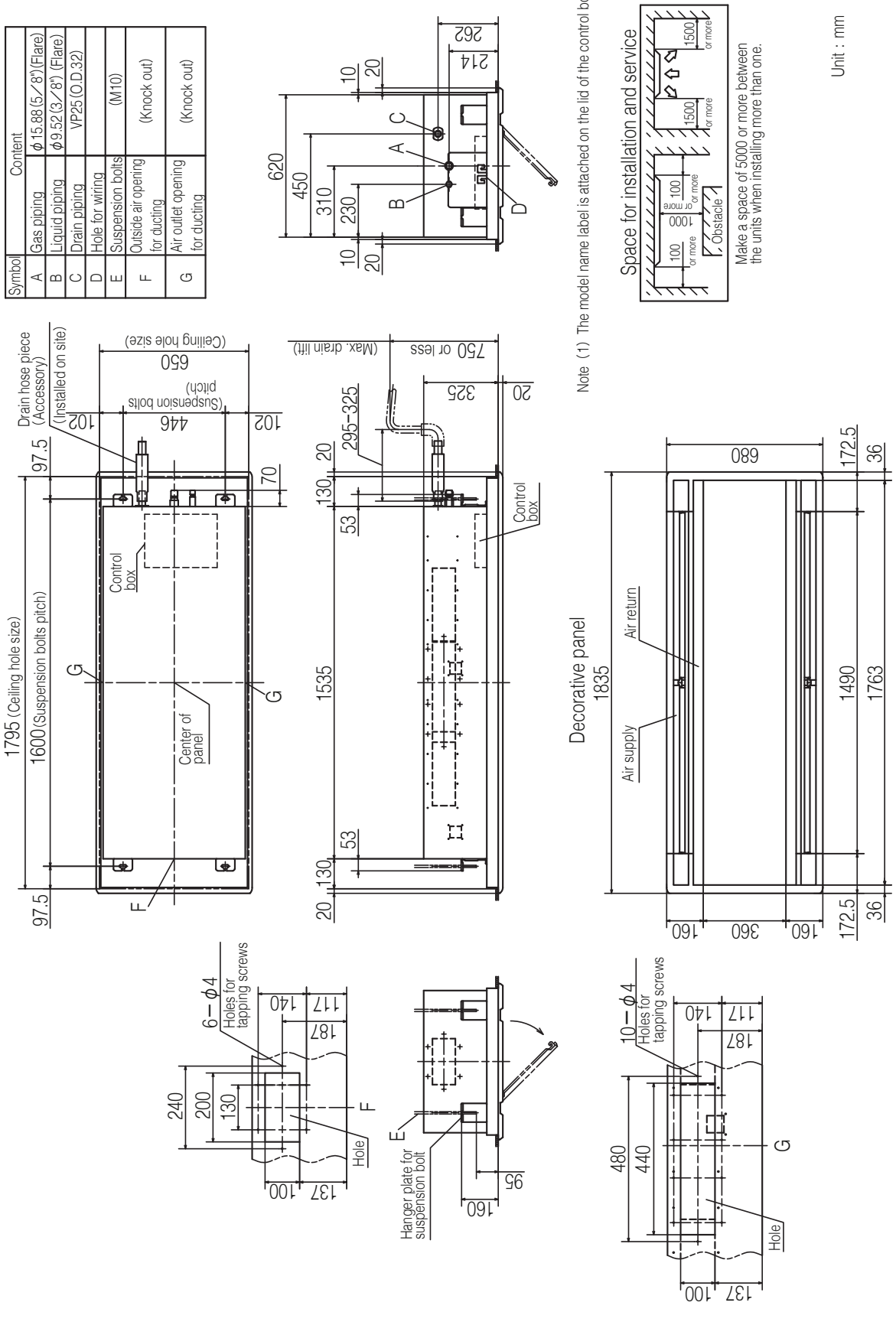
Models FDTW90KXE6F,112KXE6F,140KXE6F

Symbol	Content	
A	Gas piping	ϕ15.88 (5/8") (Flare)
B	Liquid piping	ϕ9.52 (3/8") (Flare)
C	Drain piping	VP25 (O.D.32)
D	Hole for wiring	
E	Suspension bolts	(M10)
F	Outside air opening for ducting	(Knock out)
G	Air outlet opening for ducting	(Knock out)

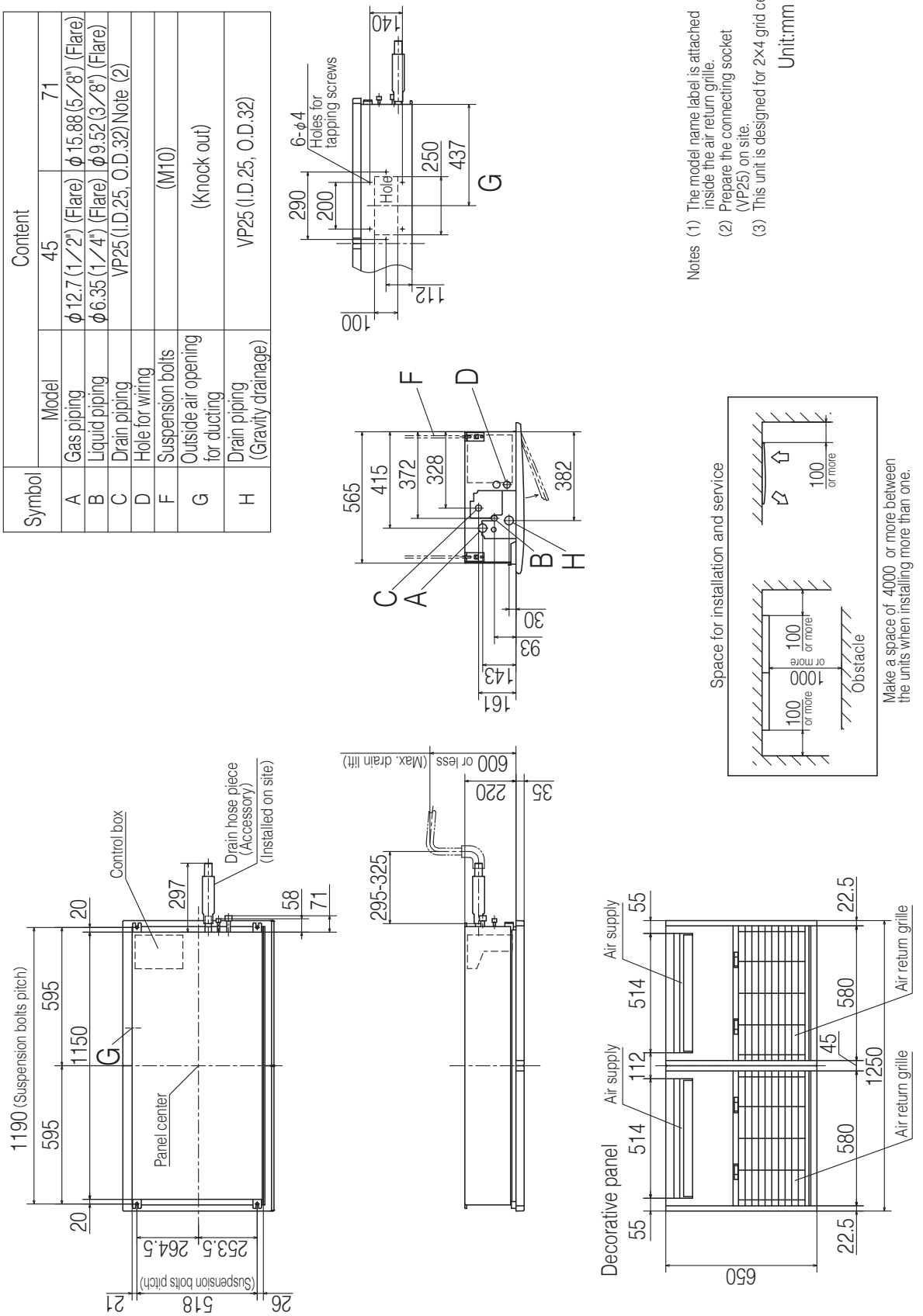


PJB001Z714 A

(4) Ceiling cassette-1 way type (FDTS)

Models FDTS45KXE6F, 71KXE6F

Symbol	Content		
	Model	45	71
A	Gas piping	ϕ12.7 (1/2") (Flare)	ϕ15.88 (5/8") (Flare)
B	Liquid piping	ϕ6.35 (1/4") (Flare)	ϕ9.52 (3/8") (Flare)
C	Drain piping	VP25 (I.D.25, O.D.32) Note (2)	
D	Hole for wiring	(M10)	
F	Suspension bolts		
G	Outside air opening for ducting	(Knock out)	
H	Drain piping (Gravity drainage)	VP25 (I.D.25, O.D.32)	



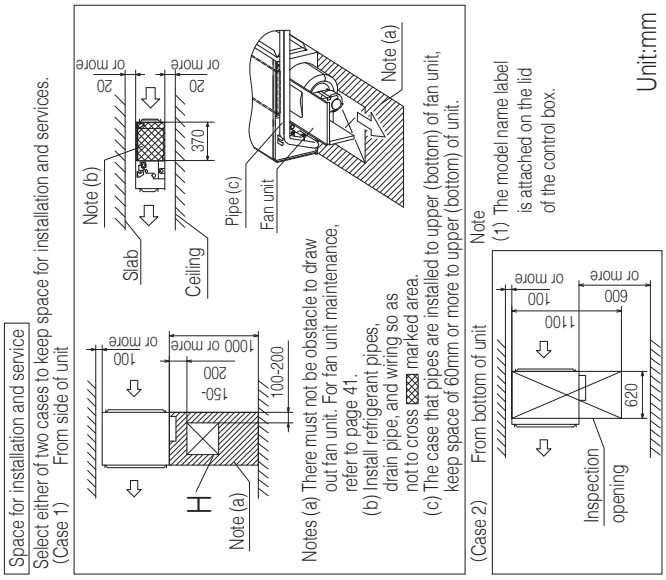
Notes (1) The model name label is attached inside the air return grille.
(2) Prepare the connecting socket (VP25) on site.
(3) This unit is designed for 2×4 grid ceiling.

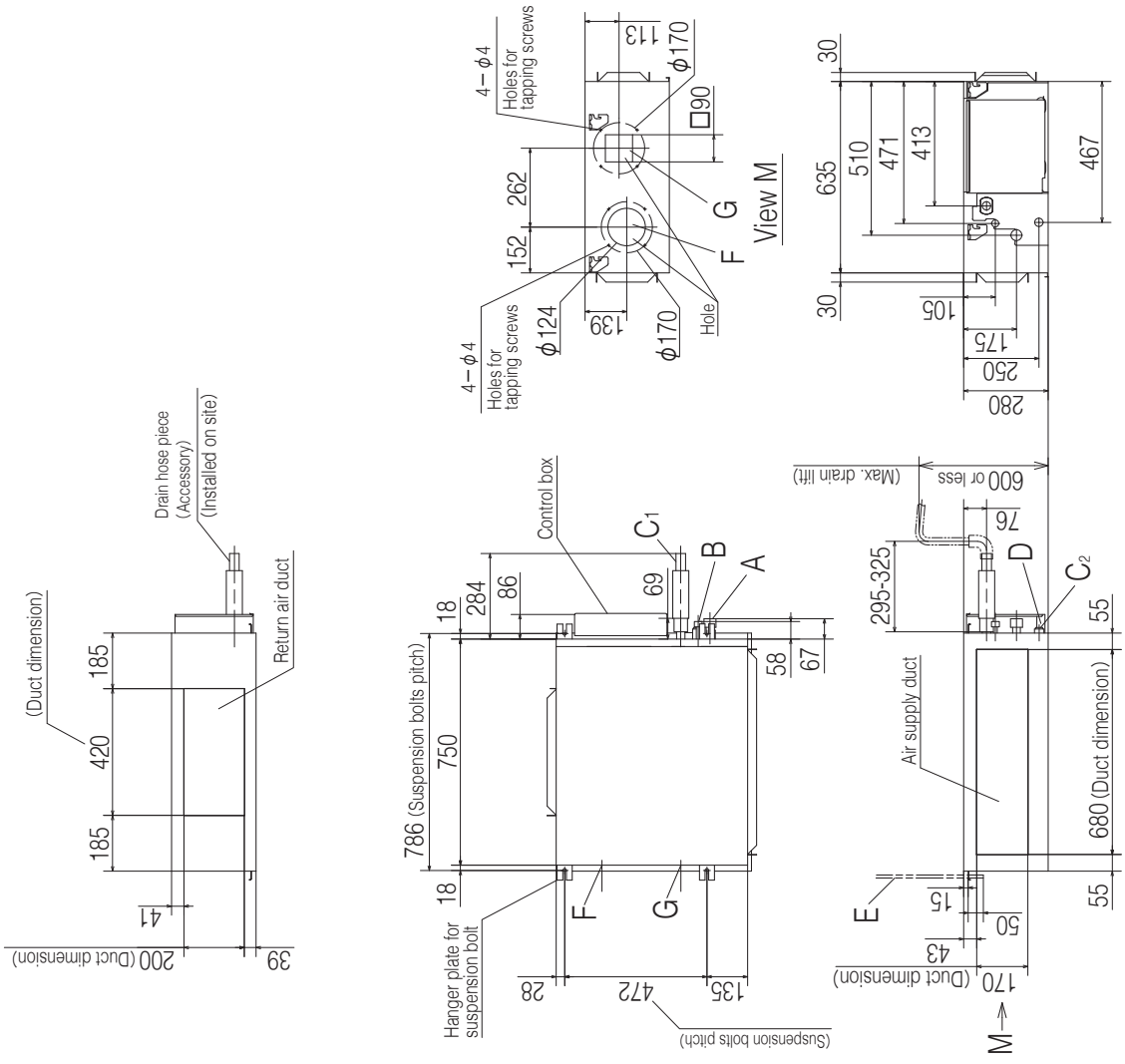
Unit:mm

PJC001Z352

(5) Duct connected-High static pressure type (FDU)
Models FDU45KXE6F, 56KXE6F

Symbol	Content	
A	Gas piping	ϕ12.7 (1/2") (Flare)
B	Liquid piping	ϕ6.35 (1/4") (Flare)
C1	Drain piping	VP25 (O.D.32)
C2	Drain piping (Gravity drainage)	VP20
D	Hole for wiring	
E	Suspension bolts	(M10)
F	Outside air opening for ducting	(Knock out)
G	Air outlet opening for ducting	(Knock out)
H	Inspection opening	(450×450)





PJG000Z056 B

Models FDU71KXE6F, 90KXE6F

Symbol	Content	
A	Gas piping	ϕ15.88 (5/8") (Flare)
B	Liquid piping	ϕ9.52 (3/8") (Flare)
C1	Drain piping	VP25 (O.D.32)
C2	Drain piping (Gravity drainage)	VP20
D	Hole for wiring	
E	Suspension bolts	(M10)
F	Outside air opening for ducting	(Knock out)
G	Air outlet opening for ducting	(Knock out)
H	Inspection opening	(450×450)

Space for installation and service

Select either of two cases to keep space for installation and services.

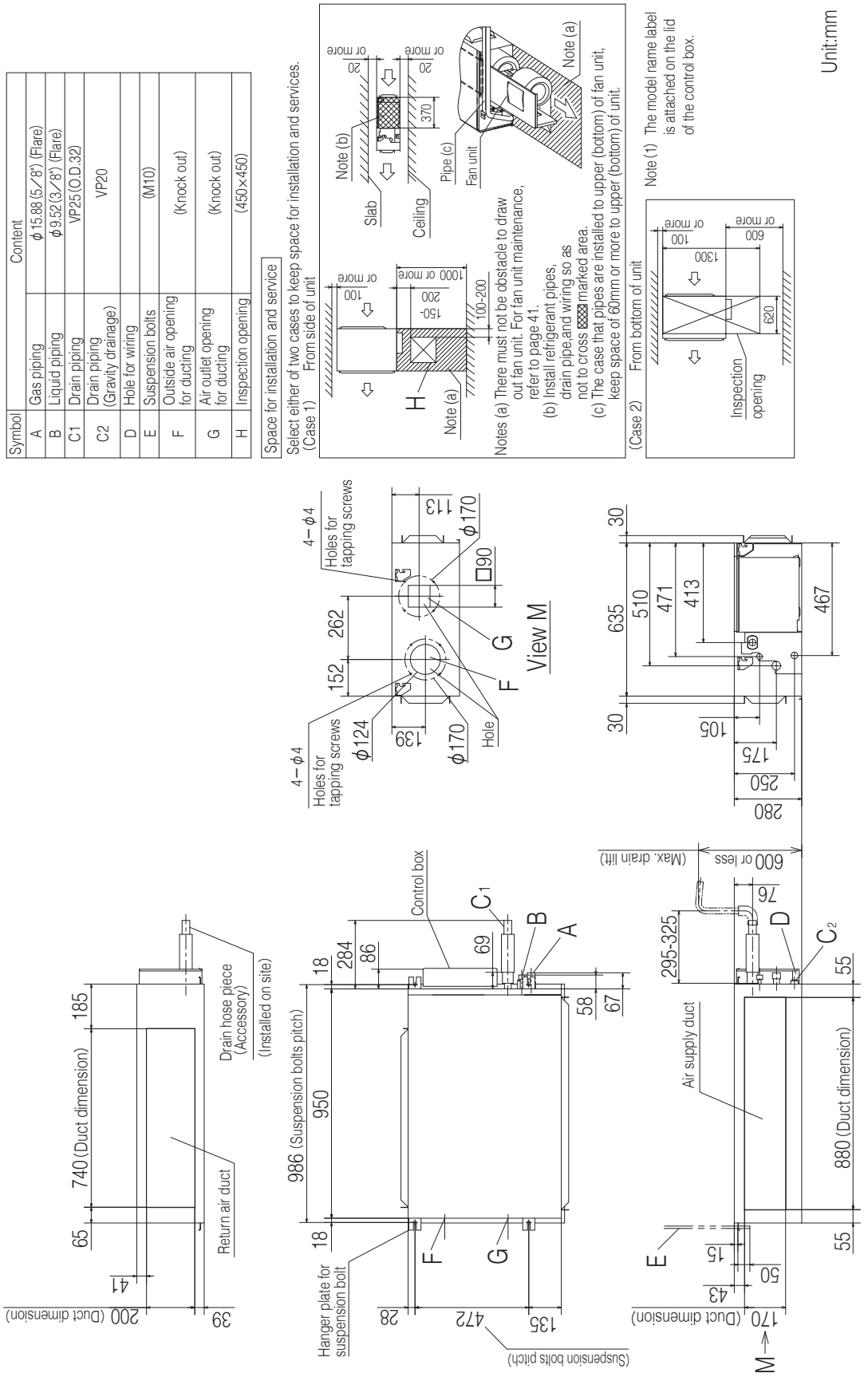
(Case 1) From side of unit

(Case 2) From bottom of unit

Notes (a) There must not be obstacle to draw out fan unit. For fan unit maintenance, refer to page 41.
(b) Install refrigerant pipes, drain pipe and wiring so as not to cross ▨ marked area.
(c) The case that pipes are installed to upper (bottom) of fan unit, keep space of 60mm or more to upper (bottom) of unit.

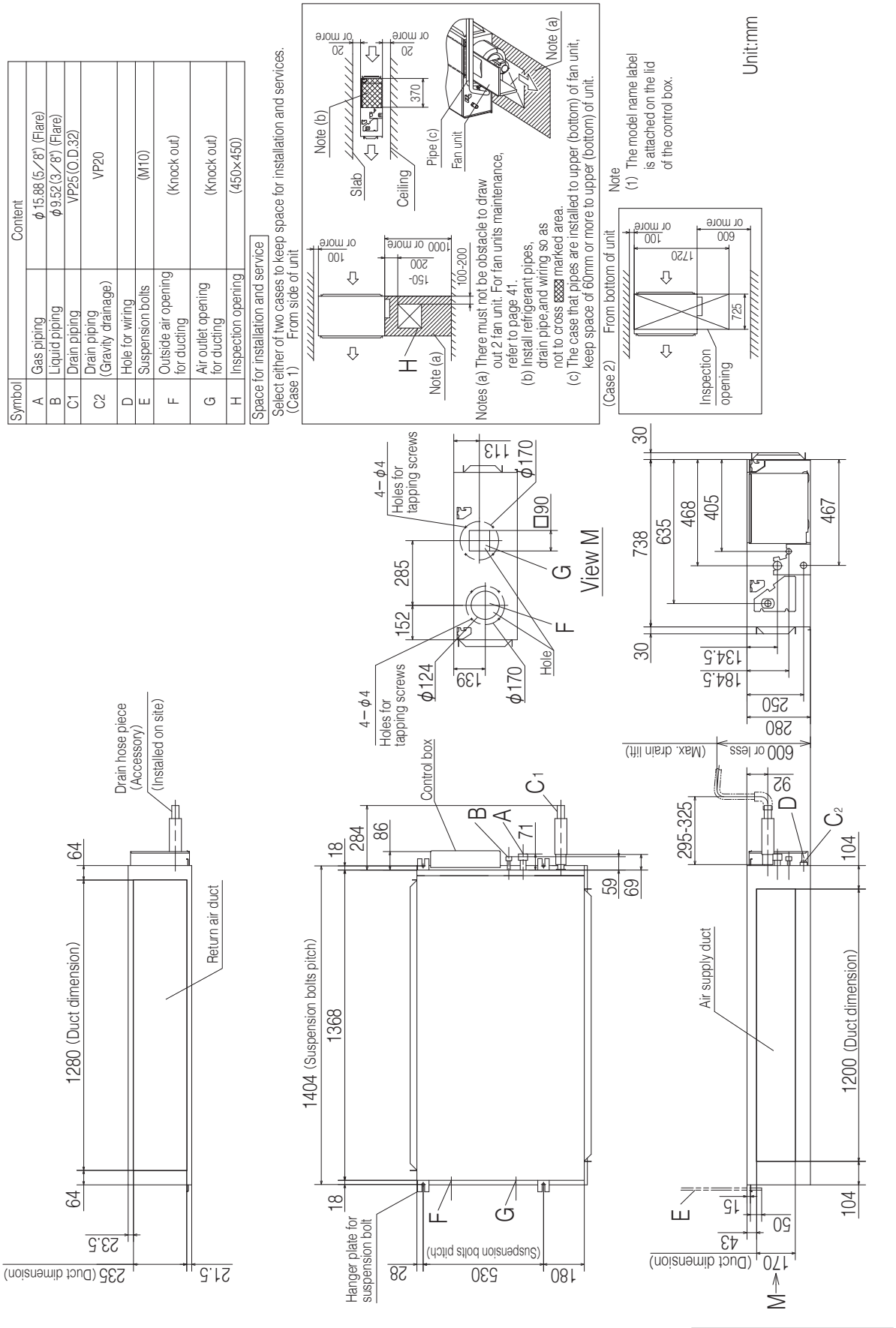
Note (1) The model name label is attached on the lid of the control box.

Unit:mm



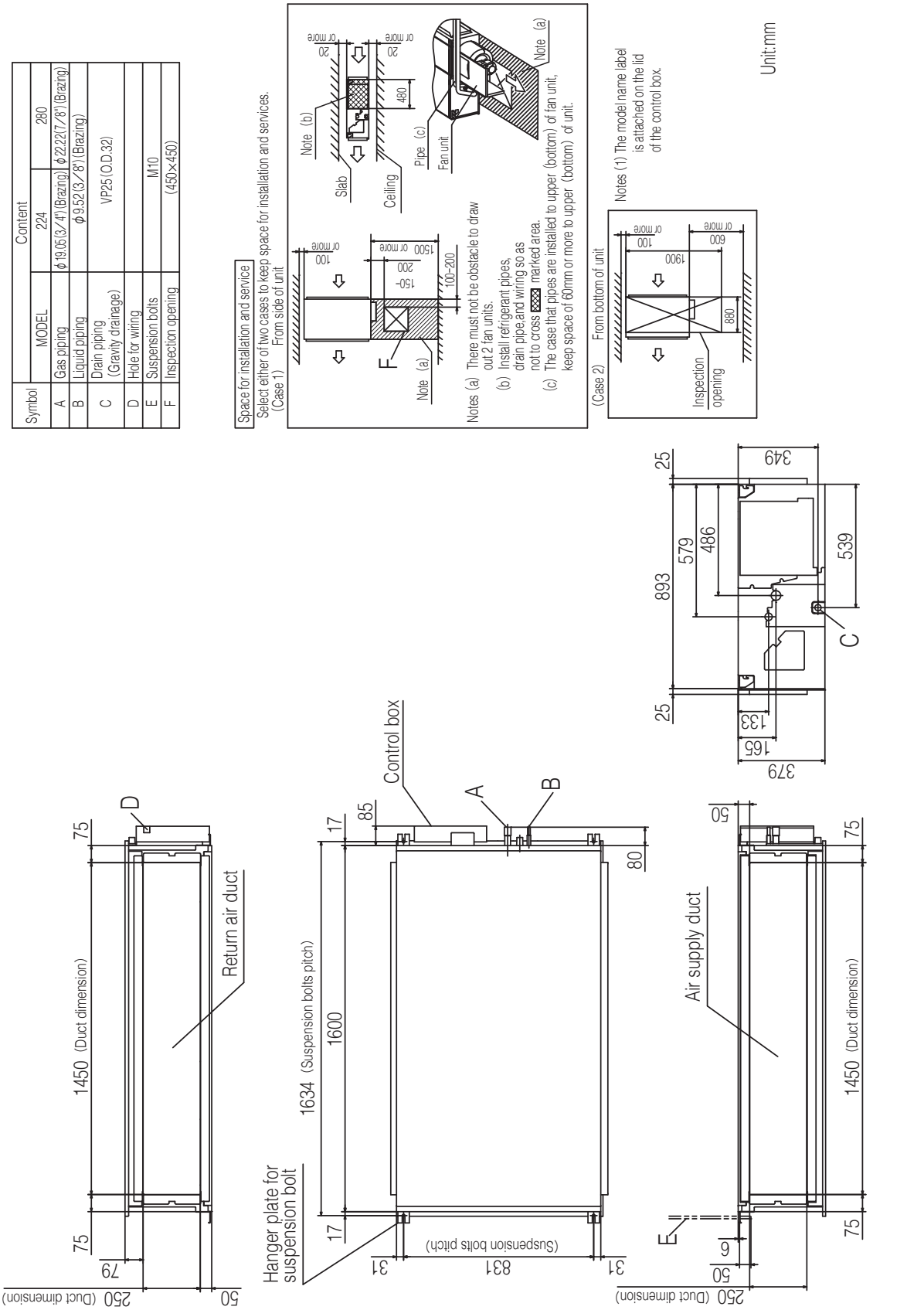
PJG000Z057 B

Models FDU112KXE6F, 140KXE6F, 160KXE6F



PJG000Z058 B

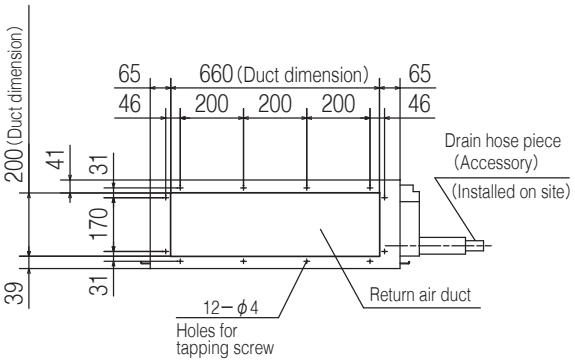
Models FDU224KXZE1, 280KXZE1



PJG000Z287

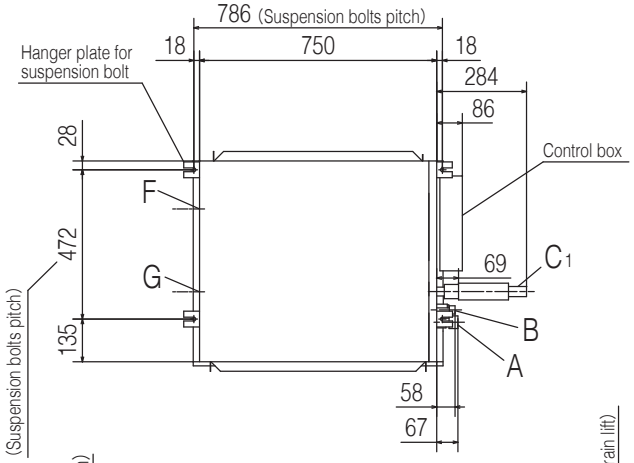
(6) Duct connected-Low/Middle static pressure type (FDUM)

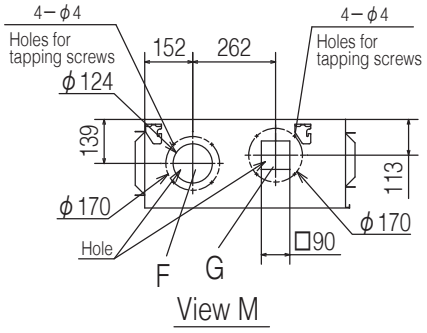
Models FDUM22KXE6F, 28KXE6F, 36KXE6F, 45KXE6F, 56KXE6F



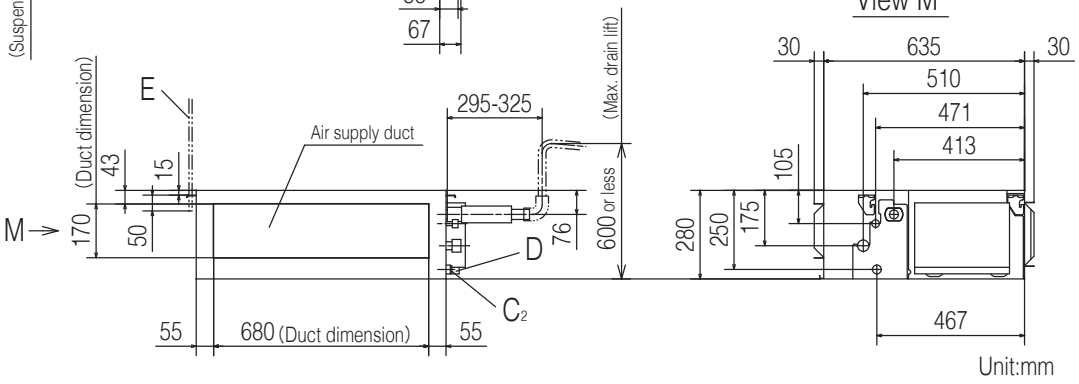
Symbol	Content		
	Model	22,28	36,45,56
A	Gas piping	φ9.52 (3/8") (Flare)	φ12.7 (1/2") (Flare)
B	Liquid piping	φ6.35 (1/4") (Flare)	
C1	Drain piping	VP25 (O.D.32)	
C2	Drain piping (Gravity drainage)	VP20	
D	Hole for wiring		
E	Suspension bolts	(M10)	
F	Outside air opening for ducting	(Knock out)	
G	Air outlet opening for ducting	(Knock out)	
H	Inspection opening	(450×450)	

Note (1) The model name label is attached on the lid of the control box.





View M

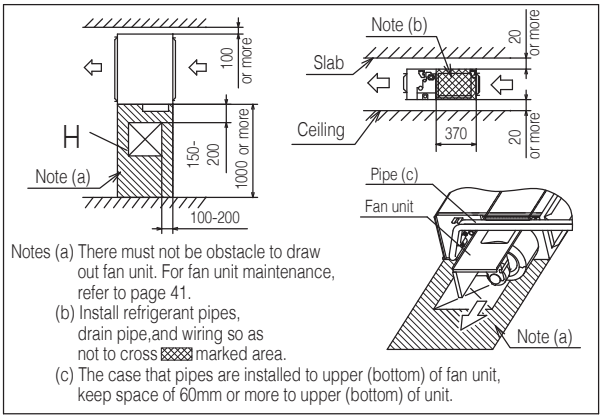


Unit:mm

Space for installation and service

Select either of two cases to keep space for installation and services.

(Case 1) From side of unit

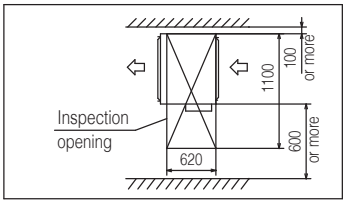


Notes (a) There must not be obstacle to draw out fan unit. For fan unit maintenance, refer to page 41.

(b) Install refrigerant pipes, drain pipe,and wiring so as not to cross ▨ marked area.

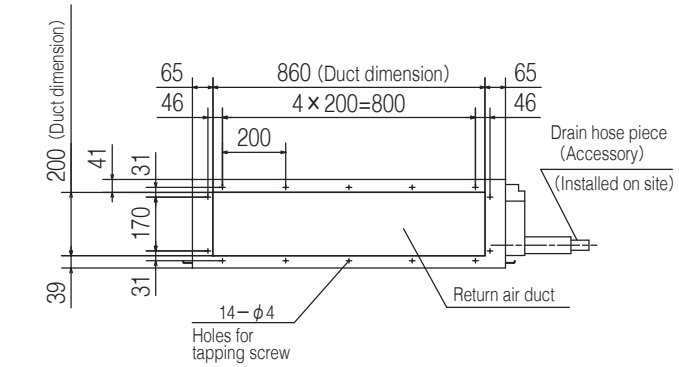
(c) The case that pipes are installed to upper (bottom) of fan unit, keep space of 60mm or more to upper (bottom) of unit.

(Case 2) From bottom of unit



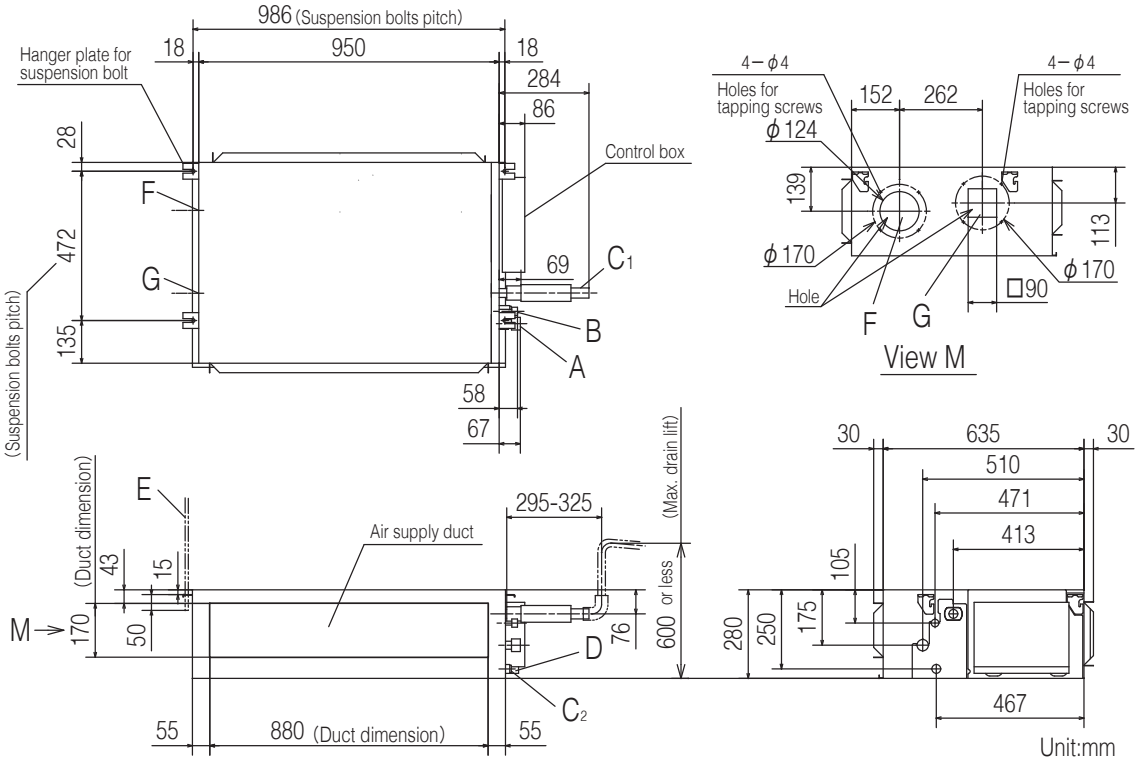
PJG000Z016 B

Models FDUM71KXE6F, 90KXE6F



Symbol	Content	
A	Gas piping	ϕ15.88(5/8")(Flare)
B	Liquid piping	ϕ9.52(3/8")(Flare)
C1	Drain piping	VP25 (O.D.32)
C2	Drain piping (Gravity drainage)	VP20
D	Hole for wiring	
E	Suspension bolts	(M10)
F	Outside air opening for ducting	(Knock out)
G	Air outlet opening for ducting	(Knock out)
H	Inspection opening	(450×450)

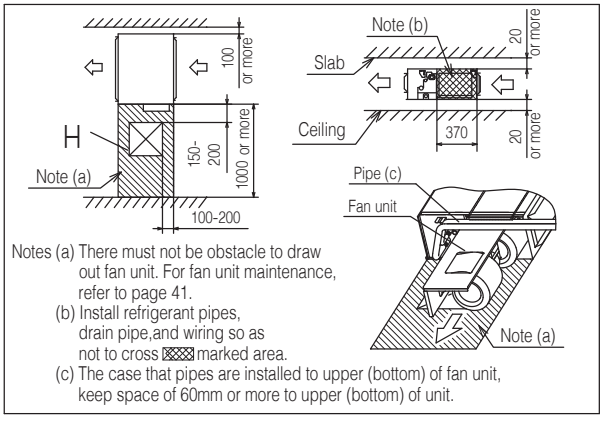
Note (1) The model name label is attached on the lid of the control box.



Space for installation and service

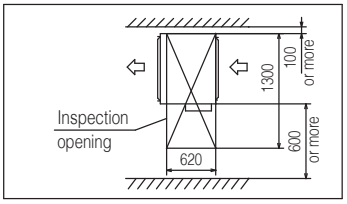
Select either of two cases to keep space for installation and services.

(Case 1) From side of unit



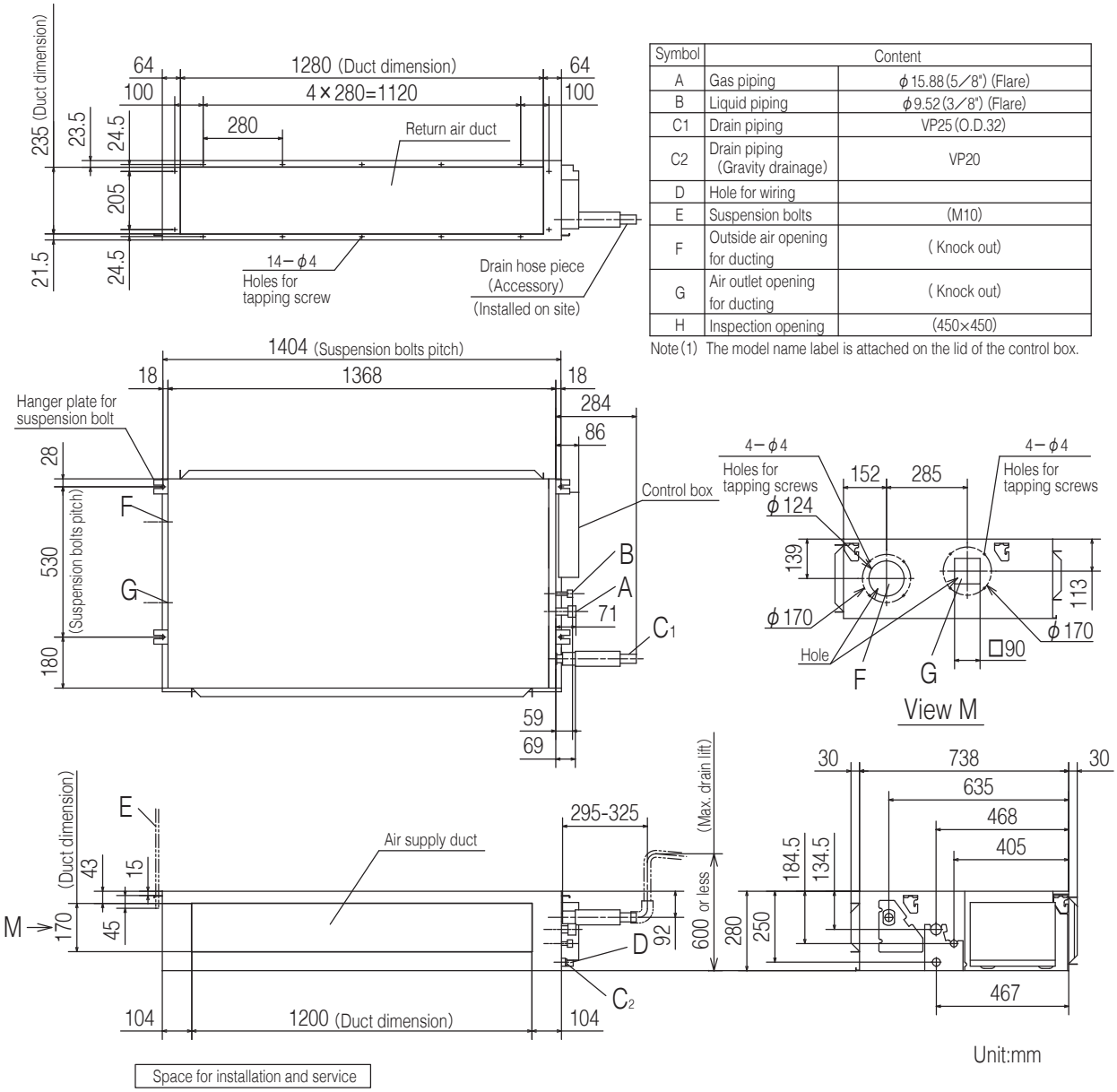
Notes (a) There must not be obstacle to draw out fan unit. For fan unit maintenance, refer to page 41.
(b) Install refrigerant pipes, drain pipe,and wiring so as not to cross ▨ marked area.
(c) The case that pipes are installed to upper (bottom) of fan unit, keep space of 60mm or more to upper (bottom) of unit.

(Case 2) From bottom of unit



PJG000Z017 B

Models FDUM112KXE6F, 140KXE6F, 160KXE6F



Symbol	Content	
A	Gas piping	φ15.88 (5/8") (Flare)
B	Liquid piping	φ9.52 (3/8") (Flare)
C1	Drain piping	VP25 (O.D.32)
C2	Drain piping (Gravity drainage)	VP20
D	Hole for wiring	
E	Suspension bolts	(M10)
F	Outside air opening for ducting	(Knock out)
G	Air outlet opening for ducting	(Knock out)
H	Inspection opening	(450×450)

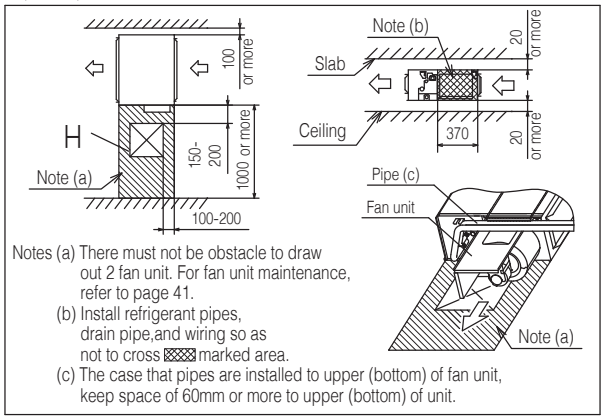
Note (1) The model name label is attached on the lid of the control box.

Unit:mm

Space for installation and service

Select either of two cases to keep space for installation and services.

(Case 1) From side of unit

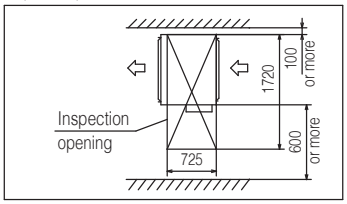


Notes (a) There must not be obstacle to draw out 2 fan unit. For fan unit maintenance, refer to page 41.

(b) Install refrigerant pipes, drain pipe,and wiring so as not to cross ▨ marked area.

(c) The case that pipes are installed to upper (bottom) of fan unit, keep space of 60mm or more to upper (bottom) of unit.

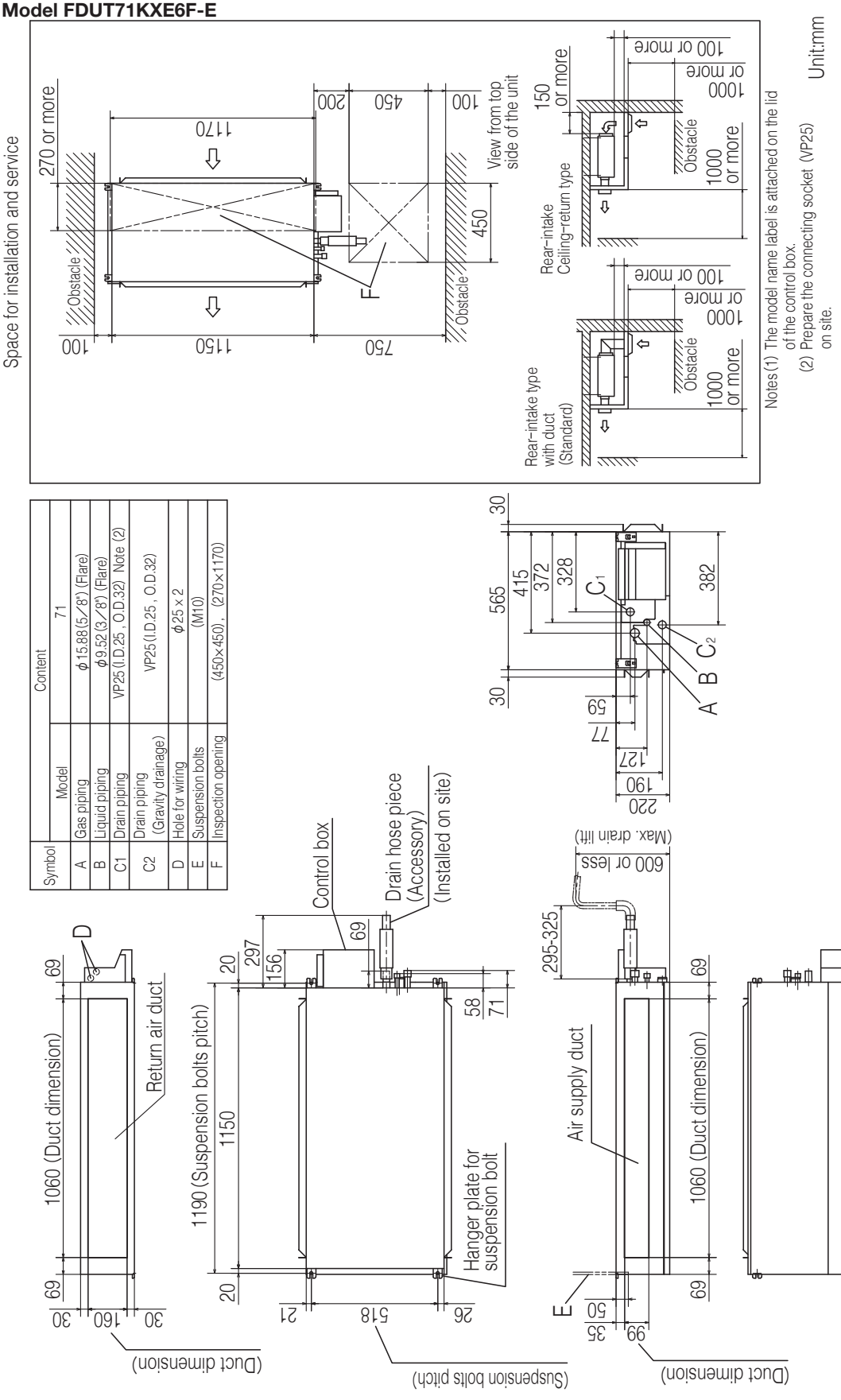
(Case 2) From bottom of unit



PJG000Z018 B

(7) Duct connected (thin) -Low static pressure type (FDUT)

Model FDUT71KXE6F-E

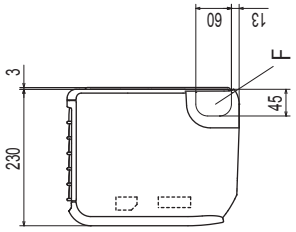


PJH000Z012 B

(8) Wall mounted type (FDK)

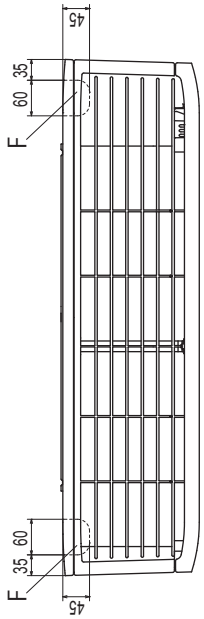
Models FDK15KXZE1, 22KXZE1, 28KXZE1, 36KXZE1, 45KXZE1, 56KXZE1

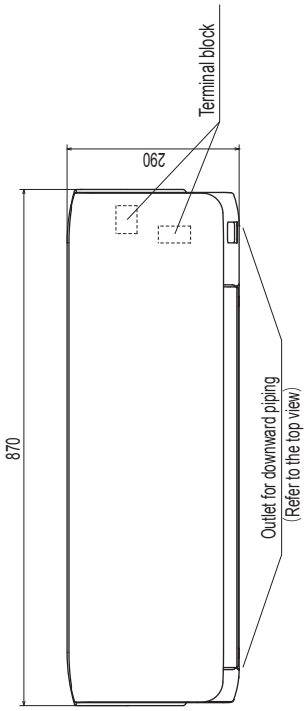
Symbol	Content		
	Model	15,22,28	36,45,56
A	Gas piping	φ9.52 (3/8") (Flare)	φ12.7 (1/2") (Flare)
B	Liquid piping	φ6.35 (1/4") (Flare)	
C	Hole on wall for right rear piping	(φ65)	
D	Hole on wall for left rear piping	(φ65)	
E	Drain hose	VP16	
F	Outlet for wiring (on both side)		

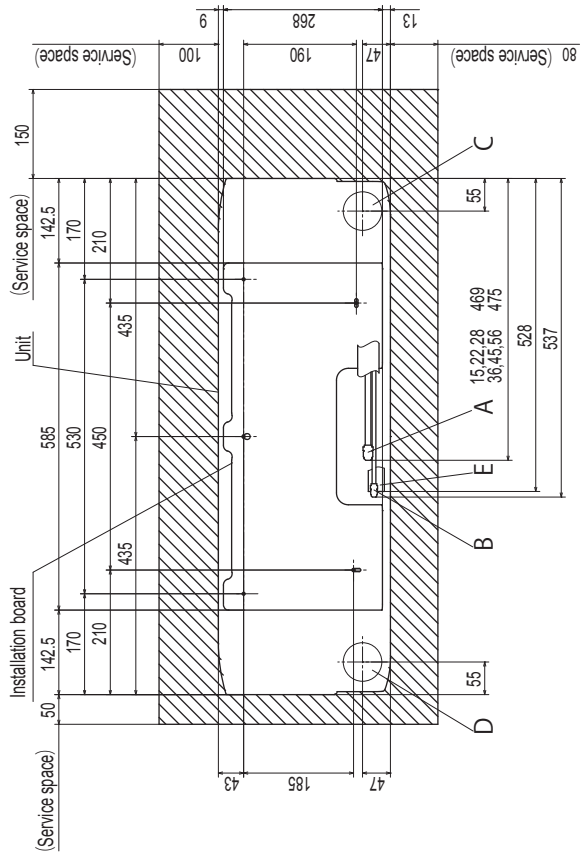


Unit:mm

Note (1) The model name label is attached on the right side of the unit.





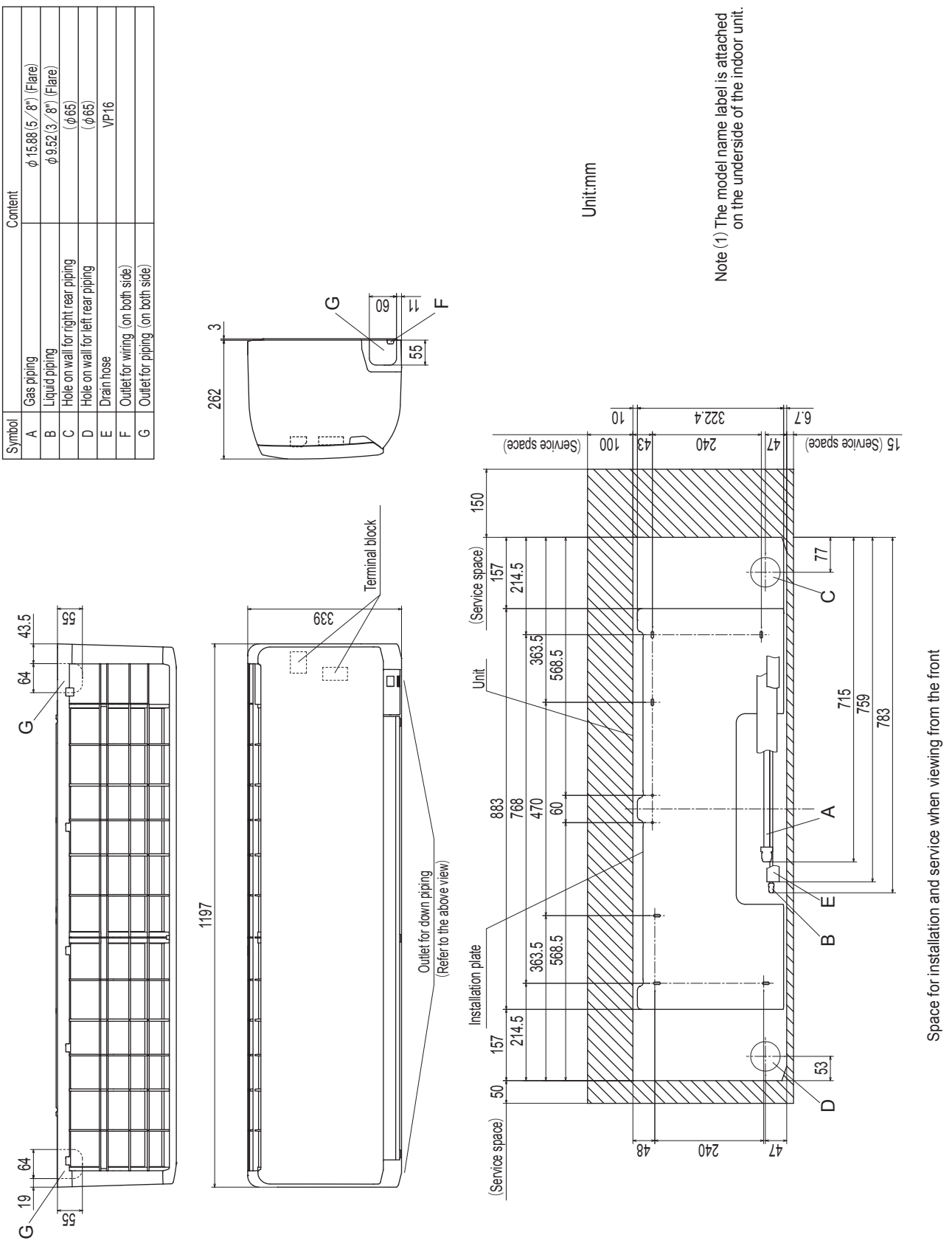


Space for installation and service when viewing from the front

PHA001Z105 A

Models FDK71KXZE1, 90KXZE1

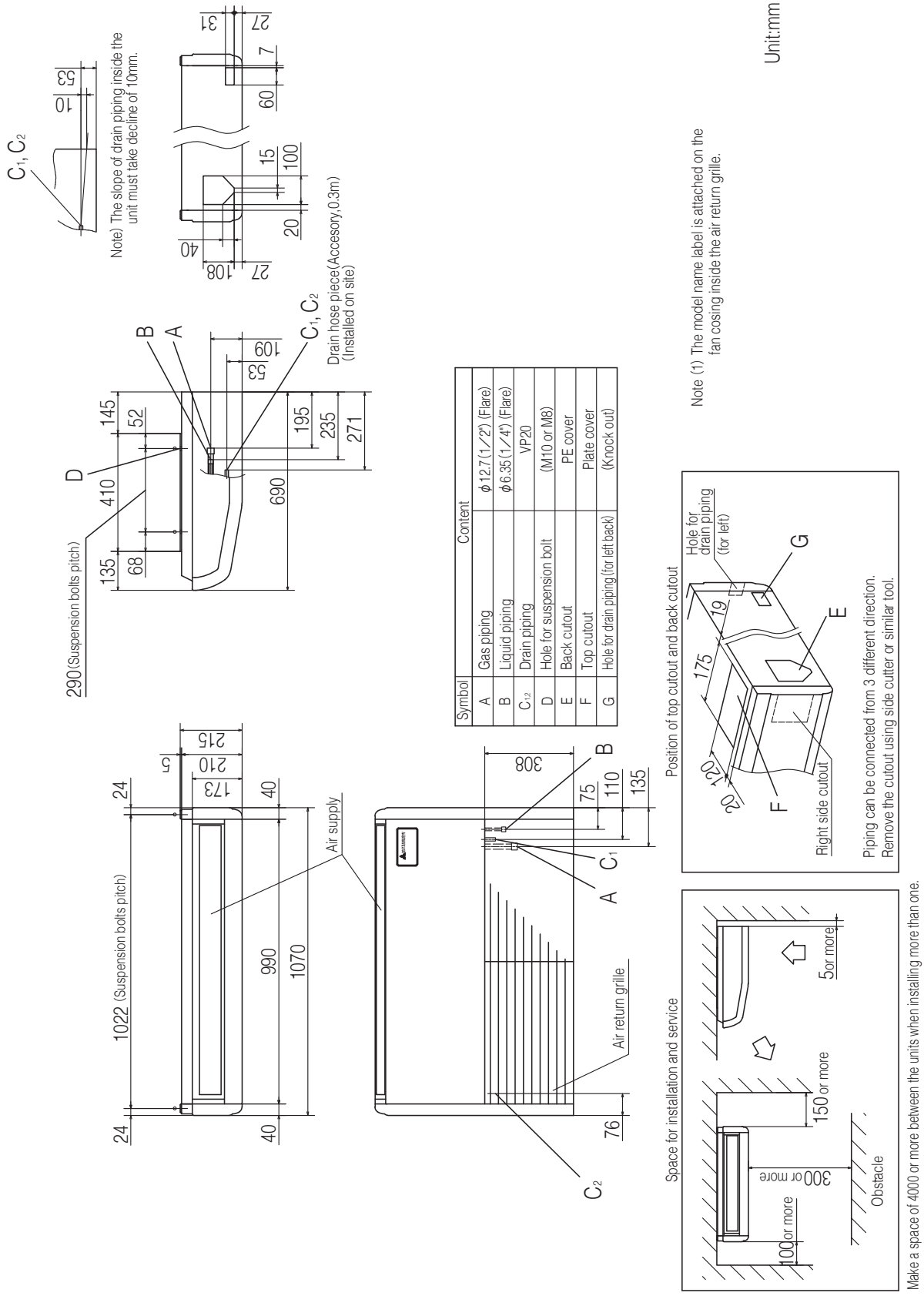
Symbol	Content	
A	Gas piping	ϕ 15.88 (5/8") (Flare)
B	Liquid piping	ϕ 9.52 (3/8") (Flare)
C	Hole on wall for right rear piping	(ϕ65)
D	Hole on wall for left rear piping	(ϕ65)
E	Drain hose	VP16
F	Outlet for wiring (on both side)	
G	Outlet for piping (on both side)	



PHA001Z106 A

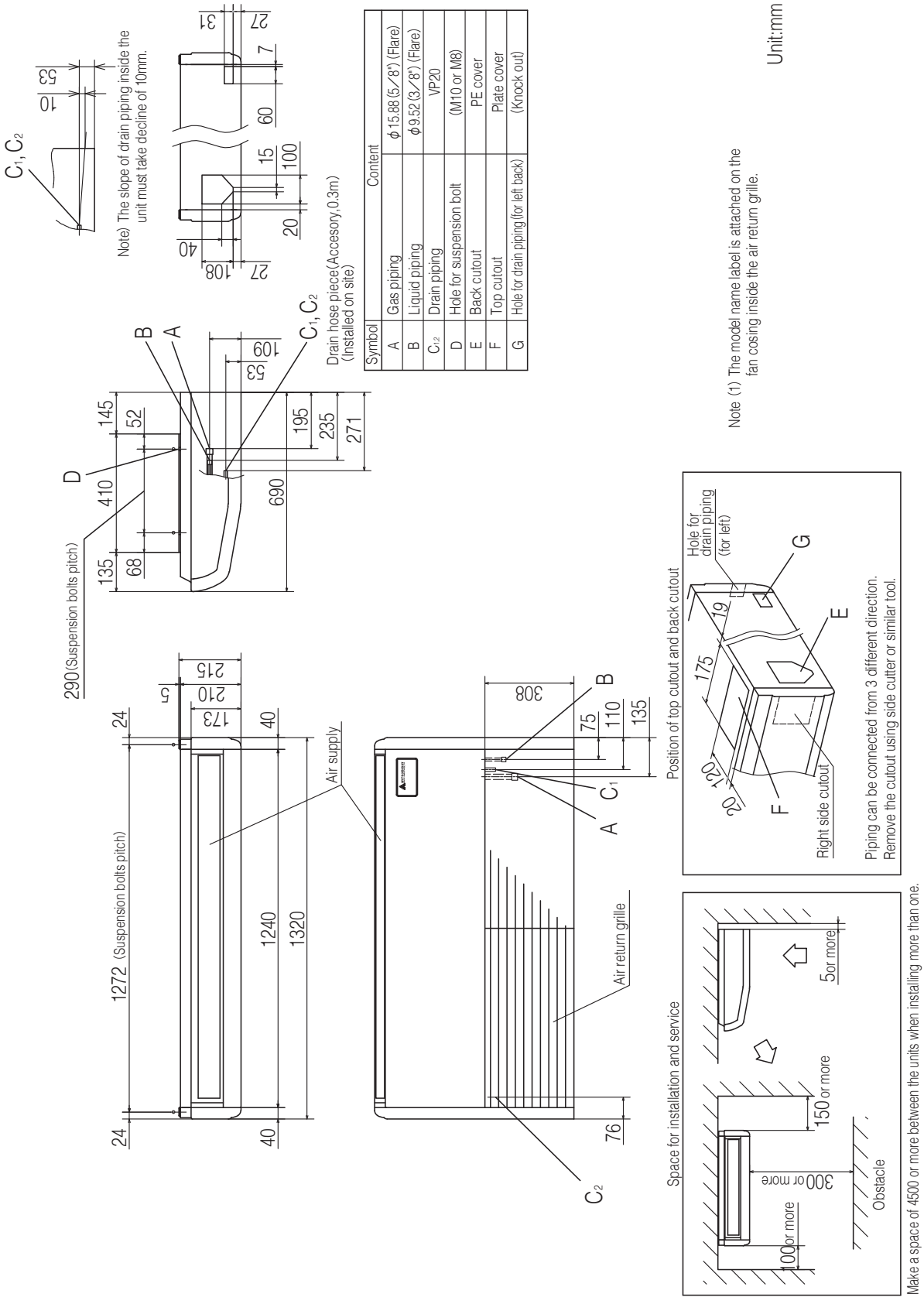
(9) Ceiling suspended type (FDE)

Models FDE36KXZE1, 45KXZE1, 56KXZE1



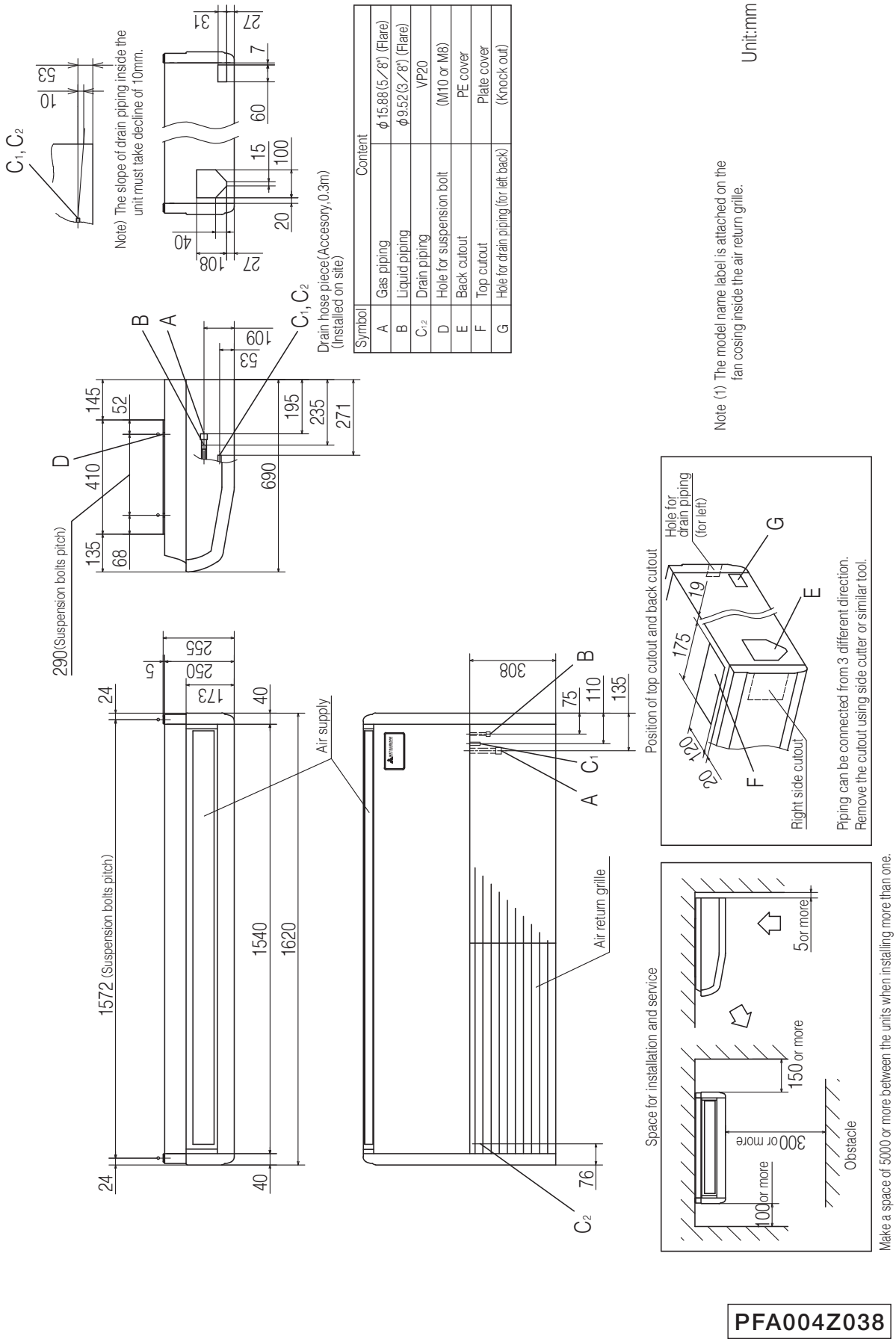
PFA004Z036

Model FDE71KXZE1



PFA004Z037

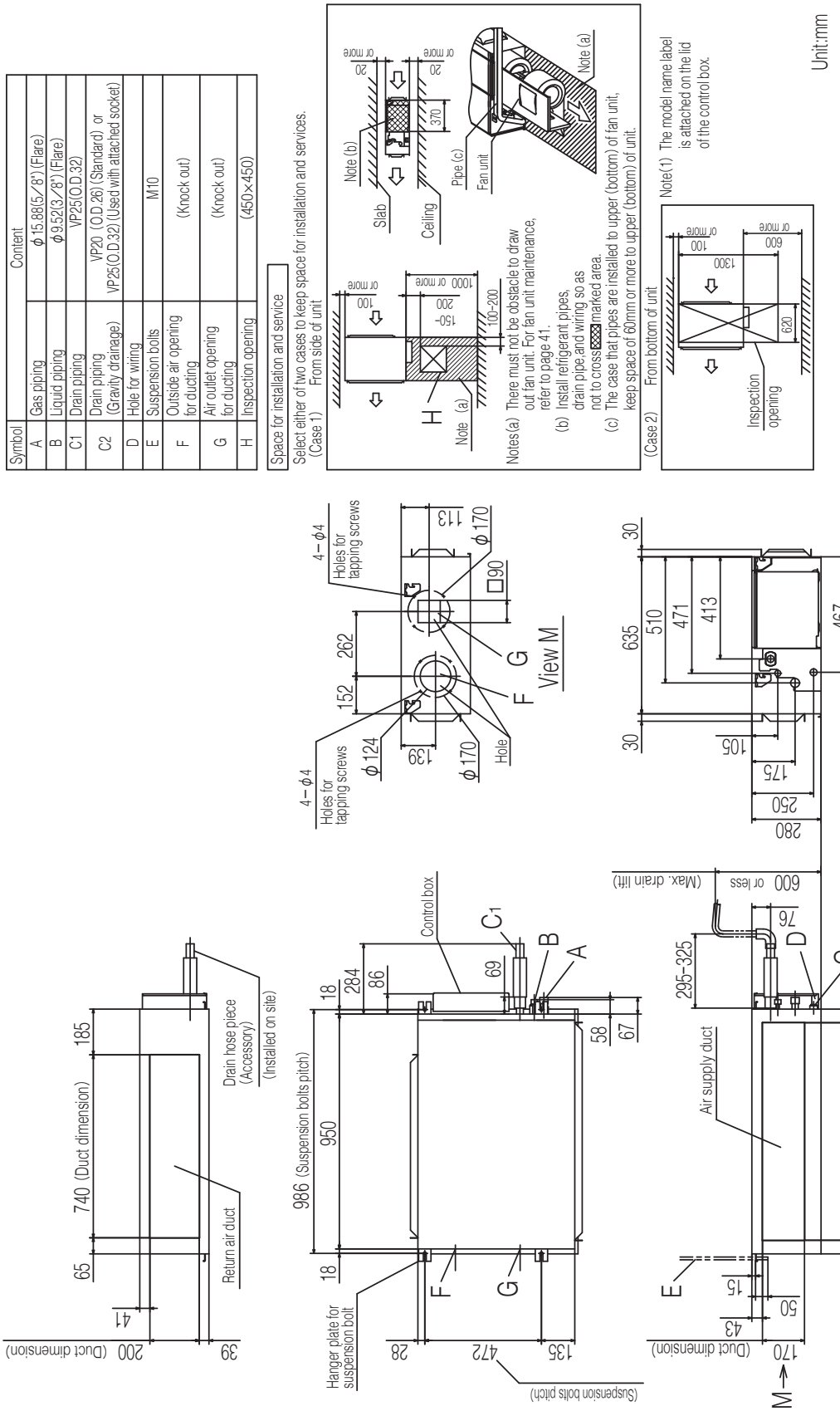
Models FDE112KXZE1, 140KXZE1



PFA004Z038

(10) Outdoor air processing unit (FDU-F)

Model FDU650FKXZE1

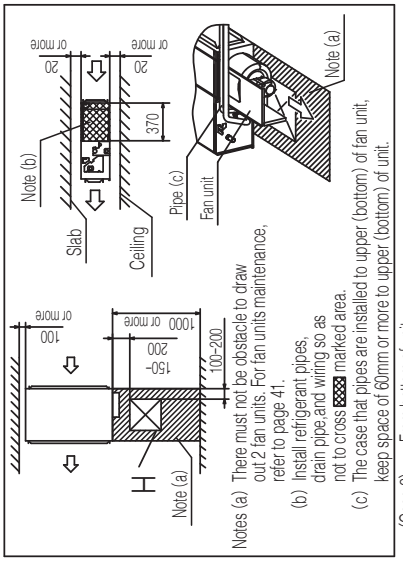


PJG000Z295 A

Model FDU1100FKXZE1

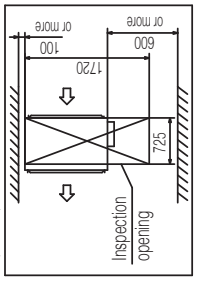
Symbol	Content	
A	Gas piping	ϕ15.88 (5/8") (Flare)
B	Liquid piping	ϕ9.52 (3/8") (Flare)
C1	Drain piping	VP25 (O.D.32)
C2	Drain piping (Gravity drainage)	VP20 (O.D.26) (Standard) or VP25 (O.D.32) (Used with attached socket)
D	Hole for wiring	
E	Suspension bolts	M10
F	Outside air opening for ducting	(Knock out)
G	Air outlet opening for ducting	(Knock out)
H	Inspection opening	(450×450)

Space for installation and service
Select either of two cases to keep space for installation and services.
(Case 1) From side of unit



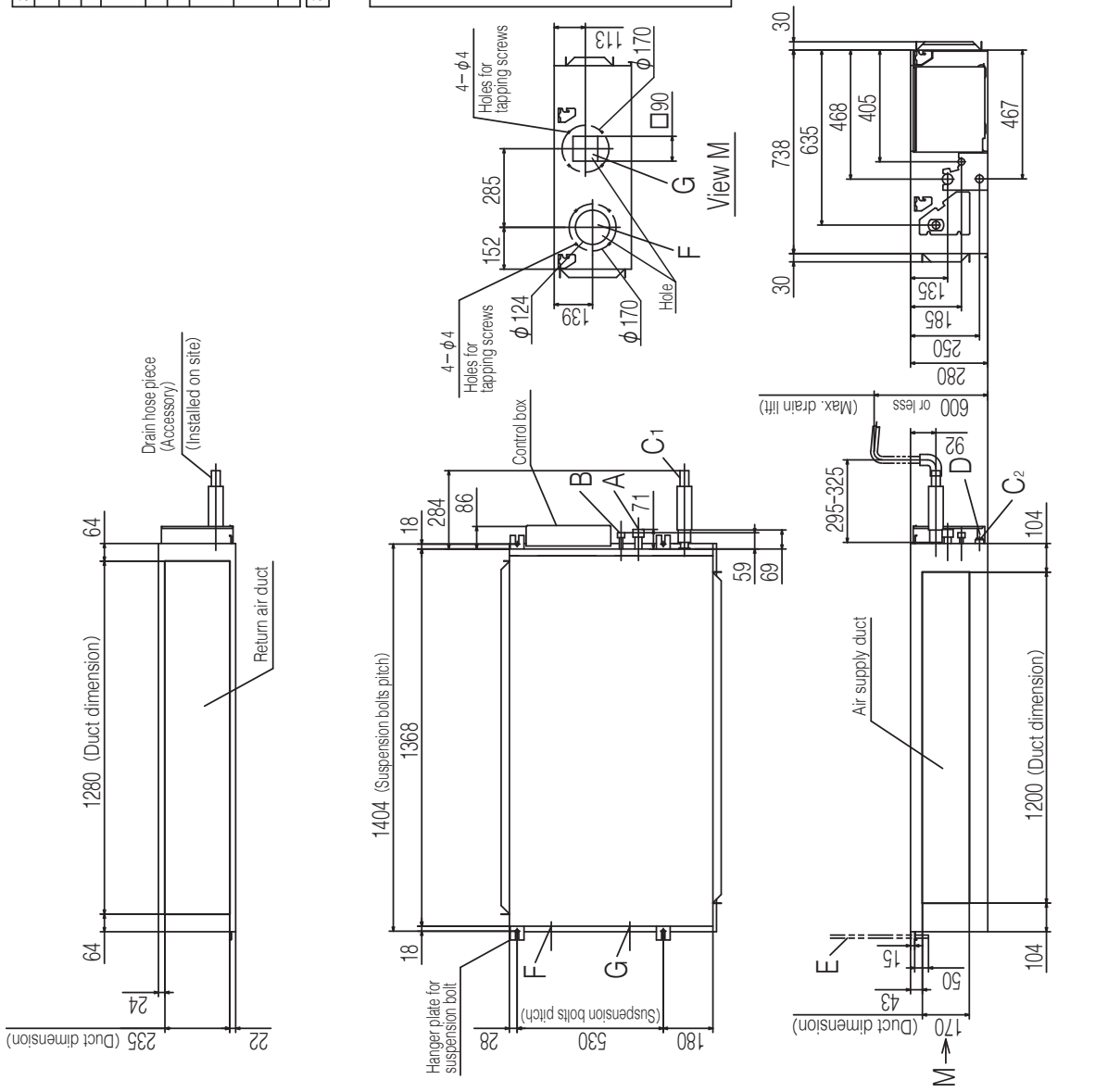
Notes (a) There must not be obstacle to draw out 2 fan units. For fan units maintenance, refer to page 41.
(b) Install refrigerant pipes, drain pipe,and wiring so as not to cross ▩ marked area.
(c) The case that pipes are installed to upper (bottom) of fan unit, keep space of 60mm or more to upper (bottom) of unit.

(Case 2) From bottom of unit



Note
(1)The model name label is attached on the lid of the control box.

Unit:mm

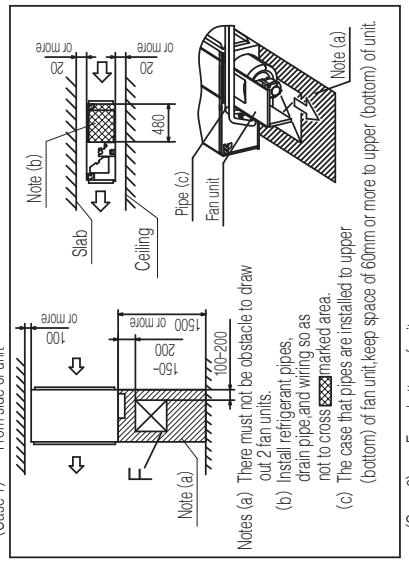


PJG000Z296 A

Models FDU1800FKXZE1, 2400FKXZE1

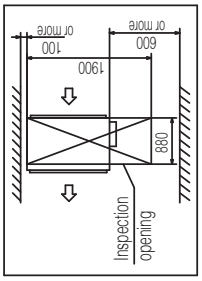
Symbol	Content		
	MODEL	1800	2400
A	Gas piping	ϕ19.05 (3/4") (Brazing)	ϕ22.22 (7/8") (Brazing)
B	Liquid piping	ϕ9.52 (3/8") (Brazing)	
C	Drain piping (Gravity drainage)	VP25 (O.D.32)	
D	Hole for wiring		
E	Suspension bolts	M10	
F	Inspection opening	(450×450)	

Space for installation and service
Select either of two cases to keep space for installation and services.
(Case 1) From side of unit



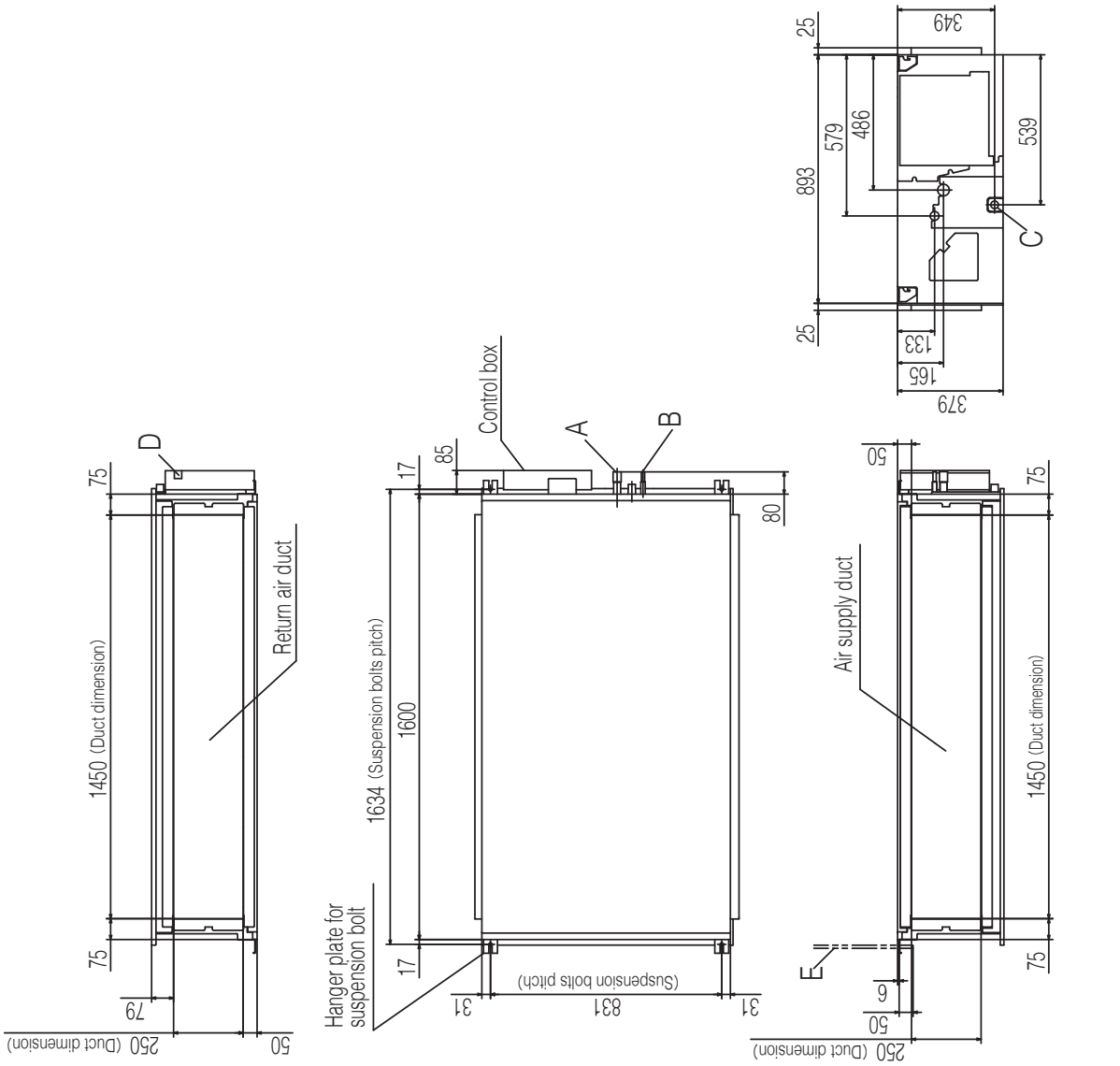
Notes (a) There must not be obstacle to draw out 2 fan units.
(b) Install refrigerant pipes, drain pipe,and wiring so as not to cross ▨ marked area.
(c) The case that pipes are installed to upper (bottom) of fan unit,keep space of 60mm or more to upper (bottom) of unit.

(Case 2) From bottom of unit



Notes (1) The model name label is attached on the lid of the control box.

Unit:mm



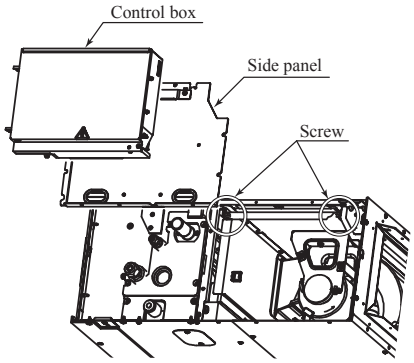
PJG000Z297 A

● Replacement procedure of the fan unit

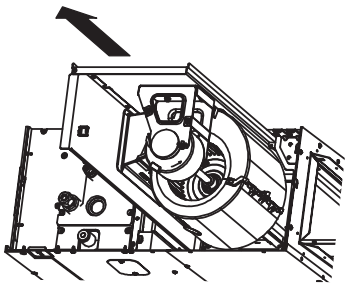
Notes(1) The unit is a heavy item. It must be supported securely and handled with care not to drop when it is necessary to replace.
(2) For the maintenance space, refer to EXTERIOR DIMENSIONS.

1) Models FDU45, 56KXE6F FDUM22, 28, 36, 45, 56KXE6F

a) Remove the control box and the side panel, and remove the screws marked in the circles (2 places) in the figure.

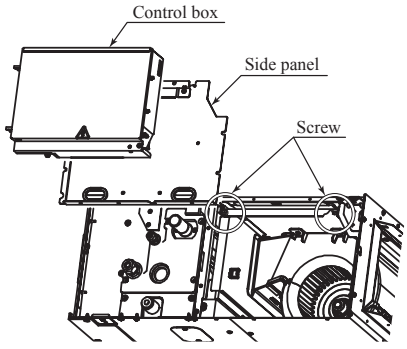


b) Take out the fan unit in the arrow direction.

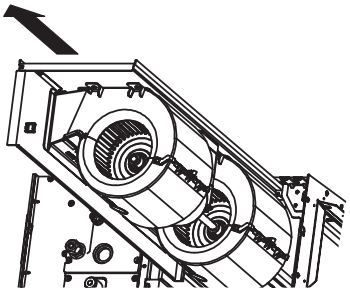


2) Models FDU71, 90KXE6F, 650FKXZE1 FDUM71, 90KXE6F

a) Remove the control box and the side panel, and remove the screws marked in the circles (2 places) in the figure.

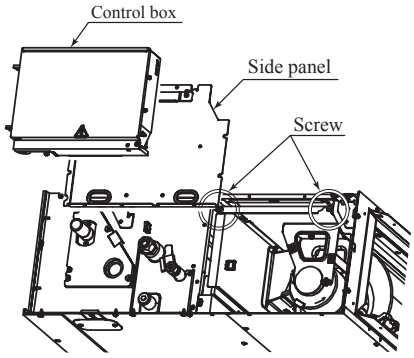


b) Take out the fan unit in the arrow direction.

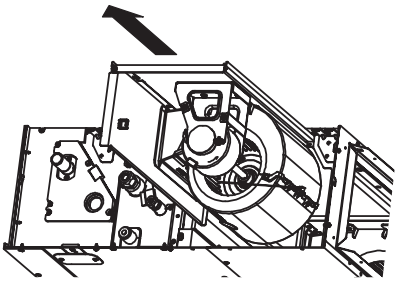


3) Models FDU112, 140, 160KXE6F, 1100FKXZE1 FDUM112, 140, 160KXE6F

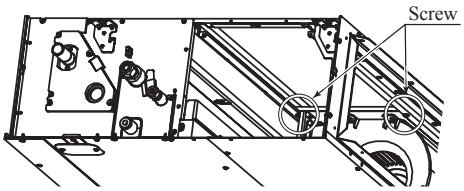
a) Remove the control box and the side panel, and remove the screws marked in the circles (2 places) from the unit located at the near side.



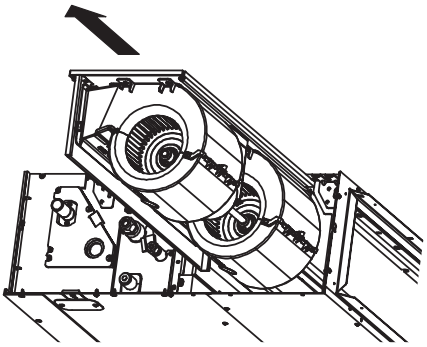
b) Take out the fan unit located at the near side in the arrow direction.



c) Remove the screws marked in the circles (2 places) from the fan unit located at the far side.



d) Take out the fan unit in the arrow direction.

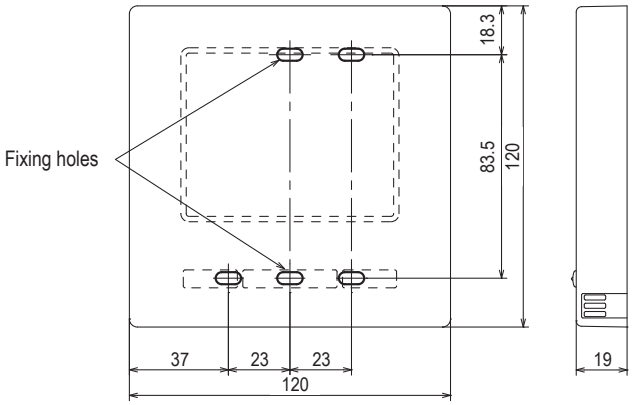


3.2 Remote control (Option parts)

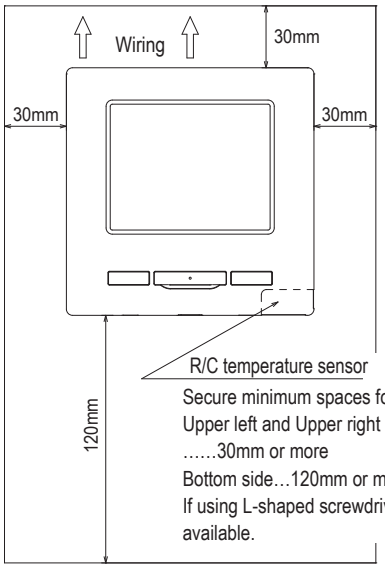
(1) Wired remote control

Model RC-EX3A

Dimensions (Viewed from front)



Installation space



Secure minimum spaces for disassembling the case.
Upper left and Upper right sides
……30mm or more
Bottom side…120mm or more
If using L-shaped screwdriver, 50mm or more is available.

● Do not install the remote control at following places.

(1) It could cause break-down or deformation of remote control.
- Where it is exposed to direct sunlight
- Where the ambient temperature becomes 0 °C or below, or 40 °C or above
- Where the surface is not flat
- Where the strength of installation area is insufficient

(2) Moisture may be attached to internal parts of the remote control, resulting in a display failure.
- Place with high humidity where condensation occurs on the remote control
- Where the remote control gets wet

(3) Accurate room temperature may not be detected using the temperature sensor of the remote control.
- Where the average room temperature cannot be detected
- Place near the equipment to generate heat
- Place affected by outside air in opening/closing the door
- Place exposed to direct sunlight or wind from air-conditioner
- Where the difference between wall and room temperature is large

(4) When you are using the automatic grille up and down panel in the IU, you may not be able to confirm the up and down motion.
- Where the IU cannot be visually confirmed

● When installing the unit at a hospital, telecommunication facility, etc., take measures to suppress electric noises.

It could cause malfunction or break-down due to hazardous effects on the inverter, private power generator, high frequency medical equipment, radio communication equipment, etc.
The influences transmitted from the remote control to medical or communication equipment could disrupt medical activities, video broadcasting or cause noise interference.

R/C cable:0.3mm^{2}x2 cores

When the cable length is longer than 100 m, the max size for wires used in the R/C case is 0.5 mm^2 . Connect them to wires of larger size near the outside of R/C. When wires are connected, take measures to prevent water, etc. from entering inside.

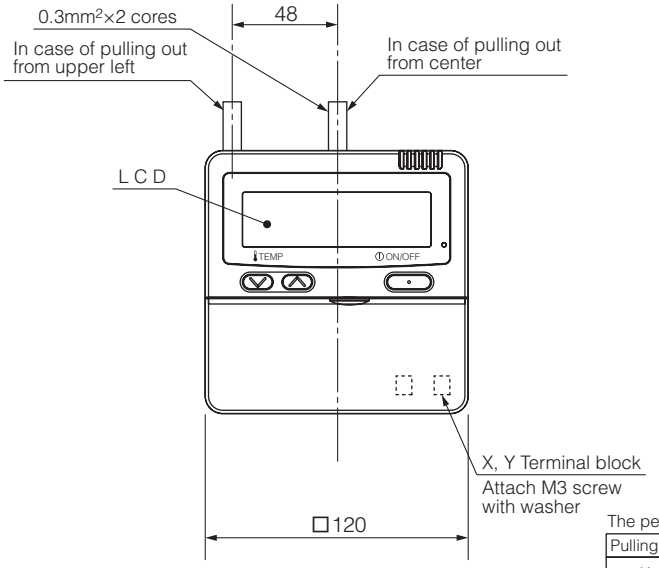
≦ 200 m	0.5 mm^2 x 2 cores
≦ 300m	0.75 mm^2 x 2 cores
≦ 400m	1.25 mm^2 x 2 cores
≦ 600m	2.0 mm^2 x 2 cores

Adapted RoHS directive

PJZ000Z333

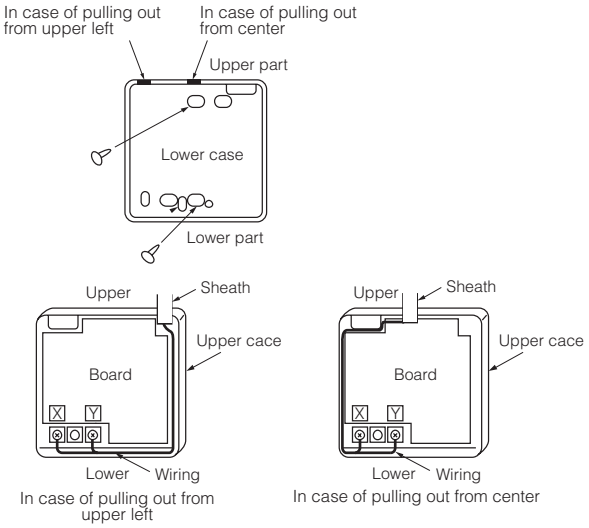
Model RC-E5

Exposed mounting



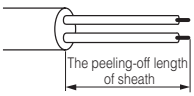
Exterior appearance (Munsell color)	Pearl white (N8.5) near equivalent

Wiring outlet
Cut off the upper thin part of remote control lower case with a nipper or knife, and grind burrs with a file etc.

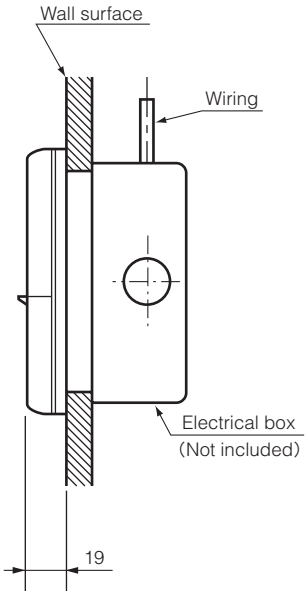


The peeling-off length of sheath

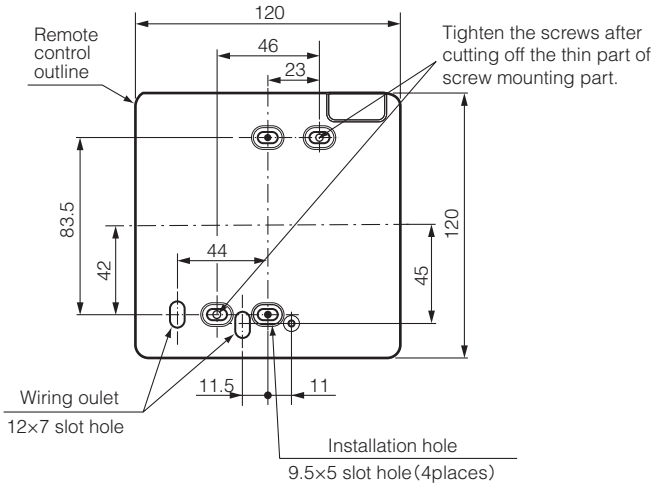
Pulling out from upper left	Pulling out from center
X wiring : 215mm Y wiring : 195mm	X wiring : 170mm Y wiring : 190mm



Embedded mounting



Remote control installation dimensions



(1) Installation screw for remote control
M4 screw (2 pieces)

Unit:mm

Wiring specifications

(1) If the prolongation is over 100m, change to the size below.
But, wiring in the remote control case should be under 0.5mm². Change the wire size outside of the case according to wire connecting. Waterproof treatment is necessary at the wire connecting section. Be careful about contact failure.

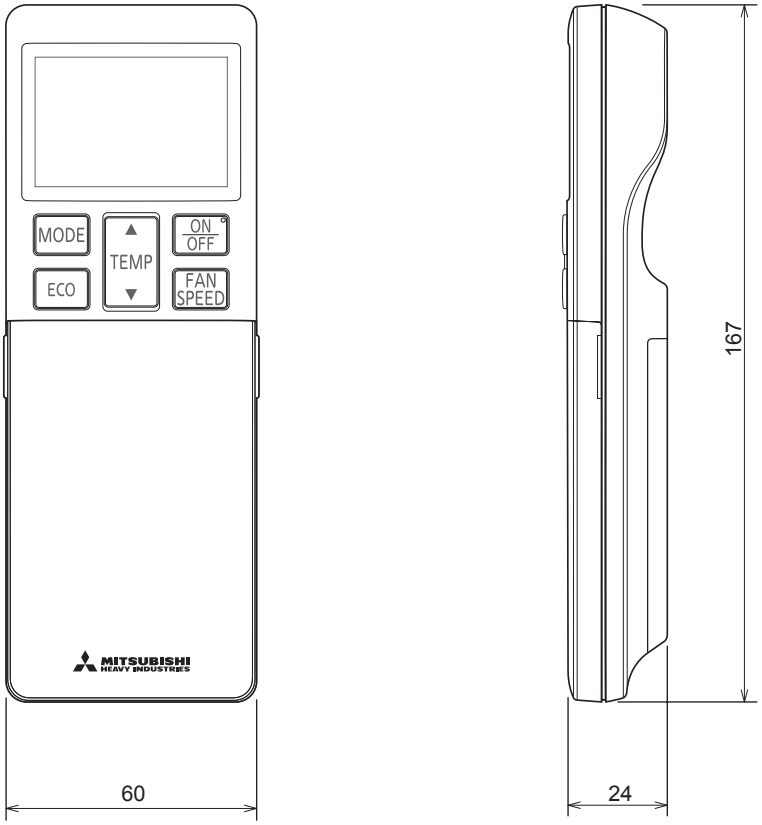
Length	Wiring thickness
100 to 200m	0.5mm²×2 cores
Under 300m	0.75mm²×2 cores
Under 400m	1.25mm²×2 cores
Under 600m	2.0mm²×2 cores

PJZ000Z295

(2) Wireless remote control (RCN-E2, RCN-EK2)

This remote control is an accessory of the wireless remote control kit. (Refer to 12.1 wireless kit)

Unit: mm



4. ELECTRICAL WIRING

(1) Ceiling cassette-4 way type (FDT)

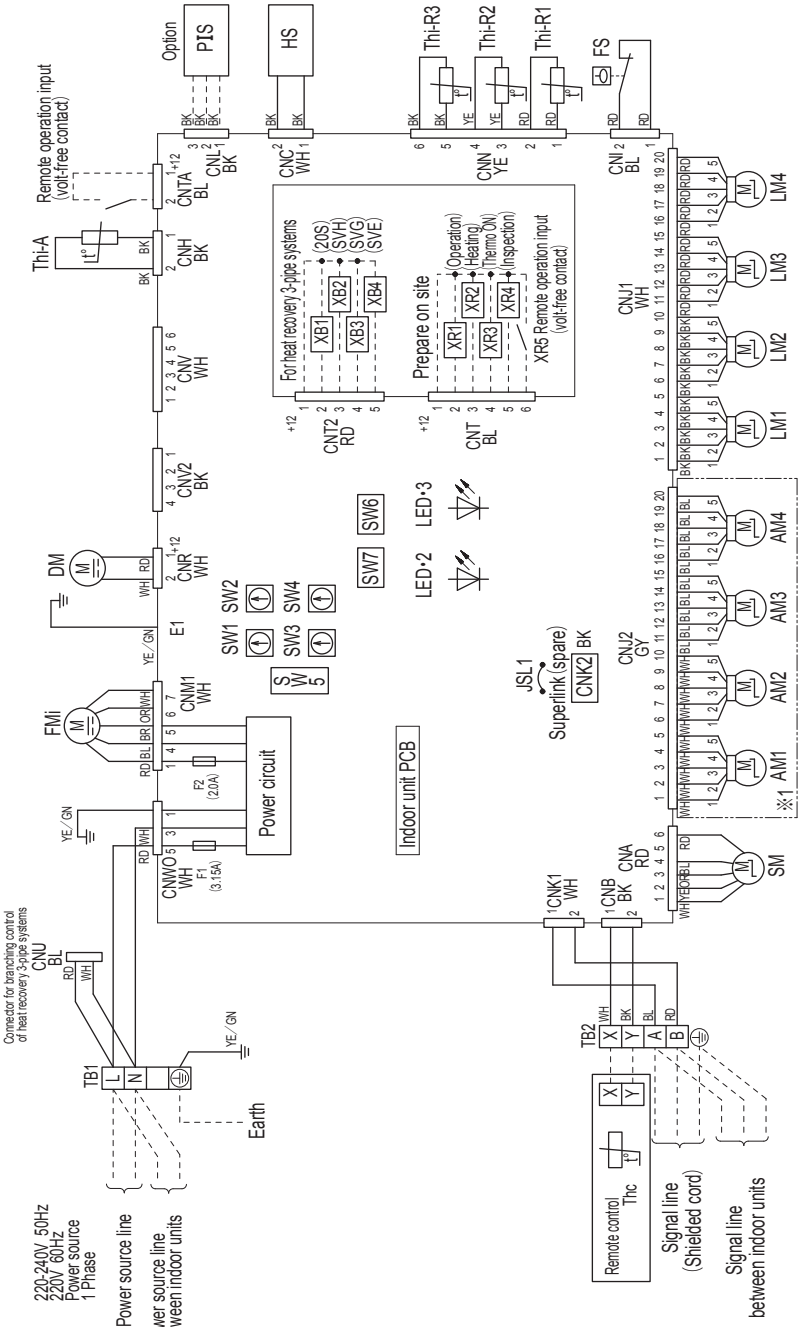
All models

Meaning of marks

Mark	Parts name
AM1-4	Air flex motor
CNA-Z	Connector
DM	Drain pump motor
F1,2	Fuse
FMi	Fan motor
FS	Float switch
HS	Humidity sensor
JSL1	Live Superlink terminal setting (For spare)
LED•2	Indication lamp (Green-Normal operation)
LED•3	Indication lamp (Red-Inspection)
LM1-4	Louver motor
PIS	Motion sensor
SM	Stepping motor (For electronic expansion valve)
SW1	Indoor unit address tens place
SW2	Indoor unit address ones place
SW3	Outdoor unit address tens place
SW4	Outdoor unit address ones place
SW5-1	Automatic adjustment / Fixed previous version of Superlink protocol
SW5-2	Indoor unit address hundreds place
SW6	Model capacity setting
SW7-1	Operation check,drain pump motor test run
TB1	Terminal block (Power source)
TB2	Terminal block (Signal line)
Thc	Temperature sensor (Remote control)
Thi-A	Temperature sensor (Return air)
Thi-R1,2,3	Temperature sensor (Heat exchanger)

Color marks

Mark	Color	Mark	Color
BK	Black	WH	White
BL	Blue	YE	Yellow
BR	Brown	GY	Gray
OR	Orange	YE/GN	Yellow/Green
RD	Red		



Notes
1. - - - indicates wiring on site.
2. Use twin core shielded cord (0.75-1.25mm^2) at signal line between indoor unit and outdoor unit, and signal line between indoor units.
3. Use twin core cord (0.3mm^2) at remote control line.
   See spec sheet of remote control in case that the total length is more than 100m.
4. Do not put signal line and remote control line alongside power source line.
5. Section 1 (※1) is provided on the panel T-PSAE-5AW-E only.

PJF000Z421

(2) Ceiling cassette-4 way compact type (FDTC)

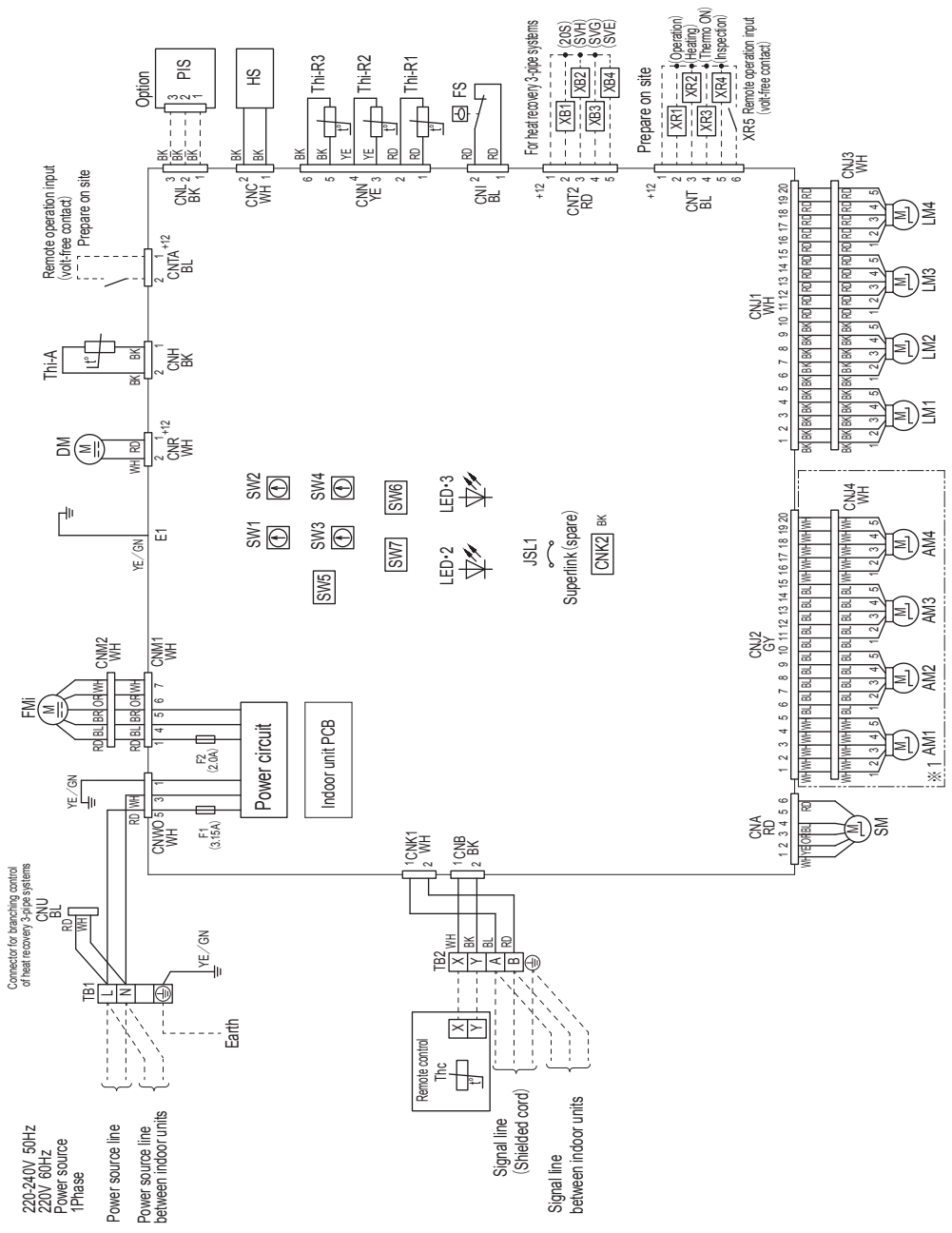
All models

Meaning of marks

Item	Description
AM1-4	Draft prevention function motor
CNA-Z	Connector
DM	Drain pump motor
F1,2	Fuse
FMi	Fan motor
FS	Float switch
HS	Humidity sensor
JSL1	Spare Superlink connector change
LED・2	Indication lamp (Green-Normal operation)
LED・3	Indication lamp (Red-Inspection)
LM1-4	Louver motor
PIS	Motion sensor
SM	Stepping motor (For electronic expansion valve)
SW1	Indoor unit address:tens place
SW2	Indoor unit address:ones place
SW3	Outdoor unit address:tens place
SW4	Outdoor unit address:ones place
SW5-1	Automatic adjustment ／ Fixed previous version of Superlink protocol
SW5-2	Indoor unit address:hundreds place
SW6,SW7-2	Model capacity setting
SW7-1	Operation check,drain pump motor test run
TB1	Terminal block (Power source) (□mark)
TB2	Terminal block (Signal line) (□mark)
Thc	Temperature sensor (Remote control)
Thi-A	Temperature sensor (Return air)
Thi-R1,2,3	Temperature sensor (Heat exchanger)

Color marks

Mark	Color	Mark	Color
BK	Black	WH	White
BL	Blue	YE	Yellow
BR	Brown	GY	Gray
OR	Orange	YE／GN	Yellow／Green
RD	Red		



Notes

1. - - - indicates wiring on site.
2. Use twin core shielded cord (0.75-1.25mm^2) at signal line between indoor unit and outdoor unit, and signal line between indoor units.
3. Use twin core cord (0.3mm^2) at remote control line.
   See spec sheet of remote control in case that the total length is more than 100m.
4. Do not put signal line and remote control line alongside power source line.
5. Draft prevention function (※1) is provided on the panel TC-PSAE-5AW-E only.

PJF000Z504

(3) Ceiling cassette-2 way type (FDTW)

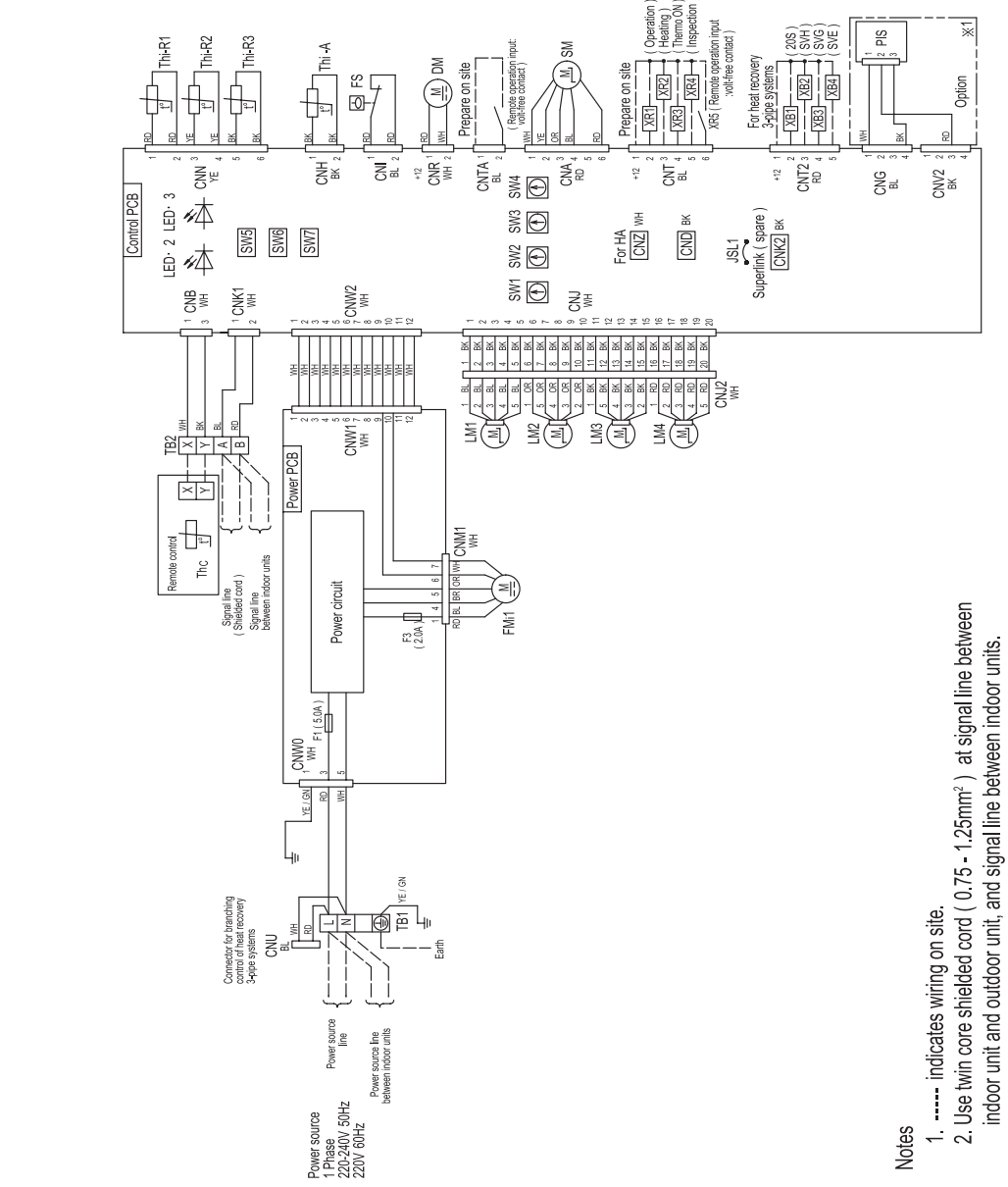
Models FDTW28KXE6F, 45KXE6F, 56KXE6F, 71KXE6F

Meaning of marks

Item	Description
CNA-Z	Connector
DM	Drain pump motor
F1,3	Fuse
FMi1	Fan motor
FS	Float switch
JSL1	Spare Superlink connector change
LED・2	Indication lamp (Green-Normal operation)
LED・3	Indication lamp (Red-Inspection)
LM1-4	Louver motor
PIS	Motion sensor
SM	Stepping motor (for electronic expansion valve)
SW1	Indoor unit address:tens place
SW2	Indoor unit address:ones place
SW3	Outdoor unit address:tens place
SW4	Outdoor unit address:ones place
SW5-1	Automatic adjustment / Fixed previous version of Superlink protocol
SW5-2	Indoor unit address:hundreds place
SW6	Model capacity setting
SW7-1	Operation check, Drain pump motor test run
TB1	Terminal block (Power source) (□ mark)
TB2	Terminal block (Signal line) (□ mark)
ThC	Temperature sensor (Remote control)
Thi-A	Temperature sensor (Return air)
Thi-R1,2,3	Temperature sensor (Heat exchanger)

Color marks

Mark	Color
BK	Black
BL	Blue
BR	Brown
OR	Orange
RD	Red
WH	White
YE	Yellow
YE / GN	Yellow / Green



Notes

1. ----- indicates wiring on site.
2. Use twin core shielded cord (0.75 - 1.25mm^2) at signal line between indoor unit and outdoor unit, and signal line between indoor units.
3. Use twin core cord (0.3mm^2) at remote control line.
   See spec sheet of remote control in case that the total length is more than 100m.
4. Do not put signal line and remote control line alongside power source line.
5. Section 1 (※1) shows electric circuit of motion sensor (option) .

PJB001Z830

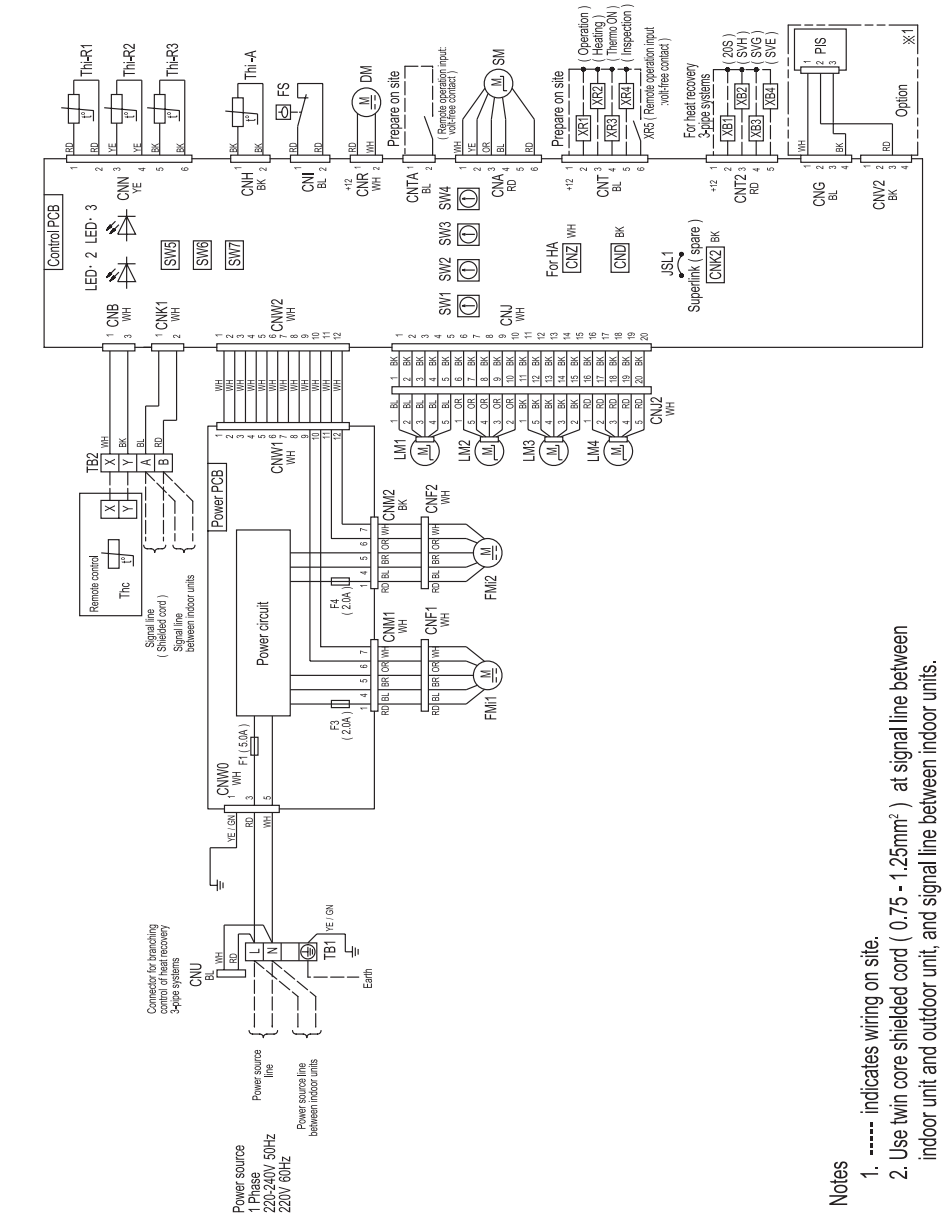
Models FDTW90KXE6F, 112KXE6F, 140KXE6F

Meaning of marks

Item	Description
CNA-Z	Connector
DM	Drain pump motor
F1,3,4	Fuse
FMi1,2	Fan motor
FS	Float switch
JSL1	Spare Superlink connector change
LED・2	Indication lamp (Green-Normal operation)
LED・3	Indication lamp (Red-Inspection)
LM1- 4	Louver motor
PIS	Motion sensor
SM	Stepping motor (for electronic expansion valve)
SW1	Indoor unit address:tens place
SW2	Indoor unit address:ones place
SW3	Outdoor unit address:tens place
SW4	Outdoor unit address:ones place
SW5-1	Automatic adjustment / Fixed previous version of Superlink protocol
SW5-2	Indoor unit address:hundreds place
SW6	Model capacity setting
SW7-1	Operation check, Drain pump motor test run
TB1	Terminal block (Power source) (□ mark)
TB2	Terminal block (Signal line) (□ mark)
Thc	Temperature sensor (Remote control)
Thi-A	Temperature sensor (Return air)
Thi-R1,2,3	Temperature sensor (Heat exchanger)

Color marks

Mark	Color
BK	Black
BL	Blue
BR	Brown
OR	Orange
RD	Red
WH	White
YE	Yellow
YE / GN	Yellow / Green



Notes

1. ----- indicates wiring on site.
2. Use twin core shielded cord (0.75 - 1.25mm^2) at signal line between indoor unit and outdoor unit, and signal line between indoor units.
3. Use twin core cord (0.3mm^2) at remote control line.
   See spec sheet of remote control in case that the total length is more than 100m.
4. Do not put signal line and remote control line alongside power source line.
5. Section 1 (※1) shows electric circuit of motion sensor (option) .

PJB001Z831

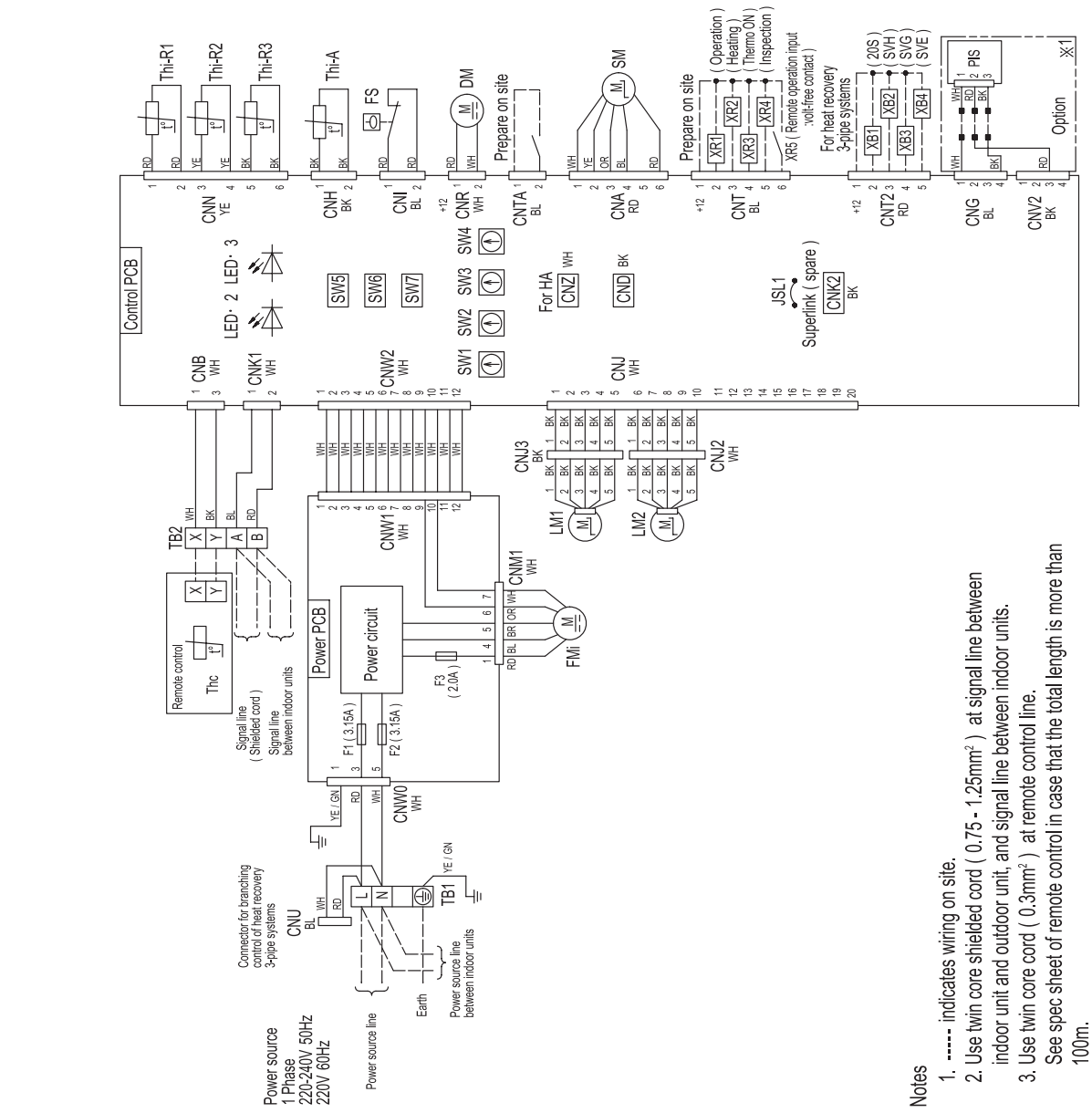
(4) Ceiling cassette-1 way type (FDTS)
Models FDTS45KXE6F, 71KXE6F

Meaning of marks

Item	Description
CNA-Z	Connector
DM	Drain pump motor
F1-3	Fuse
FMi	Fan motor
FS	Float switch
JSL1	Spare Superlink connector change
LED・2	Indication lamp (Green-Normal operation)
LED・3	Indication lamp (Red-Inspection)
LM1,2	Louver motor
PIS	Motion sensor
SM	Stepping motor (for electronic expansion valve)
SW1	Indoor unit address:tens place
SW2	Indoor unit address:ones place
SW3	Outdoor unit address:tens place
SW4	Outdoor unit address:ones place
SW5-1	Automatic adjustment / Fixed previous version of Superlink protocol
SW5-2	Indoor unit address:hundreds place
SW6	Model capacity setting
SW7-1	Operation check, Drain pump motor test run
TB1	Terminal block (Power source) (□ mark)
TB2	Terminal block (Signal line) (□ mark)
Thc	Temperature sensor (Remote control)
Thi-A	Temperature sensor (Return air)
Thi-R1,2,3	Temperature sensor (Heat exchanger)
■mark	Closed-end connector

Color marks

Mark	Color	Mark	Color
BK	Black	RD	Red
BL	Blue	WH	White
BR	Brown	YE	Yellow
OR	Orange	YE / GN	Yellow / Green



Notes

1. ----- indicates wiring on site.
2. Use twin core shielded cord (0.75 - 1.25mm^2) at signal line between indoor unit and outdoor unit, and signal line between indoor units.
3. Use twin core cord (0.3mm^2) at remote control line.
   See spec sheet of remote control in case that the total length is more than 100m.
4. Do not put signal line and remote control line alongside power source line.
5. Section 1 (※1) shows electric circuit of motion sensor (option) .

PJC001Z434

(5) Duct connected-High static pressure type (FDU)

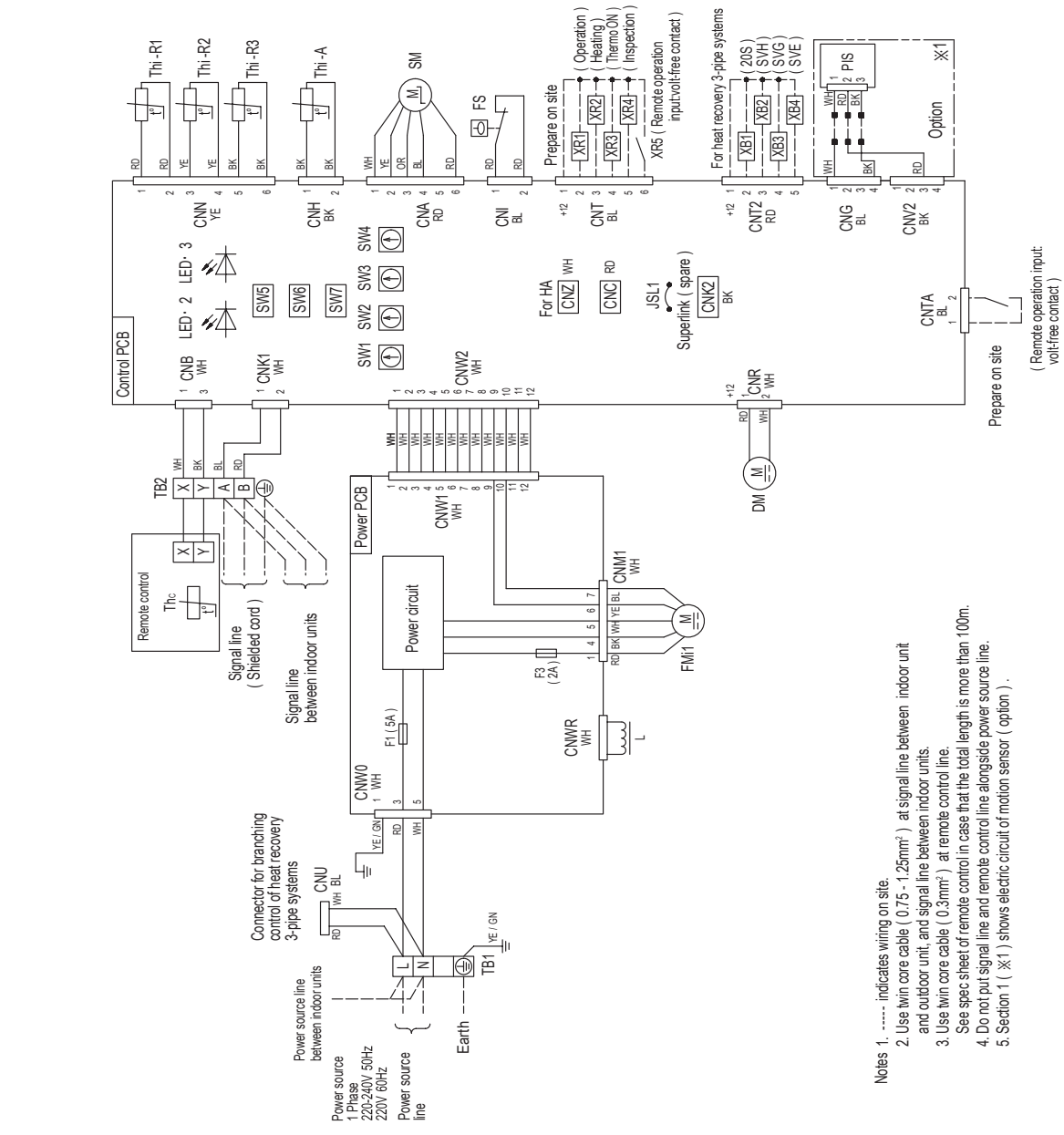
Models FDU45KXE6F, 56KXE6F

Meaning of marks

Item	Description
CNA-Z	Connector
DM	Drain pump motor
F1,3	Fuse
FMi1	Fan motor
FS	Float switch
JSL1	Spare Superlink connector change
L	Reactor
LED・2	Indication lamp (Green-Normal operation)
LED・3	Indication lamp (Red-Inspection)
PIS	Motion sensor
SM	Stepping motor (For electronic expansion valve)
SW1	Indoor unit address : tens place
SW2	Indoor unit address : ones place
SW3	Outdoor unit address : tens place
SW4	Outdoor unit address : ones place
SW5-1	Automatic adjustment / Fixed previous version of Superlink protocol
SW5-2	Indoor unit address : hundreds place
SW6	Model capacity setting
SW7-1	Operation check, Drain pump motor test run
TB1	Terminal block (Power source) (□mark)
TB2	Terminal block (Signal line) (□mark)
Thc	Temperature sensor (Remote control)
Thi-A	Temperature sensor (Return air)
Thi-R1,2,3	Temperature sensor (Heat exchanger)
■mark	Closed-end connector

Color marks

Mark	Color	Mark	Color
BK	Black	WH	White
BL	Blue	YE	Yellow
OR	Orange	YE / GN	Yellow / Green
RD	Red		



PJG000Z539

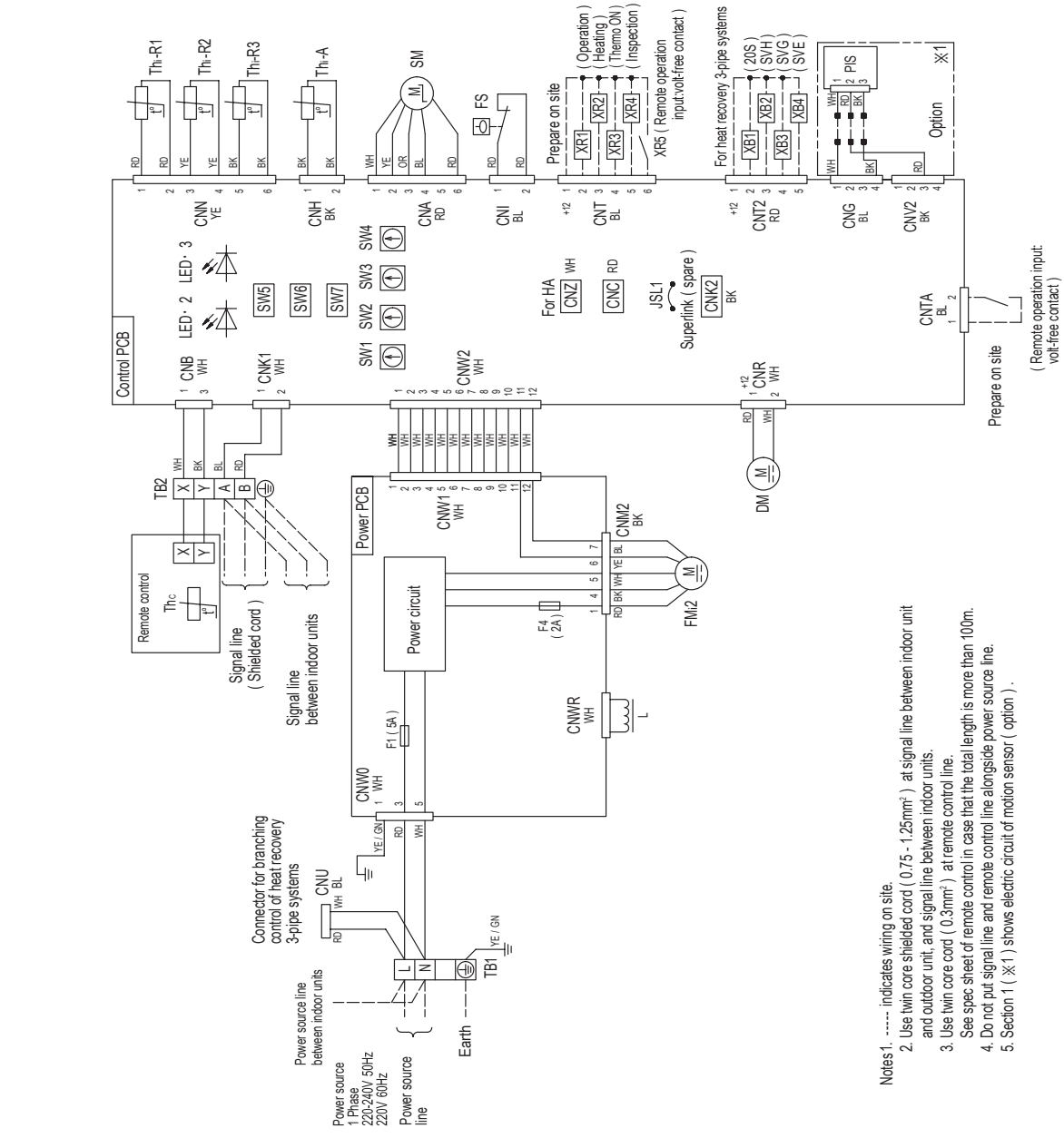
Models FDU71KXE6F, 90KXE6F

Meaning of marks

Item	Description
CNA-Z	Connector
DM	Drain pump motor
F1,4	Fuse
FMi2	Fan motor
FS	Float switch
JSL1	Spare Superlink connector change
L	Reactor
LED・2	Indication lamp (Green-Nomal operation)
LED・3	Indication lamp (Red-Inspection)
PIS	Motion sensor
SM	Stepping motor (For electronic expansion valve)
SW1	Indoor unit address : tens place
SW2	Indoor unit address : ones place
SW3	Outdoor unit address : tens place
SW4	Outdoor unit address : ones place
SW5-1	Automatic adjustment / Fixed previous version of Superlink protocol
SW5-2	Indoor unit address : hundreds place
SW6	Model capacity setting
SW7-1	Operation check, Drain pump motor test run
TB1	Terminal block (Power source) (□mark)
TB2	Terminal block (Signal line) (□mark)
Thc	Temperature sensor (Remote control)
Thi-A	Temperature sensor (Return air)
Thi-R1,2,3	Temperature sensor (Heat exchanger)
■mark	Closed-end connector

Color marks

Mark	Color	Mark	Color
BK	Black	WH	White
BL	Blue	YE	Yellow
OR	Orange	YE / GN	Yellow / Green
RD	Red		



Notes 1. ----- indicates wiring on site.
2. Use twin core shielded cord (0.75 - 1.25mm²) at signal line between indoor unit and outdoor unit, and signal line between indoor units.
3. Use twin core cord (0.3mm²) at remote control line.
See spec sheet of remote control in case that the total length is more than 100m.
4. Do not put signal line and remote control line alongside power source line.
5. Section 1 (※1) shows electric circuit of motion sensor (option) .

PJG000Z540

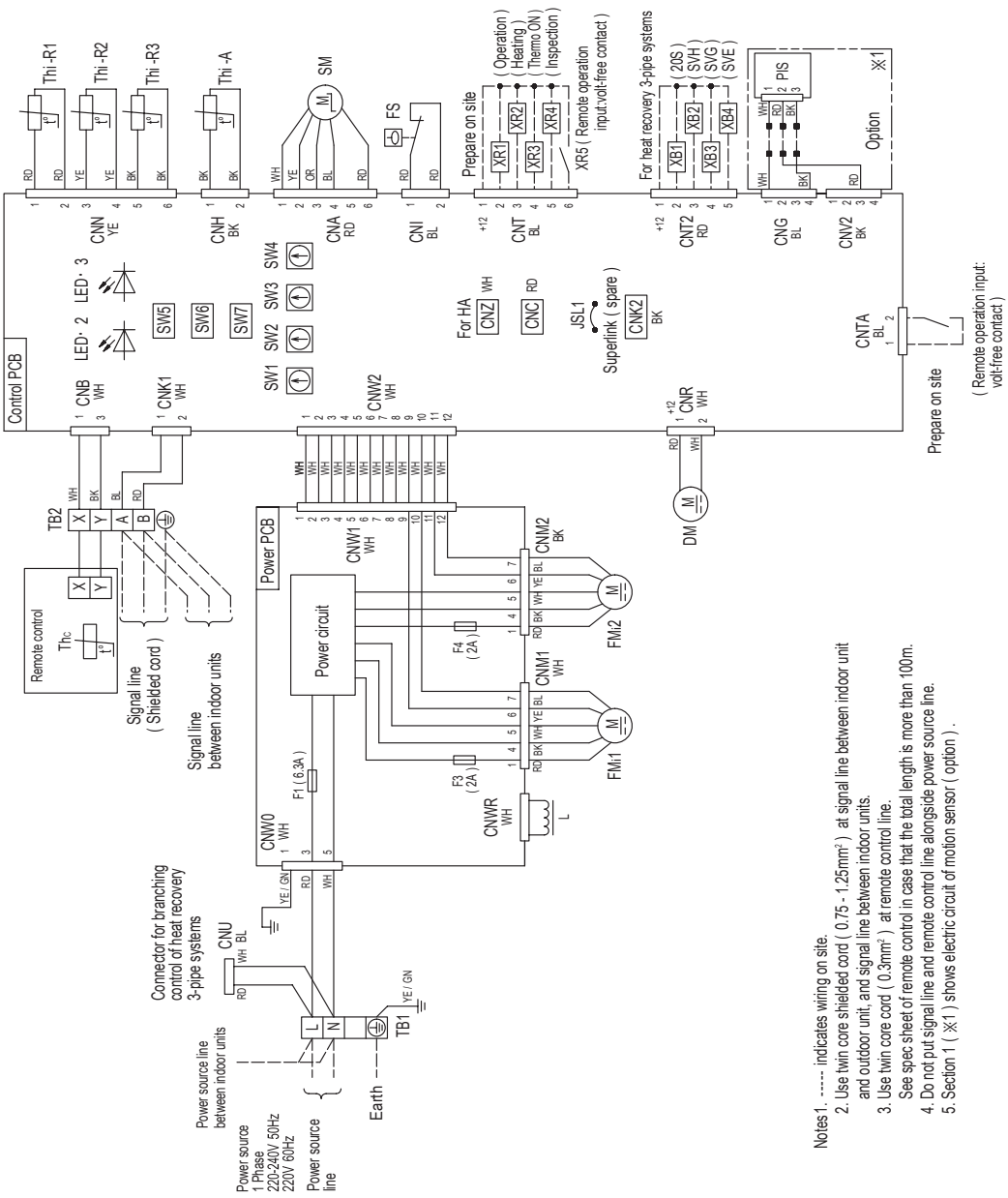
Models FDU112KXE6F, 140KXE6F, 160KXE6F

Meaning of marks

Item	Description
CNA-Z	Connector
DM	Drain pump motor
F1,3,4	Fuse
FMi1,2	Fan motor
FS	Float switch
JSL1	Spare Superlink connector change
L	Reactor
LED・2	Indication lamp (Green-Normal operation)
LED・3	Indication lamp (Red-Inspection)
PIS	Motion sensor
SM	Stepping motor (For electronic expansion valve)
SW1	Indoor unit address : tens place
SW2	Indoor unit address : ones place
SW3	Outdoor unit address : tens place
SW4	Outdoor unit address : ones place
SW5-1	Automatic adjustment / Fixed previous version of Superlink protocol
SW5-2	Indoor unit address : hundreds place
SW6	Model capacity setting
SW7-1	Operation check, Drain pump motor test run
TB1	Terminal block (Power source) (□mark)
TB2	Terminal block (Signal line) (□mark)
Thc	Temperature sensor (Remote control)
Thi-A	Temperature sensor (Return air)
Thi-R1,2,3	Temperature sensor (Heat exchanger)
■mark	Closed-end connector

Color marks

Mark	Color	Mark	Color
BK	Black	WH	White
BL	Blue	YE	Yellow
OR	Orange	YE / GN	Yellow / Green
RD	Red		



Notes1. ----- indicates wiring on site.
2. Use twin core shielded cord (0.75 - 1.25mm²) at signal line between indoor unit and outdoor unit, and signal line between indoor units.
3. Use twin core cord (0.3mm²) at remote control line.
See spec sheet of remote control in case that the total length is more than 100m.
4. Do not put signal line and remote control line alongside power source line.
5. Section 1 (※1) shows electric circuit of motion sensor (option) .

PJG000Z541

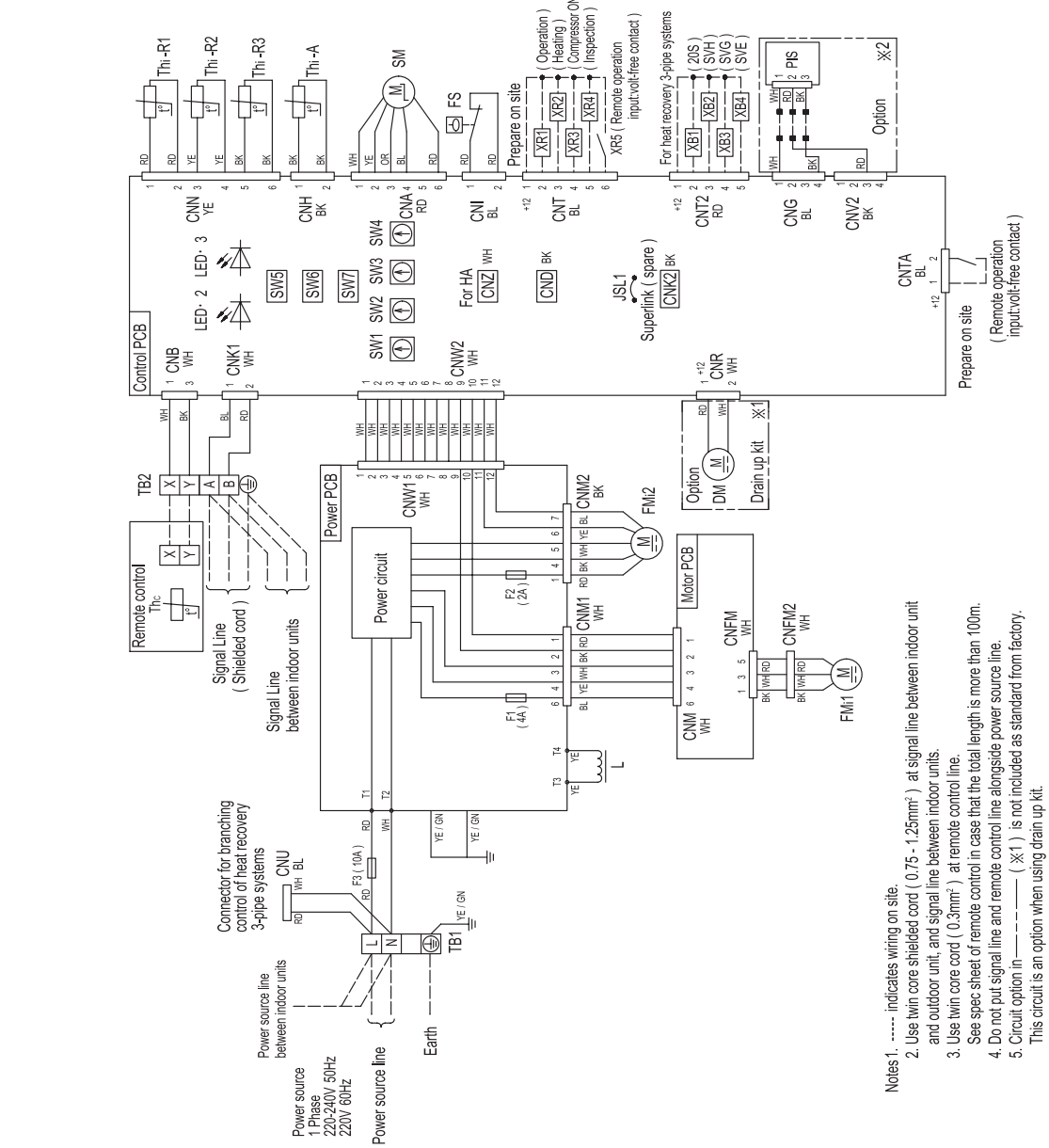
Models FDU224KXZE1, 280KXZE1

Meaning of marks

Item	Description
CNA-Z	Connector
DM	Drain pump motor
F1-3	Fuse
FM1,2	Fan motor
FS	Float switch
JSL1	Spare Superlink connector change
L	Reactor
LED· 2	Indication lamp (Green-Normal operation)
LED· 3	Indication lamp (Red-Inspection)
PIS	Motion sensor
SM	Stepping motor (For electronic expansion valve)
SW1	Indoor unit address:tens place
SW2	Indoor unit address:ones place
SW3	Outdoor unit address:tens place
SW4	Outdoor unit address:ones place
SW5-1	Automatic adjustment / Fixed previous version of Superlink protocol
SW5-2	Indoor unit address:hundreds place
SW6	Model capacity setting
SW7- 1	Operation check, Drain pump motor test run
TB1	Terminal block (Power source) (□ mark)
TB2	Terminal block (Signal line) (□ mark)
Thc	Temperature sensor (Remote control)
Thi-A	Temperature sensor (Return air)
Thi-R1,2,3	Temperature sensor (Heat exchanger)
■mark	Closed-end connector

Color marks

Mark	Color
BK	Black
BL	Blue
OR	Orange
RD	Red
WH	White
YE	Yellow
YE / GN	Yellow / Green



Notes 1. ----- indicates wiring on site.
2. Use twin core shielded cord (0.75 - 1.25mm^2) at signal line between indoor unit and outdoor unit, and signal line between indoor units.
3. Use twin core cord (0.3mm^2) at remote control line.
See spec sheet of remote control in case that the total length is more than 100m.
4. Do not put signal line and remote control line alongside power source line.
5. Circuit option in —— – – – —— (※1) is not included as standard from factory.
This circuit is an option when using drain up kit.
6. Section 1 (※2) shows electric circuit of motion sensor (option) .

PJG000Z543

(6) Duct connected Low/Middle static pressure type (FDUM)

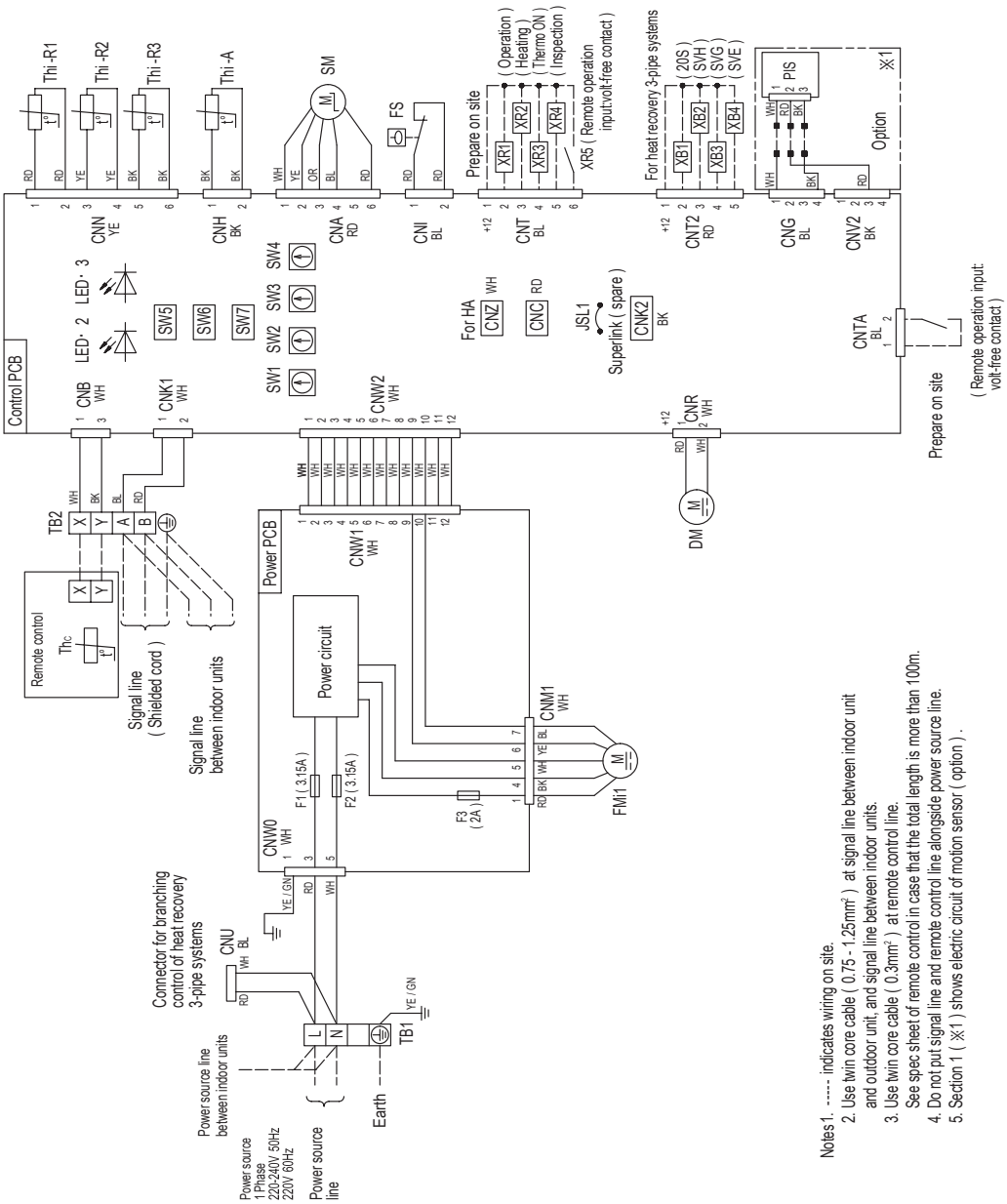
Models FDUM22KXE6F, 28KXE6F, 36KXE6F, 45KXE6F, 56KXE6F

Meaning of marks

Item	Description
CNA-Z	Connector
DM	Drain pump motor
F1-3	Fuse
FM1	Fan motor
FS	Float switch
JSL1	Spare Superlink connector change
LED・2	Indication lamp (Green-Normal operation)
LED・3	Indication lamp (Red-Inspection)
PIS	Motion sensor
SM	Stepping motor (For electronic expansion valve)
SW1	Indoor unit address : tens place
SW2	Indoor unit address : ones place
SW3	Outdoor unit address : tens place
SW4	Outdoor unit address : ones place
SW5-1	Automatic adjustment / Fixed previous version of Superlink protocol
SW5-2	Indoor unit address : hundreds place
SW6	Model capacity setting
SW7-1	Operation check, Drain pump motor test run
TB1	Terminal block (Power source) (□mark)
TB2	Terminal block (Signal line) (□mark)
Thc	Temperature sensor (Remote control)
Thi-A	Temperature sensor (Return air)
Thi-R1,2,3	Temperature sensor (Heat exchanger)
■mark	Closed-end connector

Color marks

Mark	Color	Mark	Color
BK	Black	RD	Red
BL	Blue	WH	White
BR	Brown	YE	Yellow
OR	Orange	YE / GN	Yellow / Green



Notes 1. ----- indicates wiring on site.
2. Use twin core cable (0.75 - 1.25mm²) at signal line between indoor unit and outdoor unit, and signal line between indoor units.
3. Use twin core cable (0.3mm²) at remote control line.
See spec sheet of remote control in case that the total length is more than 100m.
4. Do not put signal line and remote control line alongside power source line.
5. Section 1 (※1) shows electric circuit of motion sensor (option) .

PJG000Z526

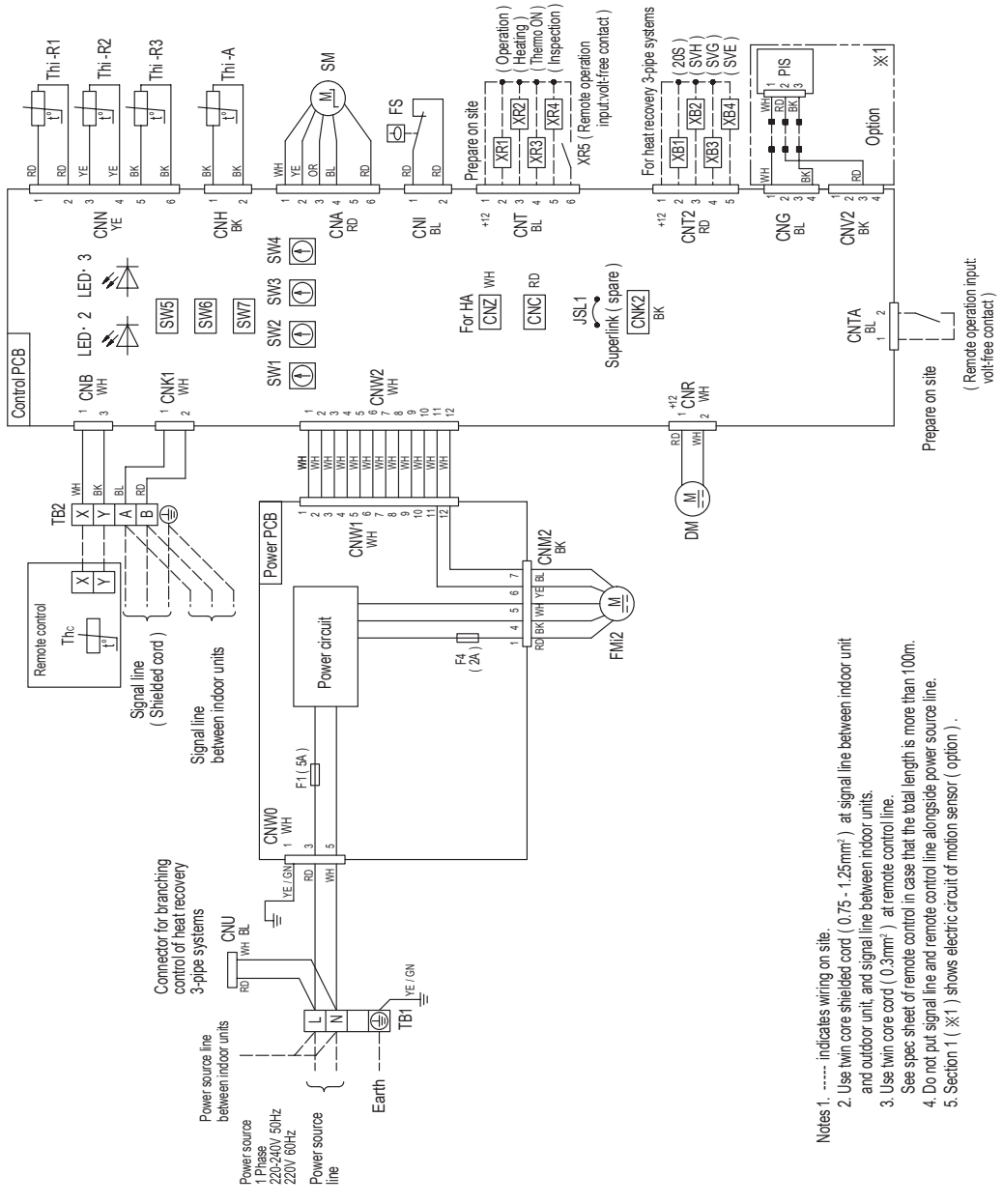
Models FDUM71KXE6F, 90KXE6F

Meaning of marks

Item	Description
CNA-Z	Connector
DM	Drain pump motor
F1,4	Fuse
FMi2	Fan motor
FS	Float switch
JSL1	Spare Superlink connector change
LED・2	Indication lamp (Green-Normal operation)
LED・3	Indication lamp (Red-Inspection)
PIS	Motion sensor
SM	Stepping motor (For electronic expansion valve)
SW1	Indoor unit address : tens place
SW2	Indoor unit address : ones place
SW3	Outdoor unit address : tens place
SW4	Outdoor unit address : ones place
SW5-1	Automatic adjustment / Fixed previous version of Superlink protocol
SW5-2	Indoor unit address : hundreds place
SW6	Model capacity setting
SW7-1	Operation check, Drain pump motor test run
TB1	Terminal block (Power source) (□mark)
TB2	Terminal block (Signal line) (□mark)
Thc	Temperature sensor (Remote control)
Thi-A	Temperature sensor (Return air)
Thi-R1,2,3	Temperature sensor (Heat exchanger)
■mark	Closed-end connector

Color marks

Mark	Color	Mark	Color
BK	Black	RD	Red
BL	Blue	WH	White
BR	Brown	YE	Yellow
OR	Orange	YE / GN	Yellow / Green



Notes 1. ----- indicates wiring on site.
2. Use twin core shielded cord (0.75 - 1.25mm²) at signal line between indoor unit and outdoor unit, and signal line between indoor units.
3. Use twin core cord (0.3mm²) at remote control line.
See spec sheet of remote control in case that the total length is more than 100m.
4. Do not put signal line and remote control line alongside power source line.
5. Section 1 (※1) shows electric circuit of motion sensor (option) .

PJG000Z527

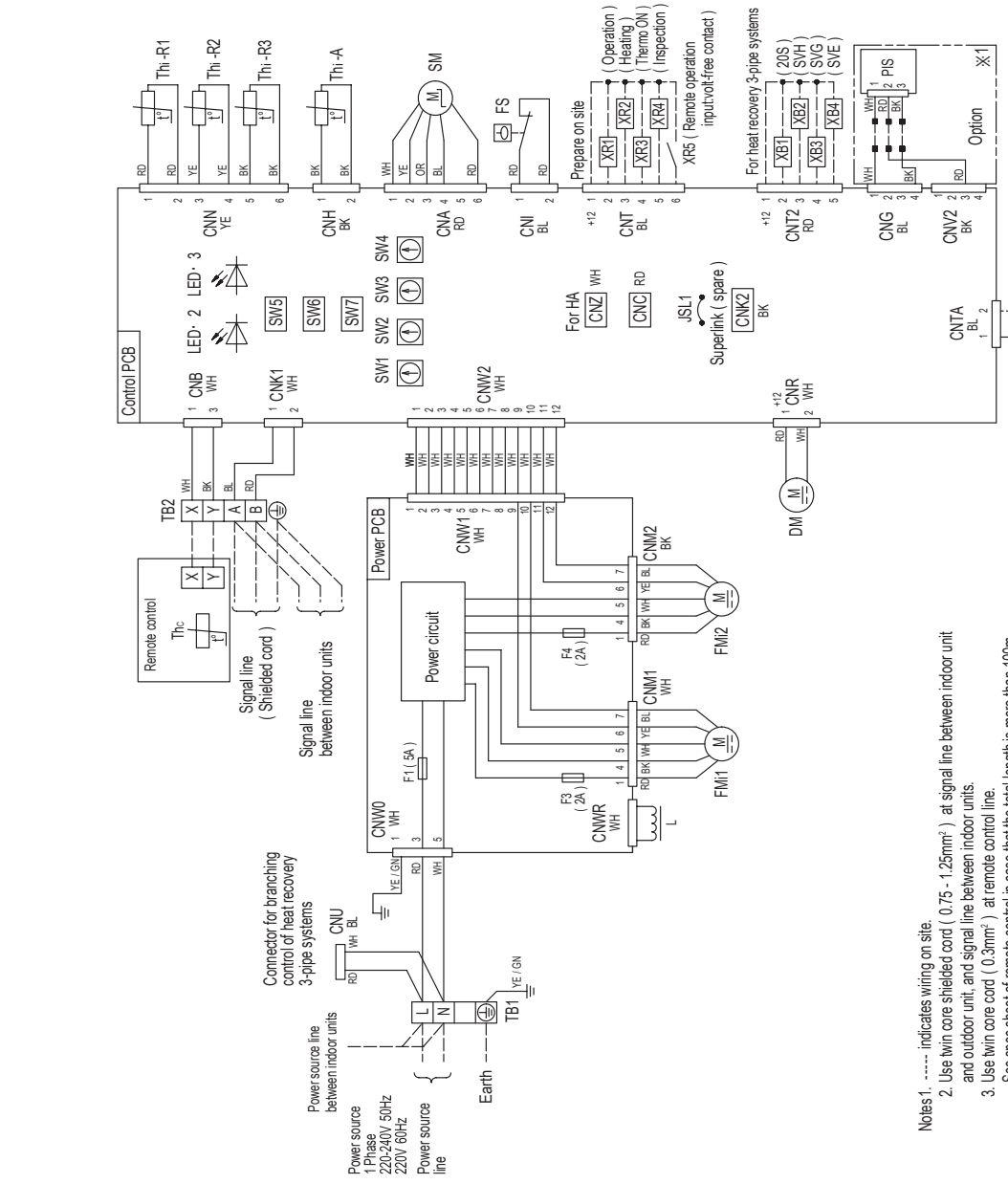
Models FDUM112KXE6F, 140KXE6F, 160KXE6F

Meaning of marks

Item	Description
CNA-Z	Connector
DM	Drain pump motor
F1,3,4	Fuse
FMi1,2	Fan motor
FS	Float switch
JSL1	Spare Superlink connector change
L	Reactor
LED・2	Indication lamp (Green-Normal operation)
LED・3	Indication lamp (Red-Inspection)
PIS	Motion sensor
SM	Stepping motor (For electronic expansion valve)
SW1	Indoor unit address : tens place
SW2	Indoor unit address : ones place
SW3	Outdoor unit address : tens place
SW4	Outdoor unit address : ones place
SW5-1	Automatic adjustment / Fixed previous version of Superlink protocol
SW5-2	Indoor unit address : hundreds place
SW6	Model capacity setting
SW7-1	Operation check, Drain pump motor test run
TB1	Terminal block (Power source) (□mark)
TB2	Terminal block (Signal line) (□mark)
Thc	Temperature sensor (Remote control)
Thi-A	Temperature sensor (Return air)
Thi-R1,2,3	Temperature sensor (Heat exchanger)
■mark	Closed-end connector

Color marks

Mark	Color	Mark	Color
BK	Black	RD	Red
BL	Blue	WH	White
BR	Brown	YE	Yellow
OR	Orange	YE / GN	Yellow / Green

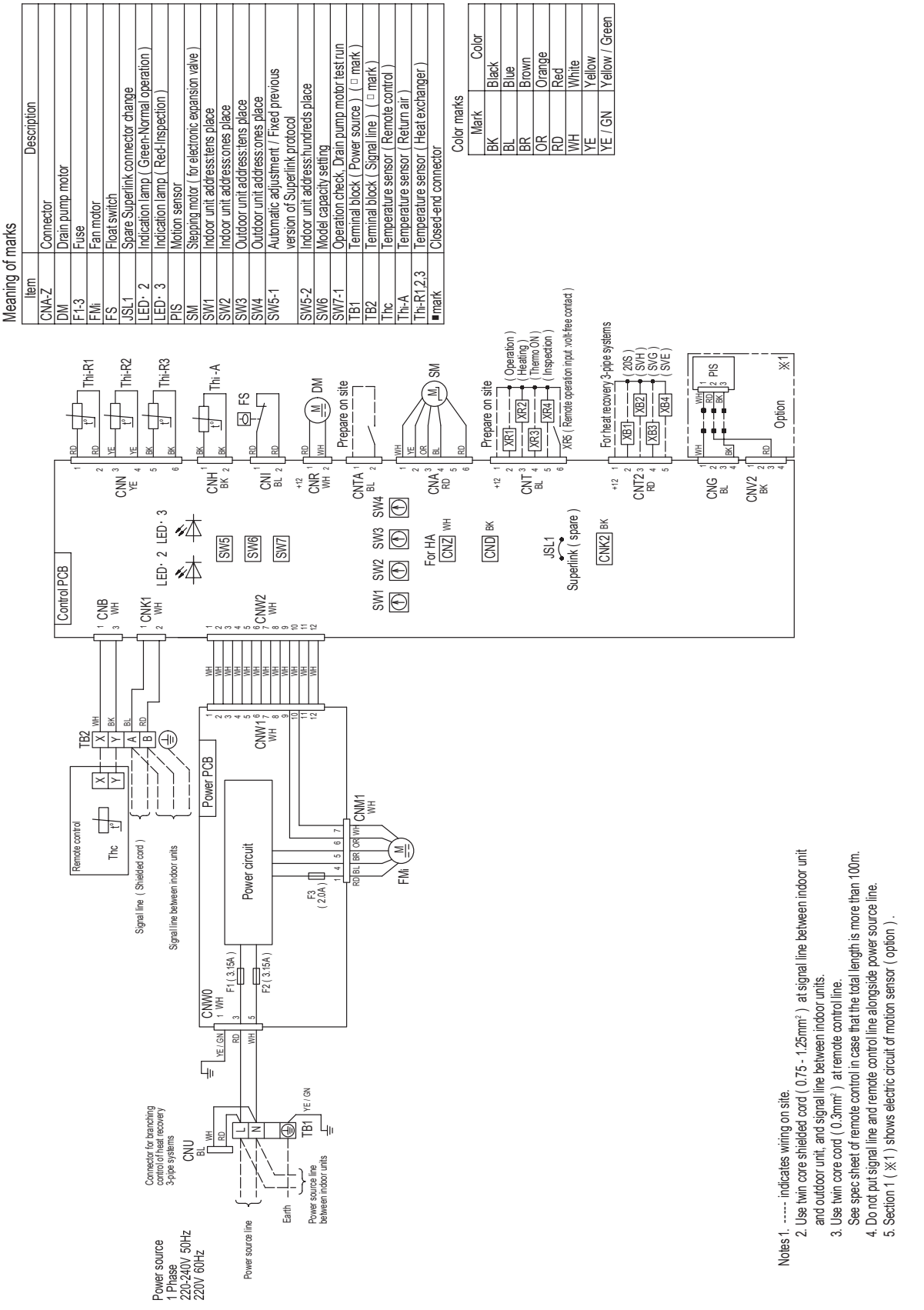


Notes 1. ----- indicates wiring on site.
2. Use twin core shielded cord (0.75 - 1.25mm²) at signal line between indoor unit and outdoor unit, and signal line between indoor units.
3. Use twin core cord (0.3mm²) at remote control line.
See spec sheet of remote control in case that the total length is more than 100m.
4. Do not put signal line and remote control line alongside power source line.
5. Section 1 (※1) shows electric circuit of motion sensor (option).

PJG000Z528

(7) Duct connected (thin) -Low static pressure type (FDUT)

Model FDUT71KXE6F-E



Notes 1. ----- indicates wiring on site.
2. Use twin core shielded cord (0.75 - 1.25mm^2) at signal line between indoor unit and outdoor unit, and signal line between indoor units.
3. Use twin core cord (0.3mm^2) at remote control line.
See spec sheet of remote control in case that the total length is more than 100m.
4. Do not put signal line and remote control line alongside power source line.
5. Section 1 (※1) shows electric circuit of motion sensor (option) .

PJH000Z023

(8) Wall mounted type (FDK)

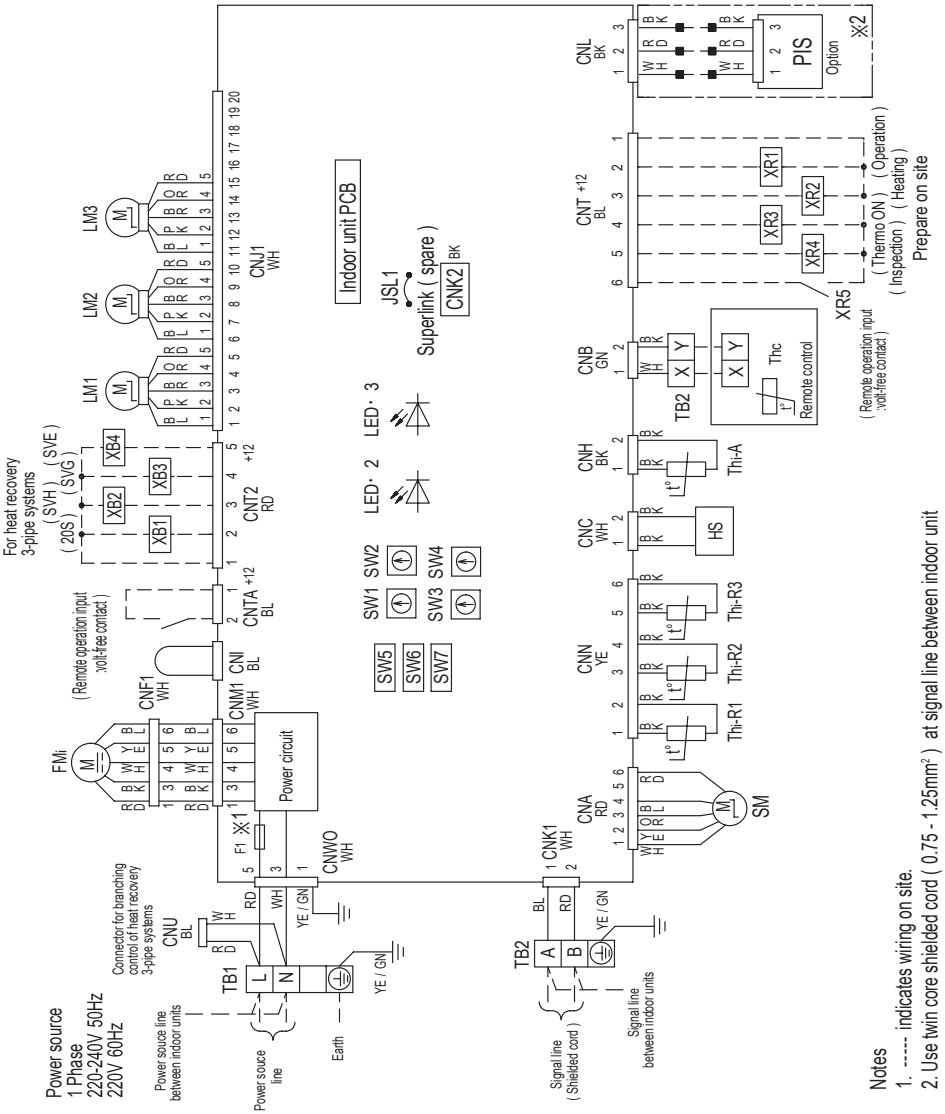
All models

Meaning of marks

Item	Description
CNA-Z	Connector
F1	Fuse
FMi	Fan motor
HS	Humidity sensor
JSL1	Spare Superlink connector change
LED・2	Indication lamp (Green-Normal operation)
LED・3	Indication lamp (Red-Inspection)
LM1	Flap motor
LM2	Louver motor (Left)
LM3	Louver motor (Right)
PIS	Motion sensor
SM	Stepping motor (For electronic expansion valve)
SW1	Indoor unit address:tens place
SW2	Indoor unit address:ones place
SW3	Outdoor unit address:tens place
SW4	Outdoor unit address:ones place
SW5 -1	Automatic adjustment / Fixed previous version of Superlink protocol
SW5 -2	Indoor unit address:hundreds place
SW6,SW7-2	Model capacity setting
SW7 -1	Operation check
TB1	Terminal block (Power source) (□ mark)
TB2	Terminal block (Signal line) (□ mark)
Thc	Temperature sensor (Remote control)
Thi-A	Temperature sensor (Return air)
Thi-R1,2,3	Temperature sensor (Heat exchanger)
■mark	Closed-end connector

Color marks

Mark	Color	Mark	Color
BK	Black	RD	Red
BL	Blue	WH	White
BR	Brown	YE	Yellow
OR	Orange	YE / GN	Yellow / Green
PK	Pink		



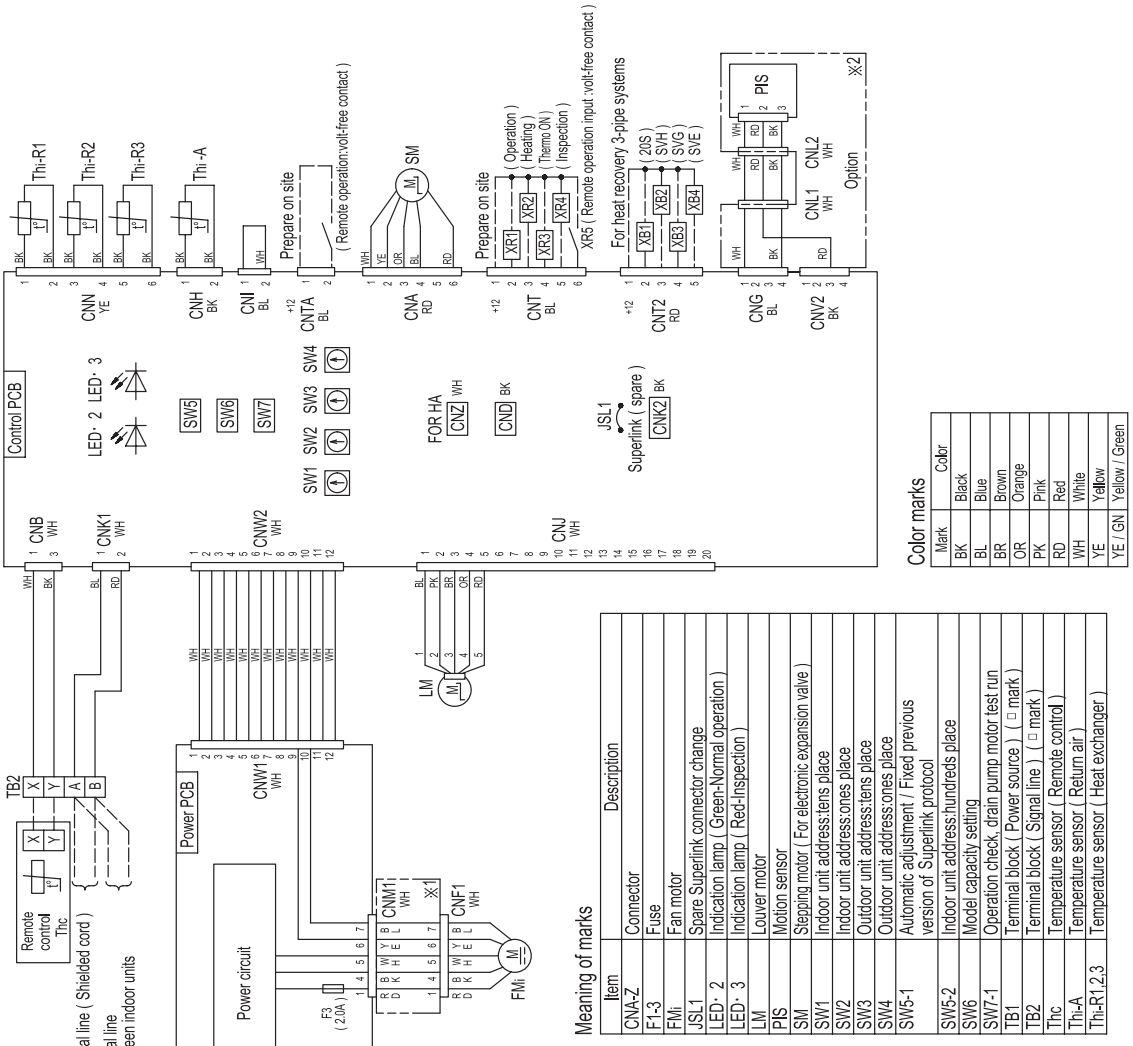
Notes

1. ----- indicates wiring on site.
2. Use twin core shielded cord (0.75 - 1.25mm^2) at signal line between indoor unit and outdoor unit, and signal line between indoor units.
3. Use twin core cord (0.3mm^2) at remote control line.
   See spec sheet of remote control in case that the total length is more than 100m.
4. Do not put signal line and remote control line alongside power source line.
5. Fuse (F1) (※1) is 3.15A in case of FDK15 ~ 56 ,and 5A in case of FDK71,90.
6. Section 1 (※2) shows electric circuit of motion sensor (option) .

PHA001Z142

(9) Ceiling suspended type (FDE)

All models



Meaning of marks

Item	Description
CNA-Z	Connector
F1-3	Fuse
FMi	Fan motor
JSL1	Spare Superlink connector change
LED- 2	Indication lamp (Green-Normal operation)
LED- 3	Indication lamp (Red-Inspection)
LM	Louver motor
PIS	Motion sensor
SM	Stepping motor (For electronic expansion valve)
SW1	Indoor unit address:tens place
SW2	Indoor unit address:ones place
SW3	Outdoor unit address:tens place
SW4	Outdoor unit address:ones place
SW5-1	Automatic adjustment / Fixed previous version of Superlink protocol
SW5-2	Indoor unit address:hundreds place
SW6	Model capacity setting
SW7-1	Operation check, drain pump motor test run
TB1	Terminal block (Power source) (□ mark)
TB2	Terminal block (Signal line) (□ mark)
Thc	Temperature sensor (Remote control)
Thi-A	Temperature sensor (Return air)
Thi-R1,2,3	Temperature sensor (Heat exchanger)

Color marks

Mark	Color
BK	Black
BL	Blue
BR	Brown
OR	Orange
PK	Pink
RD	Red
WH	White
YE	Yellow
YE / GN	Yellow / Green

Notes 1. ----- indicates wiring on site.
2. Use twin core cable (0.75 - 1.25mm^2) at signal line between indoor unit and outdoor unit, and signal line between indoor units.
3. Use twin core cable (0.3mm^2) at remote control.
See spec sheet of remote control in case that the total length is more than 100m.
4. Do not put signal line and remote control line alongside power source line.
5. Section 1 (※1) is provided on the models 112,140 only.
6. Section 2 (※2) shows electric circuit of motion sensor (option) .

PFA004Z096

(10) Outdoor air processing unit (FDU-F)

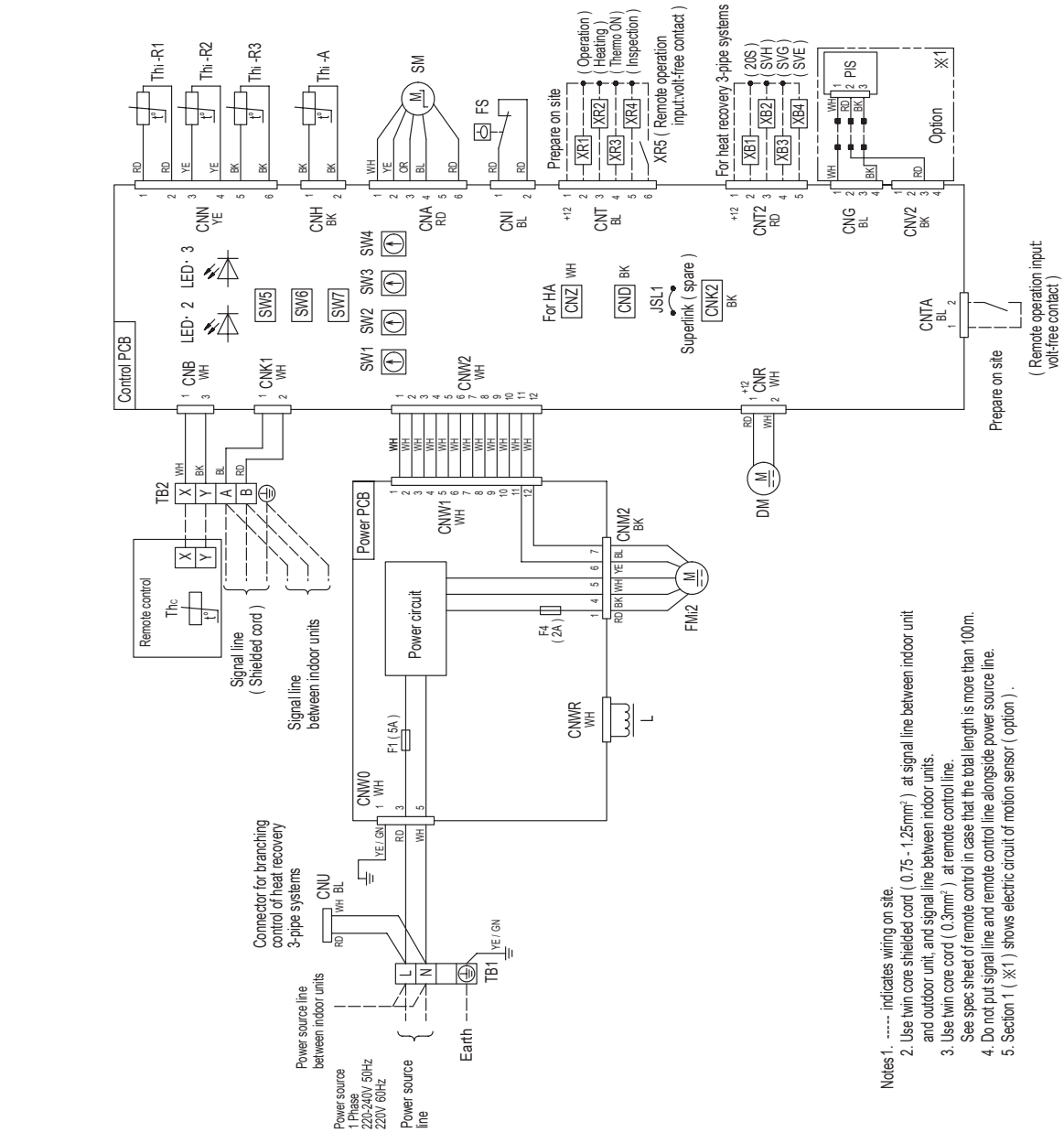
Model FDU650FKXZE1

Meaning of marks

Item	Description
CNA-Z	Connector
DM	Drain pump motor
F1,4	Fuse
FMi2	Fan motor
FS	Float switch
JSL1	Spare Superlink connector change
L	Reactor
LED・2	Indication lamp (Green-Normal operation)
LED・3	Indication lamp (Red-Inspection)
PIS	Motion sensor
SM	Stepping motor (For electronic expansion valve)
SW1	Indoor unit address : tens place
SW2	Indoor unit address : ones place
SW3	Outdoor unit address : tens place
SW4	Outdoor unit address : ones place
SW5-1	Automatic adjustment / Fixed previous version of Superlink protocol
SW5-2	Indoor unit address : hundreds place
SW6	Model capacity setting
SW7-1	Operation check, Drain pump motor test run
TB1	Terminal block (Power source) (□mark)
TB2	Terminal block (Signal line) (□mark)
Thc	Temperature sensor (Remote control)
Thi-A	Temperature sensor (Return air)
Thi-R1,2,3	Temperature sensor (Heat exchanger)
■mark	Closed-end connector

Color marks

Mark	Color	Mark	Color
BK	Black	WH	White
BL	Blue	YE	Yellow
OR	Orange	YE / GN	Yellow / Green
RD	Red		



Notes 1. ----- indicates wiring on site.
2. Use twin core shielded cord (0.75 - 1.25mm²) at signal line between indoor unit and outdoor unit, and signal line between indoor units.
3. Use twin core cord (0.3mm²) at remote control line.
See spec sheet of remote control in case that the total length is more than 100m.
4. Do not put signal line and remote control line alongside power source line.
5. Section 1 (※1) shows electric circuit of motion sensor (option) .

PJG000Z563

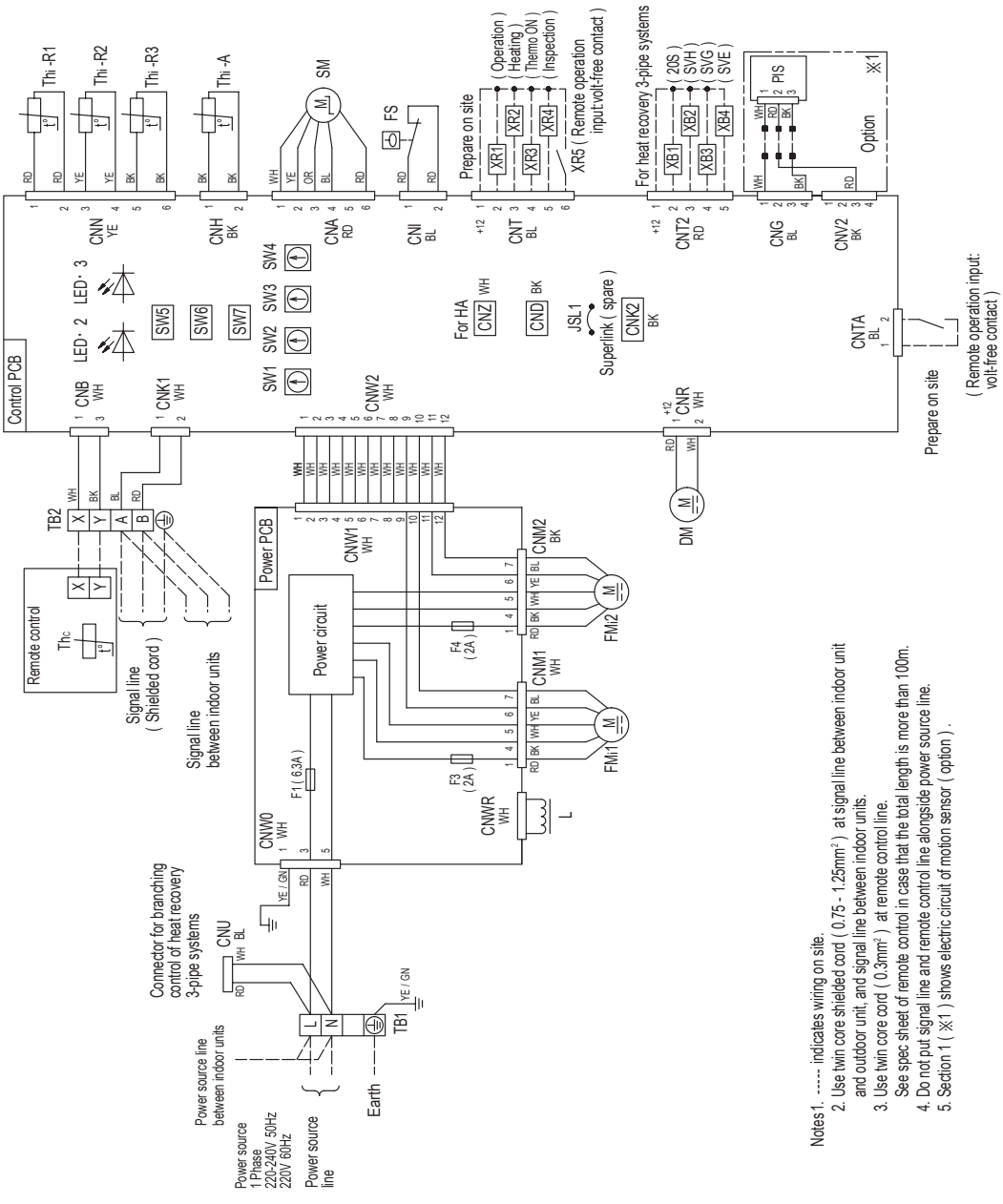
Model FDU 1100FKXZE1

Meaning of marks

Item	Description
CNA-Z	Connector
DM	Drain pump motor
F1,3,4	Fuse
FMi1,2	Fan motor
FS	Float switch
JSL1	Spare Superlink connector change
L	Reactor
LED・2	Indication lamp (Green-Normal operation)
LED・3	Indication lamp (Red-Inspection)
PIS	Motion sensor
SM	Stepping motor (For electronic expansion valve)
SW1	Indoor unit address : tens place
SW2	Indoor unit address : ones place
SW3	Outdoor unit address : tens place
SW4	Outdoor unit address : ones place
SW5-1	Automatic adjustment / Fixed previous version of Superlink protocol
SW5-2	Indoor unit address : hundreds place
SW6	Model capacity setting
SW7-1	Operation check, Drain pump motor test run
TB1	Terminal block (Power source) (□mark)
TB2	Terminal block (Signal line) (□mark)
Thc	Temperature sensor (Remote control)
Thi-A	Temperature sensor (Return air)
Thi-R1,2,3	Temperature sensor (Heat exchanger)
■mark	Closed-end connector

Color marks

Mark	Color	Mark	Color
BK	Black	WH	White
BL	Blue	YE	Yellow
OR	Orange	YE / GN	Yellow / Green
RD	Red		



Notes 1. ----- indicates wiring on site.
2. Use twin core shielded cord (0.75 - 1.25mm²) at signal line between indoor unit and outdoor unit, and signal line between indoor units.
3. Use twin core cord (0.3mm²) at remote control line.
See spec sheet of remote control in case that the total length is more than 100m.
4. Do not put signal line and remote control line alongside power source line.
5. Section 1 (※1) shows electric circuit of motion sensor (option) .

PJG000Z564

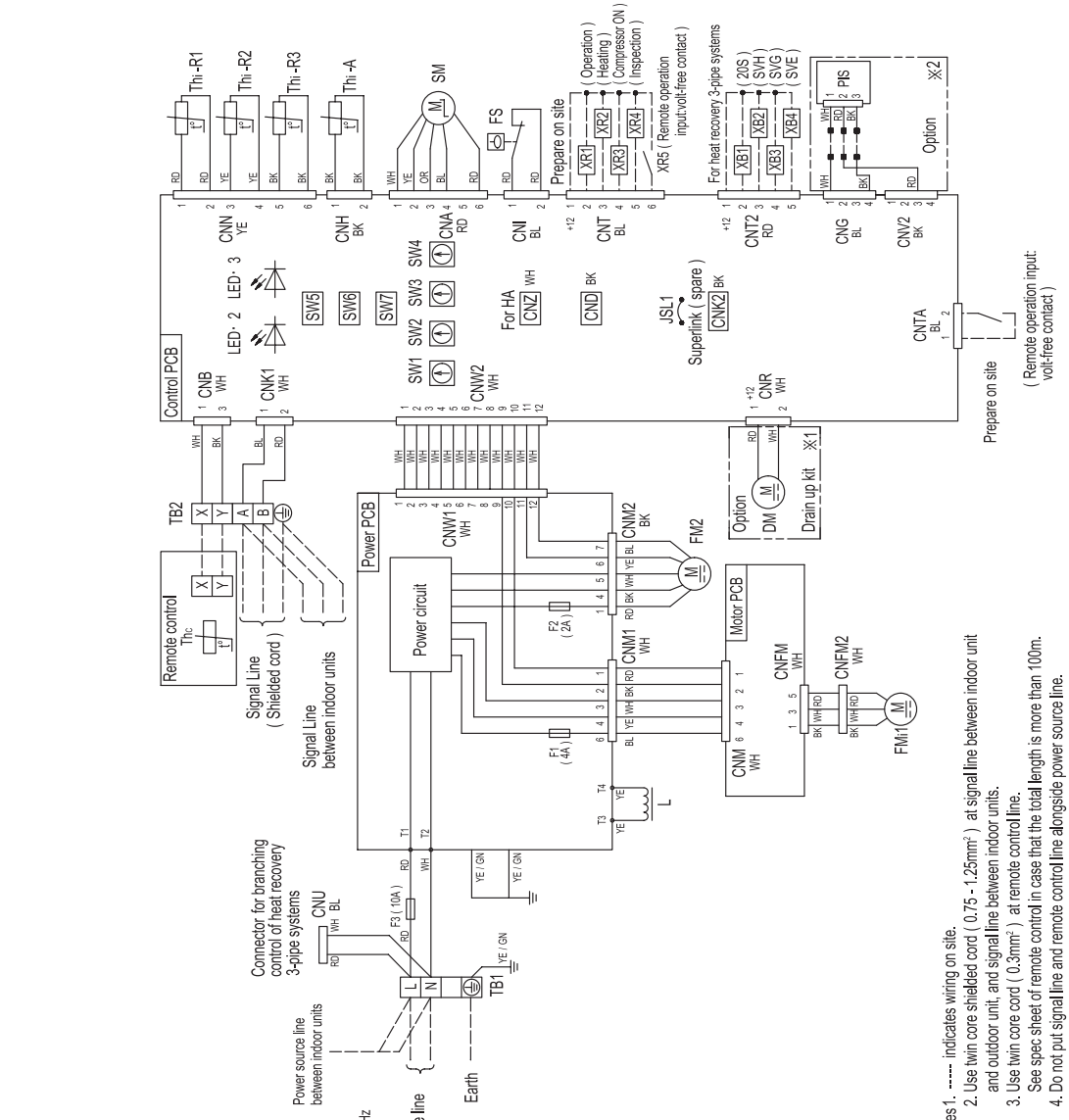
Models FDU1800FKXZE1, 2400FKXZE1

Meaning of marks

Item	Description
CNA-Z	Connector
DM	Drain pump motor
F1-3	Fuse
FM1,2	Fan motor
FS	Float switch
JSL1	Spare Superlink connector change
L	Reactor
LED-2	Indication lamp (Green:Normal operation)
LED-3	Indication lamp (Red-Inspection)
PIS	Motion sensor
SM	Stepping motor (For electronic expansion valve)
SW1	Indoor unit address:tens place
SW2	Indoor unit address:ones place
SW3	Outdoor unit address:tens place
SW4	Outdoor unit address:ones place
SW5-1	Automatic adjustment / Fixed previous version of Superlink protocol
SW5-2	Indoor unit address:hundreds place
SW6	Model capacity setting
SW7-1	Operation check, Drain pump motor test run
TB1	Terminal block (Power source) (□ mark)
TB2	Terminal block (Signal line) (□ mark)
Thc	Temperature sensor (Remote control)
Th-A	Temperature sensor (Return air)
Th-R1,2,3	Temperature sensor (Heat exchanger)
■mark	Otosed-end connector

Color marks

Mark	Color
BK	Black
BL	Blue
OR	Orange
RD	Red
WH	White
YE	Yellow
YE / GN	Yellow / Green



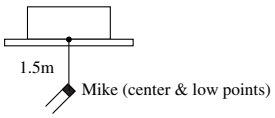
Notes 1. ----- indicates wiring on site.
2. Use twin core shielded cord (0.75 - 1.25mm^2) at signal line between indoor unit and outdoor unit, and signal line between indoor units.
3. Use twin core cord (0.3mm^2) at remote control line.
See spec sheet of remote control in case that the total length is more than 100m.
4. Do not put signal line and remote control line alongside power source line.
5. Circuit option in (※1) is not included as standard from factory.
This circuit is an option when using drain up kit.
6. Section 1 (※2) shows electric circuit of motion sensor (option) .

PJG000Z565

5. NOISE LEVEL

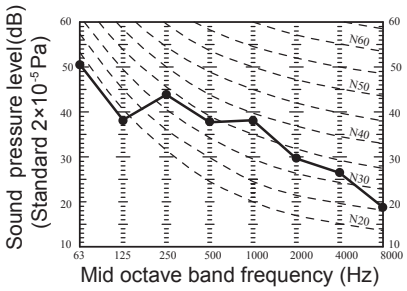
Note (1) The data are based on the following conditions.
Ambient air tempetature: Indoor unit 27˚C DB, 19˚C WB. Outdoor unit 35˚C DB
(2) The data in the chart are measuted in an unechonic room.
(3) The noise levels measured in the field are usually higher than the data because of reflection.

(1) Ceiling cassette-4 way (FDT)

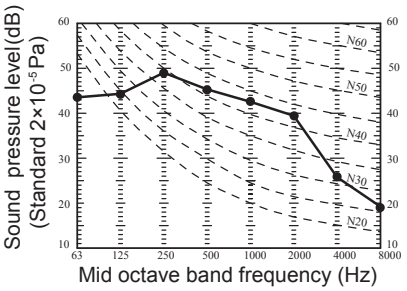


Measured based on JIS B 8616
Mike position as right

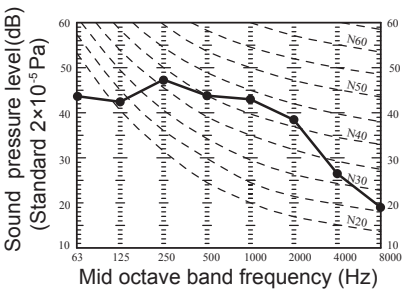
FDT28,36,45KXZE1
Noise level 38dB(A) at P-Hi



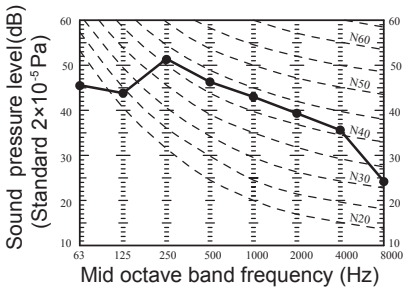
FDT56KXZE1
Noise level 44dB(A) at P-Hi



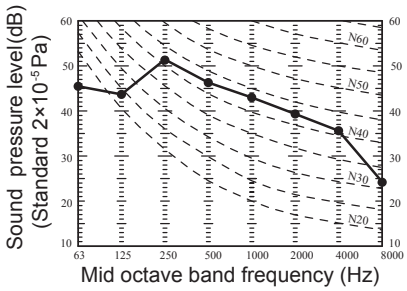
FDT71KXZE1
Noise level 47dB(A) at P-Hi



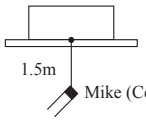
FDT90KXZE1
Noise level 49dB(A) at P-Hi



FDT112,140,160KXZE1
Noise level 49dB(A) at P-Hi

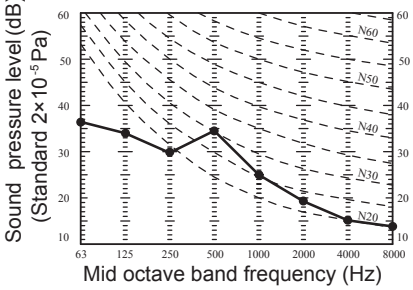


(2) Ceiling cassette-4 way compact type (FDTC)

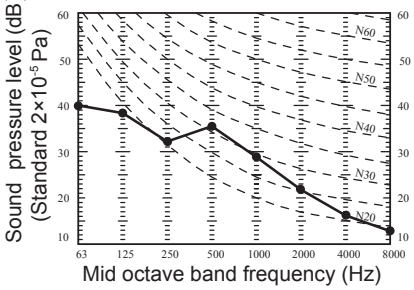


Measured based on JIS B 8616
Mike position as right

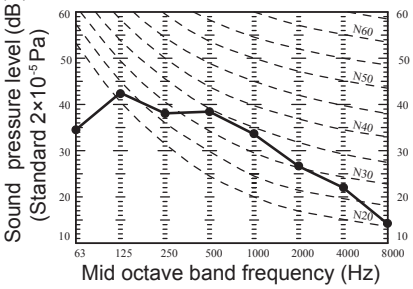
FDTC15KXZE1
Noise level 33dB(A) at P-Hi



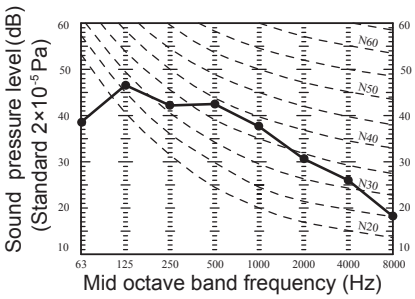
FDTC22,28KXZE1
Noise level 35dB(A) at P-Hi



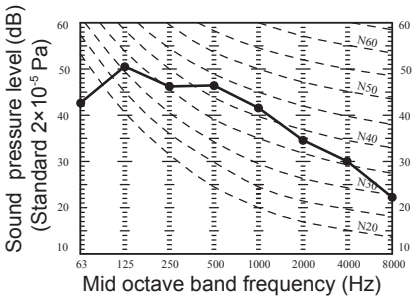
FDTC36KXZE1
Noise level 39dB(A) at P-Hi



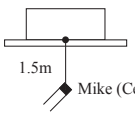
FDTC45KXZE1
Noise level 43dB(A) at P-Hi



FDTC56KXZE1
Noise level 47dB(A) at P-Hi



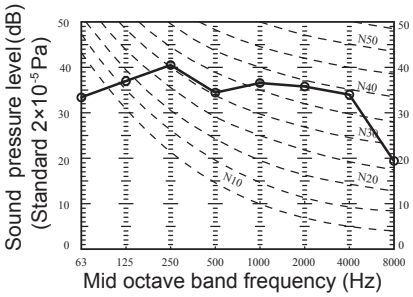
(3) Ceiling cassette-2 way type (FDTW)



Measured based on JIS B 8616
Mike position as right

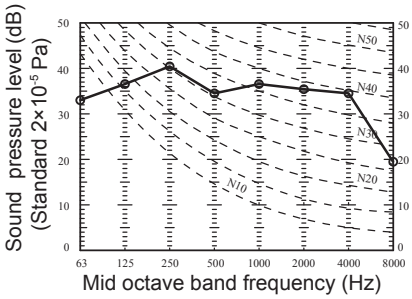
FDTW28, 45, 56KXE6F

Noise level 42 dB (A) at P-HIGH
38 dB (A) at HIGH
34 dB (A) at MEDIUM
31 dB (A) at LOW



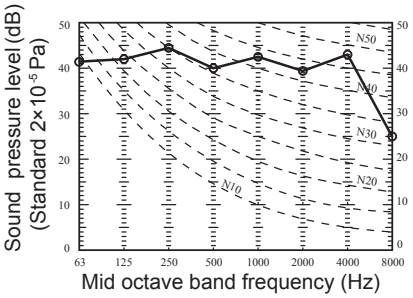
FDTW71KXE6F

Noise level 42 dB (A) at P-HIGH
38 dB (A) at HIGH
34 dB (A) at MEDIUM
31 dB (A) at LOW



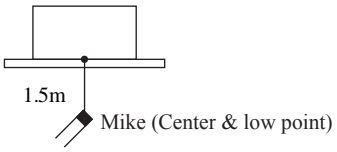
FDTW90,112,140KXE6F

Noise level 48 dB (A) at P-HIGH
45 dB (A) at HIGH
41 dB (A) at MEDIUM
37 dB (A) at LOW



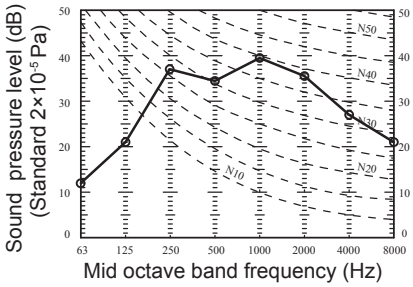
(4) Ceiling cassette-1 way type (FDTS)

Measured based on JIS B 8616
Mike position as below



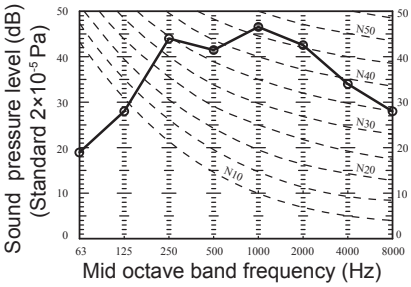
FDTS45KXE6F

Noise level 42 dB (A) at P-HIGH
40 dB (A) at HIGH
38 dB (A) at MEDIUM
35 dB (A) at LOW



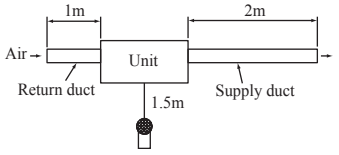
FDTS71KXE6F

Noise level 49 dB (A) at P-HIGH
46 dB (A) at HIGH
41 dB (A) at MEDIUM
36 dB (A) at LOW



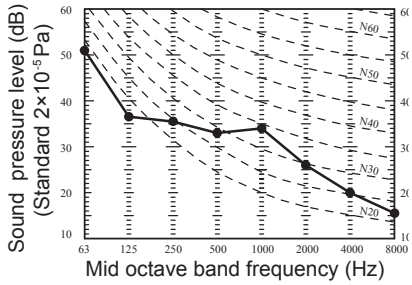
(5) Duct connected-High static pressure type (FDU)

Measured based on JIS B 8616
Mike position as below



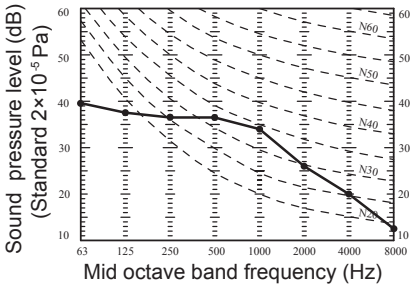
FDU45,56KXE6F

Noise level 37 dB (A) at P-HIGH
32 dB (A) at HIGH
29 dB (A) at MEDIUM
26 dB (A) at LOW



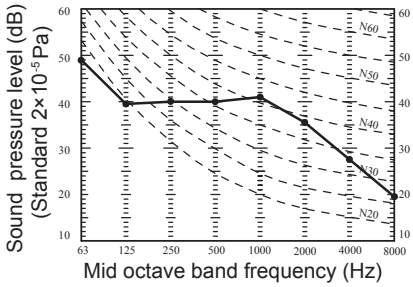
FDU71,90KXE6F

Noise level 38 dB (A) at P-HIGH
33 dB (A) at HIGH
29 dB (A) at MEDIUM
25 dB (A) at LOW



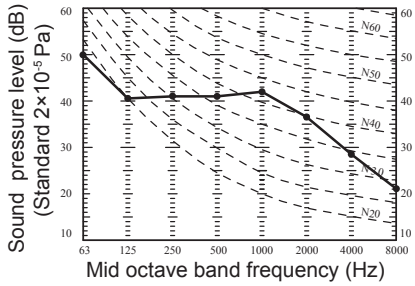
FDU112KXE6F

Noise level 44 dB (A) at P-HIGH
38 dB (A) at HIGH
36 dB (A) at MEDIUM
30 dB (A) at LOW



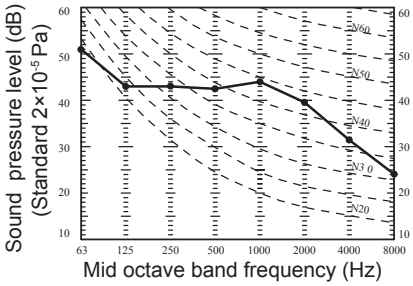
FDU140KXE6F

Noise level 45 dB (A) at P-HIGH
40 dB (A) at HIGH
34 dB (A) at MEDIUM
29 dB (A) at LOW



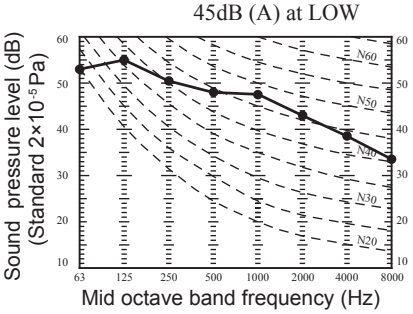
FDU160KXE6F

Noise level 47 dB (A) at P-HIGH
40 dB (A) at HIGH
35 dB (A) at MEDIUM
30 dB (A) at LOW



FDU224, 280KXZE1

Noise level 52dB (A) at P-HIGH
50dB (A) at HIGH
47dB (A) at MEDIUM
45dB (A) at LOW



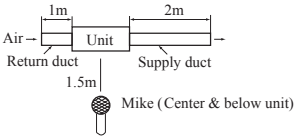
Power level

Measurement conditions : JIS B 8616
Measurement location : reverberation chamber

MODEL	dB(A)
FDU224KXZE1	75
FDU280KXZE1	

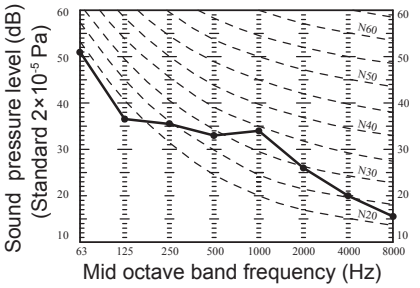
Note (1) Values are for external static pressure of 200Pa.

(6) Duct connected-Low/Middle static pressure type (FDUM)

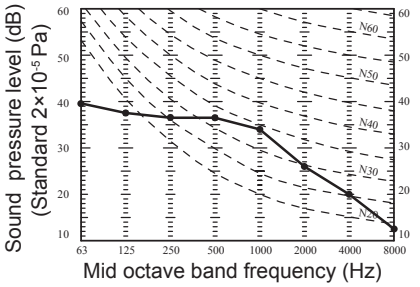


Measured based on JIS B 8616
Mike position as right

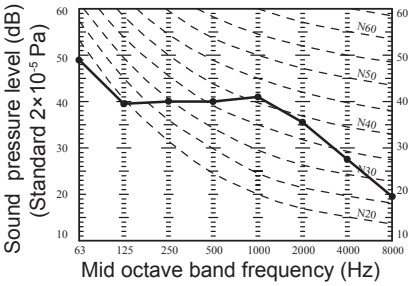
FDUM22,28,36,45,56KXE6F
Noise level 37 dB (A) at P-HIGH
32 dB (A) at HIGH
29 dB (A) at MEDIUM
26 dB (A) at LOW



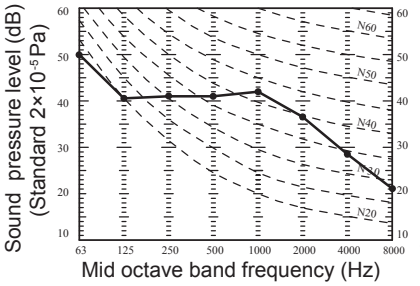
FDUM71,90KXE6F
Noise level 38 dB (A) at P-HIGH
33 dB (A) at HIGH
29 dB (A) at MEDIUM
25 dB (A) at LOW



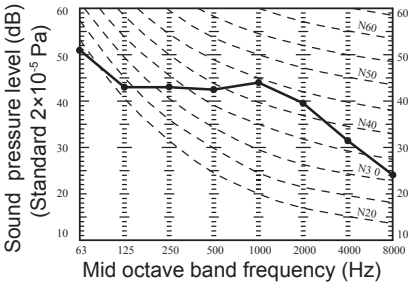
FDUM112KXE6F
Noise level 44 dB (A) at P-HIGH
38 dB (A) at HIGH
36 dB (A) at MEDIUM
30 dB (A) at LOW



FDUM140KXE6F
Noise level 45 dB (A) at P-HIGH
40 dB (A) at HIGH
34 dB (A) at MEDIUM
29 dB (A) at LOW

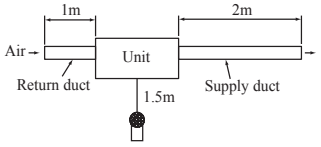


FDUM160KXE6F
Noise level 47 dB (A) at P-HIGH
40 dB (A) at HIGH
35 dB (A) at MEDIUM
30 dB (A) at LOW

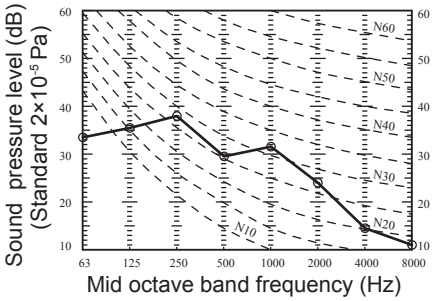


(7) Duct connected (thin)-Low static pressure type (FDUT)

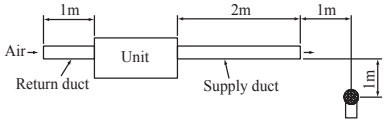
(a) Mike position : 1.5m bwlow the unit
Measured based on JIS B 8616 ANNEX3 (Duct setting)
Mike position as right



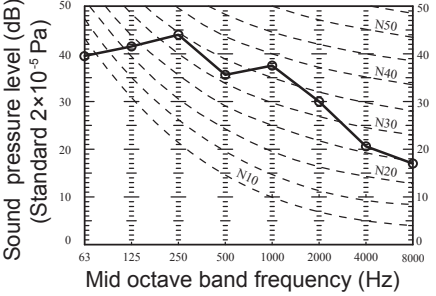
FDUT71KXE6F-E
Noise level 35 dB (A) at HIGH
31 dB (A) at MEDIUM
28 dB (A) at LOW



(b) Mike position : 1m in front and 1m below of the air supply duct
Measured based on JIS B 8616 ANNEX3 (Duct setting)
Mike position as right



FDUT71KXE6F-E
Noise level 41 dB (A) at HIGH
37 dB (A) at MEDIUM
32 dB (A) at LOW

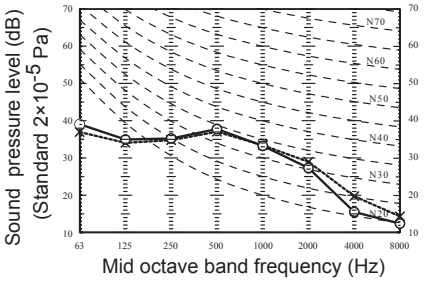


(8) Wall mounted type (FDK)

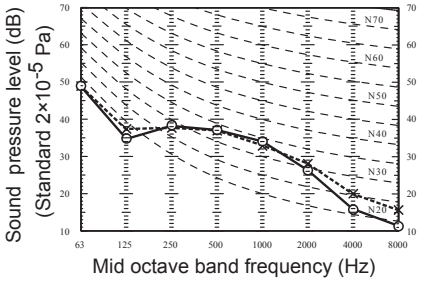
Measured based on JIS B 8616
Mike position as right



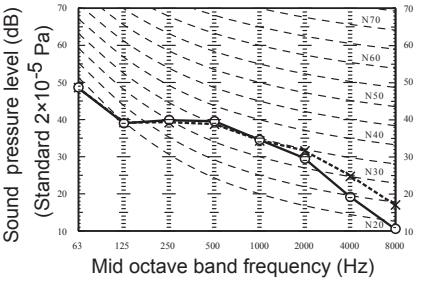
FDK15KXZE1
Noise level 38dB(A) at P-Hi



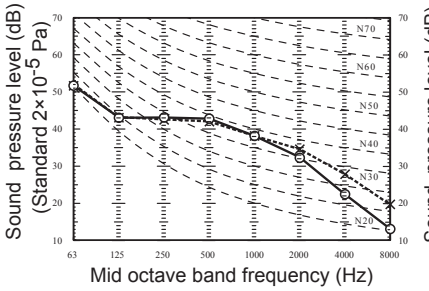
FDK22,28KXZE1
Noise level Cooling 38dB(A) at P-Hi
Heating 38dB(A)



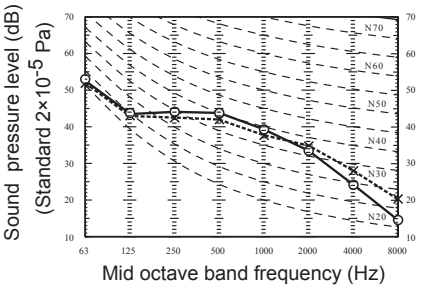
FDK36KXZE1
Noise level Cooling 40dB(A) at P-Hi
Heating 40dB(A)



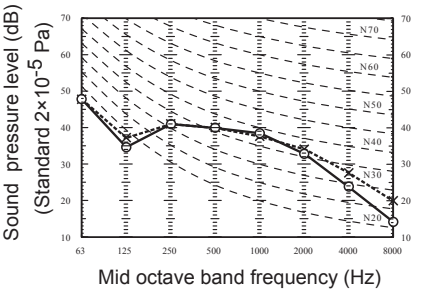
FDK45KXZE1
Noise level Cooling 43dB(A) at P-Hi
Heating 43dB(A)



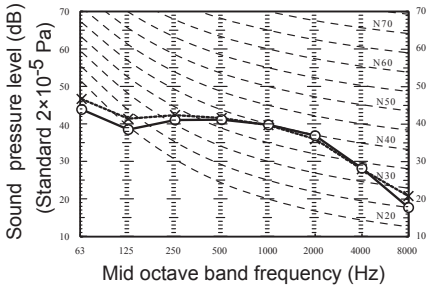
FDK56KXZE1
Noise level Cooling 43dB(A) at P-Hi
Heating 44dB(A)



FDK71KXZE1
Noise level Cooling 42dB(A) at P-Hi
Heating 42dB(A)

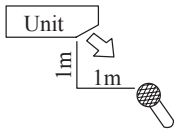


FDK90KXZE1
Noise level Cooling 44dB(A) at P-Hi
Heating 44dB(A)



(9) Ceiling suspended type (FDE)

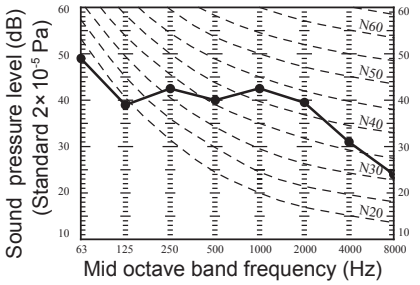
Measured based on JIS B 8616
Mike position as right



Mike (in front & below unit)

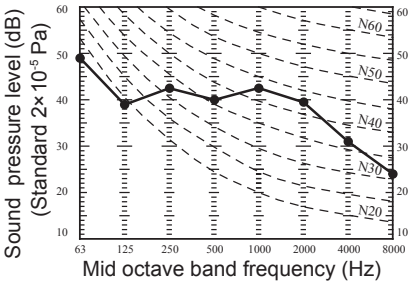
FDE36KXZE1

Noise level 46 dB (A) at P-HIGH
38 dB (A) at HIGH
31 dB (A) at MEDIUM
26 dB (A) at LOW



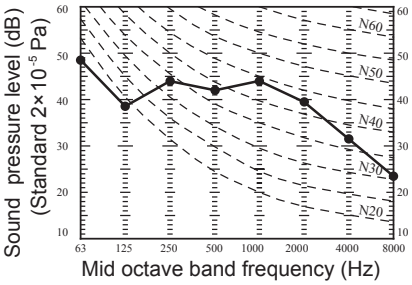
FDE45, 56KXZE1

Noise level 46 dB (A) at P-HIGH
38 dB (A) at HIGH
36 dB (A) at MEDIUM
31 dB (A) at LOW



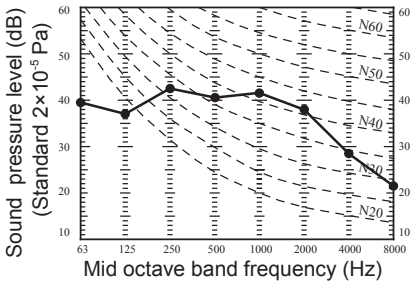
FDE71KXZE1

Noise level 47 dB (A) at P-HIGH
39 dB (A) at HIGH
37 dB (A) at MEDIUM
32 dB (A) at LOW



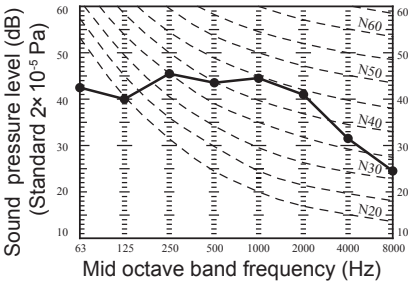
FDE112KXZE1

Noise level 45 dB (A) at P-HIGH
42 dB (A) at HIGH
38 dB (A) at MEDIUM
34 dB (A) at LOW



FDE140KXZE1

Noise level 48 dB (A) at P-HIGH
43 dB (A) at HIGH
40 dB (A) at MEDIUM
35 dB (A) at LOW

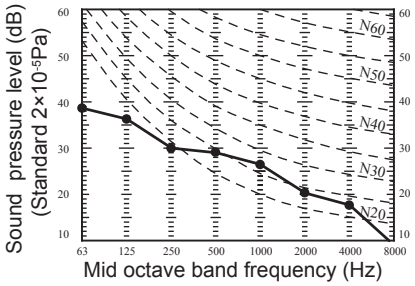


(10) Outdoor Air Processing unit (FDU-F)

Notes(1) Values are for external static pressure of 200Pa.

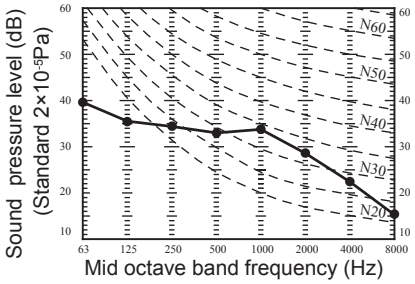
FDU650FKXZE1

Noise level 31dB (A) at High



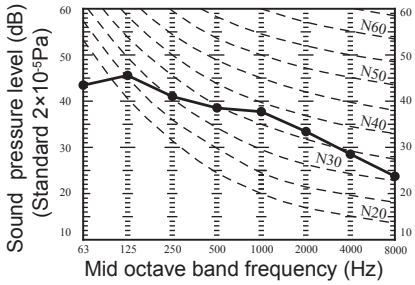
FDU1100FKXZE1

Noise level 37dB (A) at High



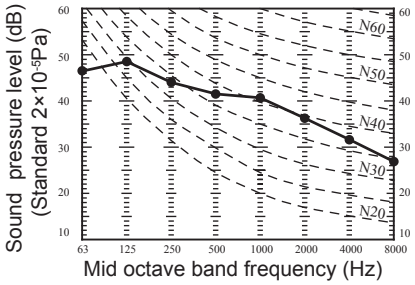
FDU1800FKXZE1

Noise level 42dB (A) at High



FDU2400FKXZE1

Noise level 45dB (A) at High



Power level

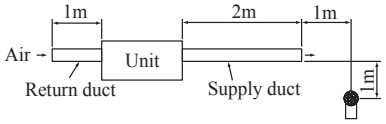
Measurement conditions : JIS B 8616
Measurement location : reverberation chamber

MODEL	dB(A)	MODEL	dB(A)
FDU650FKXZE1	55	FDU1800FKXZE1	68
FDU1100FKXZE1	62	FDU2400FKXZE1	70

Note (1) Values are for external static pressure of 200Pa.

Measured based on JIS B 8616

Mike position as below



6. CHARACTERISTICS OF FAN

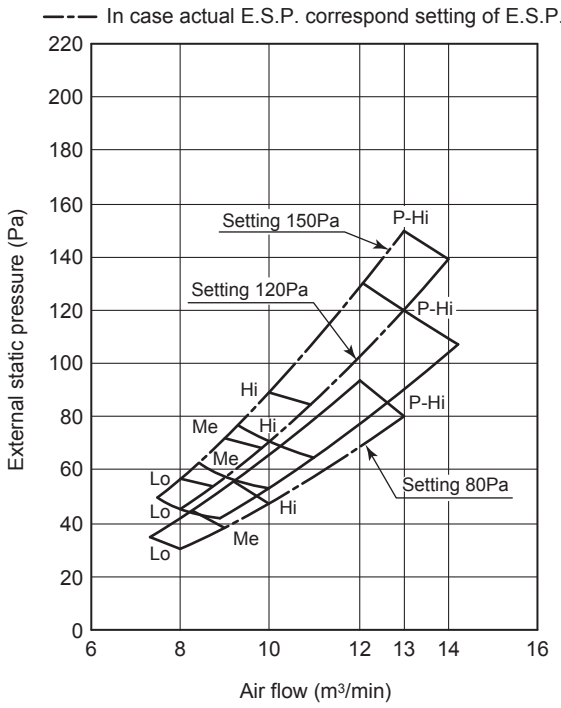
(1) Duct connected-High static pressure type (FDU)

- Characteristic FAN (1) shows air flow vs. External Static Pressure (E.S.P.) range where settings of E.S.P. are maximum E.S.P. (SW8-4 OFF : 150Pa, SW8-4 ON : 200Pa) , rated E.S.P., and minimum E.S.P. (SW8-4 OFF : 80Pa, SW8-4 ON : 10Pa)
- Characteristic FAN (2) shows air flow vs. E.S.P. curve when set fan tap is set P-Hi with each setting of E.S.P. by remote control.
- External Static Pressure (E.S.P.) can be set by wired remote control.
- You can set required E.S.P. by wired remote control which calculate it with the set air flow rate and pressure loss of the duct connected.

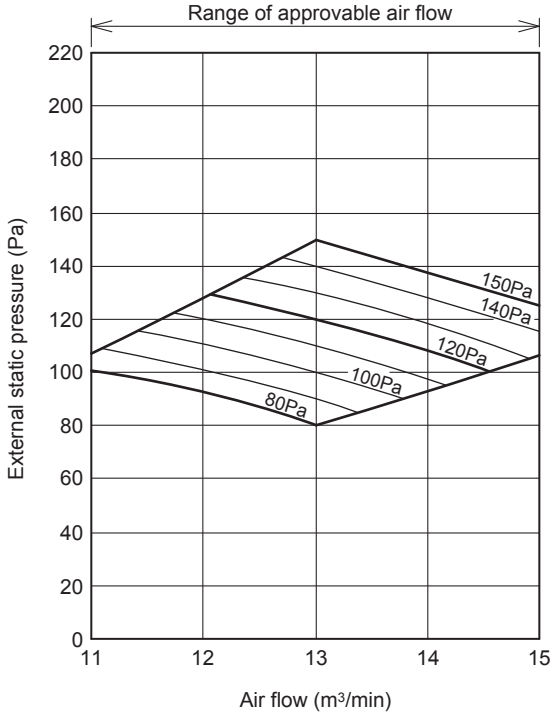
Models FDU45KXE6F, 56KXE6F

■SW8-4 : OFF (Range of use limitation : Setting 80Pa-150Pa)

Characteristic FAN (1)

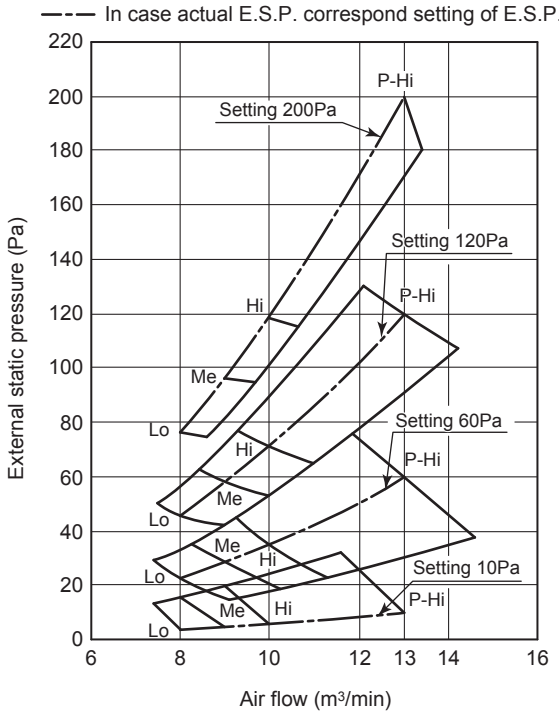


Characteristic FAN (2)

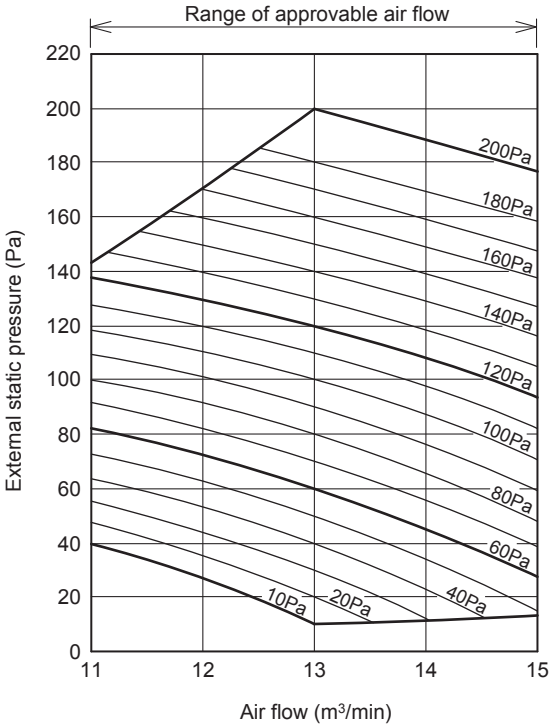


■SW8-4 : ON (Range of use limitation : Setting 10Pa-200Pa)

Characteristic FAN (1)



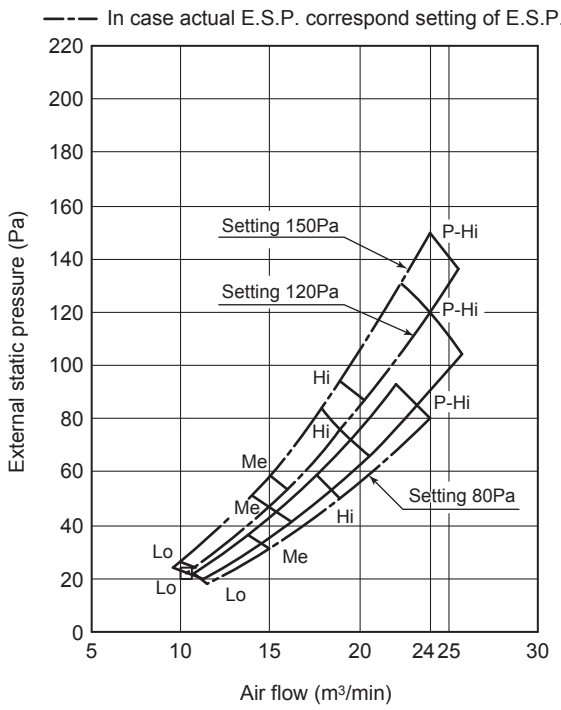
Characteristic FAN (2)



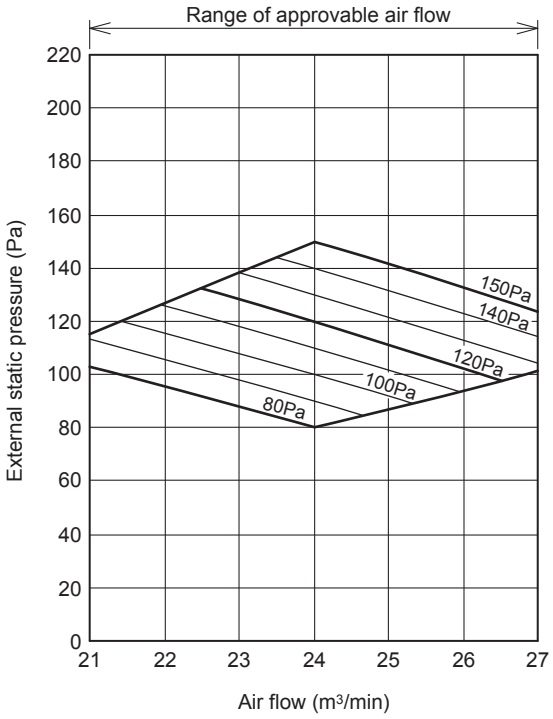
Models FDU71KXE6F, 90KXE6F

■SW8-4 : OFF (Range of use limitation : Setting 80Pa-150Pa)

Characteristic FAN (1)

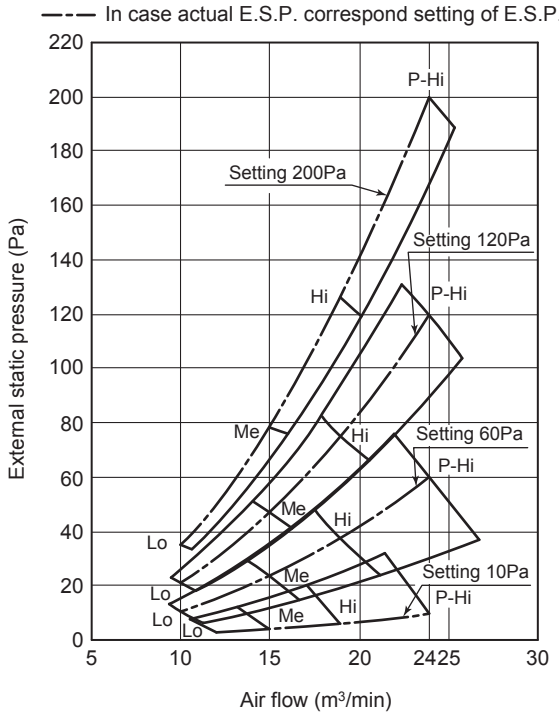


Characteristic FAN (2)

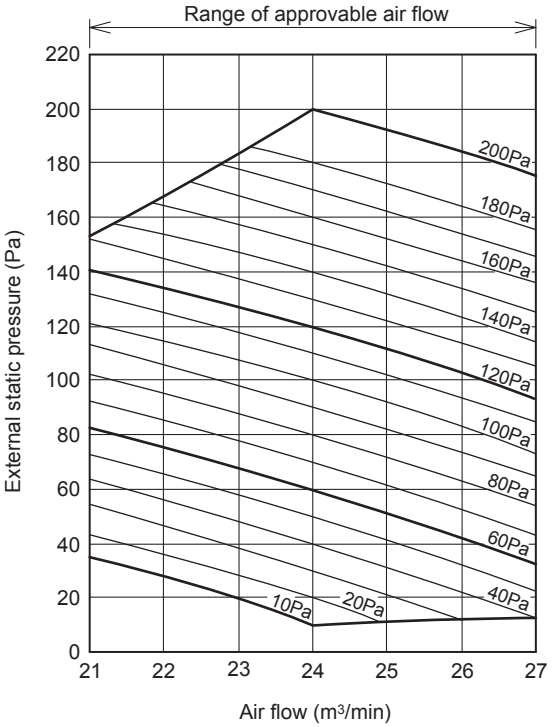


■SW8-4 : ON (Range of use limitation : Setting 10Pa-200Pa)

Characteristic FAN (1)



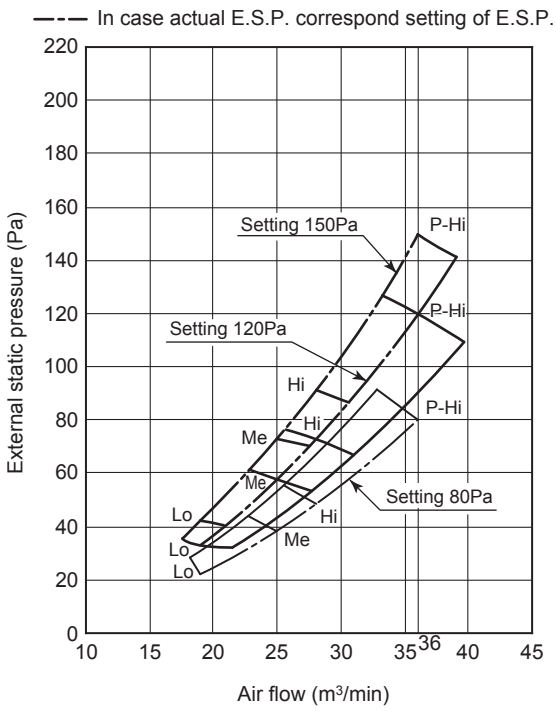
Characteristic FAN (2)



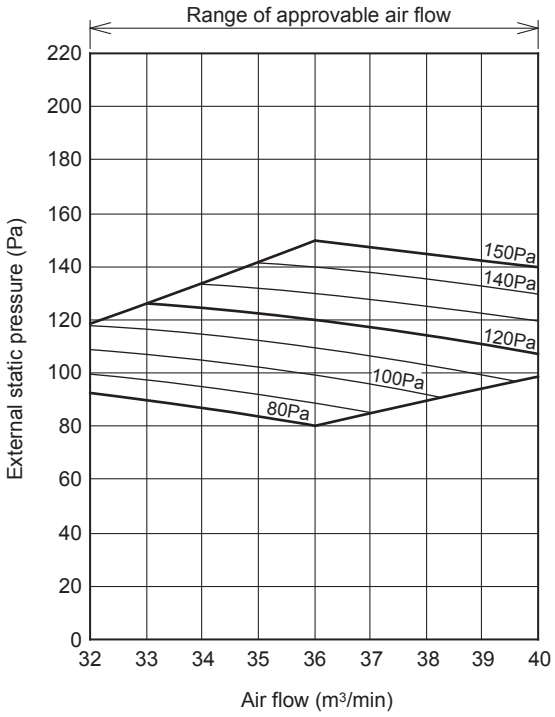
Model FDU112KXE6F

■SW8-4 : OFF (Range of use limitation : Setting 80Pa-150Pa)

Characteristic FAN (1)

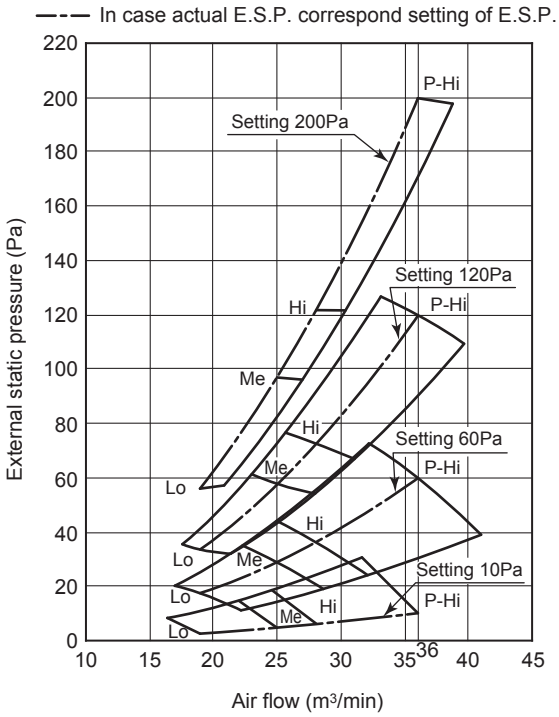


Characteristic FAN (2)

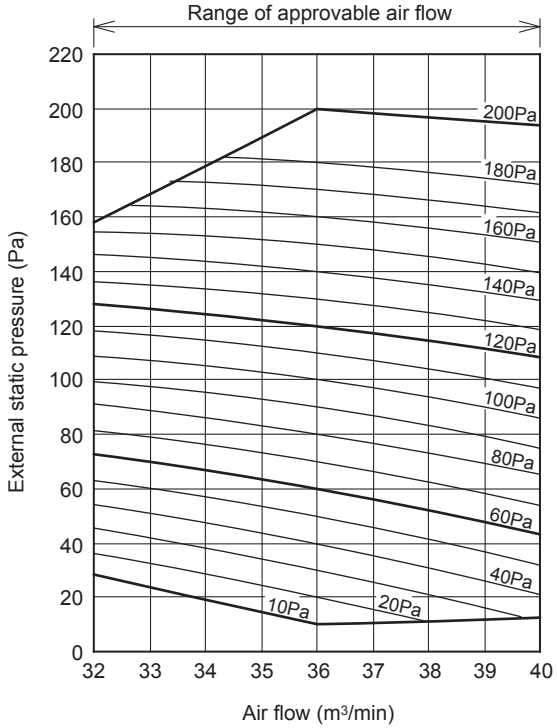


■SW8-4 : ON (Range of use limitation : Setting 10Pa-200Pa)

Characteristic FAN (1)



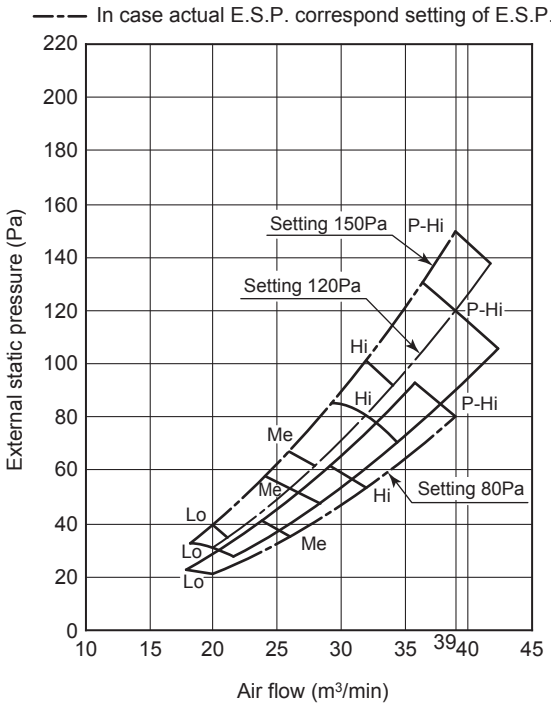
Characteristic FAN (2)



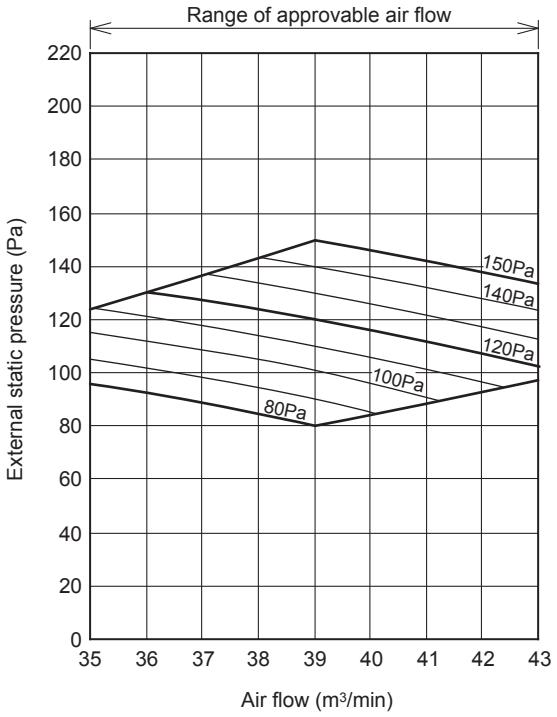
Model FDU140KXE6F

■SW8-4 : OFF (Range of use limitation : Setting 80Pa-150Pa)

Characteristic FAN (1)

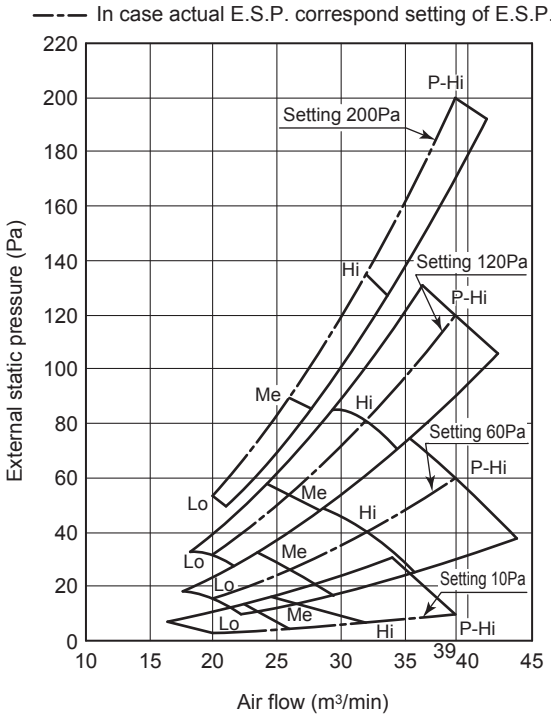


Characteristic FAN (2)

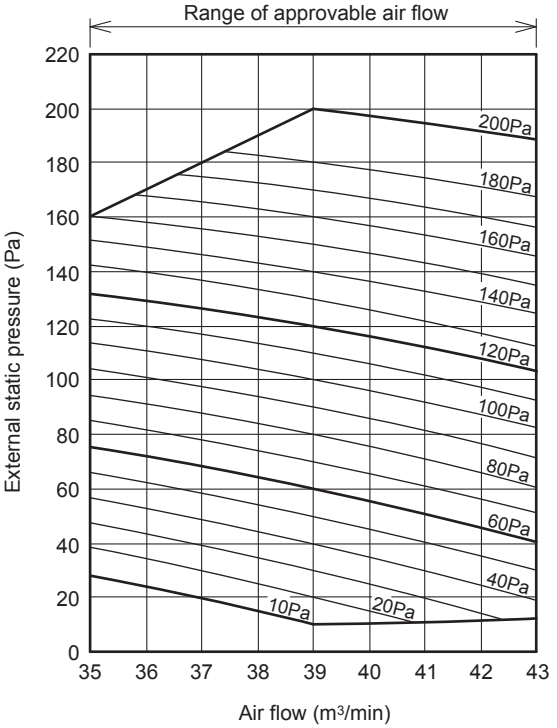


■SW8-4 : ON (Range of use limitation : Setting 10Pa-200Pa)

Characteristic FAN (1)



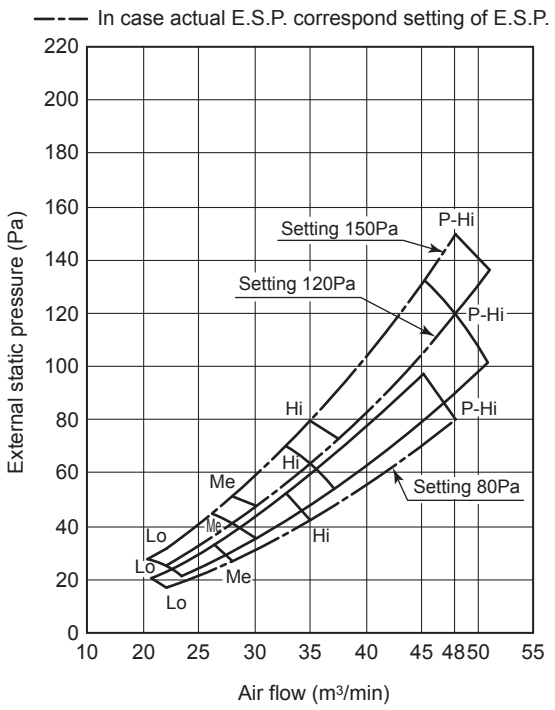
Characteristic FAN (2)



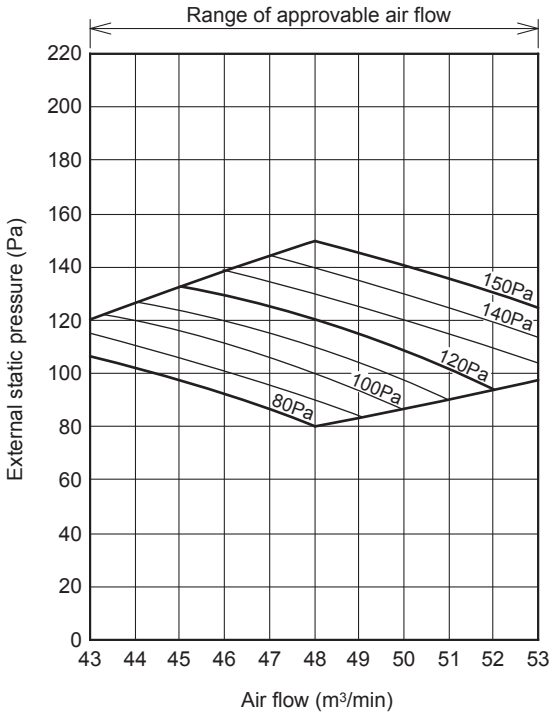
Model FDU160KXE6F

■SW8-4 : OFF (Range of use limitation : Setting 80Pa-150Pa)

Characteristic FAN (1)

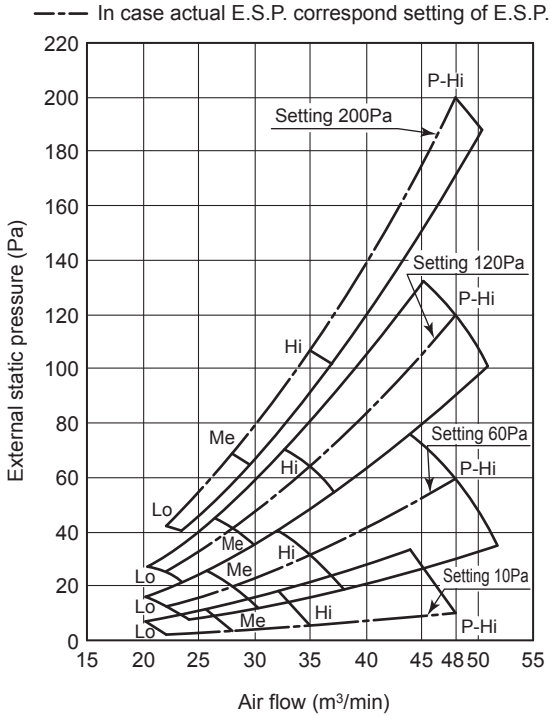


Characteristic FAN (2)

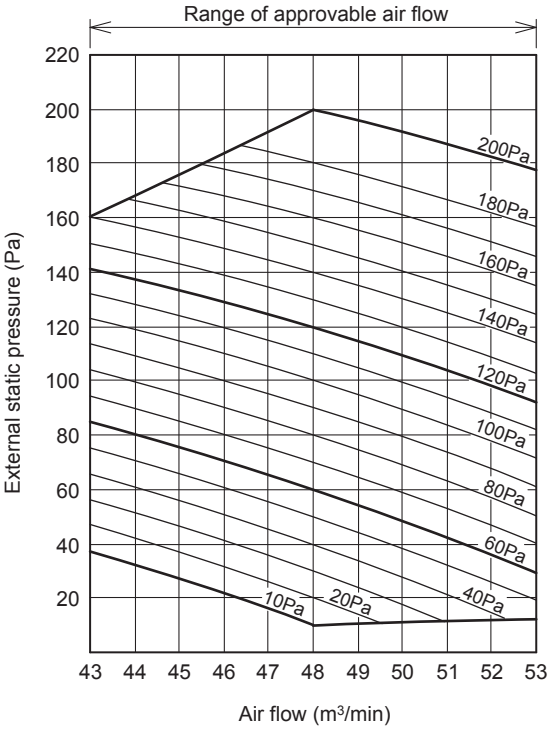


■SW8-4 : ON (Range of use limitation : Setting 10Pa-200Pa)

Characteristic FAN (1)



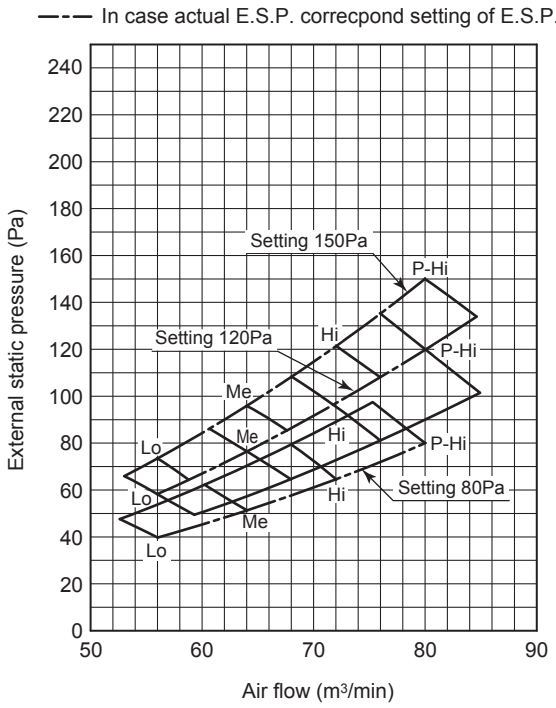
Characteristic FAN (2)



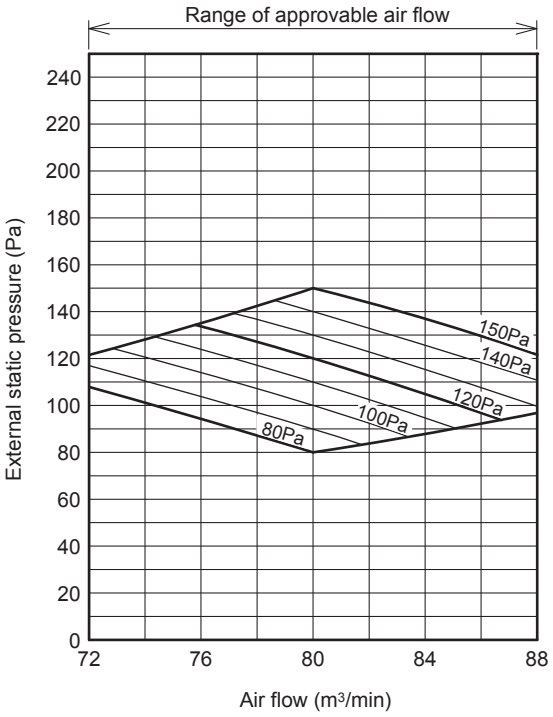
Models FDU224KXZE1, 280KXZE1

■SW8-4 : OFF (Range of use limitation : Setting 80Pa-150Pa)

Characteristic FAN (1)

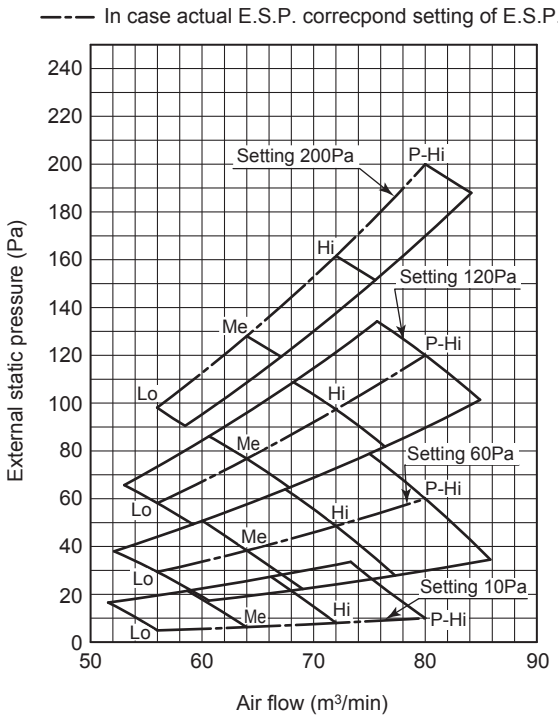


Characteristic FAN (2)

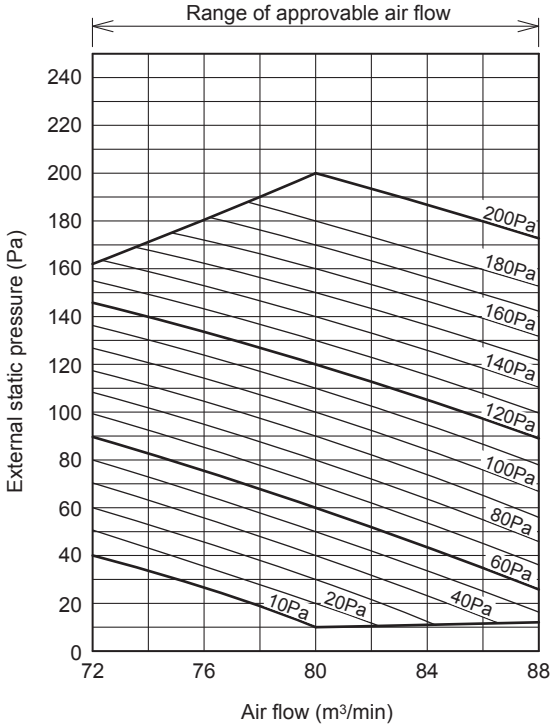


■SW8-4 : ON (Range of use limitation : Setting 10Pa-200Pa)

Characteristic FAN (1)



Characteristic FAN (2)

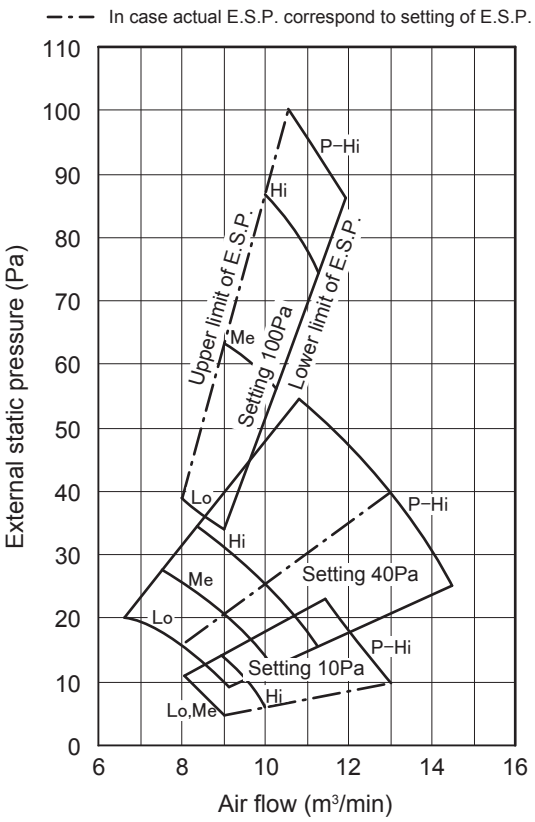


(2) Duct connected-Low/Middle static pressure (FDUM)

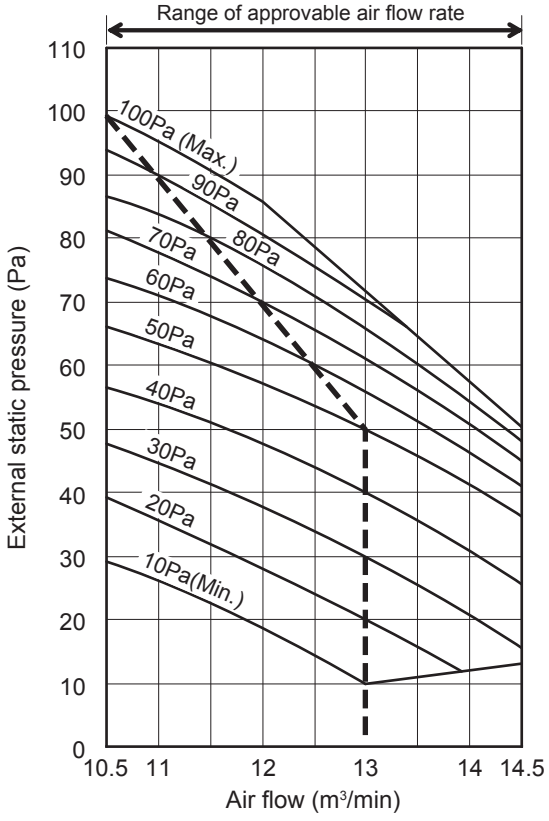
- Characteristic FAN (1) shows air flow vs. External Static Pressure (E.S.P.) range where settings of E.S.P. are maximum E.S.P. (100Pa) , rated E.S.P., and minimum E.S.P. (10Pa)
- Characteristic FAN (2) shows air flow vs. E.S.P curve when set fan tap is set P-Hi with each setting of E.S.P by remote control.
- External Static Pressure (E.S.P.) can be set by wired remote control.
- You can set required E.S.P. by wired remote control which calculate it with the set air flow rate and pressure loss of the duct connected.

Models FDUM22KXE6F, 28KXE6F, 36KXE6F, 45KXE6F, 56KXE6F

Characteristic FAN(1)

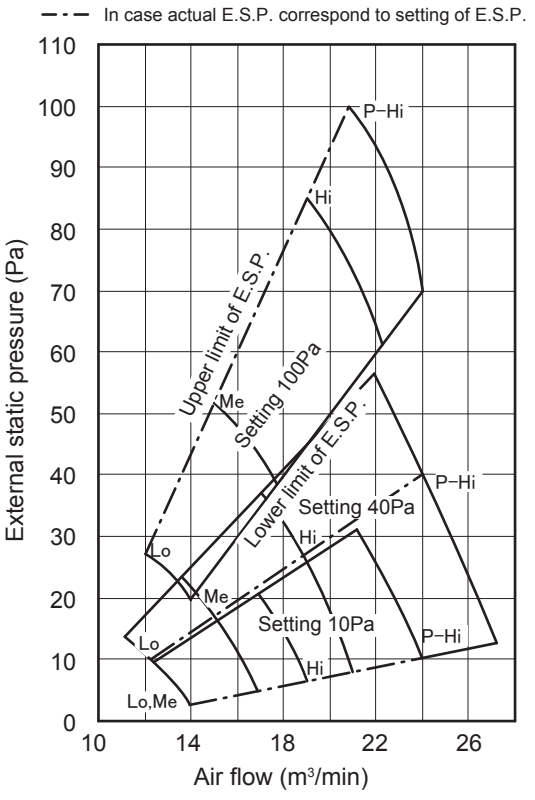


Characteristic FAN(2)

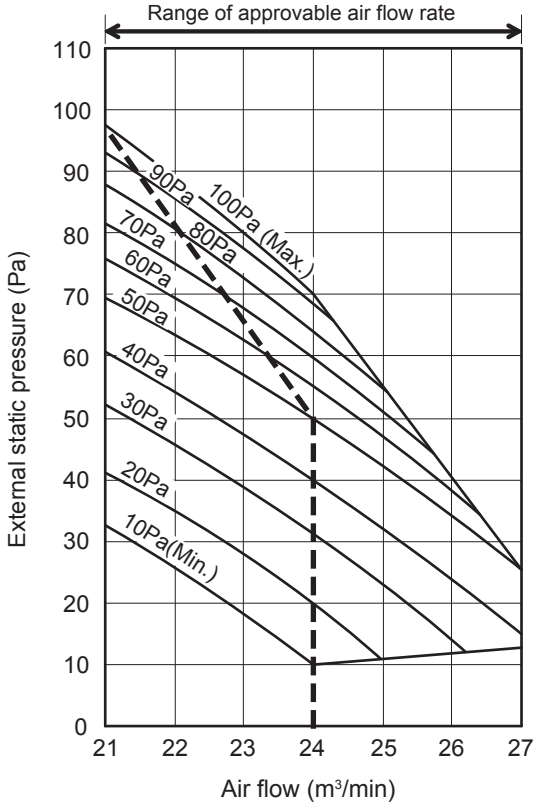


Models FDUM71KXE6F, 90KXE6F

Characteristic FAN(1)

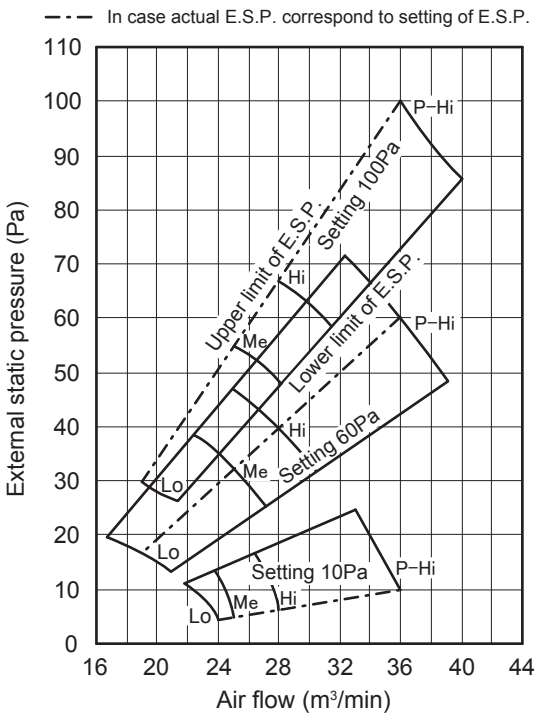


Characteristic FAN(2)

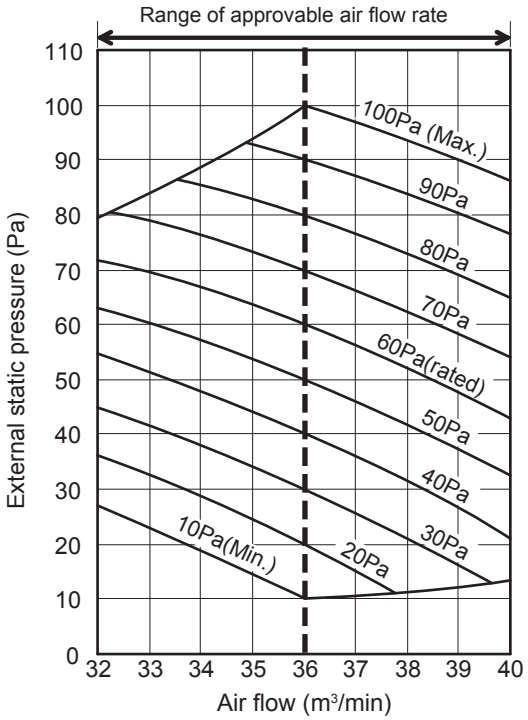


Model FDUM112KXE6F

Characteristic FAN(1)

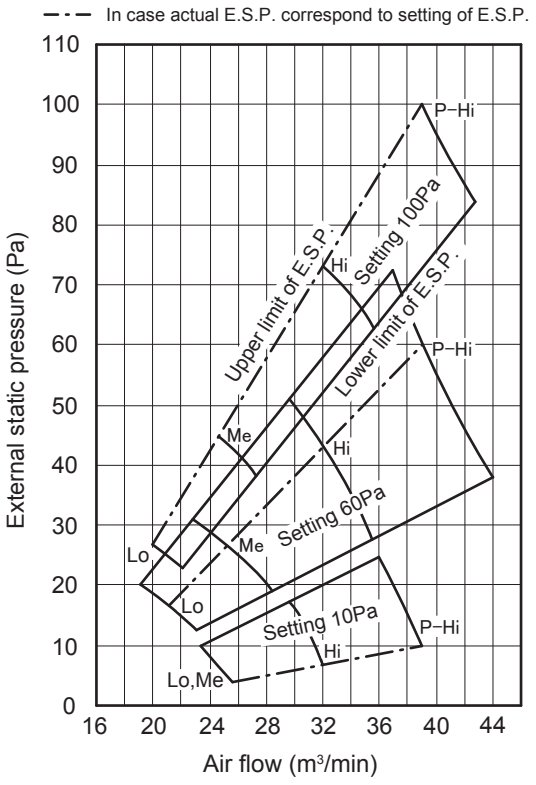


Characteristic FAN(2)

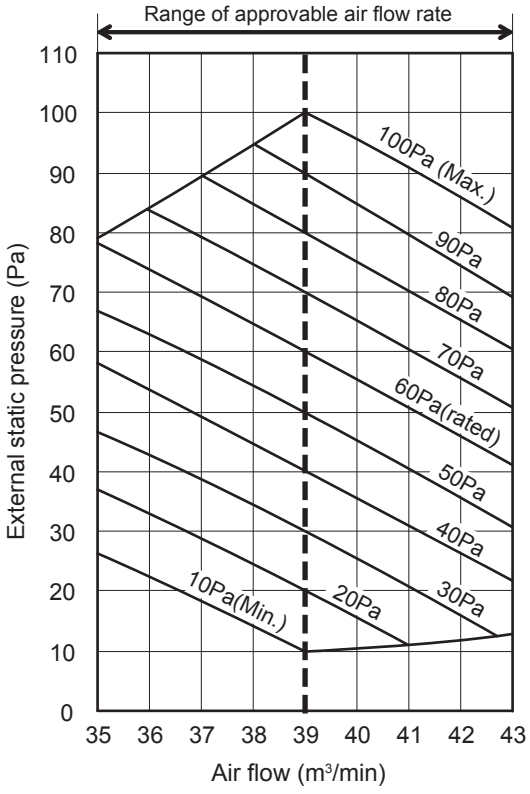


Model FDUM140KXE6F

Characteristic FAN(1)

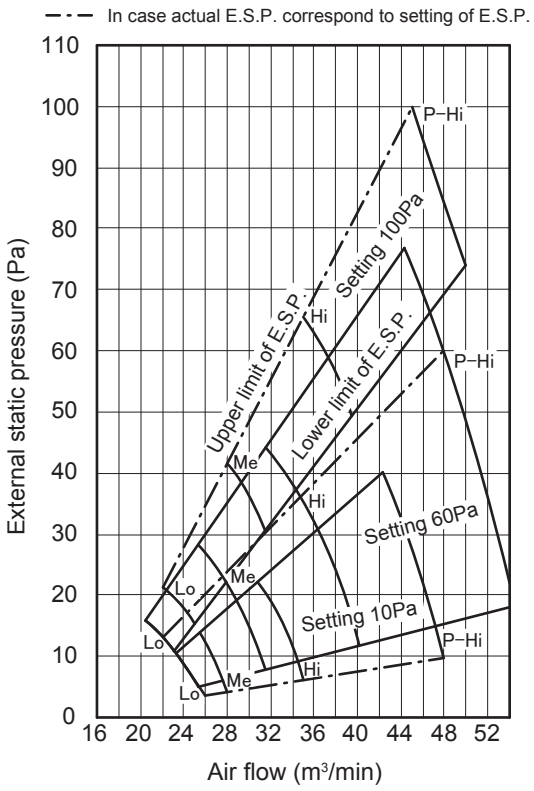


Characteristic FAN(2)

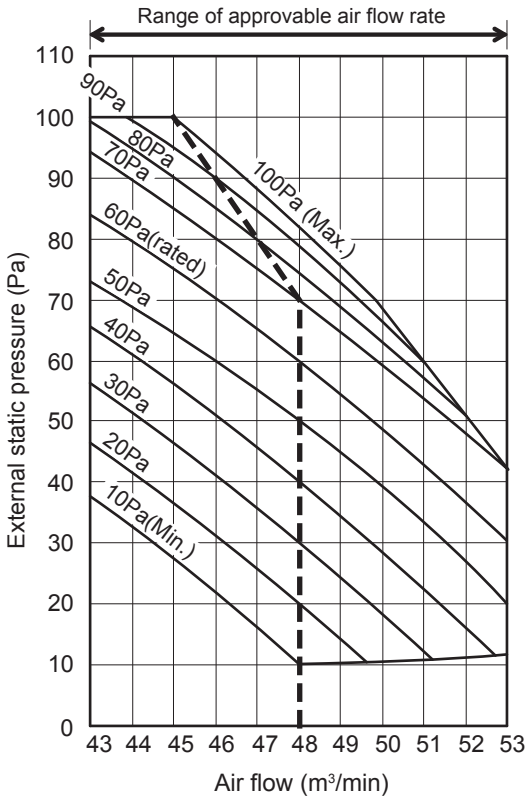


Model FDUM160KXE6F

Characteristic FAN(1)



Characteristic FAN(2)



(3) Duct connected (thin)-Low static pressure type (FDUT)

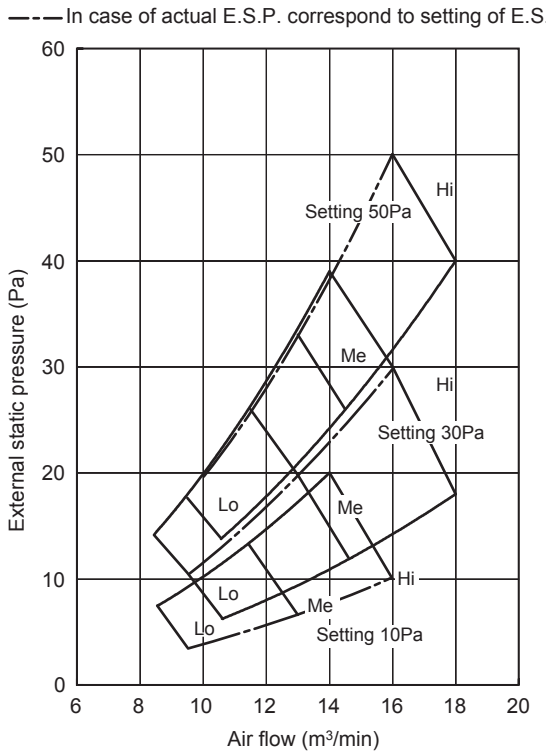
Model FDUT71KXE6F-E

Characteristic FAN(1) shows air flow vs External Static Pressure(E.S.P.) range where settings of E.S.P. are maximun E.S.P.(50Pa), E.S.P.(30Pa), and minimum E.S.P.(10Pa).

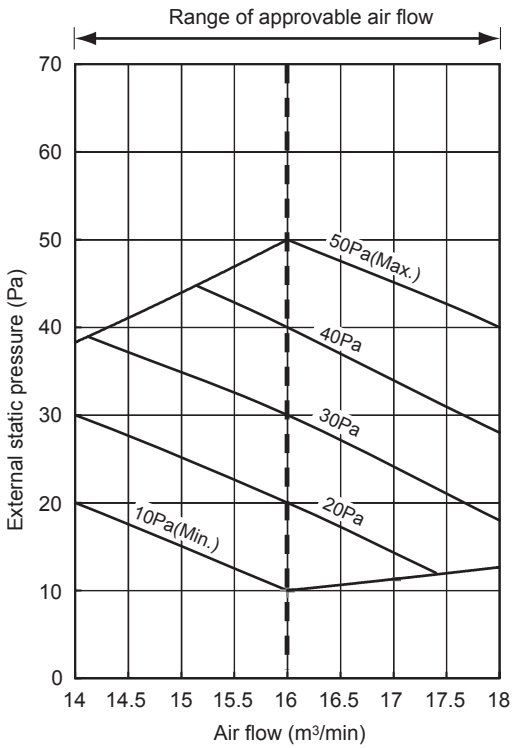
Characteristic FAN(2) shows air flows vs E.S.P. curve when set fan tap is set Hi with each setting of E.S.P. by remote control. External Static Pressure(E.S.P.) can be set by wired remote control.

You can set required E.S.P.by wired remote control which calculate it with the set air flow rate and pressure loss of the duct connected.

Characteristic FAN (1)



Characteristic FAN (2)



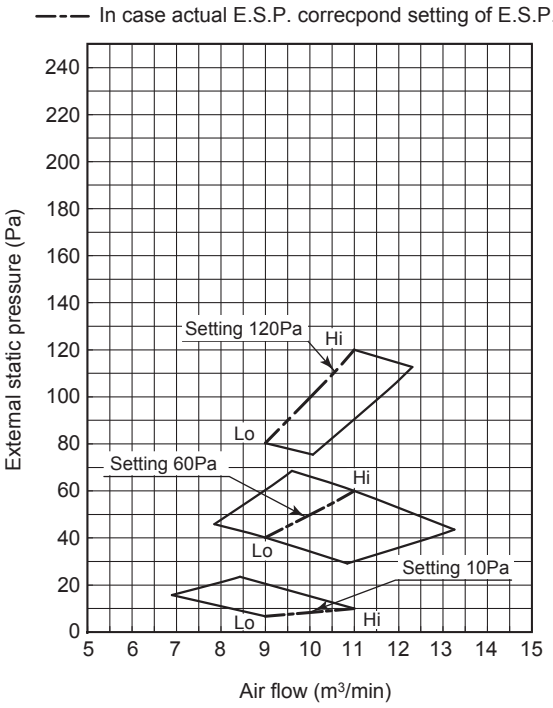
(4) Outdoor air processing unit (FDU-F)

- Characteristic FAN (1) shows air flow vs. External Static Pressure (E.S.P.) range where settings of E.S.P. are maximum E.S.P. (SW8-4 OFF : 120Pa, SW8-4 ON : 200Pa) , rated E.S.P., and minimum E.S.P. (SW8-4 OFF : 10Pa, SW8-4 ON : 10Pa)
- Characteristic FAN (2) shows air flow vs. E.S.P curve when set fan tap is set Hi with each setting of E.S.P . by remote control.
- External Static Pressure (E.S.P.) can be set by wired remote control.
- You can set required E.S.P. by wired remote control which calculate it with the set air flow rate and pressure loss of the duct connected.

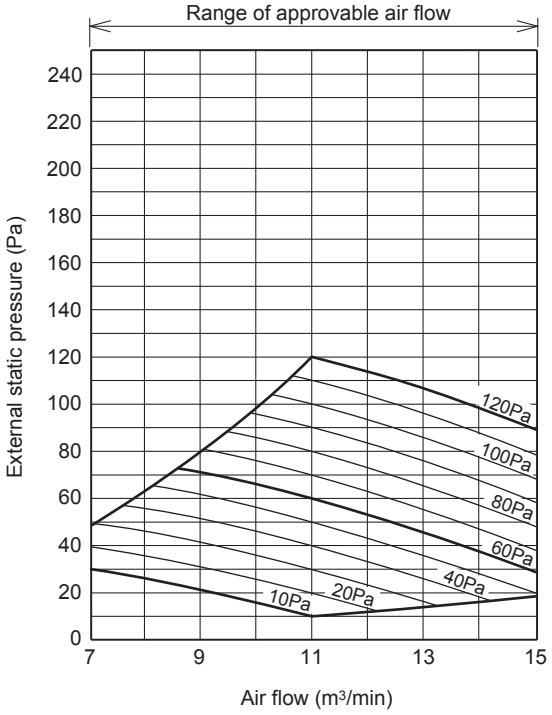
Model FDU650FKXZE1

■SW8-4 : OFF (Range of use limitation : Setting 10Pa-120Pa)

Characteristic FAN (1)

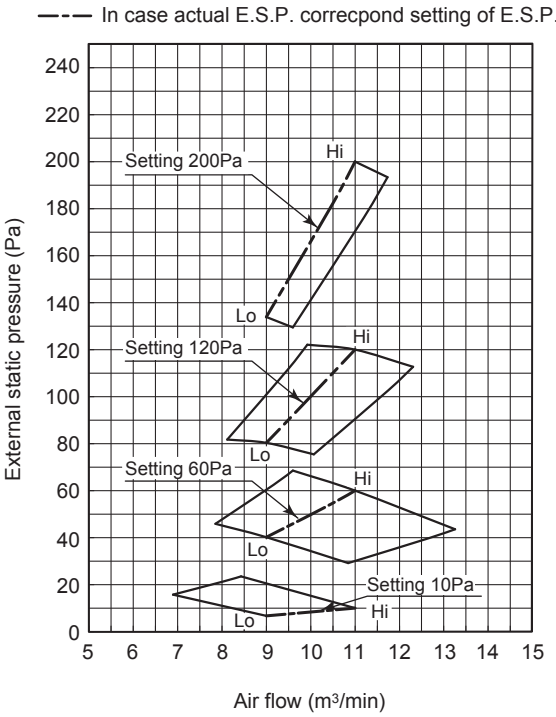


Characteristic FAN (2)

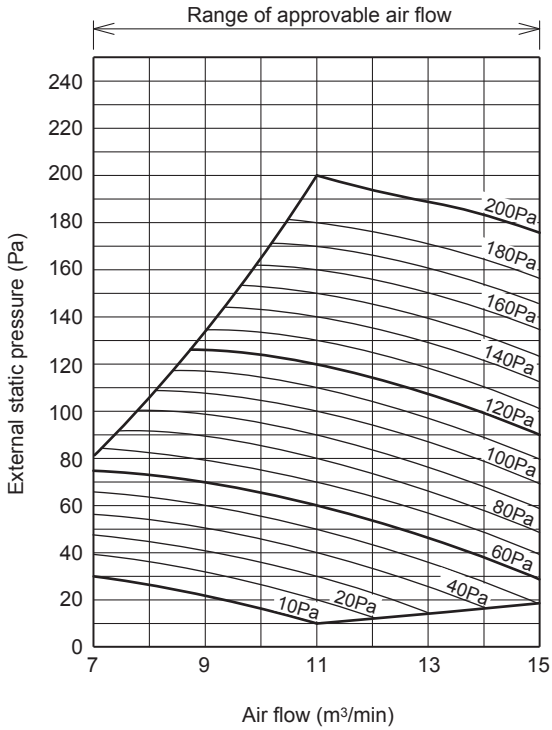


■SW8-4 : ON (Range of use limitation : Setting 10Pa-200Pa)

Characteristic FAN (1)



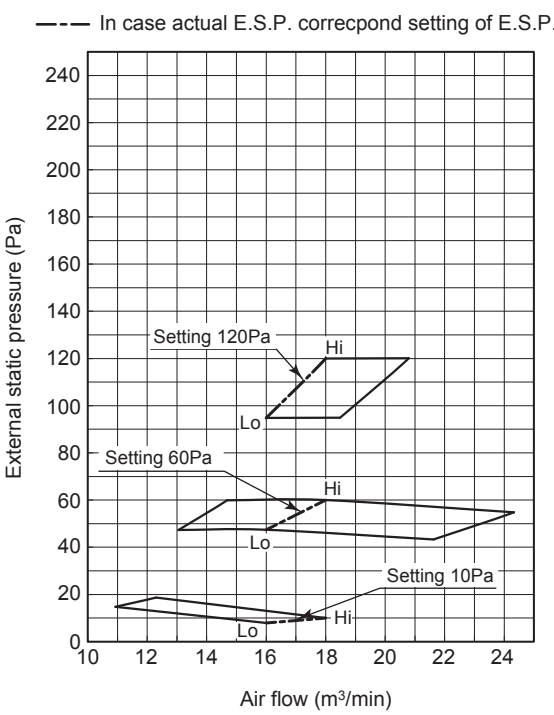
Characteristic FAN (2)



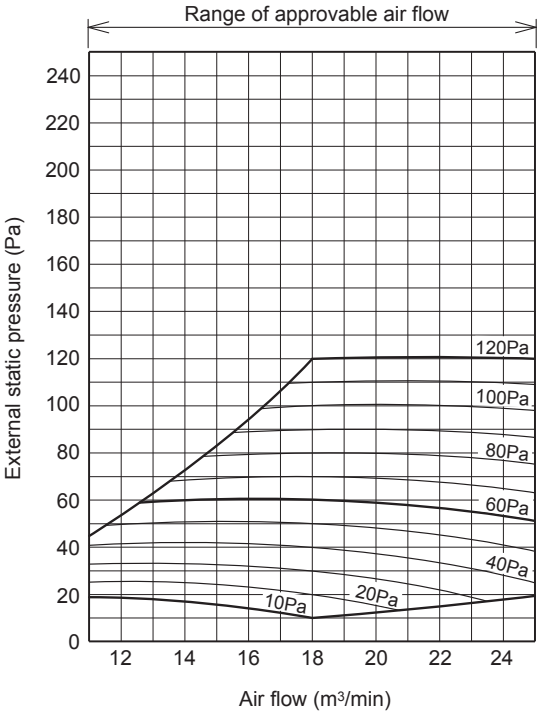
Model FDU1100FKXZE1

■SW8-4 : OFF (Range of use limitation : Setting 10Pa-120Pa)

Characteristic FAN (1)

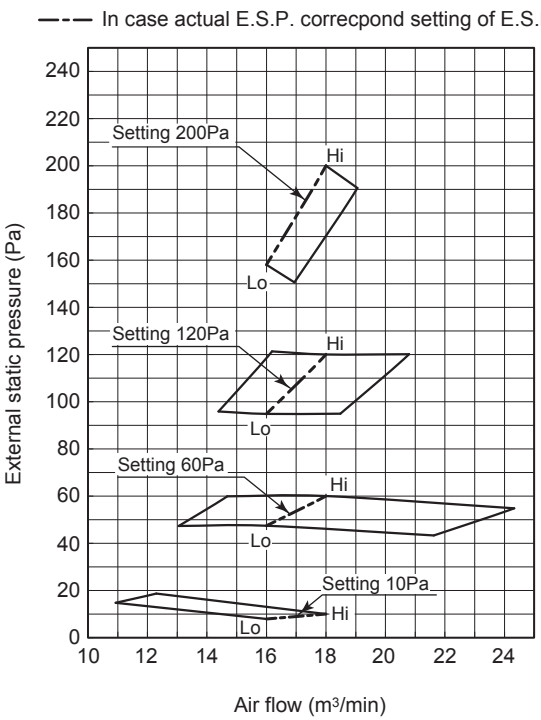


Characteristic FAN (2)

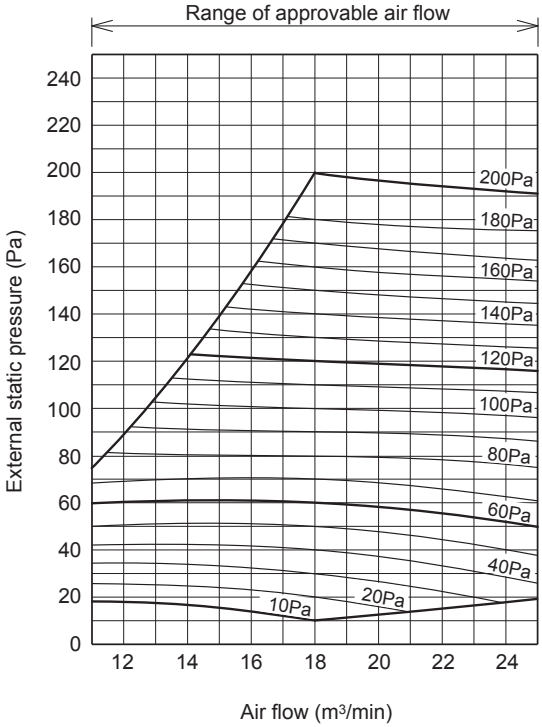


■SW8-4 : ON (Range of use limitation : Setting 10Pa-200Pa)

Characteristic FAN (1)



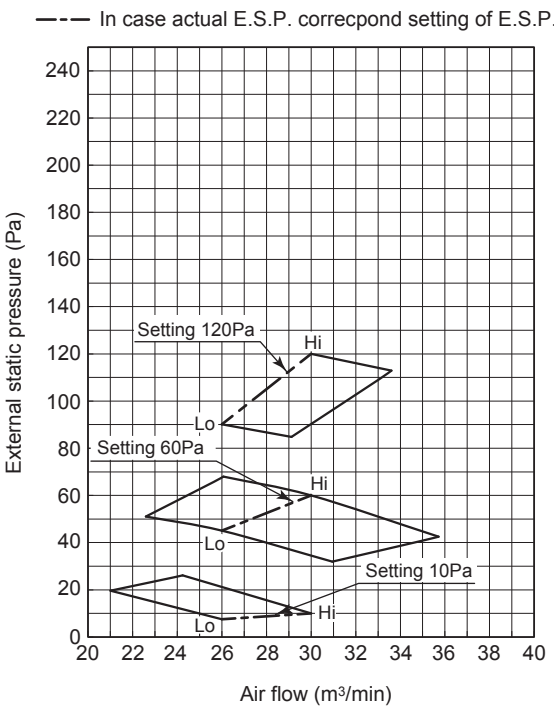
Characteristic FAN (2)



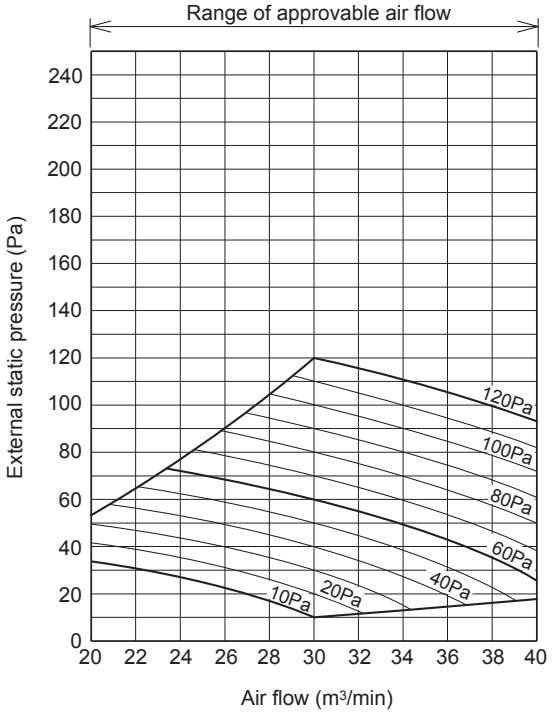
Model FDU1800FKXZE1

■SW8-4 : OFF (Range of use limitation : Setting 10Pa-120Pa)

Characteristic FAN (1)

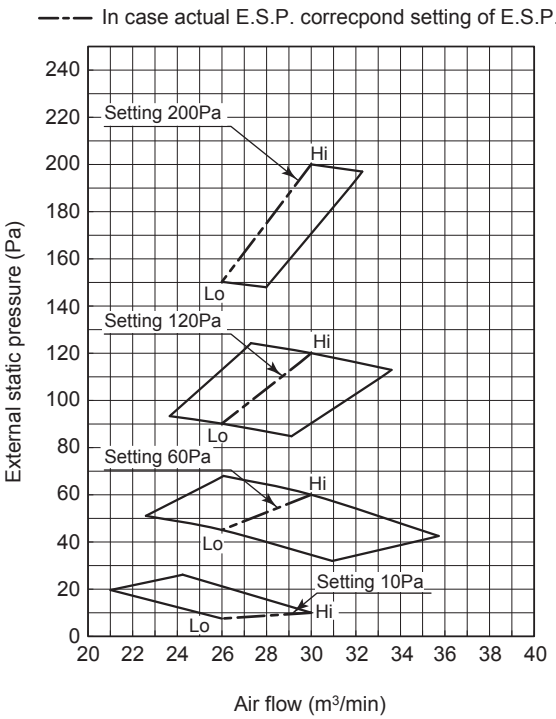


Characteristic FAN (2)

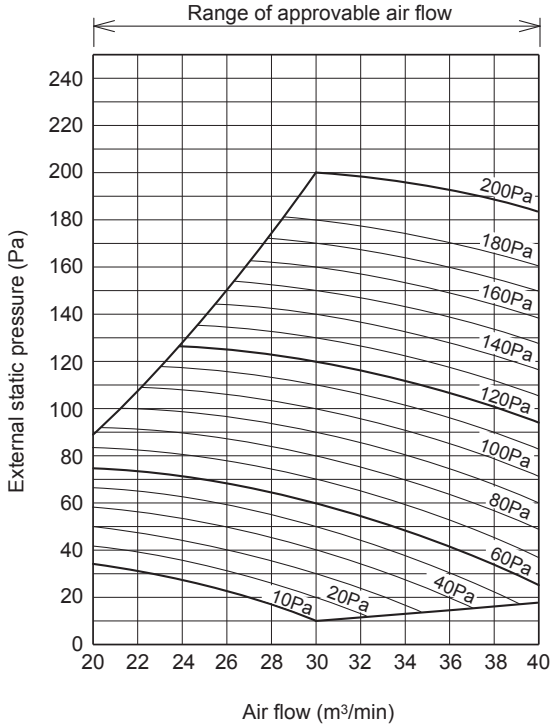


■SW8-4 : ON (Range of use limitation : Setting 10Pa-200Pa)

Characteristic FAN (1)



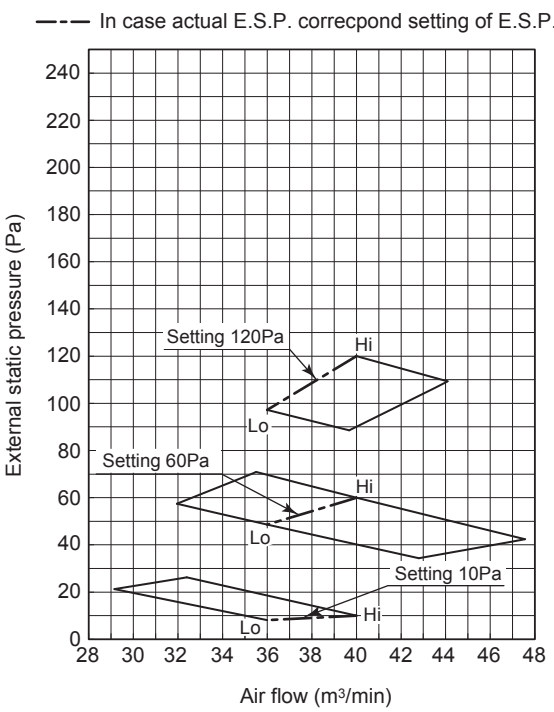
Characteristic FAN (2)



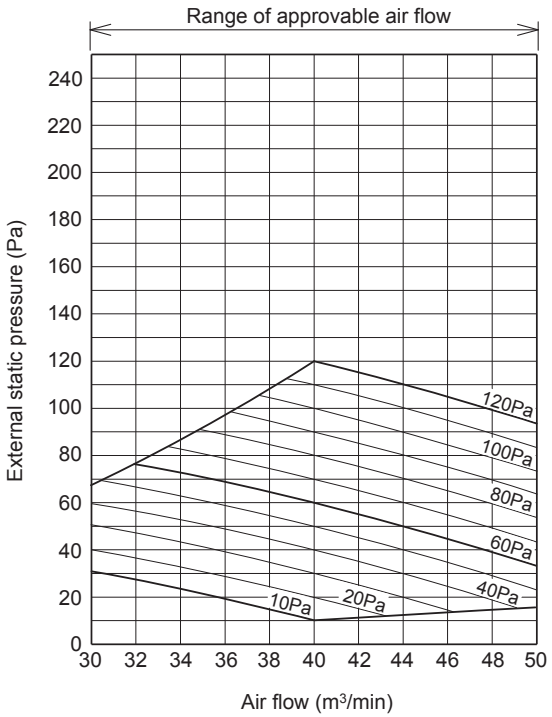
Model FDU2400FKXZE1

■SW8-4 : OFF (Range of use limitation : Setting 10Pa-120Pa)

Characteristic FAN (1)

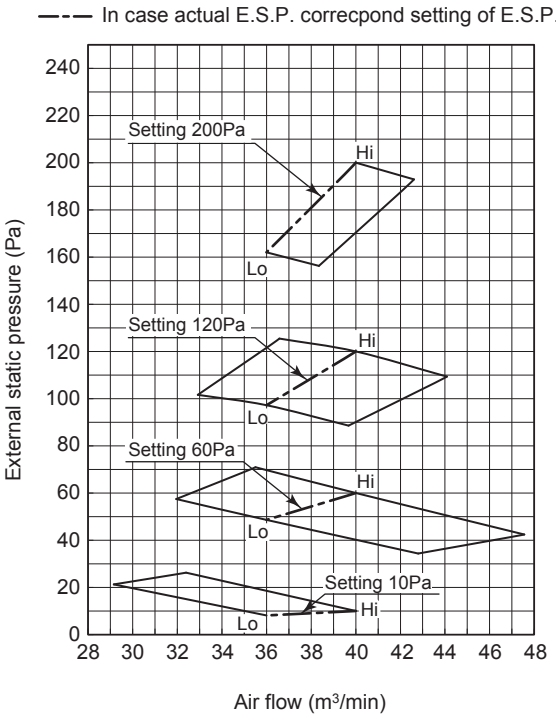


Characteristic FAN (2)

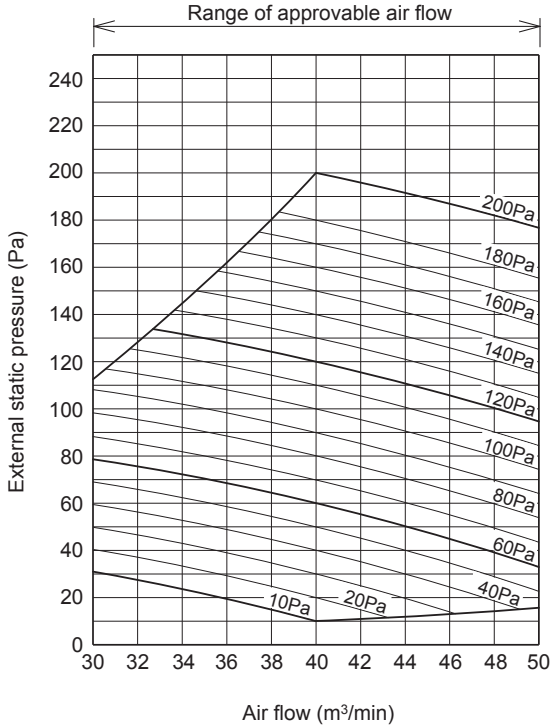


■SW8-4 : ON (Range of use limitation : Setting 10Pa-200Pa)

Characteristic FAN (1)



Characteristic FAN (2)



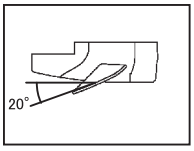
7. TEMPERATURE AND VELOCITY DISTRIBUTION

Indoor temperature
Cooling 27°CDB/19°CWB, Heating 20°CDB
〔Note〕
These figures represent the typical main range of temperature and velocity distribution at the center of air outlet within the published conditions.
In the actual installation, they may differ from the typical figures under the influence of air temperature conditions, ceiling height, operation conditions and obstacles.

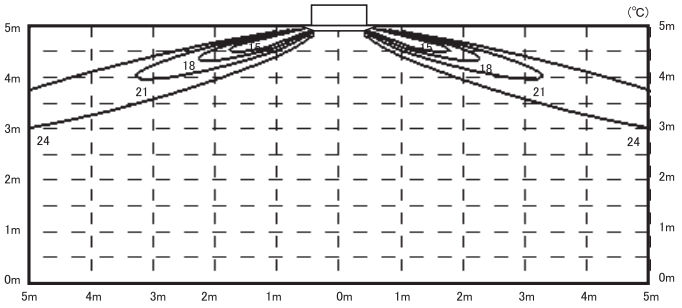
(1) Ceiling cassette-4 way (FDT)
Models FDT28KXZE1, 36KXZE1, 45KXZE1

Cooling Air flow:P-Hi

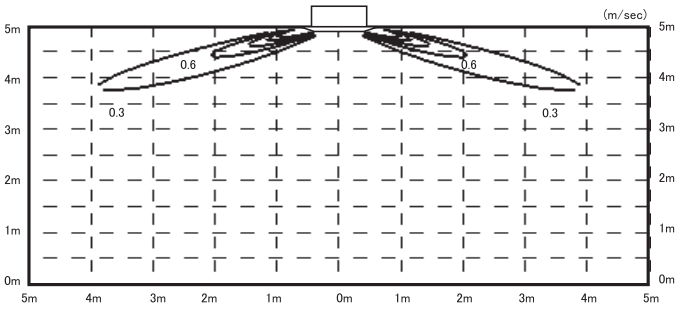
Louver position



Temperature distribution

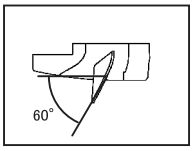


Velocity distribution

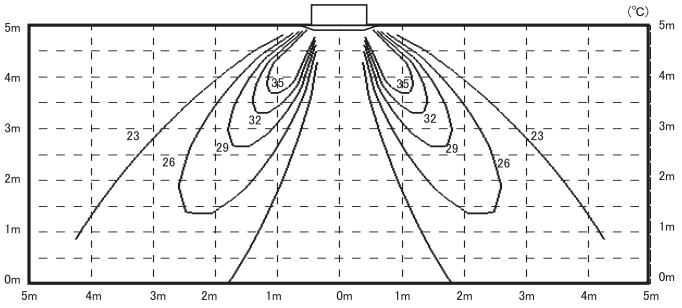


Heating Air flow:P-Hi

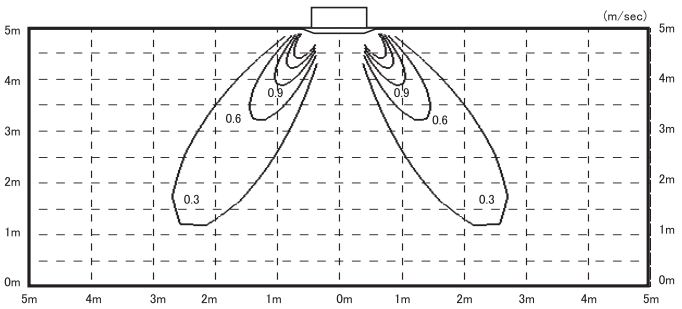
Louver position



Temperature distribution



Velocity distribution

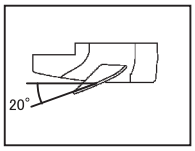


ISD16448 B

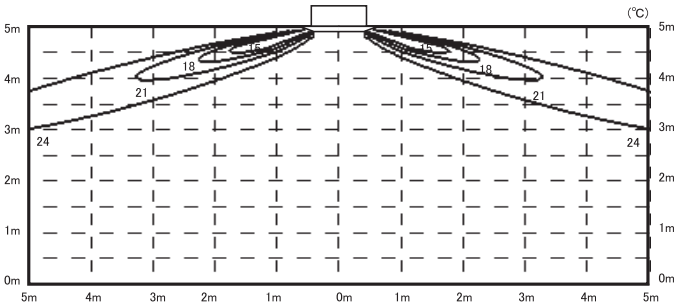
Models FDT56KXZE1, 71KXZE1

Cooling Air flow:P-Hi

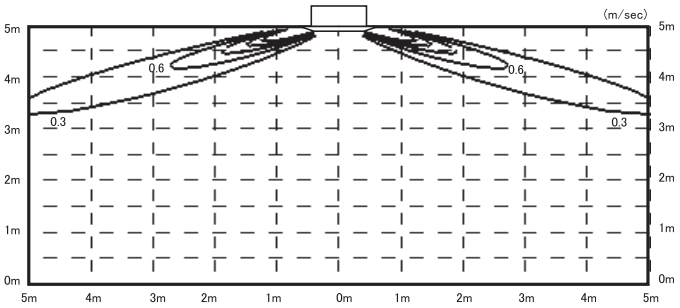
Louver position



Temperature distribution

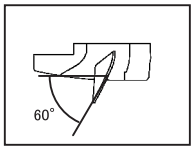


Velocity distribution

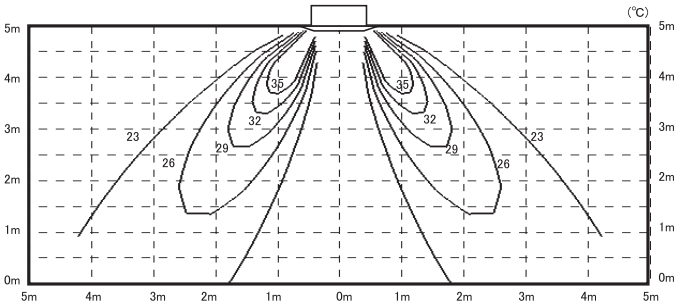


Heating Air flow:P-Hi

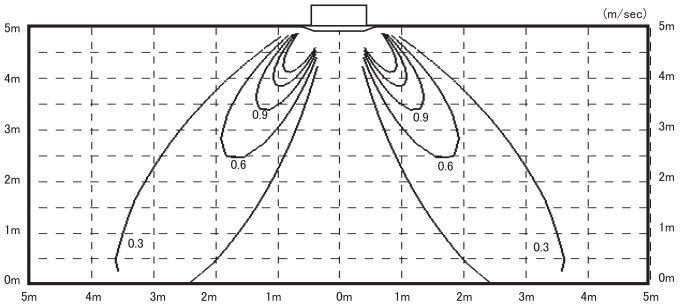
Louver position



Temperature distribution



Velocity distribution

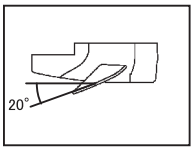


ISD16448 B

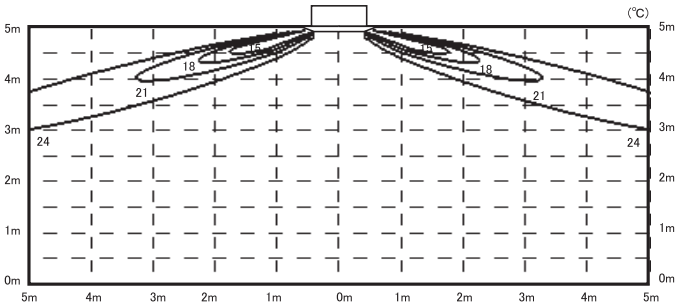
Models FDT90KXZE1, 112KXZE1, 140KXZE1, 160KXZE1

Cooling Air flow:P-Hi

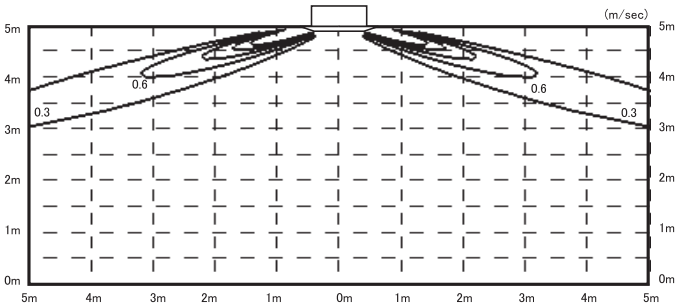
Louver position



Temperature distribution

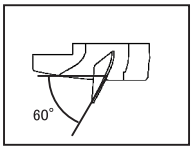


Velocity distribution

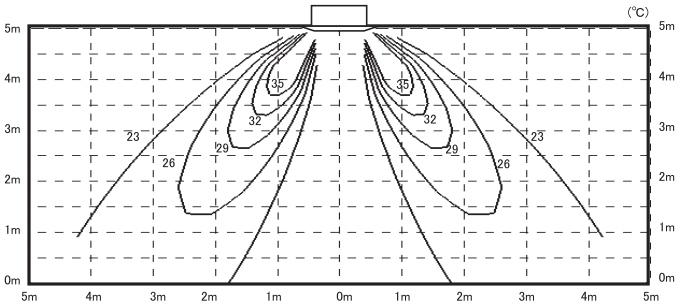


Heating Air flow:P-Hi

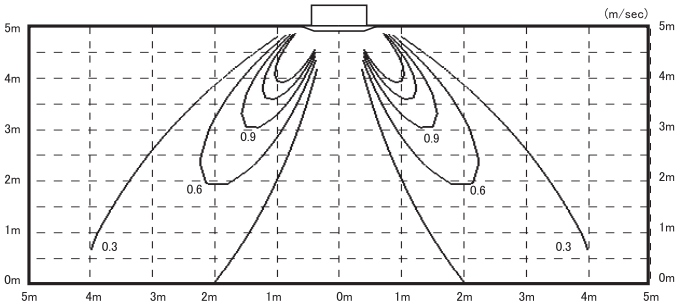
Louver position



Temperature distribution



Velocity distribution

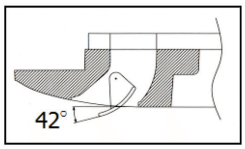


ISD16448 B

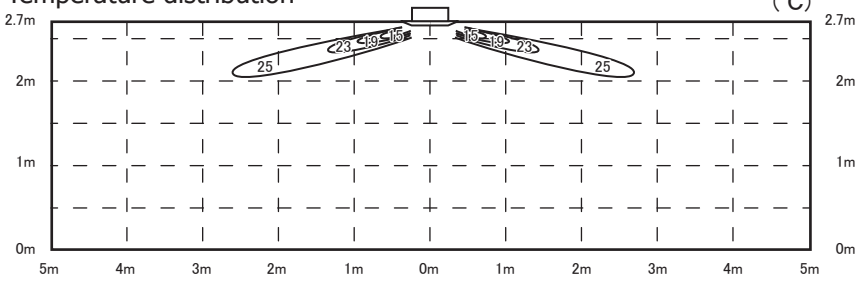
(2) Ceiling cassette-4 way compact (FDTC)
Model FDTC15KXZE1

Cooling Air flow: P-Hi

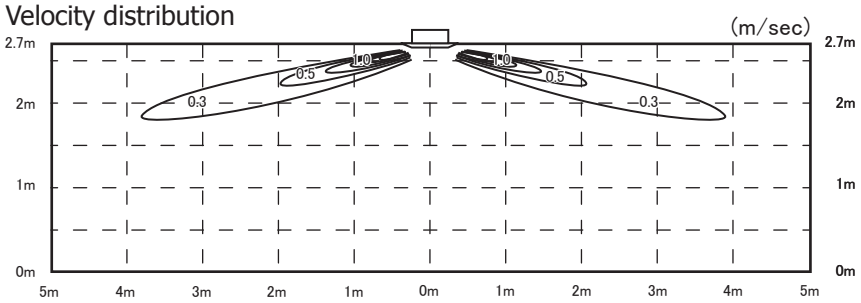
Louver position



Temperature distribution

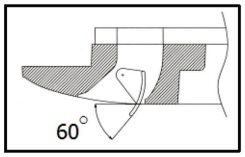


Velocity distribution

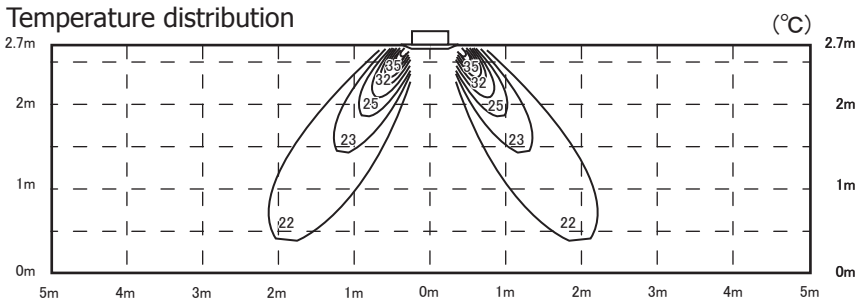


Heating Air flow: P-Hi

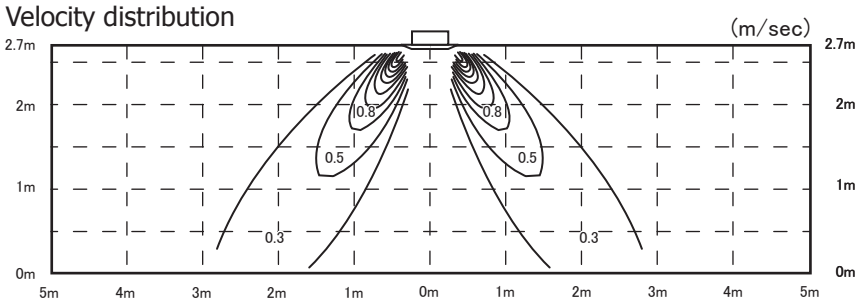
Louver position



Temperature distribution



Velocity distribution

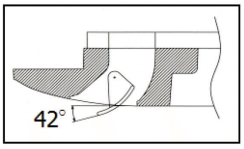


ISD18195 A

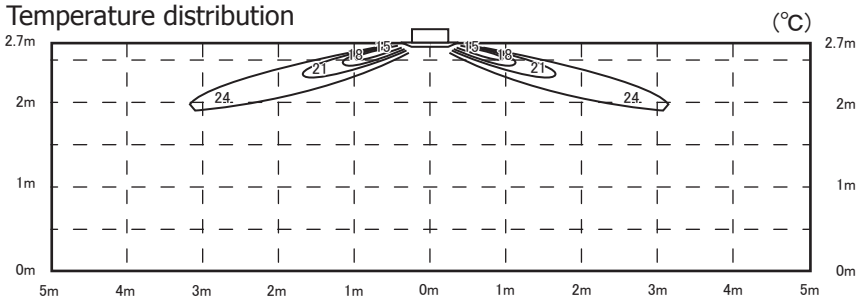
Models FDTC22, 28KXZE1

Cooling Air flow: P-Hi

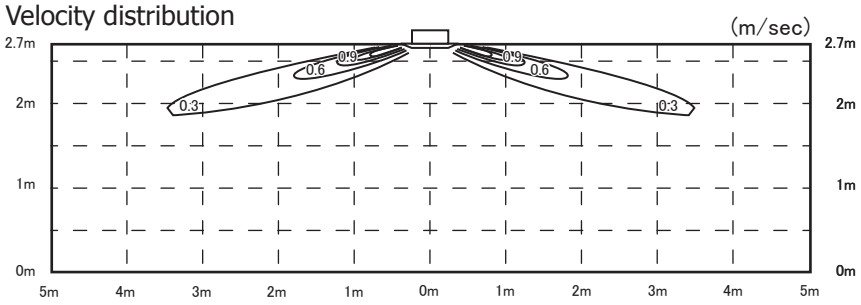
Louver position



Temperature distribution

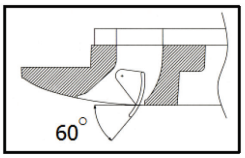


Velocity distribution

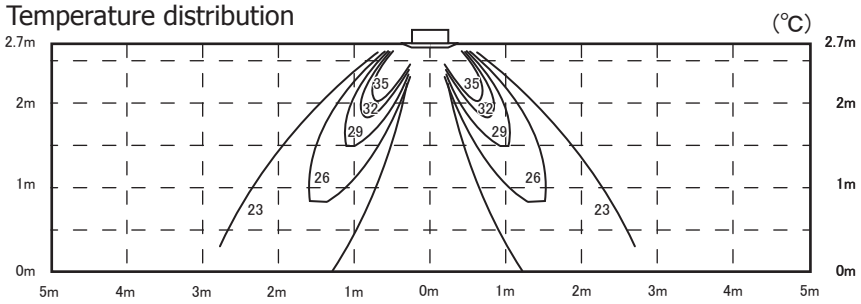


Heating Air flow: P-Hi

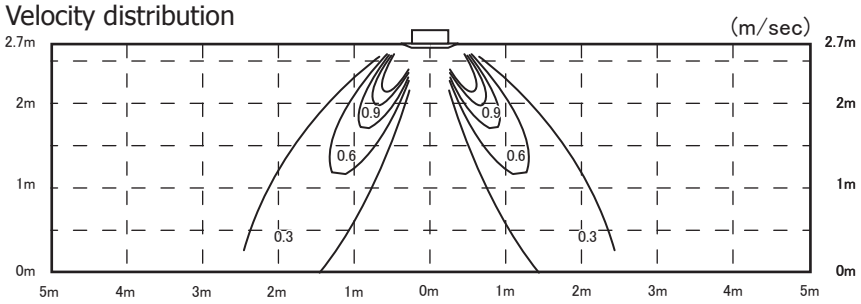
Louver position



Temperature distribution



Velocity distribution

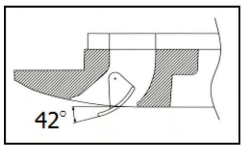


ISD18195 A

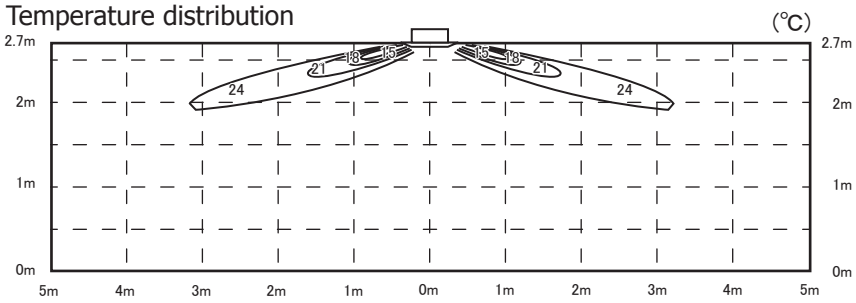
Model FDTC36KXZE1

Cooling Air flow: P-Hi

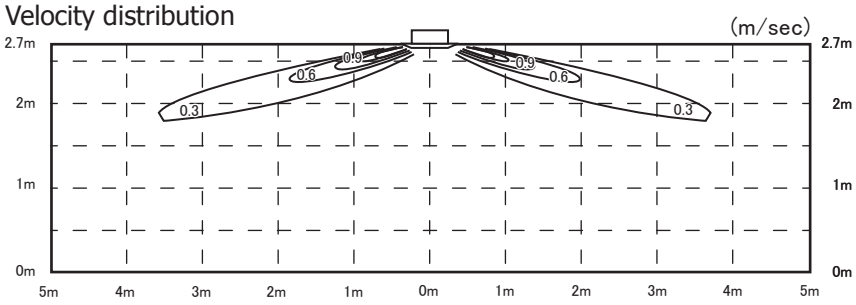
Louver position



Temperature distribution

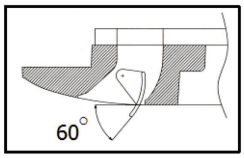


Velocity distribution

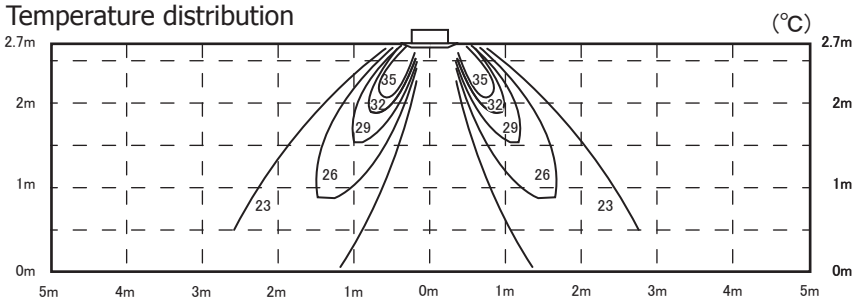


Heating Air flow: P-Hi

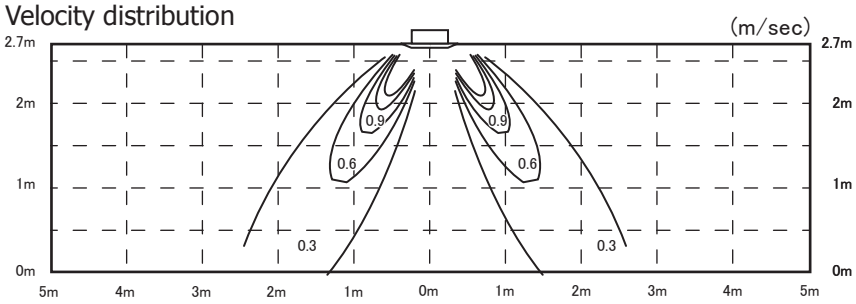
Louver position



Temperature distribution



Velocity distribution

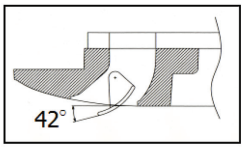


ISD18195 A

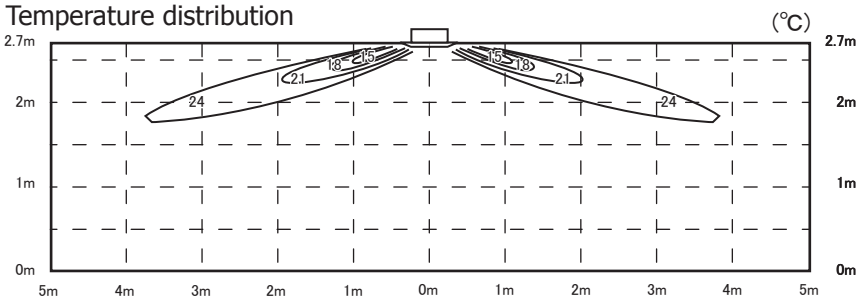
Model FDTC45KXZE1

Cooling Air flow: P-Hi

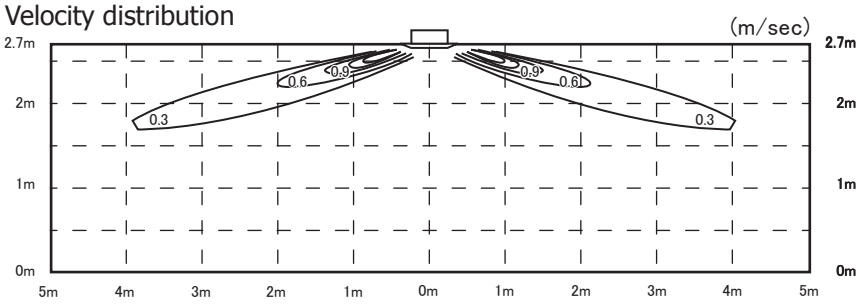
Louver position



Temperature distribution

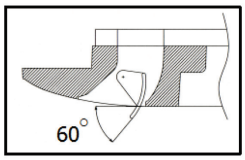


Velocity distribution

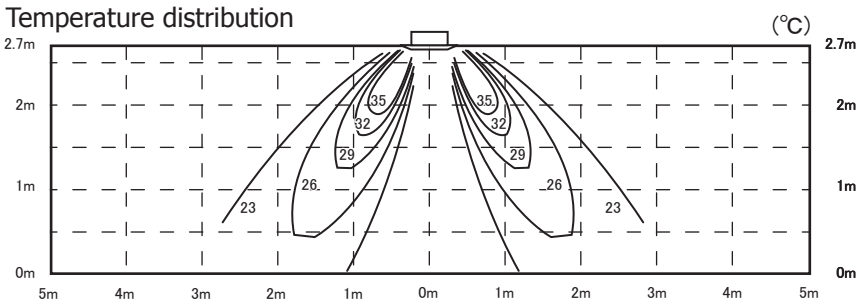


Heating Air flow: P-Hi

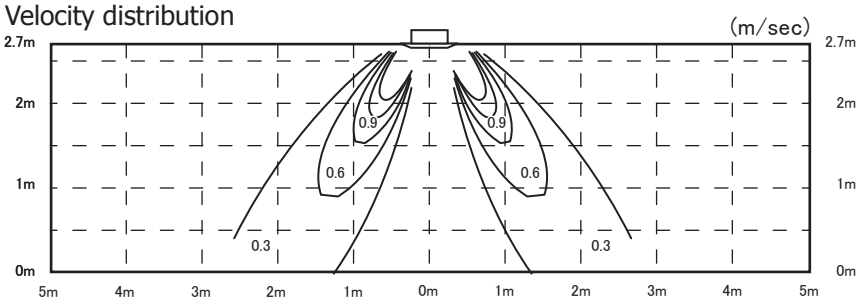
Louver position



Temperature distribution



Velocity distribution

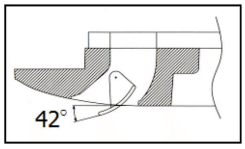


ISD18195 A

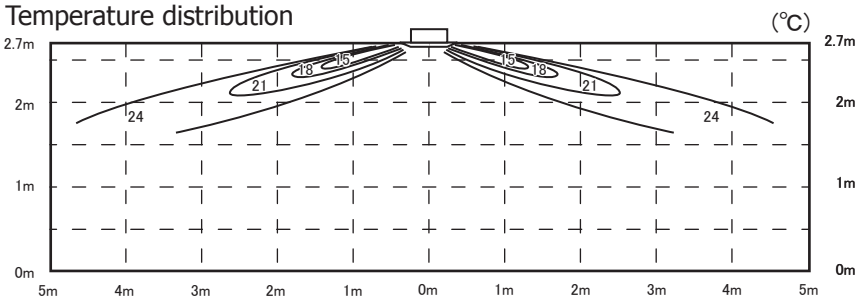
Model FDTC56KXZE1

Cooling Air flow: P-Hi

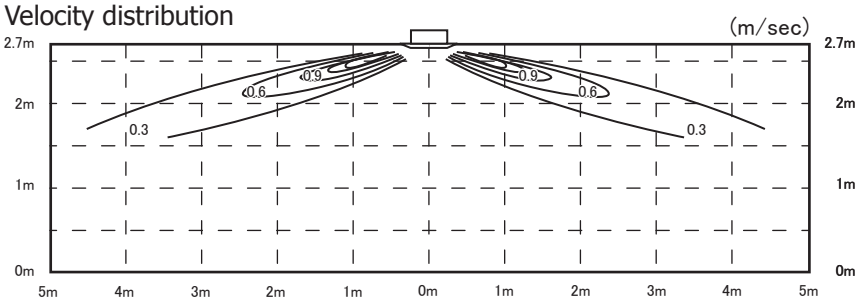
Louver position



Temperature distribution

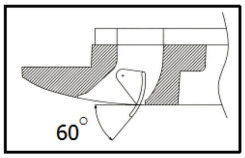


Velocity distribution

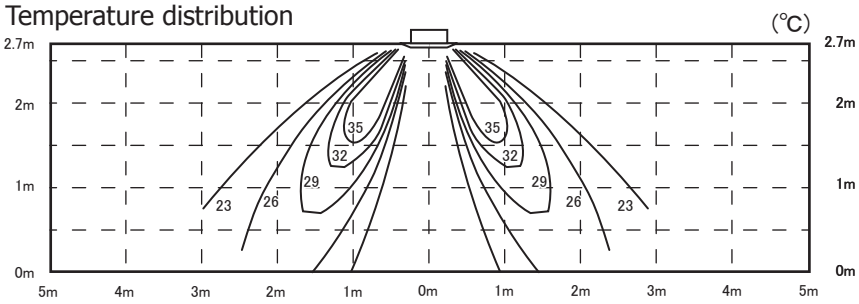


Heating Air flow: P-Hi

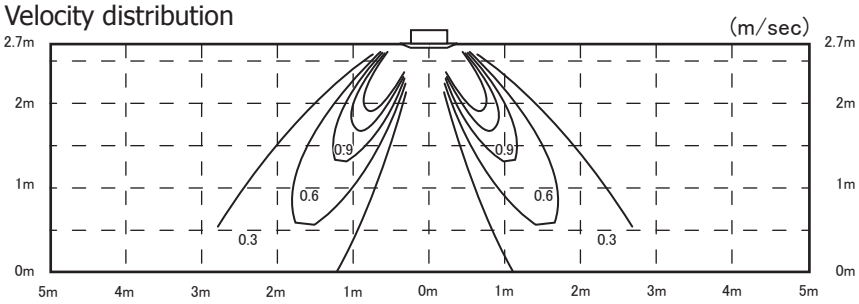
Louver position



Temperature distribution



Velocity distribution



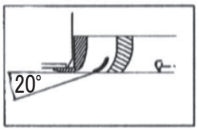
ISD18195 A

(3) Ceiling cassette-2 way type (FDTW)

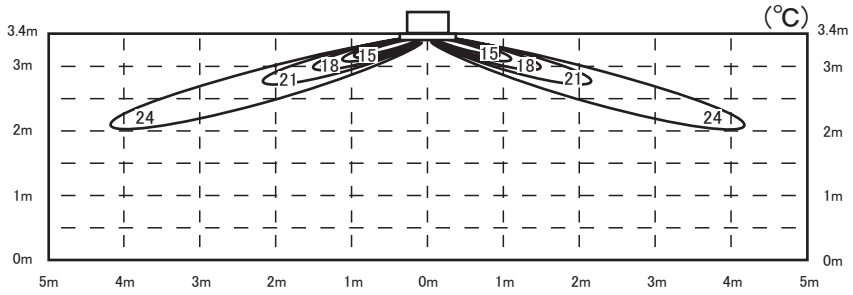
Models FDTW28, 45, 56, 71KXE6F

Cooling Air flow : P-Hi

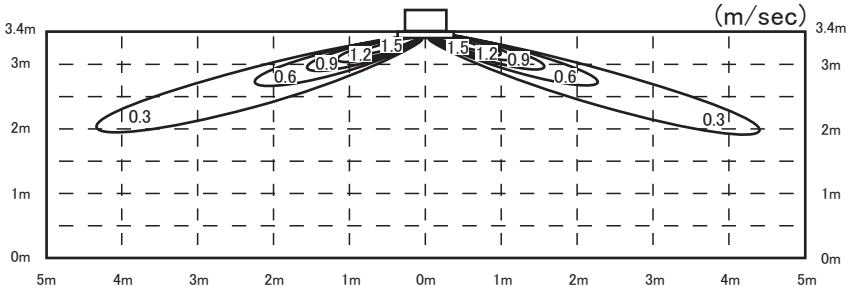
Louver position



Temperature distribution

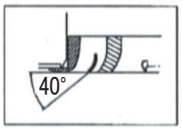


Velocity distribution

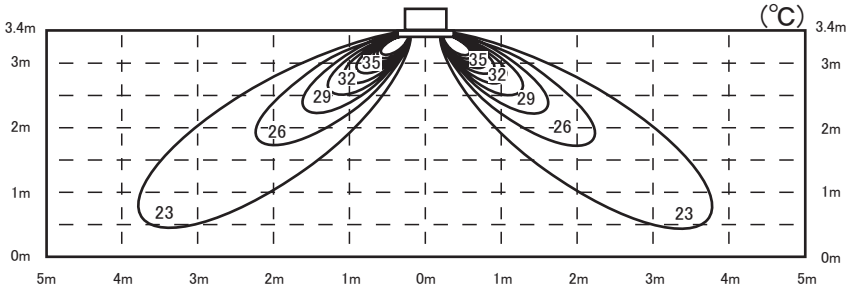


Heating Air flow : P-Hi

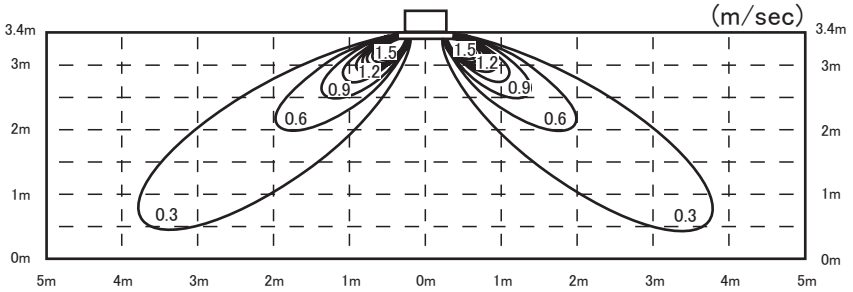
Louver position



Temperature distribution



Velocity distribution



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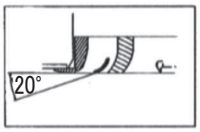
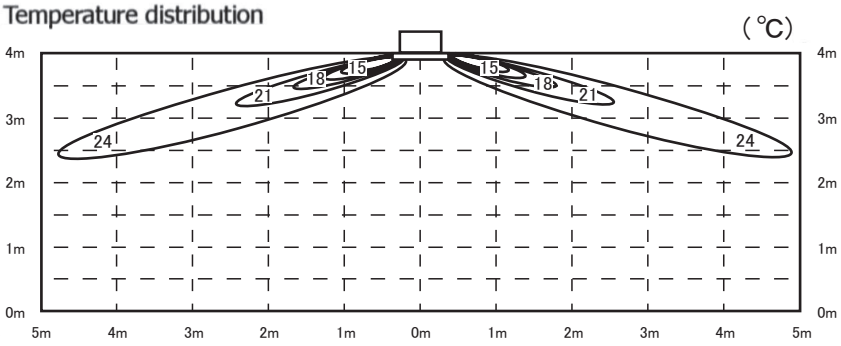
Models FDTW90, 112, 140KXE6F

Cooling Air flow : P-Hi

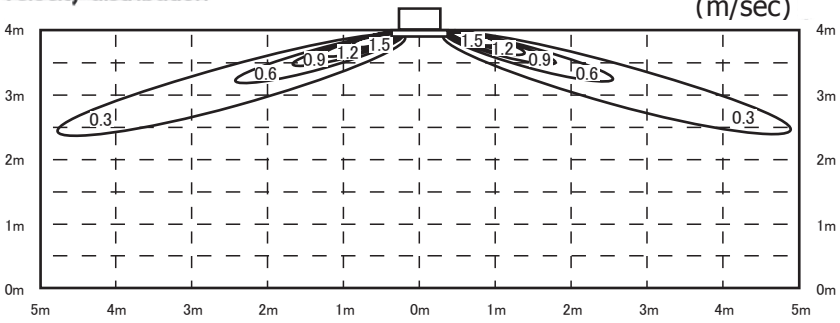
Louver position



Temperature distribution (°C)

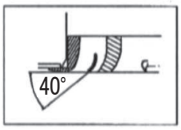


Velocity distribution (m/sec)

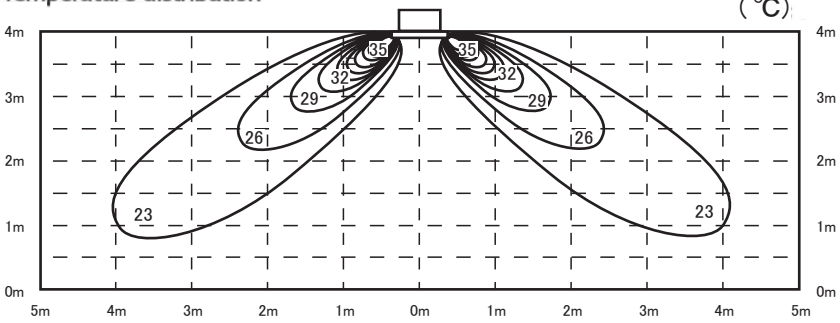


Heating Air flow : P-Hi

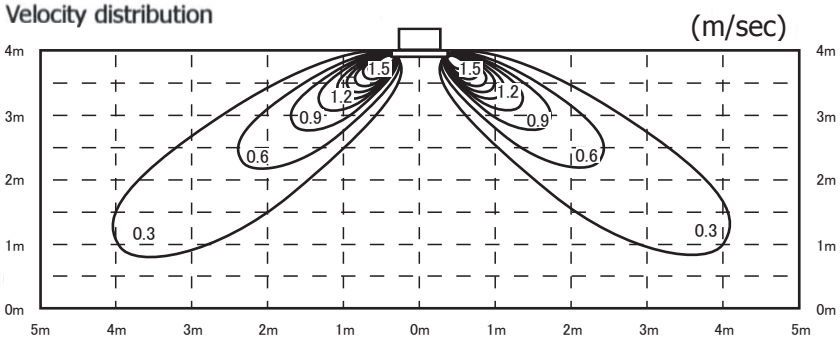
Louver position



Temperature distribution (°C)



Velocity distribution (m/sec)

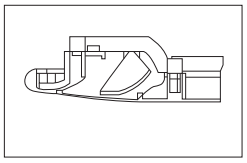


ISD11579

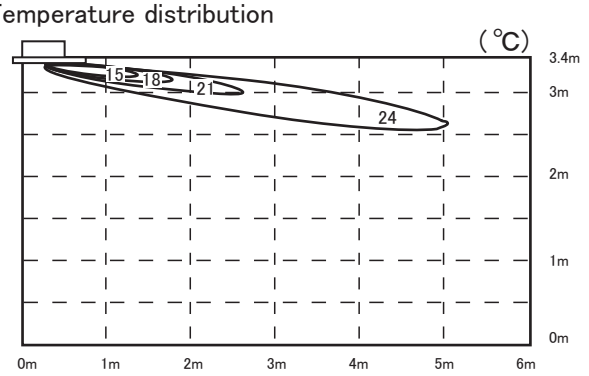
(4) Ceiling cassette-1 way type (FDTS)
Model FDTS45KXE6F

Cooling Air flow : P-Hi

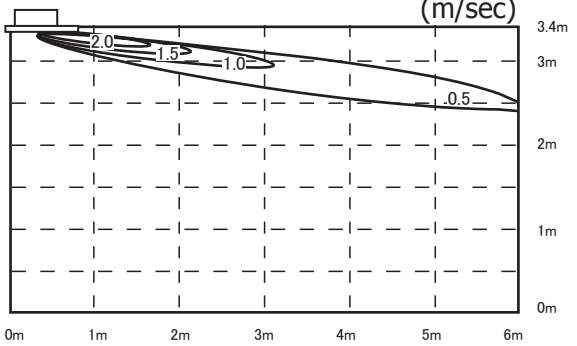
Louver position



Temperature distribution

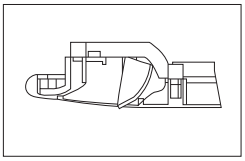


Velocity distribution

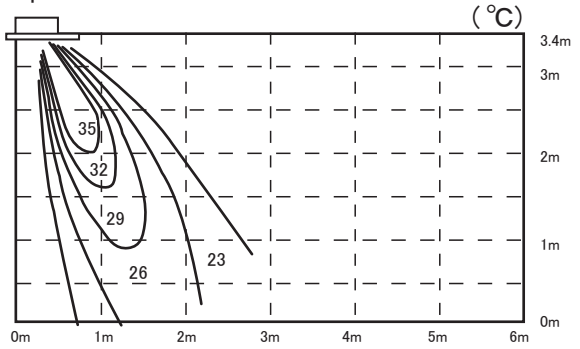


Heating Air flow : P-Hi

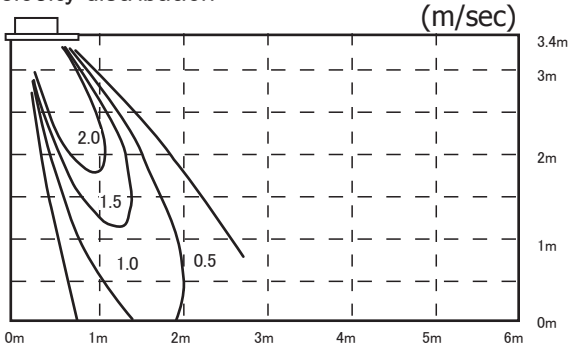
Louver position



Temperature distribution



Velocity distribution



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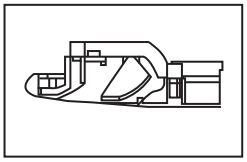
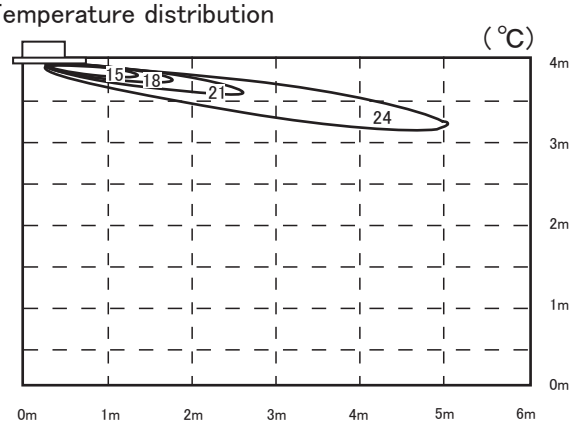
Model FDTS71KXE6F

Cooling　Air flow : P-Hi

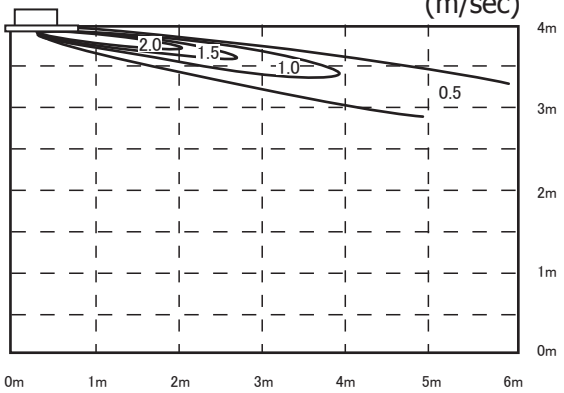
Louver position



Temperature distribution

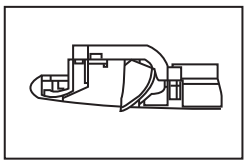


Velocity distribution

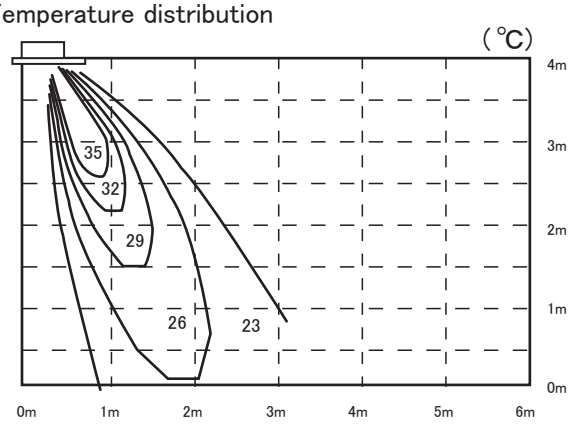


Heating　Air flow : P-Hi

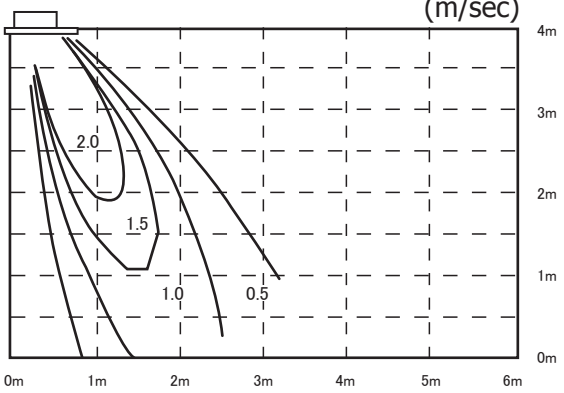
Louver position



Temperature distribution



Velocity distribution

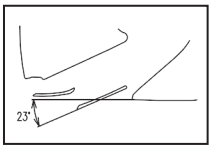


ISD12329

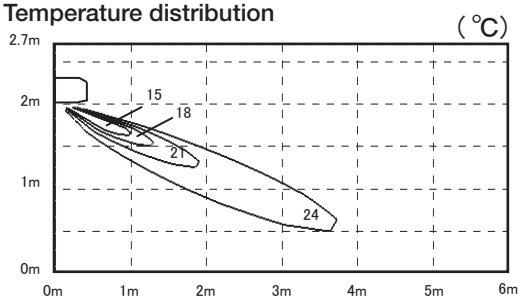
(5) Wall mounded type (FDK)
Model FDK15KXZE1

Cooling Air flow:P-Hi

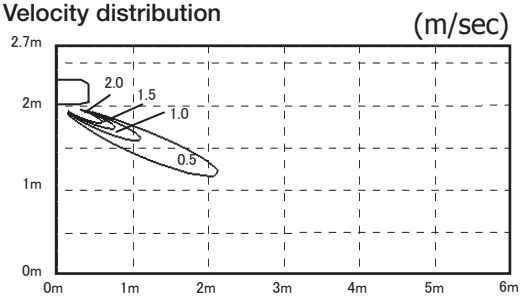
Louver position



Temperature distribution

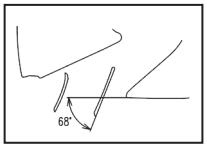


Velocity distribution

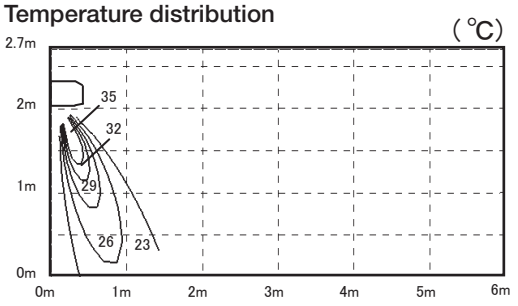


Heating Air flow:P-Hi

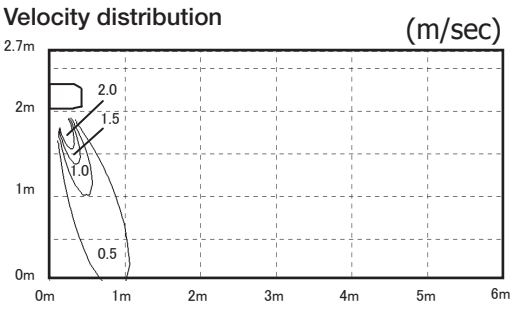
Louver position



Temperature distribution



Velocity distribution

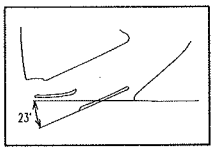


ISD12329

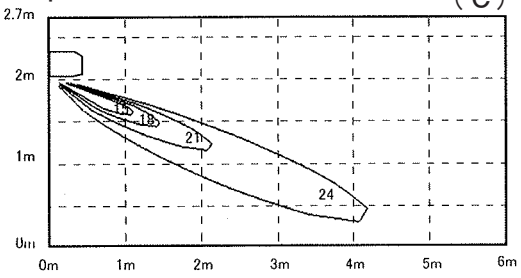
Models FDK22, 28KXZE1

Cooling Air flow:P-Hi

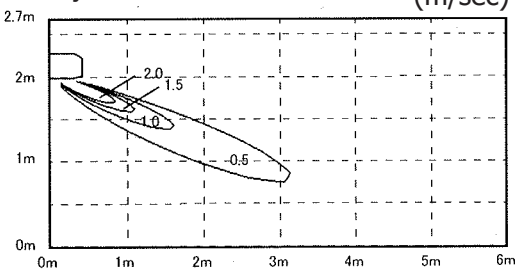
Louver position



Temperature distribution (°C)

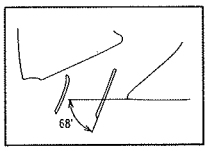


Velocity distribution (m/sec)

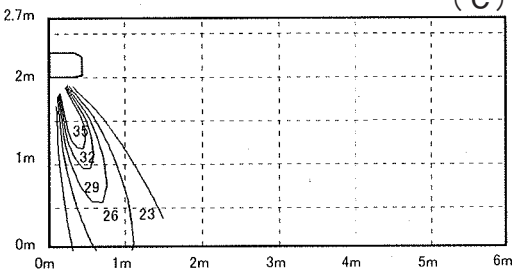


Heating Air flow:P-Hi

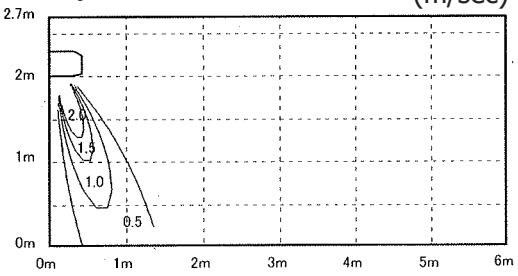
Louver position



Temperature distribution (°C)



Velocity distribution (m/sec)



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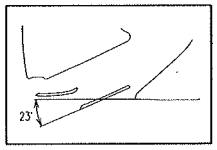
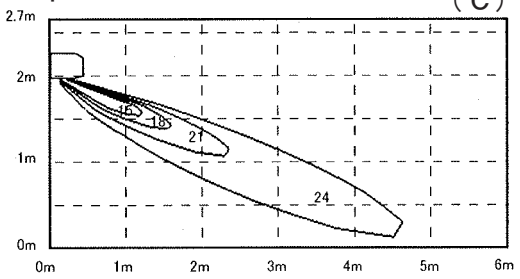
Model FDK36KXZE1

Cooling Air flow:P-Hi

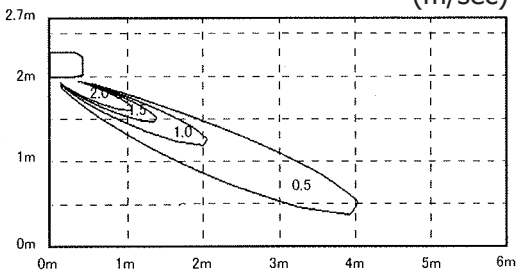
Louver position



Temperature distribution (°C)

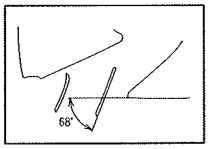


Velocity distribution (m/sec)

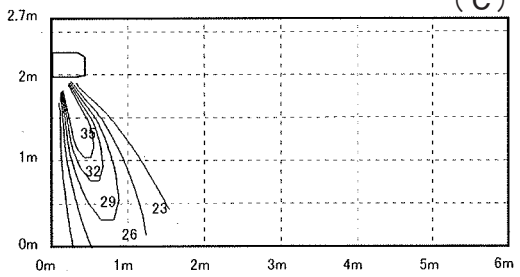


Heating Air flow:P-Hi

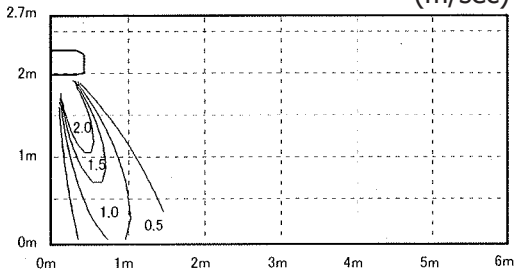
Louver position



Temperature distribution (°C)



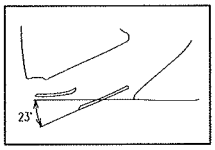
Velocity distribution (m/sec)



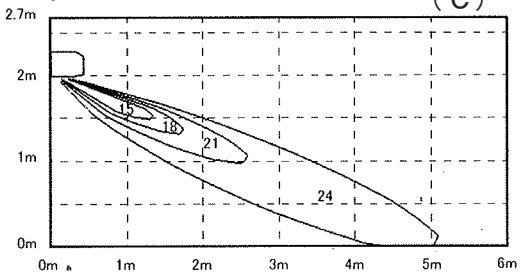
Model FDK45KXZE1

Cooling Air flow:P-Hi

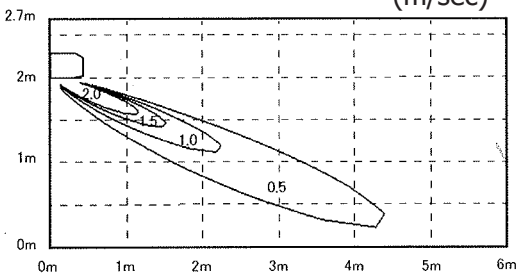
Louver position



Temperature distribution (°C)

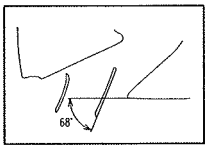


Velocity distribution (m/sec)

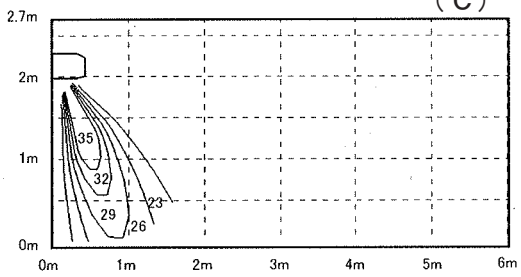


Heating Air flow:P-Hi

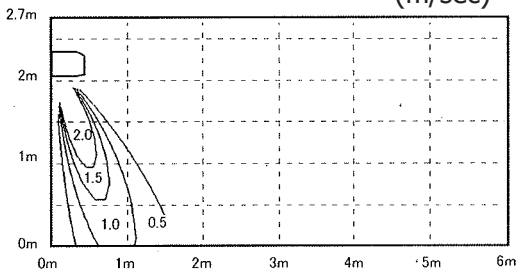
Louver position



Temperature distribution (°C)



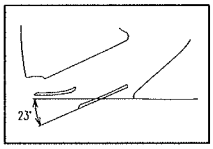
Velocity distribution (m/sec)



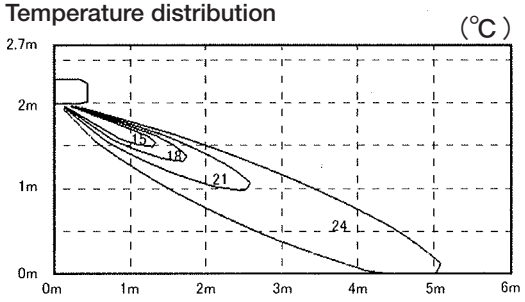
Model FDK56KXZE1

Cooling Air flow:P-Hi

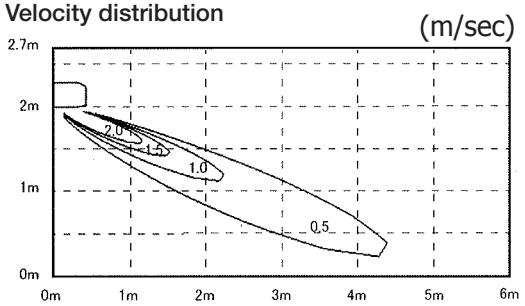
Louver position



Temperature distribution

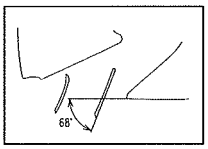


Velocity distribution

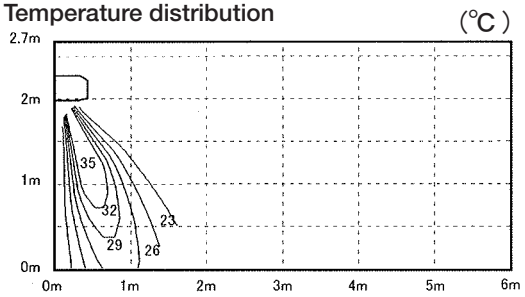


Heating Air flow:P-Hi

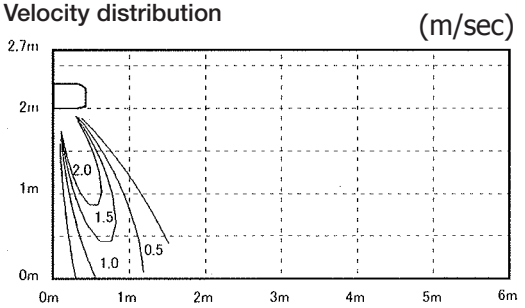
Louver position



Temperature distribution



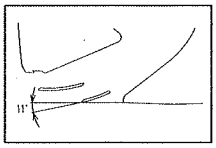
Velocity distribution



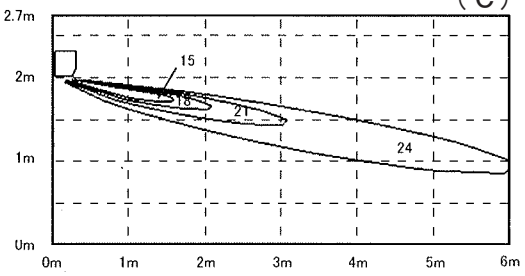
Model FDK71KXZE1

Cooling Air flowP-Hi

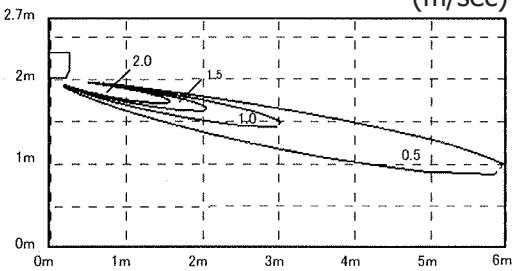
Louver position



Temperature distribution (°C)

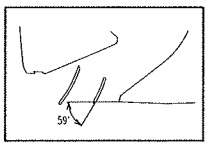


Velocity distribution (m/sec)

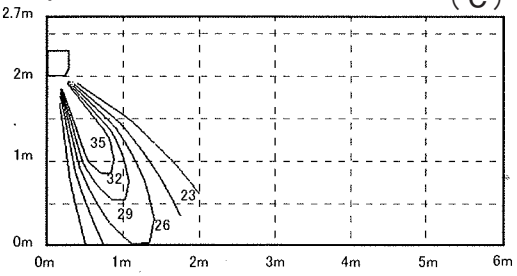


Heating Air flow:P-Hi

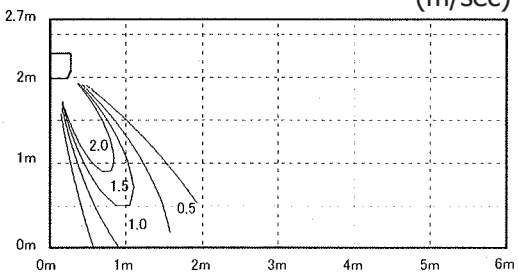
Louver position



Temperature distribution (°C)



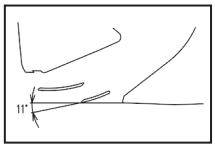
Velocity distribution (m/sec)



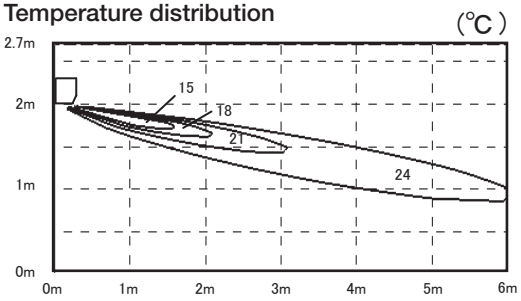
Model FDK90KXZE1

Cooling Air flow:P-Hi

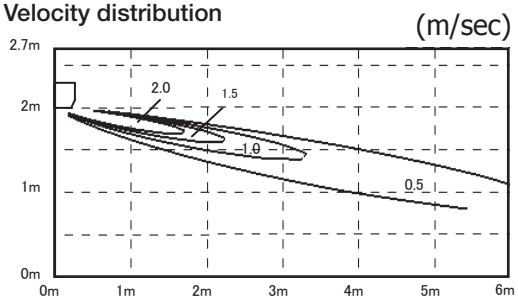
Louver position



Temperature distribution

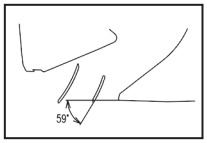


Velocity distribution

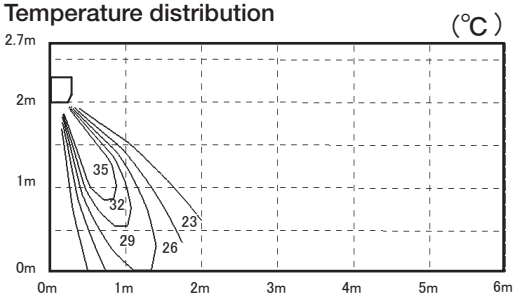


Heating Air flow:P-Hi

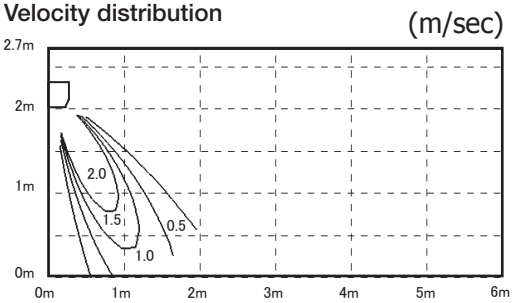
Louver position



Temperature distribution



Velocity distribution

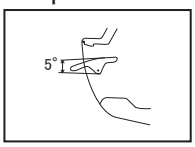


(6) Ceiling suspended type (FDE)

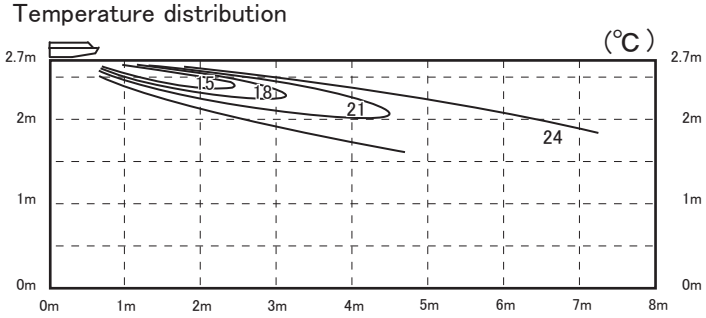
Models FDE36, 45, 56KXZE1

Cooling Air flow : P-Hi

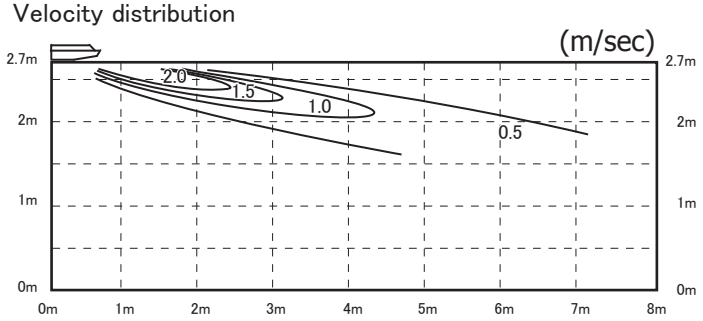
Louver position



Temperature distribution

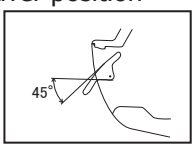


Velocity distribution

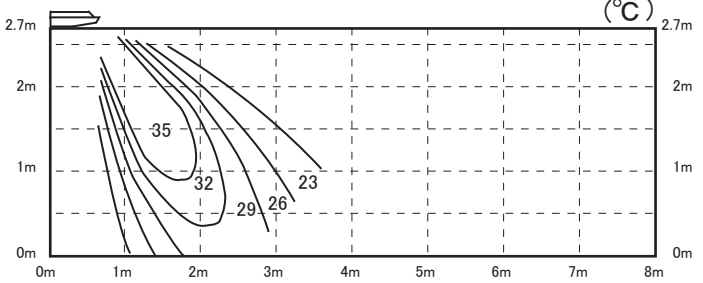


Heating Air flow : P-Hi

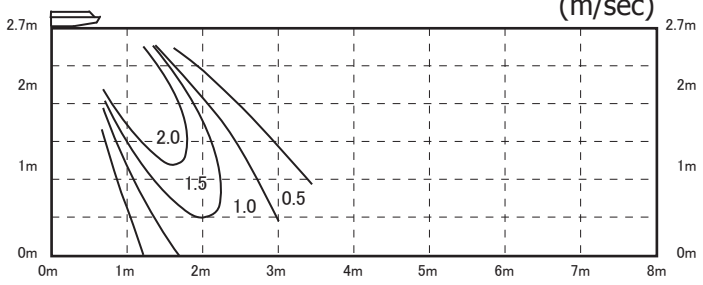
Louver position



Temperature distribution



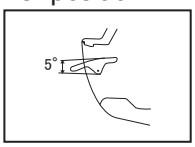
Velocity distribution



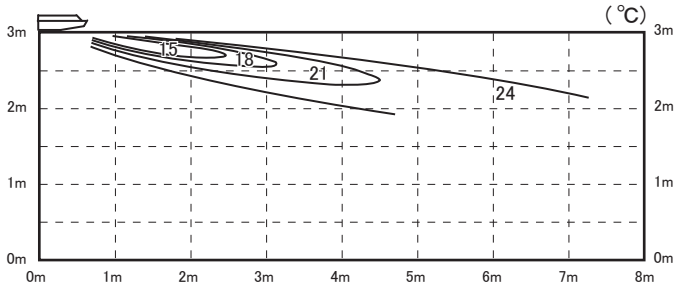
Model FDE71KXZE1

Cooling Air flow : P-Hi

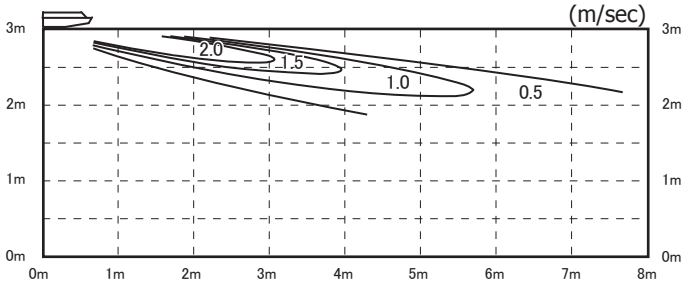
Louver position



Temperature distribution

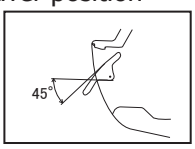


Velocity distribution

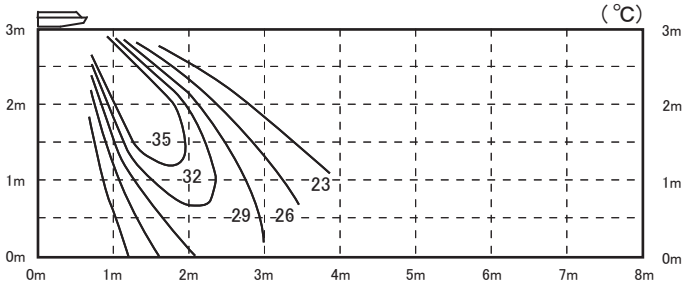


Heating Air flow : P-Hi

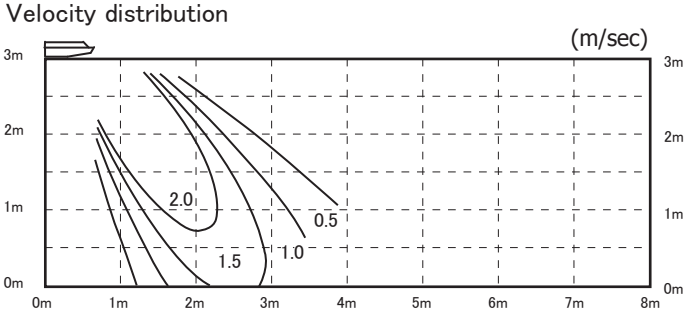
Louver position



Temperature distribution



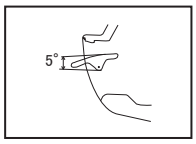
Velocity distribution



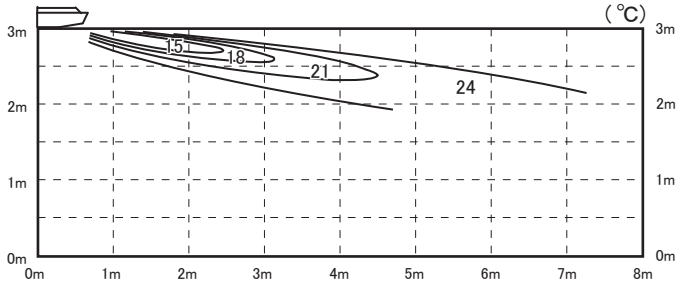
Model FDE112KXZE1

Cooling Air flow : P-Hi

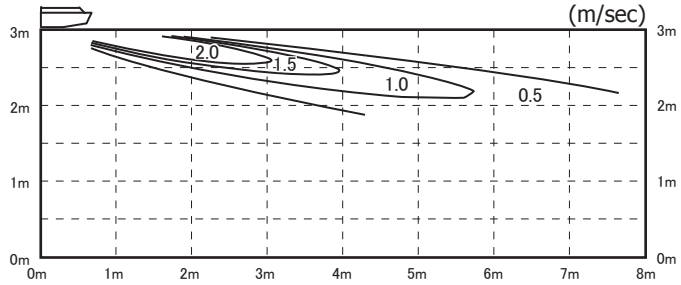
Louver position



Temperature distribution

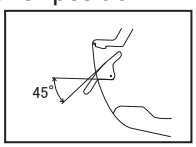


Velocity distribution

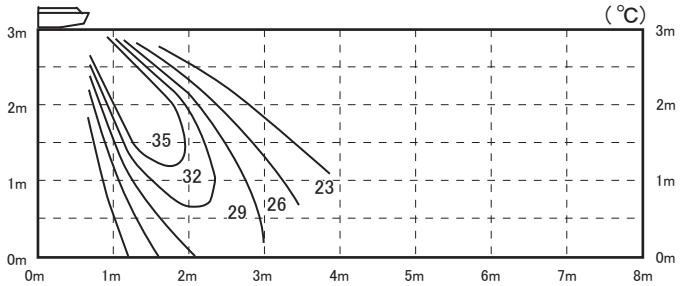


Heating Air flow : P-Hi

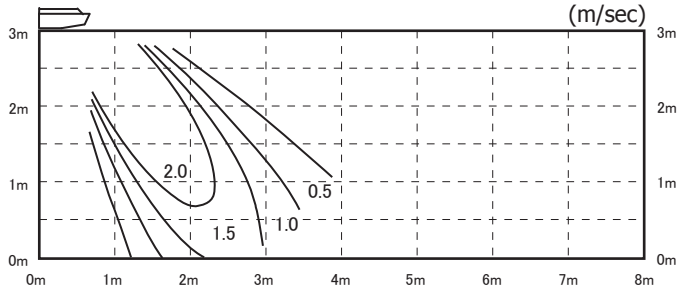
Louver position



Temperature distribution



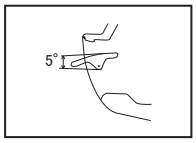
Velocity distribution



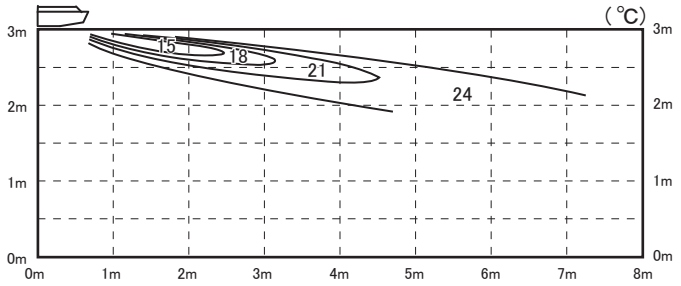
Model FDE140KXZE1

Cooling Air flow : P-Hi

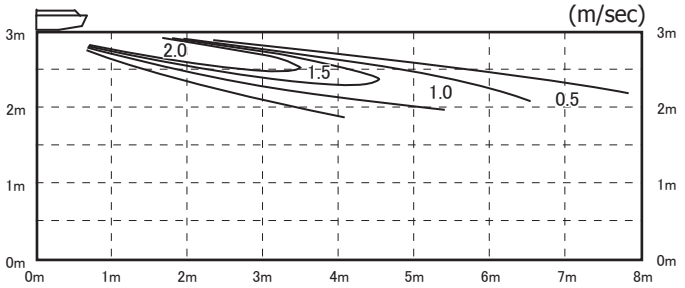
Louver position



Temperature distribution

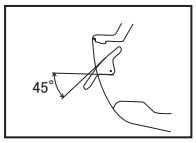


Velocity distribution

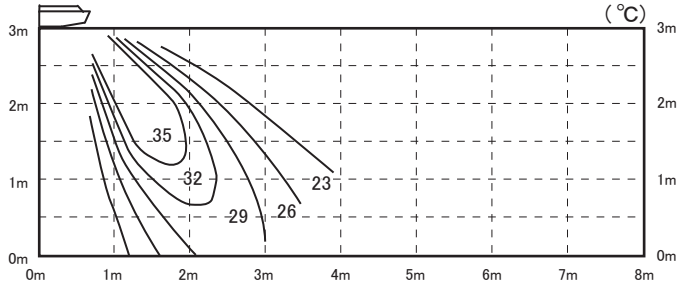


Heating Air flow : P-Hi

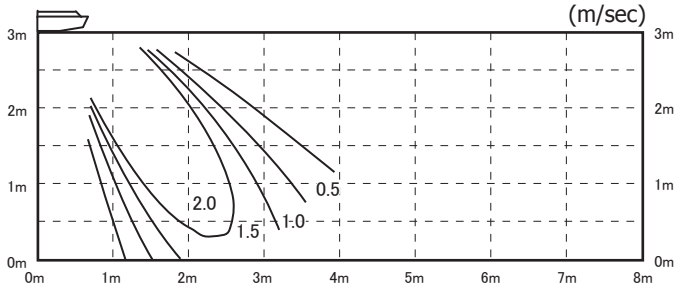
Louver position



Temperature distribution



Velocity distribution



8. CAPACITY TABLES

Caution: In case that the cooling operation during low outdoor air temperature below -5°C is expected, install the outdoor unit where it is not influenced by natural wind. Otherwise protection control by low pressure will be activated much more frequently and it will cause insufficient capacity or breakdown of the compressor in worst case.

(1) Ceiling cassette-4 way type (FDT)

Model **FDT28KXZE1** Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21°C DB 14°C WB TC	21°C DB 14°C WB SHC	23°C DB 16°C WB TC	23°C DB 16°C WB SHC	26°C DB 18°C WB TC	26°C DB 18°C WB SHC	27°C DB 19°C WB TC	27°C DB 19°C WB SHC	28°C DB 20°C WB TC	28°C DB 20°C WB SHC	31°C DB 22°C WB TC	31°C DB 22°C WB SHC	33°C DB 24°C WB TC	33°C DB 24°C WB SHC
	10			2.30	2.21	2.74	2.63	2.97	2.85	3.16	2.88	3.54	3.13	3.67	3.07
	12			2.30	2.21	2.74	2.63	2.97	2.85	3.15	2.87	3.52	3.12	3.66	3.06
	14			2.30	2.21	2.74	2.63	2.97	2.85	3.15	2.87	3.51	3.12	3.64	3.05
	16			2.30	2.21	2.74	2.63	2.97	2.85	3.14	2.86	3.50	3.12	3.63	3.05
	18			2.30	2.21	2.74	2.63	2.97	2.85	3.14	2.86	3.49	3.12	3.61	3.05
P-Hi	20			2.30	2.21	2.74	2.63	2.97	2.85	3.14	2.86	3.47	3.11	3.59	3.04
	22			2.29	2.20	2.74	2.63	2.97	2.85	3.12	2.86	3.43	3.09	3.54	3.03
20	24			2.29	2.20	2.74	2.63	2.97	2.85	3.11	2.86	3.39	3.08	3.50	3.01
(m³/min)	26			2.29	2.20	2.73	2.62	2.94	2.82	3.07	2.84	3.33	3.06	3.44	3.00
	28	2.07	1.99	2.28	2.19	2.72	2.61	2.91	2.79	3.03	2.83	3.28	3.04	3.39	2.99
	30	2.07	1.99	2.28	2.19	2.70	2.59	2.88	2.76	3.00	2.81	3.23	3.03	3.34	2.96
	32	2.07	1.99	2.27	2.18	2.67	2.56	2.86	2.75	2.96	2.80	3.18	3.01	3.29	2.95
	34	2.07	1.99	2.27	2.18	2.66	2.55	2.82	2.71	2.92	2.79	3.11	2.98	3.22	2.89
	35	2.07	1.99	2.26	2.17	2.66	2.55	2.80	2.69	2.89	2.77	3.08	2.96	3.18	2.88
	36	2.07	1.99	2.26	2.17	2.64	2.53	2.79	2.68	2.86	2.75	3.02	2.90	3.12	2.87
	38	2.07	1.99	2.25	2.16	2.60	2.50	2.76	2.65	2.81	2.70	2.91	2.79	3.00	2.84
	39	2.07	1.99	2.25	2.16	2.58	2.48	2.74	2.63	2.78	2.67	2.86	2.75	2.94	2.82
	41	2.07	1.99	2.24	2.15	2.50	2.40	2.63	2.52	2.66	2.55	2.73	2.62	2.80	2.69
	43	2.07	1.99	2.24	2.15	2.43	2.33	2.52	2.42	2.55	2.45	2.60	2.50	2.66	2.55

Heating mode (kW)

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16°C DB	18°C DB	20°C DB	22°C DB	24°C DB
	-19.8	-20	1.86	1.86	1.86	1.86	1.86
	-17.8	-18	1.98	1.98	1.98	1.98	1.98
	-15.7	-16	2.09	2.09	2.09	2.09	2.09
	-13.7	-14	2.21	2.21	2.21	2.21	2.21
	-11.7	-12	2.33	2.33	2.33	2.33	2.33
P-Hi	-9.6	-10	2.45	2.45	2.45	2.45	2.45
	-7.5	-8	2.60	2.60	2.60	2.60	2.60
20	-5.5	-6	2.75	2.75	2.75	2.75	2.75
(m³/min)	-3.4	-4	2.85	2.84	2.84	2.81	2.78
	-1.3	-2	2.94	2.94	2.93	2.87	2.82
	0.8	0	3.10	3.06	3.02	2.91	2.80
	3.9	3	3.37	3.25	3.13	2.95	2.78
	7.0	6	3.68	3.44	3.20	2.98	2.75
	10.1	9	3.66	3.42	3.19	2.96	2.73
	13.2	12	3.63	3.40	3.17	2.94	2.70
	16.9	15.5	3.60	3.37	3.14	2.91	2.68

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21°C DB 14°C WB TC	21°C DB 14°C WB SHC	23°C DB 16°C WB TC	23°C DB 16°C WB SHC	26°C DB 18°C WB TC	26°C DB 18°C WB SHC	27°C DB 19°C WB TC	27°C DB 19°C WB SHC	28°C DB 20°C WB TC	28°C DB 20°C WB SHC	31°C DB 22°C WB TC	31°C DB 22°C WB SHC	33°C DB 24°C WB TC	33°C DB 24°C WB SHC
	10			2.18	2.09	2.61	2.51	2.82	2.68	3.00	2.70	3.36	2.94	3.49	2.88
	12			2.18	2.09	2.61	2.51	2.82	2.68	3.00	2.70	3.35	2.93	3.47	2.87
	14			2.18	2.09	2.61	2.51	2.82	2.68	2.99	2.69	3.34	2.92	3.46	2.87
	16			2.18	2.09	2.61	2.51	2.82	2.68	2.99	2.69	3.32	2.92	3.44	2.86
	18			2.18	2.09	2.61	2.51	2.82	2.68	2.98	2.69	3.31	2.91	3.43	2.86
Hi	20			2.18	2.09	2.61	2.51	2.82	2.68	2.98	2.69	3.30	2.91	3.41	2.86
	22			2.18	2.09	2.61	2.51	2.82	2.68	2.97	2.69	3.26	2.90	3.37	2.83
14	24			2.17	2.08	2.60	2.50	2.82	2.68	2.95	2.68	3.22	2.89	3.32	2.82
(m³/min)	26			2.17	2.08	2.59	2.49	2.79	2.66	2.92	2.67	3.17	2.87	3.27	2.81
	28	1.97	1.89	2.17	2.08	2.58	2.48	2.77	2.66	2.88	2.66	3.11	2.85	3.22	2.77
	30	1.97	1.89	2.17	2.08	2.56	2.46	2.74	2.63	2.85	2.64	3.07	2.84	3.17	2.76
	32	1.97	1.89	2.16	2.07	2.54	2.44	2.71	2.60	2.82	2.63	3.02	2.80	3.12	2.74
	34	1.97	1.89	2.15	2.06	2.53	2.43	2.68	2.57	2.77	2.62	2.96	2.78	3.06	2.73
	35	1.97	1.89	2.15	2.06	2.53	2.43	2.66	2.55	2.75	2.61	2.92	2.77	3.03	2.72
	36	1.97	1.89	2.15	2.06	2.51	2.41	2.65	2.54	2.72	2.60	2.87	2.76	2.97	2.71
	38	1.97	1.89	2.14	2.05	2.47	2.37	2.62	2.52	2.67	2.56	2.77	2.66	2.85	2.67
	39	1.97	1.89	2.14	2.05	2.45	2.35	2.61	2.51	2.64	2.53	2.71	2.60	2.79	2.66
	41	1.97	1.89	2.13	2.04	2.38	2.28	2.50	2.40	2.53	2.43	2.59	2.49	2.66	2.55
	43	1.97	1.89	2.12	2.04	2.30	2.21	2.39	2.29	2.42	2.32	2.47	2.37	2.53	2.43

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16°C DB	18°C DB	20°C DB	22°C DB	24°C DB
	-19.8	-20	1.76	1.76	1.76	1.76	1.76
	-17.8	-18	1.87	1.87	1.87	1.87	1.87
	-15.7	-16	1.98	1.98	1.98	1.98	1.98
	-13.7	-14	2.10	2.10	2.10	2.10	2.10
	-11.7	-12	2.21	2.21	2.21	2.21	2.21
Hi	-9.6	-10	2.32	2.32	2.32	2.32	2.32
	-7.5	-8	2.46	2.46	2.46	2.46	2.46
14	-5.5	-6	2.61	2.61	2.61	2.61	2.61
(m³/min)	-3.4	-4	2.70	2.69	2.69	2.66	2.64
	-1.3	-2	2.79	2.78	2.77	2.72	2.67
	0.8	0	2.94	2.90	2.86	2.75	2.65
	3.9	3	3.19	3.08	2.96	2.80	2.63
	7.0	6	3.48	3.26	3.03	2.82	2.61
	10.1	9	3.46	3.24	3.02	2.80	2.58
	13.2	12	3.44	3.22	3.00	2.78	2.56
	16.9	15.5	3.41	3.19	2.97	2.75	2.53

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21°C DB 14°C WB TC	21°C DB 14°C WB SHC	23°C DB 16°C WB TC	23°C DB 16°C WB SHC	26°C DB 18°C WB TC	26°C DB 18°C WB SHC	27°C DB 19°C WB TC	27°C DB 19°C WB SHC	28°C DB 20°C WB TC	28°C DB 20°C WB SHC	31°C DB 22°C WB TC	31°C DB 22°C WB SHC	33°C DB 24°C WB TC	33°C DB 24°C WB SHC
	10			2.02	1.94	2.41	2.31	2.61	2.42	2.77	2.43	3.11	2.64	3.23	2.59
	12			2.02	1.94	2.41	2.31	2.61	2.42	2.77	2.43	3.10	2.64	3.21	2.59
	14			2.02	1.94	2.41	2.31	2.61	2.42	2.77	2.43	3.09	2.64	3.20	2.58
	16			2.02	1.94	2.41	2.31	2.61	2.42	2.76	2.43	3.07	2.63	3.18	2.58
	18			2.02	1.94	2.41	2.31	2.61	2.42	2.76	2.43	3.06	2.63	3.17	2.58
Me	20			2.02	1.94	2.41	2.31	2.61	2.42	2.76	2.43	3.05	2.62	3.16	2.57
	22			2.01	1.93	2.41	2.31	2.61	2.42	2.74	2.42	3.01	2.61	3.11	2.56
12	24			2.01	1.93	2.41	2.31	2.61	2.42	2.73	2.42	2.97	2.60	3.07	2.55
(m³/min)	26			2.01	1.93	2.40	2.30	2.58	2.41	2.70	2.41	2.93	2.59	3.02	2.54
	28	1.82	1.75	2.01	1.93	2.39	2.29	2.56	2.40	2.67	2.40	2.88	2.58	2.98	2.53
	30	1.82	1.75	2.00	1.92	2.37	2.28	2.53	2.39	2.63	2.39	2.84	2.56	2.93	2.51
	32	1.82	1.75	2.00	1.92	2.35	2.26	2.51	2.38	2.60	2.38	2.79	2.54	2.89	2.49
	34	1.82	1.75	1.99	1.91	2.34	2.25	2.48	2.37	2.56	2.36	2.73	2.52	2.83	2.48
	35	1.82	1.75	1.99	1.91	2.34	2.25	2.46	2.36	2.54	2.36	2.70	2.52	2.80	2.47
	36	1.82	1.75	1.99	1.91	2.32	2.23	2.45	2.35	2.52	2.35	2.66	2.50	2.74	2.45
	38	1.82	1.75	1.98	1.90	2.28	2.19	2.42	2.32	2.47	2.33	2.56	2.46	2.64	2.42
	39	1.82	1.75	1.98	1.90	2.27	2.18	2.41	2.31	2.44	2.32	2.51	2.41	2.58	2.41
	41	1.82	1.75	1.97	1.89	2.20	2.11	2.31	2.22	2.34	2.25	2.40	2.30	2.46	2.36
	43	1.82	1.75	1.96	1.88	2.13	2.04	2.21	2.12	2.24	2.15	2.29	2.20	2.34	2.25

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16°C DB	18°C DB	20°C DB	22°C DB	24°C DB
	-19.8	-20	1.61	1.61	1.61	1.61	1.61
	-17.8	-18	1.71	1.71	1.71	1.71	1.71
	-15.7	-16	1.81	1.81	1.81	1.81	1.81
	-13.7	-14	1.92	1.92	1.92	1.92	1.92
	-11.7	-12	2.02	2.02	2.02	2.02	2.02
Me	-9.6	-10	2.12	2.12	2.12	2.12	2.12
	-7.5	-8	2.25	2.25	2.25	2.25	2.25
12	-5.5	-6	2.38	2.38	2.38	2.38	2.38
(m³/min)	-3.4	-4	2.47	2.46	2.46	2.43	2.41
	-1.3	-2	2.55	2.54	2.53	2.49	2.44
	0.8	0	2.69	2.65	2.61	2.52	2.42
	3.9	3	2.92	2.81	2.71	2.56	2.40
	7.0	6	3.19	2.98	2.77	2.58	2.38
	10.1	9	3.16	2.96	2.76	2.56	2.36
	13.2	12	3.14	2.94	2.74	2.54	2.34
	16.9	15.5	3.12	2.92	2.72	2.52	2.32

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21°C DB 14°C WB TC	21°C DB 14°C WB SHC	23°C DB 16°C WB TC	23°C DB 16°C WB SHC	26°C DB 18°C WB TC	26°C DB 18°C WB SHC	27°C DB 19°C WB TC	27°C DB 19°C WB SHC	28°C DB 20°C WB TC	28°C DB 20°C WB SHC	31°C DB 22°C WB TC	31°C DB 22°C WB SHC	33°C DB 24°C WB TC	33°C DB 24°C WB SHC
	10			1.79	1.72	2.14	2.05	2.31	2.10	2.46	2.12	2.75	2.29	2.86	2.25
	12			1.79	1.72	2.14	2.05	2.31	2.10	2.46	2.12	2.74	2.29	2.85	2.25
	14			1.79	1.72	2.14	2.05	2.31	2.10	2.45	2.11	2.73	2.29	2.83	2.24
	16			1.79	1.72	2.14	2.05	2.31	2.10	2.45	2.11	2.72	2.29	2.82	2.24
	18			1.79	1.72	2.14	2.05	2.31	2.10	2.45	2.11	2.71	2.28	2.81	2.24
Lo	20			1.79	1.72	2.14	2.05	2.31	2.10	2.44	2.11	2.70	2.28	2.80	2.24
	22			1.78	1.71	2.14	2.05	2.31	2.10	2.43	2.11	2.67	2.27	2.76	2.22
10	24			1.78	1.71	2.13	2.04	2.31	2.10	2.42	2.10	2.64	2.26	2.72	2.21
(m³/min)	26			1.78	1.71	2.12	2.04	2.29	2.09	2.39	2.09	2.59	2.24	2.68	2.20
	28	1.61	1.55	1.78	1.71	2.11	2.03	2.27	2.08	2.36	2.08	2.55	2.23	2.64	2.19
	30	1.61	1.55	1.77	1.70	2.10	2.02	2.25	2.07	2.33	2.07	2.51	2.22	2.60	2.17
	32	1.61	1.55	1.77	1.70	2.08	2.00	2.22	2.06	2.31	2.06	2.47	2.20	2.56	2.16
	34	1.61	1.55	1.76	1.69	2.07	1.99	2.19	2.05	2.27	2.05	2.42	2.19	2.51	2.15
	35	1.61	1.55	1.76	1.69	2.07	1.99	2.18	2.05	2.25	2.04	2.40	2.18	2.48	2.14
	36	1.61	1.55	1.76	1.69	2.06	1.98	2.17	2.05	2.23	2.04	2.35	2.16	2.43	2.12
	38	1.61	1.55	1.75	1.68	2.02	1.94	2.15	2.04	2.19	2.02	2.27	2.13	2.34	2.09
	39	1.61	1.55	1.75	1.68	2.01	1.93	2.14	2.03	2.17	2.01	2.22	2.12	2.29	2.08
	41	1.61	1.55	1.75	1.68	1.95	1.87	2.05	1.97	2.07	1.98	2.13	2.04	2.18	2.04
	43	1.61	1.55	1.74	1.67	1.89	1.81	1.96	1.88	1.98	1.90	2.03	1.95	2.07	1.99

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16°C DB	18°C DB	20°C DB	22°C DB	24°C DB
	-19.8	-20	1.50	1.50	1.50	1.50	1.50
	-17.8	-18	1.60	1.60	1.60	1.60	1.60
	-15.7	-16	1.70	1.70	1.70	1.70	1.70
	-13.7	-14	1.79	1.79	1.79	1.79	1.79
	-11.7	-12	1.89	1.89	1.89	1.89	1.89
Lo	-9.6	-10	1.99	1.99	1.99	1.99	1.99
	-7.5	-8	2.11	2.11	2.11	2.11	2.11
10	-5.5	-6	2.23	2.23	2.23	2.23	2.23
(m³/min)	-3.4	-4	2.31	2.30	2.30	2.28	2.25
	-1.3	-2	2.38	2.38	2.37	2.32	2.28
	0.8	0	2.51	2.48	2.44	2.35	2.27
	3.9	3	2.73	2.63	2.53	2.39	2.25
	7.0	6	2.98	2.78	2.59	2.41	2.23
	10.1	9	2.96	2.77	2.58	2.39	2.21
	13.2	12	2.94	2.75	2.56	2.38	2.19
	16.9	15.5	2.92	2.73	2.54	2.35	2.17

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Notes(1) This data shows average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

Model **FDT36KXZE1** Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			2.95	2.83	3.53	3.39	3.82	3.60	4.06	3.63	4.55	3.93	4.72	3.85
	12			2.95	2.83	3.53	3.39	3.82	3.60	4.05	3.62	4.53	3.92	4.70	3.85
	14			2.95	2.83	3.53	3.39	3.82	3.60	4.05	3.62	4.51	3.91	4.68	3.84
	16			2.95	2.83	3.53	3.39	3.82	3.60	4.04	3.61	4.50	3.91	4.66	3.84
	18			2.95	2.83	3.53	3.39	3.82	3.60	4.04	3.61	4.48	3.91	4.64	3.83
P-Hi	20			2.95	2.83	3.53	3.39	3.82	3.60	4.03	3.61	4.47	3.90	4.62	3.83
	22			2.95	2.83	3.53	3.39	3.82	3.60	4.01	3.60	4.41	3.89	4.56	3.81
20	24			2.94	2.82	3.52	3.38	3.82	3.60	3.99	3.59	4.35	3.87	4.49	3.78
(m³/min)	26			2.94	2.82	3.51	3.37	3.78	3.58	3.95	3.58	4.28	3.85	4.43	3.77
	28	2.66	2.55	2.94	2.82	3.49	3.35	3.74	3.56	3.90	3.57	4.22	3.82	4.36	3.75
	30	2.66	2.55	2.93	2.81	3.47	3.33	3.71	3.55	3.86	3.55	4.15	3.80	4.29	3.73
	32	2.66	2.55	2.92	2.80	3.44	3.30	3.67	3.52	3.81	3.53	4.09	3.79	4.23	3.71
	34	2.66	2.55	2.91	2.79	3.43	3.29	3.62	3.48	3.75	3.51	4.00	3.75	4.14	3.68
	35	2.66	2.55	2.91	2.79	3.42	3.28	3.60	3.46	3.72	3.50	3.96	3.74	4.09	3.67
	36	2.66	2.55	2.91	2.79	3.39	3.25	3.58	3.44	3.68	3.49	3.89	3.72	4.02	3.64
	38	2.66	2.55	2.90	2.78	3.34	3.21	3.55	3.41	3.61	3.46	3.74	3.59	3.86	3.60
	39	2.66	2.55	2.89	2.77	3.32	3.19	3.53	3.39	3.58	3.44	3.67	3.52	3.78	3.58
	41	2.66	2.55	2.88	2.76	3.22	3.09	3.38	3.24	3.43	3.29	3.51	3.37	3.60	3.46
	43	2.66	2.55	2.87	2.76	3.12	3.00	3.24	3.11	3.28	3.15	3.35	3.22	3.42	3.28

Heating mode (kW)

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	2.32	2.32	2.32	2.32	2.32
	-17.8	-18	2.47	2.47	2.47	2.47	2.47
	-15.7	-16	2.62	2.62	2.62	2.62	2.62
	-13.7	-14	2.77	2.77	2.77	2.77	2.77
	-11.7	-12	2.92	2.92	2.92	2.92	2.92
P-Hi	-9.6	-10	3.07	3.07	3.07	3.07	3.07
	-7.5	-8	3.25	3.25	3.25	3.25	3.25
20	-5.5	-6	3.44	3.44	3.44	3.44	3.44
(m³/min)	-3.4	-4	3.56	3.56	3.55	3.52	3.48
	-1.3	-2	3.68	3.67	3.66	3.59	3.52
	0.8	0	3.88	3.83	3.77	3.64	3.50
	3.9	3	4.21	4.06	3.91	3.69	3.47
	7.0	6	4.60	4.30	4.00	3.72	3.44
	10.1	9	4.57	4.28	3.99	3.70	3.41
	13.2	12	4.54	4.25	3.96	3.67	3.38
	16.9	15.5	4.51	4.22	3.93	3.64	3.35

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			2.75	2.64	3.29	3.08	3.56	3.12	3.79	3.14	4.24	3.42	4.41	3.35
	12			2.75	2.64	3.29	3.08	3.56	3.12	3.78	3.14	4.23	3.41	4.39	3.34
	14			2.75	2.64	3.29	3.08	3.56	3.12	3.78	3.14	4.21	3.41	4.37	3.34
	16			2.75	2.64	3.29	3.08	3.56	3.12	3.77	3.14	4.20	3.40	4.35	3.33
	18			2.75	2.64	3.29	3.08	3.56	3.12	3.77	3.14	4.18	3.40	4.33	3.33
Hi	20			2.75	2.64	3.29	3.08	3.56	3.12	3.76	3.13	4.17	3.39	4.31	3.32
	22			2.75	2.64	3.29	3.08	3.56	3.12	3.75	3.13	4.12	3.38	4.25	3.30
14	24			2.75	2.64	3.29	3.08	3.56	3.12	3.73	3.12	4.06	3.36	4.19	3.28
(m³/min)	26			2.74	2.63	3.27	3.07	3.53	3.11	3.68	3.11	4.00	3.33	4.13	3.26
	28	2.49	2.39	2.74	2.63	3.26	3.07	3.49	3.10	3.64	3.09	3.93	3.31	4.07	3.25
	30	2.49	2.39	2.74	2.63	3.23	3.05	3.46	3.09	3.60	3.08	3.87	3.30	4.00	3.22
	32	2.49	2.39	2.73	2.62	3.21	3.04	3.43	3.08	3.56	3.07	3.81	3.27	3.94	3.20
	34	2.49	2.39	2.72	2.61	3.20	3.04	3.38	3.06	3.50	3.05	3.73	3.24	3.86	3.18
	35	2.49	2.39	2.71	2.60	3.19	3.03	3.36	3.05	3.47	3.04	3.69	3.23	3.82	3.17
	36	2.49	2.39	2.71	2.60	3.17	3.03	3.34	3.04	3.44	3.03	3.63	3.21	3.75	3.14
	38	2.49	2.39	2.70	2.59	3.12	3.00	3.31	3.03	3.37	3.00	3.49	3.16	3.60	3.10
	39	2.49	2.39	2.70	2.59	3.10	2.98	3.29	3.02	3.34	2.99	3.43	3.15	3.52	3.05
	41	2.49	2.39	2.69	2.58	3.00	2.88	3.16	2.97	3.20	2.94	3.28	3.08	3.36	3.01
	43	2.49	2.39	2.68	2.57	2.91	2.79	3.02	2.90	3.06	2.89	3.12	3.00	3.19	2.96

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	2.19	2.19	2.19	2.19	2.19
	-17.8	-18	2.33	2.33	2.33	2.33	2.33
	-15.7	-16	2.47	2.47	2.47	2.47	2.47
	-13.7	-14	2.62	2.62	2.62	2.62	2.62
	-11.7	-12	2.76	2.76	2.76	2.76	2.76
Hi	-9.6	-10	2.90	2.90	2.90	2.90	2.90
	-7.5	-8	3.07	3.07	3.07	3.07	3.07
14	-5.5	-6	3.25	3.25	3.25	3.25	3.25
(m³/min)	-3.4	-4	3.36	3.36	3.35	3.32	3.29
	-1.3	-2	3.48	3.47	3.46	3.39	3.33
	0.8	0	3.67	3.61	3.56	3.44	3.31
	3.9	3	3.98	3.84	3.69	3.49	3.28
	7.0	6	4.35	4.06	3.78	3.52	3.25
	10.1	9	4.32	4.04	3.77	3.49	3.22
	13.2	12	4.29	4.02	3.74	3.47	3.19
	16.9	15.5	4.26	3.98	3.71	3.44	3.16

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			2.50	2.40	2.99	2.72	3.23	2.76	3.44	2.79	3.85	3.03	4.00	2.97
	12			2.50	2.40	2.99	2.72	3.23	2.76	3.44	2.79	3.84	3.02	3.98	2.95
	14			2.50	2.40	2.99	2.72	3.23	2.76	3.43	2.79	3.83	3.02	3.97	2.95
	16			2.50	2.40	2.99	2.72	3.23	2.76	3.43	2.79	3.81	3.01	3.95	2.94
	18			2.50	2.40	2.99	2.72	3.23	2.76	3.42	2.79	3.80	3.01	3.93	2.94
Me	20			2.50	2.40	2.99	2.72	3.23	2.76	3.42	2.79	3.78	3.00	3.91	2.93
	22			2.50	2.40	2.99	2.72	3.23	2.76	3.40	2.77	3.74	2.99	3.86	2.92
12	24			2.49	2.39	2.99	2.72	3.23	2.76	3.38	2.77	3.69	2.97	3.81	2.90
(m³/min)	26			2.49	2.39	2.97	2.71	3.20	2.75	3.34	2.75	3.63	2.95	3.75	2.88
	28	2.26	2.17	2.49	2.39	2.96	2.71	3.17	2.74	3.31	2.74	3.57	2.93	3.69	2.86
	30	2.26	2.17	2.48	2.38	2.94	2.70	3.14	2.73	3.27	2.73	3.52	2.91	3.64	2.85
	32	2.26	2.17	2.48	2.38	2.91	2.69	3.11	2.72	3.23	2.72	3.46	2.89	3.58	2.83
	34	2.26	2.17	2.47	2.37	2.90	2.69	3.07	2.70	3.18	2.69	3.39	2.87	3.51	2.81
	35	2.26	2.17	2.46	2.36	2.90	2.69	3.05	2.70	3.15	2.68	3.35	2.85	3.47	2.79
	36	2.26	2.17	2.46	2.36	2.88	2.67	3.03	2.69	3.12	2.67	3.29	2.83	3.40	2.75
	38	2.26	2.17	2.46	2.36	2.83	2.66	3.00	2.68	3.06	2.65	3.17	2.77	3.27	2.72
	39	2.26	2.17	2.45	2.35	2.81	2.65	2.99	2.67	3.03	2.64	3.11	2.76	3.20	2.70
	41	2.26	2.17	2.44	2.34	2.73	2.62	2.87	2.63	2.90	2.59	2.97	2.71	3.05	2.66
	43	2.26	2.17	2.43	2.33	2.64	2.53	2.75	2.59	2.78	2.55	2.84	2.68	2.90	2.61

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	1.97	1.97	1.97	1.97	1.97
	-17.8	-18	2.10	2.10	2.10	2.10	2.10
	-15.7	-16	2.23	2.23	2.23	2.23	2.23
	-13.7	-14	2.35	2.35	2.35	2.35	2.35
	-11.7	-12	2.48	2.48	2.48	2.48	2.48
Me	-9.6	-10	2.61	2.61	2.61	2.61	2.61
	-7.5	-8	2.77	2.77	2.77	2.77	2.77
12	-5.5	-6	2.92	2.92	2.92	2.92	2.92
(m³/min)	-3.4	-4	3.03	3.02	3.02	2.99	2.96
	-1.3	-2	3.13	3.12	3.11	3.05	2.99
	0.8	0	3.30	3.25	3.20	3.09	2.98
	3.9	3	3.58	3.45	3.32	3.14	2.95
	7.0	6	3.91	3.66	3.40	3.16	2.92
	10.1	9	3.88	3.64	3.39	3.14	2.90
	13.2	12	3.86	3.61	3.37	3.12	2.87
	16.9	15.5	3.83	3.58	3.34	3.09	2.84

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			2.21	2.09	2.65	2.36	2.86	2.40	3.04	2.42	3.41	2.63	3.54	2.57
	12			2.21	2.09	2.65	2.36	2.86	2.40	3.04	2.42	3.40	2.62	3.53	2.56
	14			2.21	2.09	2.65	2.36	2.86	2.40	3.04	2.42	3.39	2.62	3.51	2.56
	16			2.21	2.09	2.65	2.36	2.86	2.40	3.03	2.41	3.37	2.61	3.50	2.55
	18			2.21	2.09	2.65	2.36	2.86	2.40	3.03	2.41	3.36	2.61	3.48	2.55
Lo	20			2.21	2.09	2.65	2.36	2.86	2.40	3.02	2.41	3.35	2.60	3.47	2.55
	22			2.21	2.09	2.64	2.36	2.86	2.40	3.01	2.41	3.31	2.59	3.42	2.51
10	24			2.21	2.09	2.64	2.36	2.86	2.40	3.00	2.41	3.26	2.57	3.37	2.50
(m³/min)	26			2.21	2.09	2.63	2.35	2.84	2.39	2.96	2.39	3.21	2.54	3.32	2.48
	28	2.00	1.92	2.20	2.08	2.62	2.35	2.81	2.38	2.93	2.38	3.16	2.53	3.27	2.47
	30	2.00	1.92	2.20	2.08	2.60	2.34	2.78	2.37	2.89	2.36	3.11	2.51	3.22	2.46
	32	2.00	1.92	2.19	2.08	2.58	2.33	2.75	2.36	2.86	2.35	3.07	2.50	3.17	2.44
	34	2.00	1.92	2.19	2.08	2.57	2.33	2.72	2.34	2.81	2.33	3.00	2.47	3.10	2.42
	35	2.00	1.92	2.18	2.08	2.57	2.33	2.70	2.34	2.79	2.33	2.97	2.47	3.07	2.41
	36	2.00	1.92	2.18	2.08	2.55	2.32	2.69	2.33	2.76	2.32	2.91	2.45	3.01	2.40
	38	2.00	1.92	2.17	2.07	2.51	2.30	2.66	2.32	2.71	2.30	2.81	2.42	2.89	2.36
	39	2.00	1.92	2.17	2.07	2.49	2.30	2.65	2.31	2.68	2.29	2.75	2.40	2.83	2.35
	41	2.00	1.92	2.16	2.07	2.41	2.26	2.54	2.28	2.57	2.25	2.63	2.35	2.70	2.30
	43	2.00	1.92	2.16	2.07	2.34	2.23	2.43	2.22	2.46	2.19	2.51	2.32	2.57	2.27

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	1.87	1.87	1.87	1.87	1.87
	-17.8	-18	1.99	1.99	1.99	1.99	1.99
	-15.7	-16	2.11	2.11	2.11	2.11	2.11
	-13.7	-14	2.23	2.23	2.23	2.23	2.23
	-11.7	-12	2.35	2.35	2.35	2.35	2.35
Lo	-9.6	-10	2.47	2.47	2.47	2.47	2.47
	-7.5	-8	2.62	2.62	2.62	2.62	2.62
10	-5.5	-6	2.77	2.77	2.77	2.77	2.77
(m³/min)	-3.4	-4	2.87	2.86	2.86	2.83	2.80
	-1.3	-2	2.96	2.95	2.95	2.89	2.83
	0.8	0	3.12	3.08	3.03	2.93	2.82
	3.9	3	3.39	3.27	3.15	2.97	2.79
	7.0	6	3.70	3.46	3.22	2.99	2.77
	10.1	9	3.68	3.44	3.21	2.98	2.75
	13.2	12	3.65	3.42	3.19	2.95	2.72
	16.9	15.5	3.63	3.39	3.16	2.93	2.69

Notes(1) This data shows average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

PJF000Z452 A

Model **FDT45KXZE1** Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	SHC	23 °CDB 16 °CWB TC	SHC	26 °CDB 18 °CWB TC	SHC	27 °CDB 19 °CWB TC	SHC	28 °CDB 20 °CWB TC	SHC	31 °CDB 22 °CWB TC	SHC	33 °CDB 24 °CWB TC	SHC
	10			3.69	3.54	4.41	3.99	4.77	4.08	5.07	4.12	5.68	4.45	5.90	4.37
	12			3.69	3.54	4.41	3.99	4.77	4.08	5.07	4.12	5.66	4.45	5.88	4.36
	14			3.69	3.54	4.41	3.99	4.77	4.08	5.06	4.11	5.64	4.44	5.85	4.35
	16			3.69	3.54	4.41	3.99	4.77	4.08	5.05	4.11	5.62	4.44	5.83	4.35
	18			3.69	3.54	4.41	3.99	4.77	4.08	5.05	4.11	5.60	4.43	5.80	4.33
P-Hi	20			3.69	3.54	4.41	3.99	4.77	4.08	5.04	4.10	5.58	4.42	5.78	4.32
	22			3.68	3.53	4.41	3.99	4.77	4.08	5.02	4.09	5.51	4.40	5.70	4.30
20	24			3.68	3.53	4.41	3.99	4.77	4.08	4.99	4.08	5.44	4.37	5.62	4.28
(m³/min)	26			3.68	3.53	4.39	3.99	4.73	4.03	4.93	4.06	5.35	4.35	5.53	4.25
	28	3.33	3.20	3.67	3.52	4.37	3.98	4.68	4.02	4.88	4.05	5.27	4.31	5.44	4.22
	30	3.33	3.20	3.66	3.51	4.33	3.97	4.64	4.00	4.82	3.99	5.19	4.29	5.36	4.19
	32	3.33	3.20	3.65	3.50	4.30	3.96	4.59	3.99	4.76	3.97	5.11	4.27	5.28	4.17
	34	3.33	3.20	3.64	3.49	4.28	3.95	4.53	3.97	4.69	3.95	5.00	4.22	5.17	4.13
	35	3.33	3.20	3.64	3.49	4.28	3.95	4.50	3.96	4.65	3.94	4.95	4.21	5.12	4.12
	36	3.33	3.20	3.63	3.48	4.24	3.94	4.48	3.95	4.60	3.92	4.86	4.17	5.02	4.09
	38	3.33	3.20	3.62	3.48	4.18	3.92	4.43	3.93	4.52	3.90	4.68	4.12	4.82	4.03
	39	3.33	3.20	3.62	3.48	4.15	3.90	4.41	3.93	4.47	3.88	4.59	4.08	4.72	4.00
	41	3.33	3.20	3.61	3.47	4.02	3.85	4.23	3.87	4.28	3.82	4.39	4.02	4.50	3.93
	43	3.33	3.20	3.59	3.45	3.90	3.74	4.05	3.80	4.09	3.75	4.18	3.94	4.28	3.86

Heating mode (kW)

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	2.90	2.90	2.90	2.90	2.90
	-17.8	-18	3.09	3.09	3.09	3.09	3.09
	-15.7	-16	3.27	3.27	3.27	3.27	3.27
	-13.7	-14	3.46	3.46	3.46	3.46	3.46
	-11.7	-12	3.65	3.65	3.65	3.65	3.65
P-Hi	-9.6	-10	3.83	3.83	3.83	3.83	3.83
	-7.5	-8	4.07	4.07	4.07	4.07	4.07
20	-5.5	-6	4.30	4.30	4.30	4.30	4.30
(m³/min)	-3.4	-4	4.45	4.44	4.44	4.39	4.35
	-1.3	-2	4.60	4.59	4.58	4.49	4.40
	0.8	0	4.85	4.78	4.71	4.54	4.38
	3.9	3	5.26	5.08	4.89	4.61	4.34
	7.0	6	5.75	5.38	5.00	4.65	4.30
	10.1	9	5.71	5.35	4.98	4.62	4.26
	13.2	12	5.68	5.31	4.95	4.59	4.23
	16.9	15.5	5.63	5.27	4.91	4.54	4.18

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	SHC	23 °CDB 16 °CWB TC	SHC	26 °CDB 18 °CWB TC	SHC	27 °CDB 19 °CWB TC	SHC	28 °CDB 20 °CWB TC	SHC	31 °CDB 22 °CWB TC	SHC	33 °CDB 24 °CWB TC	SHC
	10			3.44	3.13	4.12	3.53	4.45	3.60	4.74	3.64	5.31	3.93	5.51	3.85
	12			3.44	3.13	4.12	3.53	4.45	3.60	4.73	3.63	5.29	3.93	5.49	3.84
	14			3.44	3.13	4.12	3.53	4.45	3.60	4.72	3.63	5.27	3.92	5.46	3.83
	16			3.44	3.13	4.12	3.53	4.45	3.60	4.72	3.63	5.25	3.91	5.44	3.83
	18			3.44	3.13	4.12	3.53	4.45	3.60	4.71	3.62	5.23	3.91	5.41	3.81
Hi	20			3.44	3.13	4.12	3.53	4.45	3.60	4.70	3.62	5.21	3.90	5.39	3.80
	22			3.44	3.13	4.11	3.52	4.45	3.60	4.68	3.61	5.14	3.87	5.32	3.78
15	24			3.43	3.12	4.11	3.52	4.45	3.60	4.66	3.60	5.08	3.85	5.24	3.76
(m³/min)	26			3.43	3.12	4.09	3.50	4.41	3.57	4.61	3.59	5.00	3.83	5.16	3.73
	28	3.11	2.99	3.43	3.12	4.07	3.49	4.37	3.56	4.55	3.57	4.92	3.79	5.08	3.71
	30	3.11	2.99	3.42	3.12	4.04	3.48	4.33	3.55	4.50	3.54	4.84	3.77	5.01	3.68
	32	3.11	2.99	3.41	3.11	4.01	3.47	4.28	3.53	4.45	3.52	4.77	3.75	4.93	3.65
	34	3.11	2.99	3.40	3.11	4.00	3.47	4.23	3.51	4.37	3.50	4.67	3.71	4.83	3.63
	35	3.11	2.99	3.39	3.11	3.99	3.47	4.20	3.48	4.34	3.49	4.62	3.69	4.78	3.60
	36	3.11	2.99	3.39	3.11	3.96	3.45	4.18	3.47	4.30	3.45	4.53	3.66	4.68	3.58
	38	3.11	2.99	3.38	3.10	3.90	3.43	4.14	3.46	4.21	3.42	4.37	3.61	4.50	3.52
	39	3.11	2.99	3.38	3.10	3.87	3.42	4.12	3.45	4.17	3.40	4.29	3.57	4.41	3.49
	41	3.11	2.99	3.36	3.09	3.75	3.38	3.95	3.39	4.00	3.35	4.09	3.51	4.20	3.43
	43	3.11	2.99	3.35	3.09	3.64	3.34	3.78	3.33	3.82	3.29	3.90	3.45	3.99	3.36

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	2.74	2.74	2.74	2.74	2.74
	-17.8	-18	2.92	2.92	2.92	2.92	2.92
	-15.7	-16	3.10	3.10	3.10	3.10	3.10
	-13.7	-14	3.27	3.27	3.27	3.27	3.27
	-11.7	-12	3.45	3.45	3.45	3.45	3.45
Hi	-9.6	-10	3.63	3.63	3.63	3.63	3.63
	-7.5	-8	3.85	3.85	3.85	3.85	3.85
15	-5.5	-6	4.07	4.07	4.07	4.07	4.07
(m³/min)	-3.4	-4	4.21	4.20	4.20	4.16	4.12
	-1.3	-2	4.35	4.34	4.33	4.25	4.16
	0.8	0	4.59	4.52	4.46	4.30	4.14
	3.9	3	4.98	4.80	4.62	4.36	4.10
	7.0	6	5.44	5.08	4.73	4.40	4.07
	10.1	9	5.40	5.06	4.71	4.37	4.03
	13.2	12	5.37	5.03	4.68	4.34	4.00
	16.9	15.5	5.33	4.98	4.64	4.30	3.96

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	SHC	23 °CDB 16 °CWB TC	SHC	26 °CDB 18 °CWB TC	SHC	27 °CDB 19 °CWB TC	SHC	28 °CDB 20 °CWB TC	SHC	31 °CDB 22 °CWB TC	SHC	33 °CDB 24 °CWB TC	SHC
	10			3.17	2.82	3.79	3.19	4.10	3.25	4.36	3.28	4.89	3.56	5.08	3.48
	12			3.17	2.82	3.79	3.19	4.10	3.25	4.36	3.28	4.87	3.55	5.05	3.46
	14			3.17	2.82	3.79	3.19	4.10	3.25	4.35	3.28	4.85	3.54	5.03	3.46
	16			3.17	2.82	3.79	3.19	4.10	3.25	4.35	3.28	4.84	3.54	5.01	3.45
	18			3.17	2.82	3.79	3.19	4.10	3.25	4.34	3.27	4.82	3.53	4.99	3.44
Me	20			3.17	2.82	3.79	3.19	4.10	3.25	4.33	3.27	4.80	3.53	4.97	3.44
	22			3.17	2.82	3.79	3.19	4.10	3.25	4.31	3.26	4.74	3.50	4.90	3.42
13	24			3.16	2.82	3.79	3.19	4.10	3.25	4.29	3.26	4.68	3.48	4.83	3.39
(m³/min)	26			3.16	2.82	3.77	3.18	4.06	3.23	4.24	3.24	4.61	3.45	4.76	3.37
	28	2.86	2.75	3.16	2.82	3.75	3.17	4.02	3.22	4.19	3.22	4.53	3.43	4.68	3.35
	30	2.86	2.75	3.15	2.82	3.72	3.16	3.99	3.21	4.14	3.20	4.46	3.40	4.61	3.32
	32	2.86	2.75	3.14	2.81	3.70	3.15	3.95	3.19	4.10	3.18	4.39	3.37	4.54	3.30
	34	2.86	2.75	3.13	2.81	3.68	3.15	3.90	3.17	4.03	3.15	4.30	3.35	4.45	3.27
	35	2.86	2.75	3.13	2.81	3.68	3.15	3.87	3.16	4.00	3.14	4.25	3.33	4.40	3.25
	36	2.86	2.75	3.12	2.80	3.65	3.13	3.85	3.15	3.96	3.13	4.18	3.30	4.32	3.23
	38	2.86	2.75	3.12	2.80	3.59	3.11	3.81	3.14	3.88	3.10	4.02	3.24	4.15	3.17
	39	2.86	2.75	3.11	2.79	3.57	3.10	3.79	3.13	3.84	3.09	3.95	3.22	4.06	3.12
	41	2.86	2.75	3.10	2.79	3.46	3.05	3.64	3.07	3.68	3.03	3.77	3.14	3.87	3.07
	43	2.86	2.75	3.09	2.79	3.35	3.01	3.48	3.00	3.52	2.97	3.60	3.09	3.68	3.02

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	2.51	2.51	2.51	2.51	2.51
	-17.8	-18	2.67	2.67	2.67	2.67	2.67
	-15.7	-16	2.83	2.83	2.83	2.83	2.83
	-13.7	-14	3.00	3.00	3.00	3.00	3.00
	-11.7	-12	3.16	3.16	3.16	3.16	3.16
Me	-9.6	-10	3.32	3.32	3.32	3.32	3.32
	-7.5	-8	3.52	3.52	3.52	3.52	3.52
13	-5.5	-6	3.72	3.72	3.72	3.72	3.72
(m³/min)	-3.4	-4	3.85	3.85	3.84	3.80	3.77
	-1.3	-2	3.98	3.97	3.96	3.89	3.81
	0.8	0	4.20	4.14	4.08	3.93	3.79
	3.9	3	4.56	4.39	4.23	3.99	3.76
	7.0	6	4.98	4.65	4.33	4.03	3.72
	10.1	9	4.95	4.63	4.31	4.00	3.69
	13.2	12	4.91	4.60	4.29	3.97	3.66
	16.9	15.5	4.88	4.56	4.25	3.93	3.62

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	SHC	23 °CDB 16 °CWB TC	SHC	26 °CDB 18 °CWB TC	SHC	27 °CDB 19 °CWB TC	SHC	28 °CDB 20 °CWB TC	SHC	31 °CDB 22 °CWB TC	SHC	33 °CDB 24 °CWB TC	SHC
	10			2.75	2.37	3.29	2.68	3.56	2.73	3.79	2.77	4.24	2.99	4.41	2.92
	12			2.75	2.37	3.29	2.68	3.56	2.73	3.78	2.76	4.23	2.98	4.39	2.91
	14			2.75	2.37	3.29	2.68	3.56	2.73	3.78	2.76	4.21	2.98	4.37	2.91
	16			2.75	2.37	3.29	2.68	3.56	2.73	3.77	2.76	4.20	2.97	4.35	2.90
	18			2.75	2.37	3.29	2.68	3.56	2.73	3.77	2.76	4.18	2.97	4.33	2.89
Lo	20			2.75	2.37	3.29	2.68	3.56	2.73	3.76	2.76	4.17	2.96	4.31	2.89
	22			2.75	2.37	3.29	2.68	3.56	2.73	3.75	2.75	4.12	2.95	4.25	2.86
10	24			2.75	2.37	3.29	2.68	3.56	2.73	3.73	2.74	4.06	2.92	4.19	2.85
(m³/min)	26			2.74	2.37	3.27	2.67	3.53	2.72	3.68	2.72	4.00	2.90	4.13	2.83
	28	2.49	2.34	2.74	2.37	3.26	2.67	3.49	2.71	3.64	2.71	3.93	2.88	4.07	2.80
	30	2.49	2.34	2.74	2.37	3.23	2.65	3.46	2.69	3.60	2.69	3.87	2.85	4.00	2.78
	32	2.49	2.34	2.73	2.36	3.21	2.65	3.43	2.68	3.56	2.68	3.81	2.83	3.94	2.76
	34	2.49	2.34	2.72	2.36	3.20	2.64	3.38	2.66	3.50	2.65	3.73	2.80	3.86	2.73
	35	2.49	2.34	2.71	2.35	3.19	2.64	3.36	2.65	3.47	2.64	3.69	2.79	3.82	2.72
	36	2.49	2.34	2.71	2.35	3.17	2.63	3.34	2.64	3.44	2.63	3.63	2.77	3.75	2.70
	38	2.49	2.34	2.70	2.35	3.12	2.61	3.31	2.63	3.37	2.60	3.49	2.72	3.60	2.65
	39	2.49	2.34	2.70	2.35	3.10	2.60	3.29	2.63	3.34	2.59	3.43	2.69	3.52	2.63
	41	2.49	2.34	2.69	2.34	3.00	2.56	3.16	2.57	3.20	2.54	3.28	2.65	3.36	2.57
	43	2.49	2.34	2.68	2.34	2.91	2.52	3.02	2.52	3.06	2.49	3.12	2.59	3.19	2.52

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	2.33	2.33	2.33	2.33	2.33
	-17.8	-18	2.48	2.48	2.48	2.48	2.48
	-15.7	-16	2.63	2.63	2.63	2.63	2.63
	-13.7	-14	2.78	2.78	2.78	2.78	2.78
	-11.7	-12	2.93	2.93	2.93	2.93	2.93
Lo	-9.6	-10	3.08	3.08	3.08	3.08	3.08
	-7.5	-8	3.27	3.27	3.27	3.27	3.27
10	-5.5	-6	3.46	3.46	3.46	3.46	3.46
(m³/min)	-3.4	-4	3.58	3.57	3.57	3.53	3.50
	-1.3	-2	3.70	3.69	3.68	3.61	3.54
	0.8	0	3.90	3.84	3.79	3.65	3.52
	3.9	3	4.23	4.08	3.93	3.71	3.49
	7.0	6	4.62	4.32	4.02	3.74	3.46
	10.1	9	4.59	4.30	4.00	3.72	3.43
	13.2	12	4.56	4.27	3.98	3.69	3.40
	16.9	15.5	4.53	4.24	3.94	3.65	3.36

Notes(1) This data shows average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

PJF000Z452 A

Model **FDT56KXZE1** Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
P-Hi	10			4.59	4.41	5.49	5.16	5.94	5.23	6.32	5.29	7.07	5.72	7.35	5.62
	12			4.59	4.41	5.49	5.16	5.94	5.23	6.31	5.28	7.05	5.72	7.31	5.60
	14			4.59	4.41	5.49	5.16	5.94	5.23	6.30	5.28	7.02	5.71	7.28	5.60
	16			4.59	4.41	5.49	5.16	5.94	5.23	6.29	5.28	7.00	5.70	7.25	5.59
	18			4.59	4.41	5.49	5.16	5.94	5.23	6.28	5.27	6.97	5.69	7.22	5.58
	20			4.59	4.41	5.49	5.16	5.94	5.23	6.27	5.27	6.95	5.69	7.19	5.56
	22			4.58	4.40	5.49	5.16	5.94	5.23	6.24	5.26	6.86	5.66	7.09	5.53
26	24			4.58	4.40	5.48	5.15	5.94	5.23	6.21	5.23	6.77	5.62	6.99	5.51
(m^3/min)	26			4.57	4.39	5.46	5.14	5.88	5.21	6.14	5.21	6.66	5.59	6.88	5.46
	28	4.14	3.97	4.57	4.39	5.43	5.13	5.82	5.20	6.07	5.19	6.56	5.56	6.78	5.43
	30	4.14	3.97	4.56	4.38	5.39	5.12	5.77	5.16	6.00	5.17	6.46	5.52	6.67	5.41
	32	4.14	3.97	4.55	4.37	5.35	5.09	5.71	5.15	5.93	5.13	6.36	5.49	6.57	5.36
	34	4.14	3.97	4.53	4.35	5.33	5.09	5.64	5.12	5.83	5.10	6.22	5.43	6.44	5.33
	35	4.14	3.97	4.52	4.34	5.32	5.08	5.60	5.11	5.79	5.09	6.16	5.42	6.37	5.31
	36	4.14	3.97	4.52	4.34	5.28	5.07	5.57	5.10	5.73	5.07	6.05	5.39	6.25	5.27
	38	4.14	3.97	4.51	4.33	5.20	4.99	5.52	5.08	5.62	5.02	5.82	5.30	6.00	5.15
	39	4.14	3.97	4.50	4.32	5.16	4.95	5.49	5.06	5.56	5.00	5.71	5.27	5.87	5.12
	41	4.14	3.97	4.49	4.31	5.00	4.80	5.26	4.98	5.33	4.93	5.46	5.15	5.60	5.05
	43	4.14	3.97	4.47	4.29	4.85	4.66	5.04	4.84	5.10	4.84	5.21	5.00	5.32	4.97

Heating mode (kW)

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
P-Hi	-19.8	-20	3.65	3.65	3.65	3.65	3.65
	-17.8	-18	3.89	3.89	3.89	3.89	3.89
	-15.7	-16	4.12	4.12	4.12	4.12	4.12
	-13.7	-14	4.36	4.36	4.36	4.36	4.36
	-11.7	-12	4.59	4.59	4.59	4.59	4.59
	-9.6	-10	4.83	4.83	4.83	4.83	4.83
	-7.5	-8	5.12	5.12	5.12	5.12	5.12
26	-5.5	-6	5.42	5.42	5.42	5.42	5.42
(m^3/min)	-3.4	-4	5.61	5.60	5.59	5.54	5.48
	-1.3	-2	5.80	5.78	5.76	5.65	5.54
	0.8	0	6.11	6.02	5.94	5.73	5.51
	3.9	3	6.63	6.39	6.16	5.81	5.47
	7.0	6	7.25	6.77	6.30	5.86	5.42
	10.1	9	7.20	6.74	6.28	5.82	5.37
	13.2	12	7.15	6.69	6.24	5.78	5.32
	16.9	15.5	7.10	6.64	6.18	5.73	5.27

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
Hi	10			4.24	3.70	5.07	4.18	5.48	4.26	5.83	4.31	6.53	4.65	6.78	4.54
	12			4.24	3.70	5.07	4.18	5.48	4.26	5.82	4.31	6.51	4.64	6.75	4.53
	14			4.24	3.70	5.07	4.18	5.48	4.26	5.81	4.30	6.48	4.63	6.72	4.52
	16			4.24	3.70	5.07	4.18	5.48	4.26	5.81	4.30	6.46	4.62	6.69	4.51
	18			4.24	3.70	5.07	4.18	5.48	4.26	5.80	4.30	6.44	4.62	6.66	4.50
	20			4.24	3.70	5.07	4.18	5.48	4.26	5.79	4.30	6.41	4.61	6.64	4.50
	22			4.23	3.70	5.06	4.17	5.48	4.26	5.76	4.28	6.33	4.58	6.54	4.47
16	24			4.23	3.70	5.06	4.17	5.48	4.26	5.74	4.28	6.25	4.55	6.45	4.44
(m^3/min)	26			4.22	3.69	5.04	4.17	5.43	4.24	5.67	4.25	6.15	4.52	6.35	4.41
	28	3.83	3.66	4.22	3.69	5.01	4.16	5.38	4.22	5.60	4.22	6.05	4.49	6.26	4.38
	30	3.83	3.66	4.21	3.69	4.98	4.14	5.33	4.20	5.54	4.20	5.96	4.46	6.16	4.34
	32	3.83	3.66	4.20	3.68	4.94	4.13	5.27	4.18	5.47	4.17	5.87	4.42	6.07	4.32
	34	3.83	3.66	4.18	3.67	4.92	4.12	5.20	4.16	5.38	4.14	5.74	4.38	5.94	4.28
	35	3.83	3.66	4.18	3.67	4.91	4.12	5.17	4.14	5.34	4.13	5.68	4.36	5.88	4.26
	36	3.83	3.66	4.17	3.67	4.87	4.10	5.14	4.12	5.29	4.10	5.58	4.33	5.77	4.22
	38	3.83	3.66	4.16	3.67	4.80	4.08	5.09	4.11	5.19	4.06	5.38	4.25	5.54	4.15
	39	3.83	3.66	4.16	3.67	4.76	4.05	5.07	4.10	5.14	4.05	5.27	4.22	5.42	4.11
	41	3.83	3.66	4.14	3.66	4.62	4.00	4.86	4.01	4.92	3.96	5.04	4.13	5.17	4.03
	43	3.83	3.66	4.13	3.65	4.48	3.95	4.65	3.94	4.70	3.88	4.81	4.05	4.92	3.95

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
Hi	-19.8	-20	3.29	3.29	3.29	3.29	3.29
	-17.8	-18	3.51	3.51	3.51	3.51	3.51
	-15.7	-16	3.72	3.72	3.72	3.72	3.72
	-13.7	-14	3.93	3.93	3.93	3.93	3.93
	-11.7	-12	4.14	4.14	4.14	4.14	4.14
	-9.6	-10	4.35	4.35	4.35	4.35	4.35
	-7.5	-8	4.62	4.62	4.62	4.62	4.62
16	-5.5	-6	4.88	4.88	4.88	4.88	4.88
(m^3/min)	-3.4	-4	5.06	5.05	5.04	4.99	4.94
	-1.3	-2	5.23	5.21	5.20	5.10	5.00
	0.8	0	5.51	5.43	5.35	5.16	4.97
	3.9	3	5.98	5.77	5.55	5.24	4.93
	7.0	6	6.53	6.11	5.68	5.28	4.88
	10.1	9	6.49	6.07	5.66	5.25	4.84
	13.2	12	6.45	6.04	5.62	5.21	4.80
	16.9	15.5	6.40	5.99	5.57	5.16	4.75

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
Me	10			3.89	3.20	4.64	3.61	5.02	3.68	5.35	3.75	5.99	4.05	6.22	3.95
	12			3.89	3.20	4.64	3.61	5.02	3.68	5.34	3.74	5.97	4.04	6.19	3.94
	14			3.89	3.20	4.64	3.61	5.02	3.68	5.33	3.74	5.94	4.03	6.16	3.92
	16			3.89	3.20	4.64	3.61	5.02	3.68	5.32	3.74	5.92	4.02	6.14	3.91
	18			3.89	3.20	4.64	3.61	5.02	3.68	5.32	3.74	5.90	4.01	6.11	3.91
	20			3.89	3.20	4.64	3.61	5.02	3.68	5.31	3.73	5.88	4.01	6.08	3.90
	22			3.88	3.20	4.64	3.61	5.02	3.68	5.28	3.72	5.81	3.98	6.00	3.87
13	24			3.87	3.19	4.64	3.61	5.02	3.68	5.26	3.71	5.73	3.95	5.92	3.84
(m^3/min)	26			3.87	3.19	4.62	3.60	4.98	3.67	5.20	3.68	5.64	3.91	5.83	3.81
	28	3.51	3.16	3.87	3.19	4.60	3.60	4.93	3.65	5.14	3.65	5.55	3.88	5.74	3.76
	30	3.51	3.16	3.86	3.19	4.56	3.58	4.88	3.63	5.08	3.63	5.47	3.85	5.65	3.73
	32	3.51	3.16	3.85	3.19	4.53	3.57	4.83	3.61	5.02	3.61	5.38	3.80	5.56	3.71
	34	3.51	3.16	3.84	3.18	4.51	3.56	4.77	3.59	4.94	3.58	5.27	3.77	5.45	3.67
	35	3.51	3.16	3.83	3.18	4.50	3.56	4.74	3.58	4.90	3.56	5.21	3.74	5.39	3.65
	36	3.51	3.16	3.83	3.18	4.47	3.54	4.72	3.57	4.85	3.54	5.12	3.71	5.29	3.62
	38	3.51	3.16	3.82	3.17	4.40	3.52	4.67	3.55	4.76	3.51	4.93	3.65	5.08	3.56
	39	3.51	3.16	3.81	3.17	4.37	3.51	4.65	3.54	4.71	3.49	4.84	3.62	4.97	3.52
	41	3.51	3.16	3.80	3.16	4.24	3.45	4.46	3.47	4.51	3.41	4.62	3.54	4.74	3.44
	43	3.51	3.16	3.78	3.16	4.11	3.39	4.27	3.39	4.31	3.34	4.41	3.47	4.51	3.37

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
Me	-19.8	-20	2.95	2.95	2.95	2.95	2.95
	-17.8	-18	3.14	3.14	3.14	3.14	3.14
	-15.7	-16	3.33	3.33	3.33	3.33	3.33
	-13.7	-14	3.52	3.52	3.52	3.52	3.52
	-11.7	-12	3.71	3.71	3.71	3.71	3.71
	-9.6	-10	3.90	3.90	3.90	3.90	3.90
	-7.5	-8	4.14	4.14	4.14	4.14	4.14
13	-5.5	-6	4.38	4.38	4.38	4.38	4.38
(m^3/min)	-3.4	-4	4.53	4.52	4.52	4.47	4.43
	-1.3	-2	4.68	4.67	4.66	4.57	4.48
	0.8	0	4.94	4.87	4.80	4.63	4.45
	3.9	3	5.36	5.17	4.98	4.70	4.42
	7.0	6	5.85	5.47	5.09	4.73	4.38
	10.1	9	5.82	5.44	5.07	4.71	4.34
	13.2	12	5.78	5.41	5.04	4.67	4.30
	16.9	15.5	5.73	5.36	4.99	4.63	4.26

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
Lo	10			3.33	2.74	3.98	3.10	4.30	3.16	4.58	3.21	5.13	3.46	5.33	3.36
	12			3.33	2.74	3.98	3.10	4.30	3.16	4.57	3.20	5.11	3.46	5.30	3.35
	14			3.33	2.74	3.98	3.10	4.30	3.16	4.57	3.20	5.09	3.45	5.28	3.35
	16			3.33	2.74	3.98	3.10	4.30	3.16	4.56	3.20	5.07	3.44	5.26	3.34
	18			3.33	2.74	3.98	3.10	4.30	3.16	4.55	3.20	5.05	3.44	5.23	3.33
	20			3.33	2.74	3.98	3.10	4.30	3.16	4.55	3.20	5.04	3.43	5.21	3.32
	22			3.32	2.73	3.98	3.10	4.30	3.16	4.53	3.19	4.97	3.39	5.14	3.30
11	24			3.32	2.73	3.98	3.10	4.30	3.16	4.51	3.18	4.91	3.37	5.07	3.28
(m^3/min)	26			3.32	2.73	3.96	3.09	4.26	3.15	4.45	3.15	4.83	3.34	4.99	3.25
	28	3.00	2.70	3.31	2.73	3.94	3.08	4.22	3.13	4.40	3.13	4.75	3.31	4.91	3.23
	30	3.00	2.70	3.30	2.73	3.91	3.07	4.18	3.12	4.35	3.12	4.68	3.29	4.84	3.21
	32	3.00	2.70	3.30	2.73	3.88	3.05	4.14	3.10	4.30	3.10	4.61	3.27	4.77	3.19
	34	3.00	2.70	3.29	2.72	3.86	3.05	4.09	3.08	4.23	3.07	4.51	3.23	4.67	3.15
	35	3.00	2.70	3.28	2.72	3.86	3.05	4.06	3.07	4.19	3.05	4.46	3.21	4.62	3.13
	36	3.00	2.70	3.28	2.72	3.83	3.03	4.04	3.06	4.15	3.04	4.38	3.18	4.53	3.11
	38	3.00	2.70	3.27	2.71	3.77	3.01	4.00	3.04	4.07	3.00	4.22	3.12	4.35	3.04
	39	3.00	2.70	3.26	2.71	3.74	3.00	3.98	3.03	4.03	2.99	4.14	3.10	4.26	3.02
	41	3.00	2.70	3.25	2.71	3.63	2.95	3.82	2.97	3.86	2.92	3.96	3.03	4.06	2.95
	43	3.00	2.70	3.24	2.70	3.52	2.91	3.65	2.90	3.69	2.86	3.77	2.96	3.86	2.88

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
Lo	-19.8	-20	2.78	2.78	2.78	2.78	2.78
	-17.8	-18	2.96	2.96	2.96	2.96	2.96
	-15.7	-16	3.14	3.14	3.14	3.14	3.14
	-13.7	-14	3.31	3.31	3.31	3.31	3.31
	-11.7	-12	3.49	3.49	3.49	3.49	3.49
	-9.6	-10	3.67	3.67	3.67	3.67	3.67
	-7.5	-8	3.90	3.90	3.90	3.90	3.90
11	-5.5	-6	4.12	4.12	4.12	4.12	4.12
(m^3/min)	-3.4	-4	4.26	4.26	4.25	4.21	4.17
	-1.3	-2	4.41	4.39	4.38	4.30	4.22
	0.8	0	4.65	4.58	4.51	4.35	4.19
	3.9	3	5.04	4.86	4.68	4.42	4.16
	7.0	6	5.51	5.15	4.79	4.45	4.12
	10.1	9	5.47	5.12	4.77	4.43	4.08
	13.2	12	5.44	5.09	4.74	4.39	4.05
	16.9	15.5	5.39	5.05	4.70	4.35	4.01

Notes(1) This data shows average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

PJF000Z452 A

Model **FDT71KXZE1** Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			5.82	5.54	6.96	6.26	7.53	6.36	8.01	6.42	8.97	6.97	9.31	6.81
	12			5.82	5.54	6.96	6.26	7.53	6.36	8.00	6.42	8.94	6.95	9.27	6.80
	14			5.82	5.54	6.96	6.26	7.53	6.36	7.99	6.42	8.90	6.93	9.23	6.79
	16			5.82	5.54	6.96	6.26	7.53	6.36	7.97	6.41	8.87	6.93	9.19	6.78
	18			5.82	5.54	6.96	6.26	7.53	6.36	7.96	6.41	8.84	6.92	9.15	6.77
P-Hi	20			5.82	5.54	6.96	6.26	7.53	6.36	7.95	6.40	8.81	6.91	9.11	6.76
	22			5.81	5.54	6.95	6.25	7.53	6.36	7.92	6.40	8.70	6.87	8.99	6.71
28	24			5.80	5.54	6.95	6.25	7.53	6.36	7.88	6.38	8.58	6.82	8.86	6.67
(m^3/min)	26			5.80	5.54	6.92	6.24	7.46	6.34	7.79	6.34	8.45	6.78	8.73	6.63
	28	5.25	5.04	5.79	5.53	6.89	6.23	7.38	6.31	7.69	6.30	8.31	6.74	8.59	6.58
	30	5.25	5.04	5.78	5.53	6.83	6.21	7.31	6.28	7.60	6.27	8.19	6.69	8.46	6.54
	32	5.25	5.04	5.77	5.52	6.78	6.19	7.24	6.25	7.51	6.24	8.06	6.65	8.33	6.51
	34	5.25	5.04	5.75	5.52	6.76	6.18	7.15	6.21	7.39	6.19	7.89	6.60	8.16	6.44
	35	5.25	5.04	5.74	5.51	6.75	6.18	7.10	6.20	7.33	6.17	7.80	6.55	8.08	6.42
	36	5.25	5.04	5.73	5.50	6.69	6.14	7.06	6.18	7.26	6.15	7.66	6.51	7.92	6.38
	38	5.25	5.04	5.72	5.49	6.59	6.08	6.99	6.16	7.12	6.10	7.38	6.43	7.61	6.27
	39	5.25	5.04	5.71	5.48	6.54	6.06	6.96	6.15	7.05	6.08	7.24	6.37	7.45	6.23
	41	5.25	5.04	5.69	5.46	6.35	5.99	6.67	6.00	6.76	5.93	6.92	6.27	7.10	6.12
	43	5.25	5.04	5.67	5.44	6.15	5.90	6.39	5.91	6.46	5.84	6.60	6.16	6.75	6.02

Heating mode (kW)

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	4.64	4.64	4.64	4.64	4.64
	-17.8	-18	4.94	4.94	4.94	4.94	4.94
	-15.7	-16	5.24	5.24	5.24	5.24	5.24
	-13.7	-14	5.54	5.54	5.54	5.54	5.54
	-11.7	-12	5.83	5.83	5.83	5.83	5.83
P-Hi	-9.6	-10	6.13	6.13	6.13	6.13	6.13
	-7.5	-8	6.51	6.51	6.51	6.51	6.51
28	-5.5	-6	6.88	6.88	6.88	6.88	6.88
(m^3/min)	-3.4	-4	7.12	7.11	7.10	7.03	6.96
	-1.3	-2	7.36	7.34	7.32	7.18	7.04
	0.8	0	7.76	7.65	7.54	7.27	7.00
	3.9	3	8.42	8.12	7.82	7.38	6.94
	7.0	6	9.20	8.60	8.00	7.44	6.88
	10.1	9	9.14	8.56	7.97	7.40	6.82
	13.2	12	9.08	8.50	7.92	7.34	6.76
	16.9	15.5	9.01	8.43	7.85	7.27	6.69

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			5.21	4.31	6.22	4.85	6.73	4.97	7.16	5.04	8.02	5.44	8.33	5.31
	12			5.21	4.31	6.22	4.85	6.73	4.97	7.15	5.03	7.99	5.43	8.29	5.29
	14			5.21	4.31	6.22	4.85	6.73	4.97	7.14	5.03	7.96	5.42	8.26	5.28
	16			5.21	4.31	6.22	4.85	6.73	4.97	7.13	5.03	7.93	5.41	8.22	5.26
	18			5.21	4.31	6.22	4.85	6.73	4.97	7.12	5.02	7.91	5.40	8.19	5.25
Hi	20			5.21	4.31	6.22	4.85	6.73	4.97	7.11	5.02	7.88	5.39	8.15	5.24
	22			5.20	4.30	6.22	4.85	6.73	4.97	7.08	5.00	7.78	5.34	8.04	5.20
17	24			5.19	4.30	6.22	4.85	6.73	4.97	7.05	4.99	7.68	5.31	7.93	5.17
(m^3/min)	26			5.19	4.30	6.19	4.84	6.67	4.95	6.96	4.95	7.56	5.27	7.81	5.12
	28	4.70	4.24	5.18	4.29	6.16	4.82	6.60	4.92	6.88	4.92	7.44	5.22	7.68	5.08
	30	4.70	4.24	5.17	4.29	6.11	4.80	6.54	4.89	6.80	4.89	7.32	5.17	7.57	5.04
	32	4.70	4.24	5.16	4.29	6.06	4.78	6.48	4.87	6.72	4.85	7.21	5.13	7.45	5.00
	34	4.70	4.24	5.14	4.28	6.04	4.78	6.39	4.82	6.61	4.80	7.06	5.08	7.30	4.95
	35	4.70	4.24	5.13	4.27	6.03	4.77	6.35	4.80	6.56	4.78	6.98	5.05	7.22	4.92
	36	4.70	4.24	5.12	4.27	5.99	4.76	6.32	4.79	6.50	4.75	6.85	5.00	7.08	4.88
	38	4.70	4.24	5.11	4.26	5.90	4.72	6.25	4.76	6.37	4.71	6.60	4.91	6.80	4.78
	39	4.70	4.24	5.11	4.26	5.85	4.70	6.22	4.75	6.31	4.69	6.48	4.87	6.66	4.74
	41	4.70	4.24	5.09	4.26	5.68	4.63	5.97	4.65	6.04	4.59	6.19	4.77	6.35	4.63
	43	4.70	4.24	5.07	4.25	5.50	4.56	5.72	4.56	5.78	4.49	5.90	4.66	6.04	4.51

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	4.21	4.21	4.21	4.21	4.21
	-17.8	-18	4.48	4.48	4.48	4.48	4.48
	-15.7	-16	4.75	4.75	4.75	4.75	4.75
	-13.7	-14	5.02	5.02	5.02	5.02	5.02
	-11.7	-12	5.29	5.29	5.29	5.29	5.29
Hi	-9.6	-10	5.56	5.56	5.56	5.56	5.56
	-7.5	-8	5.90	5.90	5.90	5.90	5.90
17	-5.5	-6	6.24	6.24	6.24	6.24	6.24
(m^3/min)	-3.4	-4	6.45	6.44	6.43	6.37	6.31
	-1.3	-2	6.67	6.65	6.63	6.51	6.38
	0.8	0	7.03	6.93	6.83	6.59	6.34
	3.9	3	7.63	7.36	7.09	6.69	6.29
	7.0	6	8.34	7.79	7.25	6.74	6.24
	10.1	9	8.28	7.75	7.22	6.70	6.18
	13.2	12	8.23	7.70	7.18	6.65	6.13
	16.9	15.5	8.17	7.64	7.11	6.59	6.06

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			4.42	3.60	5.28	4.07	5.71	4.16	6.08	4.22	6.81	4.56	7.07	4.45
	12			4.42	3.60	5.28	4.07	5.71	4.16	6.07	4.22	6.78	4.55	7.04	4.43
	14			4.42	3.60	5.28	4.07	5.71	4.16	6.06	4.21	6.76	4.54	7.01	4.42
	16			4.42	3.60	5.28	4.07	5.71	4.16	6.05	4.21	6.74	4.53	6.98	4.41
	18			4.42	3.60	5.28	4.07	5.71	4.16	6.05	4.21	6.71	4.52	6.95	4.40
Me	20			4.42	3.60	5.28	4.07	5.71	4.16	6.04	4.20	6.69	4.51	6.92	4.39
	22			4.41	3.60	5.28	4.07	5.71	4.16	6.01	4.19	6.60	4.48	6.82	4.36
14	24			4.41	3.60	5.28	4.07	5.71	4.16	5.98	4.18	6.52	4.45	6.73	4.32
(m^3/min)	26			4.40	3.59	5.25	4.06	5.66	4.14	5.91	4.15	6.41	4.40	6.63	4.29
	28	3.99	3.55	4.40	3.59	5.23	4.05	5.61	4.12	5.84	4.12	6.31	4.37	6.52	4.25
	30	3.99	3.55	4.39	3.59	5.19	4.03	5.55	4.10	5.77	4.09	6.21	4.33	6.42	4.21
	32	3.99	3.55	4.38	3.58	5.15	4.00	5.50	4.08	5.70	4.07	6.12	4.29	6.33	4.18
	34	3.99	3.55	4.36	3.58	5.13	4.00	5.43	4.05	5.61	4.03	5.99	4.25	6.20	4.14
	35	3.99	3.55	4.36	3.58	5.12	3.99	5.39	4.03	5.57	4.02	5.92	4.22	6.13	4.12
	36	3.99	3.55	4.35	3.57	5.08	3.98	5.36	4.02	5.51	3.99	5.82	4.19	6.01	4.07
	38	3.99	3.55	4.34	3.57	5.00	3.94	5.31	3.98	5.41	3.94	5.61	4.11	5.77	4.00
	39	3.99	3.55	4.33	3.56	4.97	3.93	5.28	3.97	5.35	3.91	5.50	4.07	5.65	3.95
	41	3.99	3.55	4.32	3.56	4.82	3.87	5.07	3.89	5.13	3.83	5.26	3.98	5.39	3.87
	43	3.99	3.55	4.30	3.55	4.67	3.81	4.85	3.81	4.90	3.75	5.01	3.89	5.12	3.78

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	3.43	3.43	3.43	3.43	3.43
	-17.8	-18	3.65	3.65	3.65	3.65	3.65
	-15.7	-16	3.87	3.87	3.87	3.87	3.87
	-13.7	-14	4.09	4.09	4.09	4.09	4.09
	-11.7	-12	4.31	4.31	4.31	4.31	4.31
Me	-9.6	-10	4.53	4.53	4.53	4.53	4.53
	-7.5	-8	4.81	4.81	4.81	4.81	4.81
14	-5.5	-6	5.08	5.08	5.08	5.08	5.08
(m^3/min)	-3.4	-4	5.26	5.25	5.25	5.19	5.14
	-1.3	-2	5.44	5.42	5.41	5.30	5.20
	0.8	0	5.73	5.65	5.57	5.37	5.17
	3.9	3	6.22	6.00	5.78	5.45	5.13
	7.0	6	6.80	6.35	5.91	5.50	5.08
	10.1	9	6.75	6.32	5.89	5.46	5.04
	13.2	12	6.71	6.28	5.85	5.42	4.99
	16.9	15.5	6.66	6.23	5.80	5.37	4.94

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			3.95	3.21	4.72	3.62	5.11	3.71	5.44	3.76	6.09	4.05	6.32	3.94
	12			3.95	3.21	4.72	3.62	5.11	3.71	5.43	3.76	6.07	4.04	6.29	3.93
	14			3.95	3.21	4.72	3.62	5.11	3.71	5.42	3.75	6.04	4.03	6.27	3.93
	16			3.95	3.21	4.72	3.62	5.11	3.71	5.41	3.75	6.02	4.02	6.24	3.92
	18			3.95	3.21	4.72	3.62	5.11	3.71	5.41	3.75	6.00	4.01	6.21	3.90
Lo	20			3.95	3.21	4.72	3.62	5.11	3.71	5.40	3.75	5.98	4.01	6.19	3.90
	22			3.95	3.21	4.72	3.62	5.11	3.71	5.37	3.73	5.90	3.98	6.10	3.87
12	24			3.94	3.20	4.72	3.62	5.11	3.71	5.35	3.72	5.83	3.95	6.02	3.84
(m^3/min)	26			3.94	3.20	4.70	3.61	5.06	3.69	5.29	3.70	5.74	3.92	5.92	3.81
	28	3.57	3.16	3.93	3.20	4.68	3.61	5.01	3.67	5.22	3.67	5.64	3.88	5.83	3.78
	30	3.57	3.16	3.92	3.19	4.64	3.59	4.96	3.65	5.16	3.65	5.56	3.85	5.74	3.75
	32	3.57	3.16	3.91	3.19	4.60	3.57	4.92	3.63	5.10	3.62	5.47	3.82	5.66	3.72
	34	3.57	3.16	3.90	3.18	4.59	3.57	4.85	3.60	5.02	3.59	5.36	3.78	5.54	3.68
	35	3.57	3.16	3.89	3.18	4.58	3.56	4.82	3.59	4.98	3.58	5.30	3.76	5.48	3.66
	36	3.57	3.16	3.89	3.18	4.54	3.55	4.80	3.58	4.93	3.55	5.20	3.72	5.38	3.62
	38	3.57	3.16	3.88	3.17	4.48	3.52	4.75	3.56	4.84	3.52	5.01	3.65	5.16	3.55
	39	3.57	3.16	3.88	3.17	4.44	3.51	4.72	3.54	4.79	3.50	4.92	3.62	5.06	3.52
	41	3.57	3.16	3.86	3.17	4.31	3.45	4.53	3.47	4.59	3.42	4.70	3.54	4.82	3.44
	43	3.57	3.16	3.85	3.16	4.17	3.39	4.34	3.39	4.39	3.34	4.48	3.46	4.58	3.36

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	3.33	3.33	3.33	3.33	3.33
	-17.8	-18	3.54	3.54	3.54	3.54	3.54
	-15.7	-16	3.76	3.76	3.76	3.76	3.76
	-13.7	-14	3.97	3.97	3.97	3.97	3.97
	-11.7	-12	4.19	4.19	4.19	4.19	4.19
Lo	-9.6	-10	4.40	4.40	4.40	4.40	4.40
	-7.5	-8	4.67	4.67	4.67	4.67	4.67
12	-5.5	-6	4.94	4.94	4.94	4.94	4.94
(m^3/min)	-3.4	-4	5.11	5.10	5.09	5.04	4.99
	-1.3	-2	5.28	5.27	5.25	5.15	5.05
	0.8	0	5.57	5.49	5.41	5.22	5.02
	3.9	3	6.04	5.83	5.61	5.30	4.98
	7.0	6	6.60	6.17	5.74	5.34	4.94
	10.1	9	6.56	6.14	5.72	5.31	4.89
	13.2	12	6.51	6.10	5.68	5.27	4.85
	16.9	15.5	6.46	6.05	5.63	5.22	4.80

Notes(1) This data shows average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

PJF000Z452 A

Model **FDT90KXZE1** Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			7.38	7.08	8.82	8.02	9.54	8.15	10.15	8.21	11.37	8.87	11.80	8.69
	12			7.38	7.08	8.82	8.02	9.54	8.15	10.14	8.21	11.33	8.86	11.75	8.67
	14			7.38	7.08	8.82	8.02	9.54	8.15	10.12	8.20	11.29	8.84	11.70	8.66
	16			7.38	7.08	8.82	8.02	9.54	8.15	10.11	8.20	11.25	8.83	11.65	8.65
	18			7.38	7.08	8.82	8.02	9.54	8.15	10.09	8.19	11.20	8.82	11.60	8.63
P-Hi	20			7.38	7.08	8.82	8.02	9.54	8.15	10.08	8.19	11.16	8.81	11.55	8.62
	22			7.37	7.08	8.82	8.02	9.54	8.15	10.03	8.17	11.02	8.77	11.39	8.57
37	24			7.36	7.07	8.81	8.01	9.54	8.15	9.99	8.16	10.88	8.72	11.24	8.53
(m^3/min)	26			7.35	7.06	8.77	7.98	9.45	8.10	9.87	8.12	10.71	8.67	11.06	8.49
	28	6.66	6.39	7.34	7.05	8.73	7.97	9.36	8.07	9.75	8.08	10.54	8.62	10.89	8.44
	30	6.66	6.39	7.33	7.04	8.66	7.94	9.27	8.04	9.64	8.02	10.38	8.57	10.73	8.37
	32	6.66	6.39	7.31	7.02	8.60	7.92	9.18	8.01	9.53	7.99	10.22	8.53	10.56	8.33
	34	6.66	6.39	7.28	6.99	8.57	7.91	9.06	7.97	9.37	7.93	10.00	8.44	10.35	8.27
	35	6.66	6.39	7.27	6.98	8.55	7.90	9.00	7.92	9.30	7.91	9.89	8.41	10.24	8.24
	36	6.66	6.39	7.26	6.97	8.49	7.88	8.96	7.91	9.21	7.86	9.72	8.36	10.04	8.16
	38	6.66	6.39	7.25	6.96	8.36	7.83	8.87	7.88	9.03	7.80	9.36	8.23	9.64	8.03
	39	6.66	6.39	7.24	6.95	8.29	7.79	8.82	7.86	8.94	7.78	9.18	8.17	9.44	7.98
	41	6.66	6.39	7.21	6.92	8.04	7.70	8.46	7.72	8.56	7.63	8.77	8.03	9.00	7.84
	43	6.66	6.39	7.19	6.90	7.80	7.49	8.10	7.60	8.19	7.51	8.37	7.89	8.56	7.72

Heating mode (kW)

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	5.80	5.80	5.80	5.80	5.80
	-17.8	-18	6.17	6.17	6.17	6.17	6.17
	-15.7	-16	6.55	6.55	6.55	6.55	6.55
	-13.7	-14	6.92	6.92	6.92	6.92	6.92
	-11.7	-12	7.29	7.29	7.29	7.29	7.29
P-Hi	-9.6	-10	7.67	7.67	7.67	7.67	7.67
	-7.5	-8	8.13	8.13	8.13	8.13	8.13
37	-5.5	-6	8.60	8.60	8.60	8.60	8.60
(m^3/min)	-3.4	-4	8.90	8.89	8.88	8.79	8.70
	-1.3	-2	9.20	9.18	9.15	8.98	8.80
	0.8	0	9.70	9.56	9.43	9.09	8.75
	3.9	3	10.53	10.15	9.78	9.23	8.68
	7.0	6	11.50	10.75	10.00	9.30	8.60
	10.1	9	11.43	10.69	9.96	9.24	8.53
	13.2	12	11.35	10.63	9.90	9.18	8.45
	16.9	15.5	11.26	10.54	9.81	9.09	8.36

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			6.67	5.91	7.98	6.70	8.63	6.83	9.18	6.90	10.28	7.47	10.68	7.30
	12			6.67	5.91	7.98	6.70	8.63	6.83	9.17	6.90	10.25	7.46	10.63	7.28
	14			6.67	5.91	7.98	6.70	8.63	6.83	9.16	6.89	10.21	7.44	10.58	7.27
	16			6.67	5.91	7.98	6.70	8.63	6.83	9.14	6.88	10.17	7.43	10.54	7.26
	18			6.67	5.91	7.98	6.70	8.63	6.83	9.13	6.88	10.13	7.42	10.49	7.24
Hi	20			6.67	5.91	7.98	6.70	8.63	6.83	9.12	6.88	10.10	7.40	10.45	7.23
	22			6.66	5.91	7.97	6.70	8.63	6.83	9.08	6.86	9.97	7.36	10.30	7.13
25	24			6.65	5.90	7.97	6.70	8.63	6.83	9.03	6.84	9.84	7.32	10.16	7.09
(m^3/min)	26			6.65	5.90	7.93	6.68	8.55	6.80	8.93	6.81	9.69	7.22	10.01	7.04
	28	6.02	5.78	6.64	5.90	7.90	6.67	8.47	6.77	8.82	6.77	9.53	7.17	9.85	7.00
	30	6.02	5.78	6.63	5.89	7.83	6.64	8.38	6.74	8.72	6.73	9.39	7.12	9.70	6.95
	32	6.02	5.78	6.61	5.89	7.77	6.62	8.30	6.69	8.62	6.69	9.24	7.07	9.55	6.90
	34	6.02	5.78	6.59	5.88	7.75	6.61	8.19	6.65	8.48	6.63	9.05	7.01	9.36	6.84
	35	6.02	5.78	6.58	5.87	7.73	6.60	8.14	6.63	8.41	6.60	8.95	6.97	9.26	6.81
	36	6.02	5.78	6.57	5.87	7.67	6.58	8.10	6.62	8.33	6.58	8.79	6.92	9.08	6.76
	38	6.02	5.78	6.55	5.86	7.56	6.54	8.02	6.59	8.17	6.52	8.47	6.81	8.72	6.65
	39	6.02	5.78	6.54	5.86	7.50	6.51	7.98	6.57	8.09	6.49	8.31	6.76	8.54	6.60
	41	6.02	5.78	6.52	5.85	7.27	6.41	7.65	6.45	7.75	6.37	7.94	6.64	8.14	6.48
	43	6.02	5.78	6.50	5.84	7.05	6.32	7.33	6.32	7.41	6.23	7.57	6.52	7.74	6.36

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	5.25	5.25	5.25	5.25	5.25
	-17.8	-18	5.59	5.59	5.59	5.59	5.59
	-15.7	-16	5.93	5.93	5.93	5.93	5.93
	-13.7	-14	6.27	6.27	6.27	6.27	6.27
	-11.7	-12	6.61	6.61	6.61	6.61	6.61
Hi	-9.6	-10	6.95	6.95	6.95	6.95	6.95
	-7.5	-8	7.37	7.37	7.37	7.37	7.37
25	-5.5	-6	7.79	7.79	7.79	7.79	7.79
(m^3/min)	-3.4	-4	8.06	8.05	8.04	7.96	7.88
	-1.3	-2	8.34	8.31	8.29	8.13	7.97
	0.8	0	8.79	8.66	8.54	8.23	7.93
	3.9	3	9.54	9.20	8.86	8.36	7.86
	7.0	6	10.42	9.74	9.06	8.43	7.79
	10.1	9	10.35	9.69	9.03	8.37	7.72
	13.2	12	10.28	9.63	8.97	8.31	7.66
	16.9	15.5	10.20	9.55	8.89	8.23	7.58

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			6.07	5.31	7.26	6.00	7.85	6.11	8.36	6.19	9.36	6.69	9.72	6.54
	12			6.07	5.31	7.26	6.00	7.85	6.11	8.35	6.18	9.33	6.68	9.68	6.51
	14			6.07	5.31	7.26	6.00	7.85	6.11	8.33	6.18	9.29	6.67	9.64	6.50
	16			6.07	5.31	7.26	6.00	7.85	6.11	8.32	6.17	9.26	6.66	9.59	6.48
	18			6.07	5.31	7.26	6.00	7.85	6.11	8.31	6.17	9.23	6.65	9.55	6.47
Me	20			6.07	5.31	7.26	6.00	7.85	6.11	8.30	6.17	9.19	6.62	9.51	6.46
	22			6.07	5.31	7.26	6.00	7.85	6.11	8.26	6.15	9.08	6.58	9.38	6.42
22	24			6.06	5.30	7.26	6.00	7.85	6.11	8.22	6.14	8.96	6.54	9.25	6.38
(m^3/min)	26			6.05	5.30	7.22	5.98	7.78	6.08	8.13	6.09	8.82	6.49	9.11	6.29
	28	5.48	5.23	6.05	5.30	7.19	5.96	7.71	6.06	8.03	6.05	8.68	6.45	8.97	6.25
	30	5.48	5.23	6.03	5.29	7.13	5.94	7.63	6.03	7.94	6.02	8.54	6.36	8.83	6.21
	32	5.48	5.23	6.02	5.28	7.08	5.92	7.56	6.00	7.84	5.98	8.41	6.32	8.70	6.17
	34	5.48	5.23	6.00	5.28	7.05	5.91	7.46	5.96	7.72	5.94	8.23	6.26	8.52	6.11
	35	5.48	5.23	5.99	5.27	7.04	5.90	7.41	5.94	7.66	5.92	8.15	6.23	8.43	6.08
	36	5.48	5.23	5.98	5.27	6.99	5.88	7.37	5.93	7.58	5.89	8.00	6.18	8.26	6.03
	38	5.48	5.23	5.97	5.26	6.88	5.84	7.30	5.89	7.43	5.82	7.71	6.08	7.94	5.93
	39	5.48	5.23	5.96	5.26	6.83	5.82	7.26	5.87	7.36	5.80	7.56	6.03	7.77	5.88
	41	5.48	5.23	5.94	5.25	6.62	5.74	6.97	5.76	7.05	5.69	7.22	5.92	7.41	5.77
	43	5.48	5.23	5.92	5.24	6.42	5.65	6.67	5.65	6.74	5.57	6.89	5.81	7.04	5.66

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	4.66	4.66	4.66	4.66	4.66
	-17.8	-18	4.96	4.96	4.96	4.96	4.96
	-15.7	-16	5.26	5.26	5.26	5.26	5.26
	-13.7	-14	5.56	5.56	5.56	5.56	5.56
	-11.7	-12	5.86	5.86	5.86	5.86	5.86
Me	-9.6	-10	6.16	6.16	6.16	6.16	6.16
	-7.5	-8	6.54	6.54	6.54	6.54	6.54
22	-5.5	-6	6.91	6.91	6.91	6.91	6.91
(m^3/min)	-3.4	-4	7.16	7.15	7.14	7.07	6.99
	-1.3	-2	7.40	7.38	7.36	7.22	7.08
	0.8	0	7.80	7.69	7.58	7.31	7.04
	3.9	3	8.46	8.16	7.86	7.42	6.97
	7.0	6	9.25	8.64	8.04	7.48	6.91
	10.1	9	9.19	8.60	8.01	7.43	6.85
	13.2	12	9.13	8.54	7.96	7.38	6.79
	16.9	15.5	9.06	8.47	7.89	7.31	6.72

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			4.72	3.89	5.64	4.40	6.11	4.50	6.50	4.55	7.28	4.92	7.56	4.79
	12			4.72	3.89	5.64	4.40	6.11	4.50	6.49	4.55	7.25	4.91	7.52	4.78
	14			4.72	3.89	5.64	4.40	6.11	4.50	6.48	4.55	7.22	4.90	7.49	4.77
	16			4.72	3.89	5.64	4.40	6.11	4.50	6.47	4.54	7.20	4.89	7.46	4.76
	18			4.72	3.89	5.64	4.40	6.11	4.50	6.46	4.54	7.17	4.88	7.42	4.75
Lo	20			4.72	3.89	5.64	4.40	6.11	4.50	6.45	4.53	7.14	4.87	7.39	4.74
	22			4.71	3.89	5.64	4.40	6.11	4.50	6.42	4.52	7.05	4.83	7.29	4.71
15	24			4.71	3.89	5.64	4.40	6.11	4.50	6.39	4.51	6.96	4.80	7.19	4.65
(m^3/min)	26			4.70	3.89	5.61	4.39	6.05	4.48	6.32	4.48	6.85	4.76	7.08	4.61
	28	4.26	3.84	4.70	3.89	5.59	4.38	5.99	4.45	6.24	4.45	6.74	4.70	6.97	4.58
	30	4.26	3.84	4.69	3.88	5.54	4.36	5.93	4.42	6.17	4.43	6.64	4.66	6.87	4.54
	32	4.26	3.84	4.68	3.88	5.50	4.34	5.88	4.40	6.10	4.40	6.54	4.63	6.76	4.51
	34	4.26	3.84	4.66	3.87	5.48	4.33	5.80	4.37	6.00	4.35	6.40	4.58	6.62	4.46
	35	4.26	3.84	4.65	3.86	5.47	4.33	5.76	4.35	5.95	4.33	6.33	4.55	6.55	4.44
	36	4.26	3.84	4.65	3.86	5.43	4.31	5.73	4.34	5.89	4.31	6.22	4.51	6.42	4.40
	38	4.26	3.84	4.64	3.85	5.35	4.27	5.67	4.32	5.78	4.27	5.99	4.44	6.17	4.32
	39	4.26	3.84	4.63	3.85	5.31	4.26	5.64	4.31	5.72	4.25	5.88	4.40	6.04	4.28
	41	4.26	3.84	4.61	3.84	5.15	4.19	5.41	4.21	5.48	4.15	5.62	4.31	5.76	4.19
	43	4.26	3.84	4.60	3.84	4.99	4.13	5.18	4.12	5.24	4.06	5.35	4.22	5.48	4.11

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	4.23	4.23	4.23	4.23	4.23
	-17.8	-18	4.50	4.50	4.50	4.50	4.50
	-15.7	-16	4.77	4.77	4.77	4.77	4.77
	-13.7	-14	5.04	5.04	5.04	5.04	5.04
	-11.7	-12	5.32	5.32	5.32	5.32	5.32
Lo	-9.6	-10	5.59	5.59	5.59	5.59	5.59
	-7.5	-8	5.93	5.93	5.93	5.93	5.93
15	-5.5	-6	6.27	6.27	6.27	6.27	6.27
(m^3/min)	-3.4	-4	6.49	6.48	6.47	6.41	6.34
	-1.3	-2	6.71	6.69	6.67	6.54	6.42
	0.8	0	7.07	6.97	6.87	6.62	6.38
	3.9	3	7.67	7.40	7.13	6.73	6.32
	7.0	6	8.38	7.84	7.29	6.78	6.27
	10.1	9	8.33	7.80	7.26	6.74	6.21
	13.2	12	8.27	7.75	7.22	6.69	6.16
	16.9	15.5	8.21	7.68	7.15	6.62	6.10

Notes(1) This data shows average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

PJF000Z452 A

Model **FDT112KXZE1** Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			9.18	8.37	10.97	9.44	11.87	9.60	12.63	9.69	14.15	10.49	14.69	10.25
	12			9.18	8.37	10.97	9.44	11.87	9.60	12.61	9.68	14.10	10.47	14.63	10.23
	14			9.18	8.37	10.97	9.44	11.87	9.60	12.60	9.68	14.05	10.45	14.56	10.22
	16			9.18	8.37	10.97	9.44	11.87	9.60	12.58	9.67	14.00	10.44	14.50	10.20
	18			9.18	8.37	10.97	9.44	11.87	9.60	12.56	9.66	13.94	10.42	14.44	10.18
P-Hi	20			9.18	8.37	10.97	9.44	11.87	9.60	12.55	9.66	13.89	10.40	14.37	10.16
	22			9.17	8.36	10.97	9.44	11.87	9.60	12.49	9.64	13.72	10.35	14.18	10.10
38	24			9.15	8.35	10.97	9.44	11.87	9.60	12.43	9.62	13.54	10.29	13.98	10.04
(m^3/min)	26			9.15	8.35	10.92	9.43	11.76	9.56	12.28	9.57	13.33	10.22	13.77	9.98
	28	8.29	7.96	9.14	8.35	10.86	9.40	11.65	9.52	12.14	9.52	13.11	10.15	13.55	9.92
	30	8.29	7.96	9.12	8.34	10.78	9.35	11.54	9.48	12.00	9.46	12.91	10.08	13.35	9.86
	32	8.29	7.96	9.09	8.33	10.70	9.32	11.42	9.44	11.85	9.41	12.71	10.02	13.15	9.78
	34	8.29	7.96	9.06	8.32	10.66	9.31	11.27	9.38	11.66	9.35	12.45	9.92	12.87	9.69
	35	8.29	7.96	9.05	8.31	10.64	9.30	11.20	9.36	11.57	9.32	12.31	9.87	12.74	9.66
	36	8.29	7.96	9.04	8.31	10.56	9.27	11.14	9.34	11.46	9.28	12.09	9.80	12.49	9.59
	38	8.29	7.96	9.02	8.30	10.40	9.21	11.03	9.30	11.24	9.18	11.65	9.64	12.00	9.42
	39	8.29	7.96	9.00	8.29	10.32	9.18	10.98	9.26	11.13	9.14	11.43	9.57	11.75	9.35
	41	8.29	7.96	8.97	8.28	10.01	9.07	10.53	9.10	10.66	8.98	10.92	9.39	11.20	9.17
	43	8.29	7.96	8.94	8.27	9.70	8.93	10.08	8.91	10.19	8.80	10.41	9.23	10.65	9.01

Heating mode (kW)

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	7.25	7.25	7.25	7.25	7.25
	-17.8	-18	7.72	7.72	7.72	7.72	7.72
	-15.7	-16	8.18	8.18	8.18	8.18	8.18
	-13.7	-14	8.65	8.65	8.65	8.65	8.65
	-11.7	-12	9.12	9.12	9.12	9.12	9.12
P-Hi	-9.6	-10	9.58	9.58	9.58	9.58	9.58
	-7.5	-8	10.17	10.17	10.17	10.17	10.17
38	-5.5	-6	10.75	10.75	10.75	10.75	10.75
(m^3/min)	-3.4	-4	11.13	11.11	11.09	10.98	10.88
	-1.3	-2	11.50	11.47	11.44	11.22	11.00
	0.8	0	12.13	11.95	11.78	11.36	10.94
	3.9	3	13.16	12.69	12.22	11.53	10.84
	7.0	6	14.38	13.44	12.50	11.63	10.75
	10.1	9	14.28	13.37	12.45	11.55	10.66
	13.2	12	14.19	13.28	12.38	11.47	10.56
	16.9	15.5	14.08	13.17	12.27	11.36	10.45

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			8.17	6.78	9.77	7.66	10.57	7.83	11.24	7.92	12.59	8.54	13.08	8.33
	12			8.17	6.78	9.77	7.66	10.57	7.83	11.23	7.92	12.55	8.53	13.02	8.31
	14			8.17	6.78	9.77	7.66	10.57	7.83	11.21	7.91	12.50	8.51	12.96	8.30
	16			8.17	6.78	9.77	7.66	10.57	7.83	11.20	7.91	12.46	8.50	12.91	8.28
	18			8.17	6.78	9.77	7.66	10.57	7.83	11.18	7.90	12.41	8.48	12.85	8.26
Hi	20			8.17	6.78	9.77	7.66	10.57	7.83	11.17	7.90	12.37	8.46	12.80	8.24
	22			8.16	6.77	9.77	7.66	10.57	7.83	11.12	7.88	12.21	8.41	12.62	8.18
26	24			8.15	6.77	9.76	7.65	10.57	7.83	11.06	7.85	12.05	8.35	12.45	8.12
(m^3/min)	26			8.14	6.76	9.72	7.64	10.47	7.78	10.93	7.80	11.86	8.28	12.26	8.06
	28	7.38	6.68	8.14	6.76	9.67	7.62	10.37	7.74	10.80	7.75	11.67	8.21	12.06	8.00
	30	7.38	6.68	8.12	6.75	9.60	7.59	10.27	7.70	10.68	7.69	11.50	8.15	11.88	7.94
	32	7.38	6.68	8.10	6.75	9.52	7.55	10.17	7.66	10.55	7.64	11.32	8.09	11.70	7.86
	34	7.38	6.68	8.07	6.73	9.49	7.54	10.04	7.61	10.38	7.58	11.08	7.99	11.46	7.79
	35	7.38	6.68	8.06	6.73	9.47	7.53	9.97	7.58	10.30	7.55	10.96	7.94	11.34	7.75
	36	7.38	6.68	8.05	6.72	9.40	7.51	9.92	7.56	10.20	7.51	10.76	7.88	11.12	7.68
	38	7.38	6.68	8.03	6.72	9.26	7.45	9.82	7.52	10.00	7.43	10.37	7.74	10.68	7.54
	39	7.38	6.68	8.02	6.71	9.19	7.41	9.77	7.50	9.90	7.39	10.17	7.67	10.46	7.45
	41	7.38	6.68	7.99	6.70	8.91	7.29	9.37	7.33	9.49	7.23	9.72	7.50	9.97	7.30
	43	7.38	6.68	7.96	6.69	8.64	7.16	8.97	7.15	9.07	7.04	9.27	7.35	9.48	7.15

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	6.54	6.54	6.54	6.54	6.54
	-17.8	-18	6.96	6.96	6.96	6.96	6.96
	-15.7	-16	7.38	7.38	7.38	7.38	7.38
	-13.7	-14	7.81	7.81	7.81	7.81	7.81
	-11.7	-12	8.23	8.23	8.23	8.23	8.23
Hi	-9.6	-10	8.65	8.65	8.65	8.65	8.65
	-7.5	-8	9.17	9.17	9.17	9.17	9.17
26	-5.5	-6	9.70	9.70	9.70	9.70	9.70
(m^3/min)	-3.4	-4	10.04	10.03	10.01	9.91	9.81
	-1.3	-2	10.38	10.35	10.32	10.12	9.93
	0.8	0	10.94	10.79	10.63	10.25	9.87
	3.9	3	11.87	11.45	11.03	10.41	9.79
	7.0	6	12.97	12.13	11.28	10.49	9.70
	10.1	9	12.89	12.06	11.24	10.43	9.62
	13.2	12	12.80	11.99	11.17	10.35	9.53
	16.9	15.5	12.70	11.89	11.07	10.25	9.43

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			7.63	6.17	9.12	6.97	9.87	7.14	10.50	7.24	11.76	7.79	12.21	7.59
	12			7.63	6.17	9.12	6.97	9.87	7.14	10.49	7.24	11.72	7.77	12.16	7.57
	14			7.63	6.17	9.12	6.97	9.87	7.14	10.47	7.23	11.68	7.76	12.11	7.56
	16			7.63	6.17	9.12	6.97	9.87	7.14	10.46	7.22	11.63	7.74	12.05	7.54
	18			7.63	6.17	9.12	6.97	9.87	7.14	10.44	7.21	11.59	7.73	12.00	7.52
Me	20			7.63	6.17	9.12	6.97	9.87	7.14	10.43	7.21	11.55	7.71	11.95	7.50
	22			7.62	6.17	9.12	6.97	9.87	7.14	10.38	7.19	11.40	7.66	11.79	7.45
23	24			7.61	6.16	9.12	6.97	9.87	7.14	10.33	7.16	11.26	7.60	11.62	7.39
(m^3/min)	26			7.60	6.16	9.07	6.95	9.78	7.10	10.21	7.11	11.08	7.54	11.44	7.33
	28	6.89	6.08	7.60	6.16	9.03	6.93	9.68	7.06	10.09	7.07	10.90	7.47	11.27	7.27
	30	6.89	6.08	7.58	6.15	8.96	6.91	9.59	7.02	9.97	7.02	10.73	7.41	11.10	7.22
	32	6.89	6.08	7.56	6.14	8.89	6.88	9.50	6.99	9.85	6.97	10.57	7.35	10.93	7.16
	34	6.89	6.08	7.53	6.13	8.86	6.87	9.37	6.94	9.70	6.91	10.35	7.27	10.70	7.08
	35	6.89	6.08	7.52	6.12	8.84	6.86	9.31	6.91	9.62	6.88	10.23	7.23	10.59	7.05
	36	6.89	6.08	7.51	6.12	8.78	6.83	9.26	6.88	9.53	6.85	10.05	7.17	10.38	6.97
	38	6.89	6.08	7.49	6.11	8.64	6.77	9.17	6.84	9.34	6.76	9.68	7.02	9.97	6.83
	39	6.89	6.08	7.49	6.11	8.58	6.75	9.12	6.82	9.25	6.73	9.50	6.96	9.77	6.77
	41	6.89	6.08	7.46	6.10	8.32	6.64	8.75	6.68	8.86	6.58	9.08	6.81	9.31	6.63
	43	6.89	6.08	7.43	6.08	8.06	6.52	8.38	6.53	8.47	6.42	8.66	6.66	8.85	6.47

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	5.89	5.89	5.89	5.89	5.89
	-17.8	-18	6.27	6.27	6.27	6.27	6.27
	-15.7	-16	6.64	6.64	6.64	6.64	6.64
	-13.7	-14	7.02	7.02	7.02	7.02	7.02
	-11.7	-12	7.40	7.40	7.40	7.40	7.40
Me	-9.6	-10	7.78	7.78	7.78	7.78	7.78
	-7.5	-8	8.26	8.26	8.26	8.26	8.26
23	-5.5	-6	8.73	8.73	8.73	8.73	8.73
(m^3/min)	-3.4	-4	9.03	9.02	9.01	8.92	8.83
	-1.3	-2	9.34	9.31	9.29	9.11	8.93
	0.8	0	9.85	9.71	9.57	9.22	8.88
	3.9	3	10.68	10.30	9.92	9.36	8.81
	7.0	6	11.67	10.91	10.15	9.44	8.73
	10.1	9	11.60	10.85	10.11	9.38	8.65
	13.2	12	11.52	10.78	10.05	9.31	8.58
	16.9	15.5	11.43	10.70	9.96	9.22	8.49

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			5.65	4.56	6.75	5.17	7.30	5.28	7.77	5.35	8.70	5.76	9.04	5.62
	12			5.65	4.56	6.75	5.17	7.30	5.28	7.76	5.35	8.67	5.75	9.00	5.60
	14			5.65	4.56	6.75	5.17	7.30	5.28	7.75	5.35	8.64	5.74	8.96	5.59
	16			5.65	4.56	6.75	5.17	7.30	5.28	7.74	5.34	8.61	5.73	8.92	5.57
	18			5.65	4.56	6.75	5.17	7.30	5.28	7.73	5.34	8.58	5.72	8.88	5.56
Lo	20			5.65	4.56	6.75	5.17	7.30	5.28	7.72	5.33	8.55	5.70	8.84	5.55
	22			5.64	4.56	6.75	5.17	7.30	5.28	7.68	5.32	8.44	5.66	8.72	5.50
17	24			5.63	4.56	6.75	5.17	7.30	5.28	7.65	5.31	8.33	5.62	8.60	5.47
(m^3/min)	26			5.63	4.56	6.71	5.14	7.23	5.25	7.56	5.26	8.20	5.58	8.47	5.42
	28	5.10	4.50	5.62	4.55	6.68	5.13	7.17	5.22	7.47	5.23	8.07	5.53	8.34	5.38
	30	5.10	4.50	5.61	4.55	6.63	5.11	7.10	5.20	7.38	5.19	7.94	5.48	8.21	5.34
	32	5.10	4.50	5.59	4.54	6.58	5.09	7.03	5.17	7.29	5.16	7.82	5.44	8.09	5.30
	34	5.10	4.50	5.58	4.53	6.56	5.08	6.94	5.13	7.18	5.11	7.66	5.38	7.92	5.24
	35	5.10	4.50	5.57	4.53	6.55	5.07	6.89	5.11	7.12	5.09	7.57	5.35	7.84	5.21
	36	5.10	4.50	5.56	4.52	6.50	5.05	6.86	5.09	7.05	5.06	7.44	5.30	7.68	5.15
	38	5.10	4.50	5.55	4.52	6.40	5.01	6.79	5.06	6.91	5.00	7.17	5.20	7.38	5.05
	39	5.10	4.50	5.54	4.52	6.35	4.99	6.75	5.05	6.84	4.97	7.03	5.15	7.23	5.01
	41	5.10	4.50	5.52	4.51	6.16	4.91	6.48	4.94	6.56	4.87	6.72	5.04	6.89	4.90
	43	5.10	4.50	5.50	4.50	5.97	4.83	6.20	4.83	6.27	4.75	6.41	4.92	6.55	4.78

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	4.81	4.81	4.81	4.81	4.81
	-17.8	-18	5.12	5.12	5.12	5.12	5.12
	-15.7	-16	5.43	5.43	5.43	5.43	5.43
	-13.7	-14	5.74	5.74	5.74	5.74	5.74
	-11.7	-12	6.05	6.05	6.05	6.05	6.05
Lo	-9.6	-10	6.36	6.36	6.36	6.36	6.36
	-7.5	-8	6.75	6.75	6.75	6.75	6.75
17	-5.5	-6	7.14	7.14	7.14	7.14	7.14
(m^3/min)	-3.4	-4	7.39	7.38	7.37	7.29	7.22
	-1.3	-2	7.64	7.62	7.59	7.45	7.30
	0.8	0	8.05	7.94	7.82	7.54	7.26
	3.9	3	8.74	8.42	8.11	7.66	7.20
	7.0	6	9.55	8.92	8.30	7.72	7.14
	10.1	9	9.48	8.88	8.27	7.67	7.08
	13.2	12	9.42	8.82	8.22	7.62	7.01
	16.9	15.5	9.35	8.75	8.14	7.54	6.94

Notes(1) This data shows average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

PJF000Z452 A

Model **FDT140KXZE1** Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			11.48	9.60	13.72	10.86	14.84	11.07	15.79	11.22	17.69	12.12	18.36	11.82
	12			11.48	9.60	13.72	10.86	14.84	11.07	15.77	11.21	17.62	12.09	18.28	11.79
	14			11.48	9.60	13.72	10.86	14.84	11.07	15.75	11.20	17.56	12.07	18.20	11.77
	16			11.48	9.60	13.72	10.86	14.84	11.07	15.72	11.19	17.49	12.05	18.13	11.75
	18			11.48	9.60	13.72	10.86	14.84	11.07	15.70	11.18	17.43	12.02	18.05	11.72
P-Hi	20			11.48	9.60	13.72	10.86	14.84	11.07	15.68	11.17	17.37	12.00	17.97	11.69
	22			11.46	9.59	13.71	10.85	14.84	11.07	15.61	11.15	17.15	11.92	17.72	11.59
38	24			11.44	9.58	13.71	10.85	14.84	11.07	15.54	11.12	16.93	11.85	17.48	11.51
(m³/min)	26			11.43	9.58	13.64	10.82	14.70	11.02	15.35	11.05	16.66	11.73	17.21	11.43
	28	10.36	9.46	11.42	9.58	13.58	10.80	14.56	10.96	15.17	10.96	16.39	11.63	16.94	11.34
	30	10.36	9.46	11.40	9.57	13.48	10.74	14.42	10.91	14.99	10.90	16.14	11.55	16.69	11.24
	32	10.36	9.46	11.37	9.55	13.37	10.70	14.28	10.85	14.82	10.83	15.89	11.44	16.43	11.16
	34	10.36	9.46	11.33	9.54	13.32	10.68	14.09	10.78	14.58	10.74	15.56	11.33	16.09	11.05
	35	10.36	9.46	11.31	9.53	13.30	10.67	14.00	10.74	14.46	10.70	15.39	11.27	15.92	11.00
	36	10.36	9.46	11.30	9.52	13.20	10.63	13.93	10.72	14.32	10.64	15.11	11.17	15.61	10.83
	38	10.36	9.46	11.27	9.51	13.00	10.55	13.79	10.64	14.05	10.52	14.56	10.92	15.00	10.64
	39	10.36	9.46	11.26	9.51	12.90	10.51	13.72	10.62	13.91	10.47	14.28	10.83	14.69	10.55
	41	10.36	9.46	11.22	9.49	12.51	10.35	13.16	10.40	13.32	10.25	13.65	10.62	14.00	10.33
	43	10.36	9.46	11.18	9.47	12.13	10.18	12.60	10.17	12.74	10.02	13.02	10.40	13.31	10.12

Heating mode (kW)

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	9.28	9.28	9.28	9.28	9.28
	-17.8	-18	9.88	9.88	9.88	9.88	9.88
	-15.7	-16	10.47	10.47	10.47	10.47	10.47
	-13.7	-14	11.07	11.07	11.07	11.07	11.07
	-11.7	-12	11.67	11.67	11.67	11.67	11.67
P-Hi	-9.6	-10	12.27	12.27	12.27	12.27	12.27
	-7.5	-8	13.01	13.01	13.01	13.01	13.01
38	-5.5	-6	13.76	13.76	13.76	13.76	13.76
(m³/min)	-3.4	-4	14.24	14.22	14.20	14.06	13.92
	-1.3	-2	14.72	14.68	14.64	14.36	14.08
	0.8	0	15.52	15.30	15.08	14.54	14.00
	3.9	3	16.84	16.24	15.64	14.76	13.88
	7.0	6	18.40	17.20	16.00	14.88	13.76
	10.1	9	18.28	17.11	15.94	14.79	13.64
	13.2	12	18.16	17.00	15.84	14.68	13.52
	16.9	15.5	18.02	16.86	15.70	14.54	13.38

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			10.28	7.96	12.29	9.02	13.29	9.25	14.14	9.38	15.84	10.12	16.45	9.84
	12			10.28	7.96	12.29	9.02	13.29	9.25	14.12	9.37	15.78	10.08	16.38	9.81
	14			10.28	7.96	12.29	9.02	13.29	9.25	14.10	9.36	15.73	10.06	16.31	9.79
	16			10.28	7.96	12.29	9.02	13.29	9.25	14.08	9.35	15.67	10.04	16.24	9.76
	18			10.28	7.96	12.29	9.02	13.29	9.25	14.07	9.35	15.61	10.02	16.16	9.73
Hi	20			10.28	7.96	12.29	9.02	13.29	9.25	14.05	9.34	15.55	9.99	16.09	9.71
	22			10.26	7.95	12.28	9.02	13.29	9.25	13.98	9.31	15.36	9.92	15.87	9.63
28	24			10.25	7.95	12.28	9.02	13.29	9.25	13.92	9.28	15.16	9.84	15.65	9.51
(m³/min)	26			10.24	7.94	12.22	8.99	13.17	9.18	13.75	9.21	14.92	9.74	15.41	9.43
	28	9.28	7.83	10.23	7.94	12.16	8.96	13.04	9.13	13.59	9.15	14.68	9.62	15.17	9.35
	30	9.28	7.83	10.21	7.93	12.07	8.91	12.92	9.08	13.43	9.07	14.46	9.54	14.95	9.27
	32	9.28	7.83	10.18	7.92	11.98	8.87	12.79	9.02	13.27	9.01	14.24	9.45	14.72	9.19
	34	9.28	7.83	10.15	7.90	11.93	8.85	12.62	8.95	13.06	8.92	13.93	9.34	14.42	9.09
	35	9.28	7.83	10.13	7.89	11.91	8.84	12.54	8.92	12.95	8.88	13.78	9.28	14.26	9.03
	36	9.28	7.83	10.12	7.89	11.82	8.80	12.48	8.89	12.83	8.83	13.54	9.20	13.99	8.94
	38	9.28	7.83	10.09	7.88	11.64	8.73	12.35	8.84	12.58	8.72	13.04	9.01	13.43	8.76
	39	9.28	7.83	10.08	7.87	11.55	8.69	12.29	8.80	12.46	8.67	12.79	8.92	13.16	8.67
	41	9.28	7.83	10.05	7.86	11.21	8.55	11.79	8.60	11.93	8.46	12.23	8.72	12.54	8.45
	43	9.28	7.83	10.01	7.84	10.86	8.39	11.29	8.38	11.41	8.25	11.66	8.50	11.92	8.25

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	7.81	7.81	7.81	7.81	7.81
	-17.8	-18	8.32	8.32	8.32	8.32	8.32
	-15.7	-16	8.82	8.82	8.82	8.82	8.82
	-13.7	-14	9.32	9.32	9.32	9.32	9.32
	-11.7	-12	9.82	9.82	9.82	9.82	9.82
Hi	-9.6	-10	10.33	10.33	10.33	10.33	10.33
	-7.5	-8	10.96	10.96	10.96	10.96	10.96
28	-5.5	-6	11.58	11.58	11.58	11.58	11.58
(m³/min)	-3.4	-4	11.99	11.97	11.95	11.84	11.72
	-1.3	-2	12.39	12.36	12.33	12.09	11.85
	0.8	0	13.07	12.88	12.70	12.24	11.79
	3.9	3	14.18	13.67	13.17	12.43	11.69
	7.0	6	15.49	14.48	13.47	12.53	11.58
	10.1	9	15.39	14.40	13.42	12.45	11.48
	13.2	12	15.29	14.31	13.34	12.36	11.38
	16.9	15.5	15.17	14.19	13.22	12.24	11.26

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			9.38	7.20	11.21	8.16	12.13	8.37	12.90	8.50	14.45	9.16	15.01	8.91
	12			9.38	7.20	11.21	8.16	12.13	8.37	12.88	8.49	14.40	9.14	14.94	8.89
	14			9.38	7.20	11.21	8.16	12.13	8.37	12.87	8.48	14.35	9.12	14.88	8.86
	16			9.38	7.20	11.21	8.16	12.13	8.37	12.85	8.48	14.29	9.09	14.81	8.83
	18			9.38	7.20	11.21	8.16	12.13	8.37	12.83	8.47	14.24	9.07	14.75	8.81
Me	20			9.38	7.20	11.21	8.16	12.13	8.37	12.81	8.45	14.19	9.05	14.68	8.78
	22			9.36	7.19	11.21	8.16	12.13	8.37	12.75	8.42	14.01	8.97	14.48	8.71
25	24			9.35	7.19	11.20	8.15	12.13	8.37	12.69	8.40	13.83	8.90	14.28	8.64
(m³/min)	26			9.34	7.18	11.15	8.13	12.01	8.32	12.55	8.34	13.61	8.82	14.06	8.55
	28	8.47	7.09	9.34	7.18	11.10	8.11	11.90	8.27	12.40	8.28	13.39	8.73	13.84	8.45
	30	8.47	7.09	9.31	7.17	11.01	8.07	11.78	8.21	12.25	8.22	13.19	8.62	13.64	8.38
	32	8.47	7.09	9.29	7.16	10.93	8.03	11.67	8.16	12.11	8.16	12.99	8.55	13.43	8.30
	34	8.47	7.09	9.26	7.15	10.89	8.02	11.52	8.10	11.91	8.07	12.71	8.44	13.15	8.21
	35	8.47	7.09	9.24	7.14	10.87	8.01	11.44	8.06	11.82	8.03	12.58	8.39	13.01	8.16
	36	8.47	7.09	9.23	7.13	10.79	7.96	11.38	8.04	11.70	7.98	12.35	8.31	12.76	8.08
	38	8.47	7.09	9.21	7.12	10.62	7.89	11.27	7.99	11.48	7.89	11.90	8.14	12.25	7.90
	39	8.47	7.09	9.20	7.12	10.54	7.86	11.21	7.97	11.36	7.85	11.67	8.06	12.00	7.82
	41	8.47	7.09	9.17	7.11	10.22	7.72	10.75	7.77	10.89	7.65	11.15	7.87	11.44	7.64
	43	8.47	7.09	9.13	7.09	9.91	7.58	10.30	7.58	10.41	7.46	10.64	7.67	10.88	7.44

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	7.15	7.15	7.15	7.15	7.15
	-17.8	-18	7.61	7.61	7.61	7.61	7.61
	-15.7	-16	8.07	8.07	8.07	8.07	8.07
	-13.7	-14	8.53	8.53	8.53	8.53	8.53
	-11.7	-12	8.99	8.99	8.99	8.99	8.99
Me	-9.6	-10	9.45	9.45	9.45	9.45	9.45
	-7.5	-8	10.03	10.03	10.03	10.03	10.03
25	-5.5	-6	10.60	10.60	10.60	10.60	10.60
(m³/min)	-3.4	-4	10.97	10.96	10.94	10.83	10.73
	-1.3	-2	11.34	11.31	11.28	11.07	10.85
	0.8	0	11.96	11.79	11.62	11.20	10.79
	3.9	3	12.98	12.51	12.05	11.37	10.70
	7.0	6	14.18	13.25	12.33	11.47	10.60
	10.1	9	14.09	13.19	12.28	11.40	10.51
	13.2	12	13.99	13.10	12.21	11.31	10.42
	16.9	15.5	13.89	12.99	12.10	11.20	10.31

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			6.93	5.29	8.28	5.98	8.96	6.14	9.53	6.24	10.67	6.72	11.08	6.53
	12			6.93	5.29	8.28	5.98	8.96	6.14	9.52	6.24	10.64	6.70	11.04	6.52
	14			6.93	5.29	8.28	5.98	8.96	6.14	9.50	6.23	10.60	6.69	10.99	6.50
	16			6.93	5.29	8.28	5.98	8.96	6.14	9.49	6.22	10.56	6.67	10.94	6.48
	18			6.93	5.29	8.28	5.98	8.96	6.14	9.48	6.22	10.52	6.66	10.89	6.46
Lo	20			6.93	5.29	8.28	5.98	8.96	6.14	9.47	6.22	10.48	6.64	10.84	6.44
	22			6.92	5.28	8.28	5.98	8.96	6.14	9.42	6.19	10.35	6.59	10.70	6.39
18	24			6.91	5.28	8.27	5.97	8.96	6.14	9.38	6.18	10.22	6.54	10.55	6.34
(m³/min)	26			6.90	5.27	8.24	5.96	8.87	6.10	9.27	6.13	10.06	6.48	10.39	6.28
	28	6.25	5.20	6.90	5.27	8.20	5.94	8.79	6.07	9.16	6.08	9.89	6.41	10.22	6.22
	30	6.25	5.20	6.88	5.26	8.13	5.91	8.70	6.03	9.05	6.03	9.74	6.35	10.07	6.16
	32	6.25	5.20	6.86	5.25	8.07	5.88	8.62	5.98	8.94	5.99	9.59	6.29	9.92	6.11
	34	6.25	5.20	6.84	5.25	8.04	5.87	8.51	5.93	8.80	5.91	9.39	6.21	9.71	6.04
	35	6.25	5.20	6.83	5.24	8.03	5.87	8.45	5.91	8.73	5.88	9.29	6.17	9.61	6.00
	36	6.25	5.20	6.82	5.24	7.97	5.84	8.41	5.89	8.65	5.85	9.12	6.11	9.42	5.94
	38	6.25	5.20	6.80	5.23	7.85	5.79	8.32	5.85	8.48	5.78	8.79	5.97	9.05	5.80
	39	6.25	5.20	6.79	5.22	7.79	5.76	8.28	5.84	8.39	5.75	8.62	5.91	8.86	5.74
	41	6.25	5.20	6.77	5.21	7.55	5.66	7.94	5.69	8.04	5.60	8.24	5.77	8.45	5.60
	43	6.25	5.20	6.75	5.21	7.32	5.56	7.61	5.56	7.69	5.47	7.86	5.63	8.03	5.45

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	5.71	5.71	5.71	5.71	5.71
	-17.8	-18	6.07	6.07	6.07	6.07	6.07
	-15.7	-16	6.44	6.44	6.44	6.44	6.44
	-13.7	-14	6.81	6.81	6.81	6.81	6.81
	-11.7	-12	7.18	7.18	7.18	7.18	7.18
Lo	-9.6	-10	7.54	7.54	7.54	7.54	7.54
	-7.5	-8	8.00	8.00	8.00	8.00	8.00
18	-5.5	-6	8.46	8.46	8.46	8.46	8.46
(m³/min)	-3.4	-4	8.76	8.75	8.73	8.65	8.56
	-1.3	-2	9.05	9.03	9.00	8.83	8.66
	0.8	0	9.54	9.41	9.27	8.94	8.61
	3.9	3	10.36	9.99	9.62	9.08	8.54
	7.0	6	11.32	10.58	9.84	9.15	8.46
	10.1	9	11.24	10.52	9.80	9.10	8.39
	13.2	12	11.17	10.46	9.74	9.03	8.31
	16.9	15.5	11.08	10.37	9.66	8.94	8.23

Notes(1) This data shows average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

PJF000Z452 A

Model **FDT160KXZE1** Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			13.12	10.25	15.68	11.60	16.96	11.88	18.04	12.05	20.21	13.01	20.99	12.65
	12			13.12	10.25	15.68	11.60	16.96	11.88	18.02	12.04	20.14	12.98	20.90	12.62
	14			13.12	10.25	15.68	11.60	16.96	11.88	18.00	12.03	20.07	12.94	20.81	12.59
	16			13.12	10.25	15.68	11.60	16.96	11.88	17.97	12.02	19.99	12.91	20.72	12.56
	18			13.12	10.25	15.68	11.60	16.96	11.88	17.95	12.01	19.92	12.88	20.62	12.51
P-Hi	20			13.12	10.25	15.68	11.60	16.96	11.88	17.92	12.00	19.85	12.86	20.53	12.48
	22			13.10	10.24	15.67	11.60	16.96	11.88	17.84	11.97	19.60	12.77	20.25	12.39
38	24			13.08	10.23	15.67	11.60	16.96	11.88	17.75	11.93	19.34	12.65	19.97	12.23
(m^3/min)	26			13.07	10.23	15.59	11.56	16.80	11.81	17.55	11.85	19.04	12.54	19.67	12.13
	28	11.84	10.05	13.06	10.22	15.52	11.52	16.64	11.75	17.34	11.75	18.73	12.37	19.36	12.03
	30	11.84	10.05	13.02	10.21	15.40	11.47	16.48	11.67	17.14	11.68	18.45	12.27	19.07	11.94
	32	11.84	10.05	12.99	10.19	15.28	11.42	16.32	11.60	16.93	11.58	18.16	12.17	18.78	11.84
	34	11.84	10.05	12.95	10.16	15.23	11.40	16.11	11.52	16.66	11.47	17.78	12.03	18.39	11.72
	35	11.84	10.05	12.93	10.15	15.20	11.38	16.00	11.47	16.53	11.42	17.59	11.97	18.20	11.66
	36	11.84	10.05	12.91	10.14	15.09	11.34	15.92	11.42	16.37	11.36	17.27	11.86	17.85	11.52
	38	11.84	10.05	12.88	10.13	14.86	11.23	15.76	11.36	16.05	11.22	16.64	11.61	17.14	11.28
	39	11.84	10.05	12.86	10.12	14.74	11.18	15.68	11.33	15.89	11.16	16.32	11.49	16.79	11.17
	41	11.84	10.05	12.82	10.10	14.30	11.00	15.04	11.06	15.23	10.89	15.60	11.22	16.00	10.90
	43	11.84	10.05	12.77	10.08	13.86	10.80	14.40	10.79	14.56	10.62	14.87	10.97	15.21	10.63

Heating mode (kW)

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	10.44	10.44	10.44	10.44	10.44
	-17.8	-18	11.11	11.11	11.11	11.11	11.11
	-15.7	-16	11.78	11.78	11.78	11.78	11.78
	-13.7	-14	12.46	12.46	12.46	12.46	12.46
	-11.7	-12	13.13	13.13	13.13	13.13	13.13
P-Hi	-9.6	-10	13.80	13.80	13.80	13.80	13.80
	-7.5	-8	14.64	14.64	14.64	14.64	14.64
38	-5.5	-6	15.48	15.48	15.48	15.48	15.48
(m^3/min)	-3.4	-4	16.02	16.00	15.98	15.82	15.66
	-1.3	-2	16.56	16.52	16.47	16.16	15.84
	0.8	0	17.46	17.21	16.97	16.36	15.75
	3.9	3	18.95	18.27	17.60	16.61	15.62
	7.0	6	20.70	19.35	18.00	16.74	15.48
	10.1	9	20.57	19.25	17.93	16.64	15.35
	13.2	12	20.43	19.13	17.82	16.52	15.21
	16.9	15.5	20.27	18.97	17.66	16.36	15.05

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			11.71	8.78	14.00	9.95	15.15	10.22	16.12	10.39	18.05	11.17	18.74	10.85
	12			11.71	8.78	14.00	9.95	15.15	10.22	16.09	10.38	17.99	11.14	18.66	10.82
	14			11.71	8.78	14.00	9.95	15.15	10.22	16.07	10.37	17.92	11.12	18.58	10.79
	16			11.71	8.78	14.00	9.95	15.15	10.22	16.05	10.36	17.86	11.09	18.50	10.76
	18			11.71	8.78	14.00	9.95	15.15	10.22	16.03	10.36	17.79	11.06	18.42	10.73
Hi	20			11.71	8.78	14.00	9.95	15.15	10.22	16.01	10.35	17.73	11.04	18.34	10.70
	22			11.70	8.78	14.00	9.95	15.15	10.22	15.93	10.31	17.50	10.95	18.09	10.61
29	24			11.68	8.77	13.99	9.94	15.15	10.22	15.86	10.27	17.28	10.86	17.84	10.52
(m^3/min)	26			11.67	8.76	13.93	9.92	15.00	10.16	15.67	10.19	17.00	10.75	17.57	10.42
	28	10.57	8.62	11.66	8.76	13.86	9.88	14.86	10.10	15.49	10.11	16.73	10.64	17.29	10.32
	30	10.57	8.62	11.63	8.74	13.75	9.84	14.72	10.04	15.30	10.03	16.48	10.54	17.03	10.23
	32	10.57	8.62	11.60	8.73	13.65	9.79	14.58	9.97	15.12	9.96	16.22	10.44	16.77	10.13
	34	10.57	8.62	11.57	8.72	13.60	9.77	14.39	9.88	14.88	9.86	15.88	10.31	16.43	10.01
	35	10.57	8.62	11.55	8.71	13.58	9.74	14.29	9.84	14.76	9.79	15.71	10.24	16.25	9.93
	36	10.57	8.62	11.53	8.70	13.47	9.69	14.22	9.81	14.62	9.73	15.43	10.12	15.94	9.83
	38	10.57	8.62	11.50	8.67	13.27	9.60	14.08	9.75	14.34	9.59	14.86	9.90	15.31	9.61
	39	10.57	8.62	11.49	8.67	13.17	9.55	14.00	9.71	14.20	9.53	14.58	9.80	14.99	9.50
	41	10.57	8.62	11.45	8.65	12.77	9.38	13.43	9.44	13.60	9.29	13.93	9.54	14.29	9.25
	43	10.57	8.62	11.41	8.63	12.38	9.21	12.86	9.20	13.00	9.05	13.28	9.30	13.59	9.01

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	8.25	8.25	8.25	8.25	8.25
	-17.8	-18	8.78	8.78	8.78	8.78	8.78
	-15.7	-16	9.32	9.32	9.32	9.32	9.32
	-13.7	-14	9.85	9.85	9.85	9.85	9.85
	-11.7	-12	10.38	10.38	10.38	10.38	10.38
Hi	-9.6	-10	10.91	10.91	10.91	10.91	10.91
	-7.5	-8	11.57	11.57	11.57	11.57	11.57
29	-5.5	-6	12.24	12.24	12.24	12.24	12.24
(m^3/min)	-3.4	-4	12.66	12.65	12.63	12.50	12.38
	-1.3	-2	13.09	13.06	13.02	12.77	12.52
	0.8	0	13.80	13.61	13.41	12.93	12.45
	3.9	3	14.98	14.44	13.91	13.13	12.34
	7.0	6	16.36	15.30	14.23	13.23	12.24
	10.1	9	16.26	15.22	14.18	13.15	12.13
	13.2	12	16.15	15.12	14.09	13.06	12.02
	16.9	15.5	16.03	14.99	13.96	12.93	11.90

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			11.02	8.15	13.17	9.24	14.25	9.50	15.16	9.66	16.98	10.41	17.63	10.11
	12			11.02	8.15	13.17	9.24	14.25	9.50	15.14	9.65	16.92	10.39	17.55	10.08
	14			11.02	8.15	13.17	9.24	14.25	9.50	15.12	9.65	16.86	10.36	17.48	10.05
	16			11.02	8.15	13.17	9.24	14.25	9.50	15.10	9.64	16.79	10.33	17.40	10.02
	18			11.02	8.15	13.17	9.24	14.25	9.50	15.08	9.63	16.73	10.31	17.32	9.98
Me	20			11.02	8.15	13.17	9.24	14.25	9.50	15.05	9.61	16.67	10.28	17.25	9.95
	22			11.00	8.14	13.16	9.24	14.25	9.50	14.98	9.58	16.46	10.18	17.01	9.86
26	24			10.99	8.14	13.16	9.24	14.25	9.50	14.91	9.55	16.25	10.09	16.78	9.77
(m^3/min)	26			10.98	8.13	13.10	9.21	14.11	9.43	14.74	9.48	15.99	9.99	16.52	9.68
	28	9.95	7.99	10.97	8.13	13.04	9.18	13.98	9.38	14.56	9.39	15.74	9.89	16.26	9.58
	30	9.95	7.99	10.94	8.11	12.94	9.14	13.84	9.31	14.39	9.31	15.50	9.79	16.02	9.49
	32	9.95	7.99	10.91	8.10	12.84	9.09	13.71	9.25	14.22	9.24	15.26	9.68	15.78	9.39
	34	9.95	7.99	10.88	8.07	12.79	9.06	13.53	9.17	14.00	9.15	14.93	9.55	15.45	9.27
	35	9.95	7.99	10.86	8.06	12.77	9.05	13.44	9.13	13.88	9.10	14.77	9.49	15.29	9.21
	36	9.95	7.99	10.85	8.06	12.67	9.00	13.37	9.10	13.75	9.04	14.51	9.38	14.99	9.11
	38	9.95	7.99	10.82	8.05	12.48	8.92	13.24	9.05	13.48	8.93	13.98	9.18	14.40	8.90
	39	9.95	7.99	10.81	8.04	12.38	8.87	13.17	9.02	13.35	8.87	13.71	9.06	14.10	8.78
	41	9.95	7.99	10.77	8.02	12.01	8.71	12.63	8.77	12.79	8.63	13.10	8.83	13.44	8.55
	43	9.95	7.99	10.73	8.00	11.64	8.54	12.10	8.54	12.23	8.40	12.49	8.60	12.78	8.32

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	7.56	7.56	7.56	7.56	7.56
	-17.8	-18	8.05	8.05	8.05	8.05	8.05
	-15.7	-16	8.54	8.54	8.54	8.54	8.54
	-13.7	-14	9.02	9.02	9.02	9.02	9.02
	-11.7	-12	9.51	9.51	9.51	9.51	9.51
Me	-9.6	-10	10.00	10.00	10.00	10.00	10.00
	-7.5	-8	10.61	10.61	10.61	10.61	10.61
26	-5.5	-6	11.21	11.21	11.21	11.21	11.21
(m^3/min)	-3.4	-4	11.61	11.59	11.57	11.46	11.34
	-1.3	-2	12.00	11.96	11.93	11.70	11.48
	0.8	0	12.65	12.47	12.29	11.85	11.41
	3.9	3	13.72	13.24	12.75	12.03	11.31
	7.0	6	15.00	14.02	13.04	12.13	11.21
	10.1	9	14.90	13.94	12.99	12.05	11.12
	13.2	12	14.80	13.86	12.91	11.96	11.02
	16.9	15.5	14.69	13.74	12.80	11.85	10.90

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			8.29	6.09	9.91	6.91	10.72	7.10	11.40	7.22	12.77	7.79	13.26	7.56
	12			8.29	6.09	9.91	6.91	10.72	7.10	11.39	7.22	12.73	7.77	13.20	7.54
	14			8.29	6.09	9.91	6.91	10.72	7.10	11.37	7.21	12.68	7.75	13.15	7.52
	16			8.29	6.09	9.91	6.91	10.72	7.10	11.36	7.20	12.63	7.72	13.09	7.49
	18			8.29	6.09	9.91	6.91	10.72	7.10	11.34	7.19	12.59	7.71	13.03	7.47
Lo	20			8.29	6.09	9.91	6.91	10.72	7.10	11.32	7.19	12.54	7.69	12.97	7.44
	22			8.28	6.08	9.90	6.91	10.72	7.10	11.27	7.16	12.38	7.62	12.80	7.38
19	24			8.26	6.07	9.90	6.91	10.72	7.10	11.22	7.14	12.22	7.55	12.62	7.31
(m^3/min)	26			8.26	6.07	9.85	6.88	10.62	7.06	11.09	7.08	12.03	7.47	12.43	7.24
	28	7.48	5.97	8.25	6.07	9.81	6.86	10.51	7.01	10.96	7.03	11.84	7.38	12.23	7.15
	30	7.48	5.97	8.23	6.06	9.73	6.83	10.41	6.96	10.83	6.97	11.66	7.31	12.05	7.08
	32	7.48	5.97	8.21	6.05	9.66	6.79	10.31	6.92	10.70	6.91	11.48	7.24	11.87	7.02
	34	7.48	5.97	8.18	6.03	9.62	6.78	10.18	6.86	10.53	6.84	11.23	7.13	11.62	6.92
	35	7.48	5.97	8.17	6.03	9.60	6.77	10.11	6.83	10.44	6.80	11.11	7.09	11.50	6.88
	36	7.48	5.97	8.16	6.02	9.53	6.73	10.06	6.80	10.34	6.75	10.91	7.00	11.28	6.80
	38	7.48	5.97	8.14	6.01	9.39	6.67	9.96	6.76	10.14	6.67	10.51	6.85	10.83	6.64
	39	7.48	5.97	8.13	6.01	9.31	6.63	9.91	6.74	10.04	6.63	10.31	6.77	10.61	6.56
	41	7.48	5.97	8.10	6.00	9.04	6.50	9.50	6.56	9.62	6.45	9.86	6.59	10.11	6.38
	43	7.48	5.97	8.07	5.98	8.76	6.38	9.10	6.37	9.20	6.26	9.40	6.41	9.61	6.20

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	5.88	5.88	5.88	5.88	5.88
	-17.8	-18	6.26	6.26	6.26	6.26	6.26
	-15.7	-16	6.64	6.64	6.64	6.64	6.64
	-13.7	-14	7.02	7.02	7.02	7.02	7.02
	-11.7	-12	7.40	7.40	7.40	7.40	7.40
Lo	-9.6	-10	7.77	7.77	7.77	7.77	7.77
	-7.5	-8	8.25	8.25	8.25	8.25	8.25
19	-5.5	-6	8.72	8.72	8.72	8.72	8.72
(m^3/min)	-3.4	-4	9.02	9.01	9.00	8.91	8.82
	-1.3	-2	9.33	9.30	9.28	9.10	8.92
	0.8	0	9.84	9.70	9.56	9.21	8.87
	3.9	3	10.67	10.29	9.91	9.35	8.80
	7.0	6	11.66	10.90	10.14	9.43	8.72
	10.1	9	11.58	10.84	10.10	9.37	8.64
	13.2	12	11.51	10.77	10.04	9.30	8.57
	16.9	15.5	11.42	10.69	9.95	9.21	8.48

Notes(1) This data shows average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

PJF000Z452A

(2) Ceiling cassette-4 way compact type (FDTC)

Model **FDTC15KXZE1** Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			1.23	1.18	1.47	1.41	1.59	1.53	1.69	1.62	1.89	1.81	1.97	1.89
	12			1.23	1.18	1.47	1.41	1.59	1.53	1.69	1.62	1.89	1.81	1.96	1.88
	14			1.23	1.18	1.47	1.41	1.59	1.53	1.69	1.62	1.88	1.80	1.95	1.87
	16			1.23	1.18	1.47	1.41	1.59	1.53	1.68	1.61	1.87	1.80	1.94	1.86
	18			1.23	1.18	1.47	1.41	1.59	1.53	1.68	1.61	1.87	1.80	1.93	1.85
P-Hi	20			1.23	1.18	1.47	1.41	1.59	1.53	1.68	1.61	1.86	1.79	1.93	1.85
	22			1.23	1.18	1.47	1.41	1.59	1.53	1.67	1.60	1.84	1.77	1.90	1.82
8	24			1.23	1.18	1.47	1.41	1.59	1.53	1.66	1.59	1.81	1.74	1.87	1.80
(m³/min)	26			1.23	1.18	1.46	1.40	1.58	1.52	1.64	1.57	1.78	1.71	1.84	1.77
	28	1.11	1.07	1.22	1.17	1.46	1.40	1.56	1.50	1.63	1.56	1.76	1.69	1.81	1.74
	30	1.11	1.07	1.22	1.17	1.44	1.38	1.55	1.49	1.61	1.55	1.73	1.66	1.79	1.72
	32	1.11	1.07	1.22	1.17	1.43	1.37	1.53	1.47	1.59	1.53	1.70	1.63	1.76	1.69
	34	1.11	1.07	1.21	1.16	1.43	1.37	1.51	1.45	1.56	1.50	1.67	1.60	1.72	1.65
	35	1.11	1.07	1.21	1.16	1.43	1.37	1.50	1.44	1.55	1.49	1.65	1.58	1.71	1.64
	36	1.11	1.07	1.21	1.16	1.41	1.35	1.49	1.43	1.53	1.47	1.62	1.56	1.67	1.60
	38	1.11	1.07	1.21	1.16	1.39	1.33	1.48	1.42	1.51	1.45	1.56	1.50	1.61	1.55
	39	1.11	1.07	1.21	1.16	1.38	1.32	1.47	1.41	1.49	1.43	1.53	1.47	1.57	1.51
	41	1.11	1.07	1.20	1.15	1.34	1.29	1.41	1.35	1.43	1.37	1.46	1.40	1.50	1.44
	43	1.11	1.07	1.20	1.15	1.30	1.25	1.35	1.30	1.36	1.31	1.39	1.33	1.43	1.37

Heating mode (kW)

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	0.99	0.99	0.99	0.99	0.99
	-17.8	-18	1.05	1.05	1.05	1.05	1.05
	-15.7	-16	1.11	1.11	1.11	1.11	1.11
	-13.7	-14	1.18	1.18	1.18	1.18	1.18
	-11.7	-12	1.24	1.24	1.24	1.24	1.24
P-Hi	-9.6	-10	1.30	1.30	1.30	1.30	1.30
	-7.5	-8	1.38	1.38	1.38	1.38	1.38
8	-5.5	-6	1.46	1.46	1.46	1.46	1.46
(m³/min)	-3.4	-4	1.51	1.51	1.51	1.49	1.48
	-1.3	-2	1.56	1.56	1.56	1.53	1.50
	0.8	0	1.65	1.63	1.60	1.54	1.49
	3.9	3	1.79	1.73	1.66	1.57	1.47
	7.0	6	1.96	1.83	1.70	1.58	1.46
	10.1	9	1.94	1.82	1.69	1.57	1.45
	13.2	12	1.93	1.81	1.68	1.56	1.44
	16.9	15.5	1.91	1.79	1.67	1.54	1.42

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			1.14	1.09	1.36	1.31	1.47	1.41	1.56	1.50	1.75	1.68	1.82	1.70
	12			1.14	1.09	1.36	1.31	1.47	1.41	1.56	1.50	1.74	1.67	1.81	1.70
	14			1.14	1.09	1.36	1.31	1.47	1.41	1.56	1.50	1.74	1.67	1.80	1.69
	16			1.14	1.09	1.36	1.31	1.47	1.41	1.56	1.50	1.73	1.66	1.79	1.69
	18			1.14	1.09	1.36	1.31	1.47	1.41	1.55	1.49	1.72	1.65	1.79	1.69
Hi	20			1.14	1.09	1.36	1.31	1.47	1.41	1.55	1.49	1.72	1.65	1.78	1.69
	22			1.13	1.08	1.36	1.31	1.47	1.41	1.54	1.48	1.70	1.63	1.75	1.68
7	24			1.13	1.08	1.36	1.31	1.47	1.41	1.54	1.48	1.67	1.60	1.73	1.66
(m³/min)	26			1.13	1.08	1.35	1.30	1.45	1.39	1.52	1.46	1.65	1.58	1.70	1.63
	28	1.02	0.98	1.13	1.08	1.34	1.29	1.44	1.38	1.50	1.44	1.62	1.56	1.68	1.61
	30	1.02	0.98	1.13	1.08	1.33	1.28	1.43	1.37	1.48	1.42	1.60	1.54	1.65	1.58
	32	1.02	0.98	1.12	1.08	1.32	1.27	1.41	1.35	1.47	1.41	1.57	1.51	1.63	1.56
	34	1.02	0.98	1.12	1.08	1.32	1.27	1.39	1.33	1.44	1.38	1.54	1.48	1.59	1.53
	35	1.02	0.98	1.12	1.08	1.32	1.27	1.39	1.33	1.43	1.37	1.52	1.46	1.58	1.52
	36	1.02	0.98	1.12	1.08	1.31	1.26	1.38	1.32	1.42	1.36	1.50	1.44	1.54	1.48
	38	1.02	0.98	1.12	1.08	1.29	1.24	1.36	1.31	1.39	1.33	1.44	1.38	1.48	1.42
	39	1.02	0.98	1.11	1.07	1.28	1.23	1.36	1.31	1.38	1.32	1.41	1.35	1.45	1.39
	41	1.02	0.98	1.11	1.07	1.24	1.19	1.30	1.25	1.32	1.27	1.35	1.30	1.38	1.32
	43	1.02	0.98	1.11	1.07	1.20	1.15	1.25	1.20	1.26	1.21	1.29	1.24	1.32	1.27

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	0.90	0.90	0.90	0.90	0.90
	-17.8	-18	0.96	0.96	0.96	0.96	0.96
	-15.7	-16	1.01	1.01	1.01	1.01	1.01
	-13.7	-14	1.07	1.07	1.07	1.07	1.07
	-11.7	-12	1.13	1.13	1.13	1.13	1.13
Hi	-9.6	-10	1.19	1.19	1.19	1.19	1.19
	-7.5	-8	1.26	1.26	1.26	1.26	1.26
7	-5.5	-6	1.33	1.33	1.33	1.33	1.33
(m³/min)	-3.4	-4	1.38	1.37	1.37	1.36	1.35
	-1.3	-2	1.42	1.42	1.42	1.39	1.36
	0.8	0	1.50	1.48	1.46	1.41	1.35
	3.9	3	1.63	1.57	1.51	1.43	1.34
	7.0	6	1.78	1.66	1.55	1.44	1.33
	10.1	9	1.77	1.65	1.54	1.43	1.32
	13.2	12	1.76	1.64	1.53	1.42	1.31
	16.9	15.5	1.74	1.63	1.52	1.41	1.29

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			1.03	0.99	1.23	1.18	1.33	1.28	1.41	1.35	1.58	1.51	1.64	1.49
	12			1.03	0.99	1.23	1.18	1.33	1.28	1.41	1.35	1.58	1.51	1.64	1.49
	14			1.03	0.99	1.23	1.18	1.33	1.28	1.41	1.35	1.57	1.51	1.63	1.48
	16			1.03	0.99	1.23	1.18	1.33	1.28	1.41	1.35	1.57	1.51	1.62	1.48
	18			1.03	0.99	1.23	1.18	1.33	1.28	1.41	1.35	1.56	1.50	1.62	1.48
Me	20			1.03	0.99	1.23	1.18	1.33	1.28	1.40	1.34	1.56	1.50	1.61	1.48
	22			1.03	0.99	1.23	1.18	1.33	1.28	1.40	1.34	1.54	1.48	1.59	1.47
6	24			1.02	0.98	1.23	1.18	1.33	1.28	1.39	1.33	1.52	1.46	1.57	1.47
(m³/min)	26			1.02	0.98	1.22	1.17	1.32	1.27	1.37	1.32	1.49	1.43	1.54	1.46
	28	0.93	0.89	1.02	0.98	1.22	1.17	1.30	1.25	1.36	1.31	1.47	1.41	1.52	1.45
	30	0.93	0.89	1.02	0.98	1.21	1.16	1.29	1.24	1.34	1.29	1.45	1.39	1.49	1.43
	32	0.93	0.89	1.02	0.98	1.20	1.15	1.28	1.23	1.33	1.28	1.42	1.36	1.47	1.41
	34	0.93	0.89	1.01	0.97	1.19	1.14	1.26	1.21	1.31	1.26	1.39	1.33	1.44	1.38
	35	0.93	0.89	1.01	0.97	1.19	1.14	1.25	1.20	1.30	1.25	1.38	1.32	1.43	1.37
	36	0.93	0.89	1.01	0.97	1.18	1.13	1.25	1.20	1.28	1.23	1.35	1.30	1.40	1.34
	38	0.93	0.89	1.01	0.97	1.16	1.11	1.23	1.18	1.26	1.21	1.30	1.25	1.34	1.29
	39	0.93	0.89	1.01	0.97	1.16	1.11	1.23	1.18	1.25	1.20	1.28	1.23	1.32	1.27
	41	0.93	0.89	1.00	0.96	1.12	1.08	1.18	1.13	1.19	1.14	1.22	1.17	1.25	1.20
	43	0.93	0.89	1.00	0.96	1.09	1.05	1.13	1.08	1.14	1.09	1.17	1.12	1.19	1.14

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	0.80	0.80	0.80	0.80	0.80
	-17.8	-18	0.85	0.85	0.85	0.85	0.85
	-15.7	-16	0.90	0.90	0.90	0.90	0.90
	-13.7	-14	0.95	0.95	0.95	0.95	0.95
	-11.7	-12	1.01	1.01	1.01	1.01	1.01
Me	-9.6	-10	1.06	1.06	1.06	1.06	1.06
	-7.5	-8	1.12	1.12	1.12	1.12	1.12
6	-5.5	-6	1.19	1.19	1.19	1.19	1.19
(m³/min)	-3.4	-4	1.23	1.23	1.22	1.21	1.20
	-1.3	-2	1.27	1.27	1.26	1.24	1.21
	0.8	0	1.34	1.32	1.30	1.25	1.21
	3.9	3	1.45	1.40	1.35	1.27	1.20
	7.0	6	1.59	1.48	1.38	1.28	1.19
	10.1	9	1.58	1.48	1.37	1.28	1.18
	13.2	12	1.57	1.47	1.37	1.27	1.17
	16.9	15.5	1.55	1.45	1.35	1.25	1.15

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			0.90	0.86	1.08	1.04	1.17	1.12	1.24	1.19	1.39	1.29	1.45	1.27
	12			0.90	0.86	1.08	1.04	1.17	1.12	1.24	1.19	1.39	1.29	1.44	1.26
	14			0.90	0.86	1.08	1.04	1.17	1.12	1.24	1.19	1.38	1.29	1.43	1.26
	16			0.90	0.86	1.08	1.04	1.17	1.12	1.24	1.19	1.38	1.29	1.43	1.26
	18			0.90	0.86	1.08	1.04	1.17	1.12	1.24	1.19	1.37	1.28	1.42	1.26
Lo	20			0.90	0.86	1.08	1.04	1.17	1.12	1.24	1.19	1.37	1.28	1.42	1.26
	22			0.90	0.86	1.08	1.04	1.17	1.12	1.23	1.18	1.35	1.28	1.40	1.25
5	24			0.90	0.86	1.08	1.04	1.17	1.12	1.22	1.17	1.33	1.27	1.38	1.25
(m³/min)	26			0.90	0.86	1.07	1.03	1.16	1.11	1.21	1.16	1.31	1.26	1.36	1.24
	28	0.82	0.79	0.90	0.86	1.07	1.03	1.15	1.10	1.19	1.14	1.29	1.24	1.33	1.23
	30	0.82	0.79	0.90	0.86	1.06	1.02	1.14	1.09	1.18	1.13	1.27	1.22	1.31	1.22
	32	0.82	0.79	0.90	0.86	1.05	1.01	1.12	1.08	1.17	1.12	1.25	1.20	1.29	1.22
	34	0.82	0.79	0.89	0.85	1.05	1.01	1.11	1.07	1.15	1.10	1.23	1.18	1.27	1.21
	35	0.82	0.79	0.89	0.85	1.05	1.01	1.10	1.06	1.14	1.09	1.21	1.16	1.25	1.20
	36	0.82	0.79	0.89	0.85	1.04	1.00	1.10	1.06	1.13	1.08	1.19	1.14	1.23	1.18
	38	0.82	0.79	0.89	0.85	1.02	0.98	1.09	1.05	1.11	1.07	1.15	1.10	1.18	1.13
	39	0.82	0.79	0.89	0.85	1.02	0.98	1.08	1.04	1.10	1.06	1.13	1.08	1.16	1.11
	41	0.82	0.79	0.88	0.84	0.99	0.95	1.04	1.00	1.05	1.01	1.08	1.04	1.10	1.06
	43	0.82	0.79	0.88	0.84	0.96	0.92	0.99	0.95	1.00	0.96	1.03	0.99	1.05	1.01

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	0.69	0.69	0.69	0.69	0.69
	-17.8	-18	0.74	0.74	0.74	0.74	0.74
	-15.7	-16	0.78	0.78	0.78	0.78	0.78
	-13.7	-14	0.83	0.83	0.83	0.83	0.83
	-11.7	-12	0.87	0.87	0.87	0.87	0.87
Lo	-9.6	-10	0.92	0.92	0.92	0.92	0.92
	-7.5	-8	0.97	0.97	0.97	0.97	0.97
5	-5.5	-6	1.03	1.03	1.03	1.03	1.03
(m³/min)	-3.4	-4	1.06	1.06	1.06	1.05	1.04
	-1.3	-2	1.10	1.10	1.09	1.07	1.05
	0.8	0	1.16	1.14	1.13	1.09	1.05
	3.9	3	1.26	1.21	1.17	1.10	1.04
	7.0	6	1.38	1.29	1.20	1.11	1.03
	10.1	9	1.37	1.28	1.19	1.11	1.02
	13.2	12	1.36	1.27	1.18	1.10	1.01
	16.9	15.5	1.35	1.26	1.17	1.09	1.00

Notes(1) This data shows average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

PJF000Z513

Model **FDTC22KXZE1** Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			1.80	1.73	2.16	2.07	2.33	2.18	2.48	2.20	2.78	2.39	2.89	2.34
	12			1.80	1.73	2.16	2.07	2.33	2.18	2.48	2.20	2.77	2.39	2.87	2.34
	14			1.80	1.73	2.16	2.07	2.33	2.18	2.47	2.19	2.76	2.38	2.86	2.33
	16			1.80	1.73	2.16	2.07	2.33	2.18	2.47	2.19	2.75	2.38	2.85	2.33
	18			1.80	1.73	2.16	2.07	2.33	2.18	2.47	2.19	2.74	2.38	2.84	2.33
P-Hi	20			1.80	1.73	2.16	2.07	2.33	2.18	2.46	2.19	2.73	2.37	2.82	2.32
	22			1.80	1.73	2.15	2.06	2.33	2.18	2.45	2.19	2.69	2.36	2.78	2.31
9	24			1.80	1.73	2.15	2.06	2.33	2.18	2.44	2.18	2.66	2.35	2.75	2.30
(m³/min)	26			1.80	1.73	2.14	2.05	2.31	2.17	2.41	2.17	2.62	2.34	2.70	2.29
	28	1.63	1.56	1.80	1.73	2.13	2.04	2.29	2.17	2.38	2.16	2.58	2.32	2.66	2.27
	30	1.63	1.56	1.79	1.72	2.12	2.04	2.27	2.16	2.36	2.16	2.54	2.31	2.62	2.26
	32	1.63	1.56	1.79	1.72	2.10	2.02	2.24	2.15	2.33	2.14	2.50	2.30	2.58	2.25
	34	1.63	1.56	1.78	1.71	2.09	2.01	2.21	2.12	2.29	2.13	2.44	2.28	2.53	2.24
	35	1.63	1.56	1.78	1.71	2.09	2.01	2.20	2.11	2.27	2.12	2.42	2.27	2.50	2.23
	36	1.63	1.56	1.78	1.71	2.07	1.99	2.19	2.10	2.25	2.12	2.37	2.26	2.45	2.21
	38	1.63	1.56	1.77	1.70	2.04	1.96	2.17	2.08	2.21	2.10	2.29	2.20	2.36	2.19
	39	1.63	1.56	1.77	1.70	2.03	1.95	2.16	2.07	2.19	2.10	2.24	2.15	2.31	2.17
	41	1.63	1.56	1.76	1.69	1.97	1.89	2.07	1.99	2.09	2.01	2.14	2.05	2.20	2.11
	43	1.63	1.56	1.76	1.69	1.91	1.83	1.98	1.90	2.00	1.92	2.05	1.97	2.09	2.01

Heating mode (kW)

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	1.45	1.45	1.45	1.45	1.45
	-17.8	-18	1.54	1.54	1.54	1.54	1.54
	-15.7	-16	1.64	1.64	1.64	1.64	1.64
	-13.7	-14	1.73	1.73	1.73	1.73	1.73
	-11.7	-12	1.82	1.82	1.82	1.82	1.82
P-Hi	-9.6	-10	1.92	1.92	1.92	1.92	1.92
	-7.5	-8	2.03	2.03	2.03	2.03	2.03
9	-5.5	-6	2.15	2.15	2.15	2.15	2.15
(m³/min)	-3.4	-4	2.23	2.22	2.22	2.20	2.18
	-1.3	-2	2.30	2.29	2.29	2.24	2.20
	0.8	0	2.43	2.39	2.36	2.27	2.19
	3.9	3	2.63	2.54	2.44	2.31	2.17
	7.0	6	2.88	2.69	2.50	2.33	2.15
	10.1	9	2.86	2.67	2.49	2.31	2.13
	13.2	12	2.84	2.66	2.48	2.29	2.11
	16.9	15.5	2.82	2.63	2.45	2.27	2.09

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			1.67	1.60	1.99	1.91	2.16	1.98	2.29	2.00	2.57	2.16	2.67	2.12
	12			1.67	1.60	1.99	1.91	2.16	1.98	2.29	2.00	2.56	2.16	2.66	2.11
	14			1.67	1.60	1.99	1.91	2.16	1.98	2.29	2.00	2.55	2.15	2.64	2.11
	16			1.67	1.60	1.99	1.91	2.16	1.98	2.28	1.99	2.54	2.15	2.63	2.11
	18			1.67	1.60	1.99	1.91	2.16	1.98	2.28	1.99	2.53	2.15	2.62	2.10
Hi	20			1.67	1.60	1.99	1.91	2.16	1.98	2.28	1.99	2.52	2.14	2.61	2.10
	22			1.66	1.59	1.99	1.91	2.16	1.98	2.27	1.99	2.49	2.13	2.57	2.09
8	24			1.66	1.59	1.99	1.91	2.16	1.98	2.26	1.99	2.46	2.12	2.54	2.08
(m³/min)	26			1.66	1.59	1.98	1.90	2.14	1.98	2.23	1.97	2.42	2.11	2.50	2.07
	28	1.50	1.44	1.66	1.59	1.97	1.89	2.11	1.96	2.20	1.96	2.38	2.10	2.46	2.05
	30	1.50	1.44	1.66	1.59	1.96	1.88	2.09	1.96	2.18	1.96	2.34	2.09	2.42	2.04
	32	1.50	1.44	1.65	1.58	1.94	1.86	2.07	1.95	2.15	1.95	2.31	2.08	2.39	2.03
	34	1.50	1.44	1.65	1.58	1.94	1.86	2.05	1.94	2.12	1.94	2.26	2.06	2.34	2.02
	35	1.50	1.44	1.64	1.57	1.93	1.85	2.03	1.94	2.10	1.93	2.24	2.05	2.31	2.01
	36	1.50	1.44	1.64	1.57	1.92	1.84	2.02	1.93	2.08	1.92	2.20	2.04	2.27	2.00
	38	1.50	1.44	1.64	1.57	1.89	1.81	2.00	1.92	2.04	1.91	2.12	2.01	2.18	1.97
	39	1.50	1.44	1.64	1.57	1.87	1.80	1.99	1.91	2.02	1.90	2.07	1.99	2.13	1.96
	41	1.50	1.44	1.63	1.56	1.82	1.75	1.91	1.83	1.94	1.86	1.98	1.90	2.03	1.93
	43	1.50	1.44	1.62	1.56	1.76	1.69	1.83	1.76	1.85	1.78	1.89	1.81	1.93	1.85

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	1.33	1.33	1.33	1.33	1.33
	-17.8	-18	1.42	1.42	1.42	1.42	1.42
	-15.7	-16	1.51	1.51	1.51	1.51	1.51
	-13.7	-14	1.59	1.59	1.59	1.59	1.59
	-11.7	-12	1.68	1.68	1.68	1.68	1.68
Hi	-9.6	-10	1.76	1.76	1.76	1.76	1.76
	-7.5	-8	1.87	1.87	1.87	1.87	1.87
8	-5.5	-6	1.98	1.98	1.98	1.98	1.98
(m³/min)	-3.4	-4	2.05	2.04	2.04	2.02	2.00
	-1.3	-2	2.12	2.11	2.11	2.07	2.02
	0.8	0	2.23	2.20	2.17	2.09	2.01
	3.9	3	2.42	2.34	2.25	2.12	2.00
	7.0	6	2.65	2.47	2.30	2.14	1.98
	10.1	9	2.63	2.46	2.29	2.13	1.96
	13.2	12	2.61	2.44	2.28	2.11	1.94
	16.9	15.5	2.59	2.42	2.26	2.09	1.92

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			1.52	1.46	1.81	1.74	1.96	1.77	2.09	1.78	2.34	1.94	2.43	1.90
	12			1.52	1.46	1.81	1.74	1.96	1.77	2.08	1.78	2.33	1.93	2.42	1.90
	14			1.52	1.46	1.81	1.74	1.96	1.77	2.08	1.78	2.32	1.93	2.41	1.89
	16			1.52	1.46	1.81	1.74	1.96	1.77	2.08	1.78	2.31	1.93	2.40	1.89
	18			1.52	1.46	1.81	1.74	1.96	1.77	2.08	1.78	2.30	1.92	2.39	1.89
Me	20			1.52	1.46	1.81	1.74	1.96	1.77	2.07	1.78	2.30	1.92	2.38	1.88
	22			1.51	1.45	1.81	1.74	1.96	1.77	2.06	1.77	2.27	1.91	2.34	1.87
7	24			1.51	1.45	1.81	1.74	1.96	1.77	2.05	1.77	2.24	1.90	2.31	1.86
(m³/min)	26			1.51	1.45	1.80	1.73	1.94	1.76	2.03	1.76	2.20	1.89	2.27	1.85
	28	1.37	1.32	1.51	1.45	1.80	1.73	1.92	1.75	2.01	1.75	2.17	1.88	2.24	1.84
	30	1.37	1.32	1.51	1.45	1.78	1.71	1.91	1.75	1.98	1.74	2.13	1.87	2.21	1.83
	32	1.37	1.32	1.50	1.44	1.77	1.70	1.89	1.74	1.96	1.74	2.10	1.86	2.17	1.82
	34	1.37	1.32	1.50	1.44	1.76	1.69	1.86	1.73	1.93	1.73	2.06	1.85	2.13	1.81
	35	1.37	1.32	1.50	1.44	1.76	1.69	1.85	1.73	1.91	1.72	2.03	1.84	2.11	1.80
	36	1.37	1.32	1.49	1.43	1.74	1.67	1.84	1.72	1.89	1.71	2.00	1.83	2.06	1.79
	38	1.37	1.32	1.49	1.43	1.72	1.65	1.82	1.72	1.86	1.70	1.92	1.80	1.98	1.76
	39	1.37	1.32	1.49	1.43	1.71	1.64	1.81	1.71	1.84	1.69	1.89	1.79	1.94	1.75
	41	1.37	1.32	1.48	1.42	1.65	1.58	1.74	1.67	1.76	1.67	1.80	1.73	1.85	1.72
	43	1.37	1.32	1.48	1.42	1.60	1.54	1.67	1.60	1.68	1.61	1.72	1.65	1.76	1.69

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	1.21	1.21	1.21	1.21	1.21
	-17.8	-18	1.29	1.29	1.29	1.29	1.29
	-15.7	-16	1.37	1.37	1.37	1.37	1.37
	-13.7	-14	1.44	1.44	1.44	1.44	1.44
	-11.7	-12	1.52	1.52	1.52	1.52	1.52
Me	-9.6	-10	1.60	1.60	1.60	1.60	1.60
	-7.5	-8	1.70	1.70	1.70	1.70	1.70
7	-5.5	-6	1.79	1.79	1.79	1.79	1.79
(m³/min)	-3.4	-4	1.86	1.85	1.85	1.83	1.82
	-1.3	-2	1.92	1.91	1.91	1.87	1.84
	0.8	0	2.02	1.99	1.97	1.90	1.83
	3.9	3	2.20	2.12	2.04	1.92	1.81
	7.0	6	2.40	2.24	2.09	1.94	1.79
	10.1	9	2.38	2.23	2.08	1.93	1.78
	13.2	12	2.37	2.22	2.07	1.91	1.76
	16.9	15.5	2.35	2.20	2.05	1.90	1.74

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			1.35	1.30	1.62	1.53	1.75	1.55	1.86	1.56	2.08	1.69	2.16	1.66
	12			1.35	1.30	1.62	1.53	1.75	1.55	1.86	1.56	2.08	1.69	2.15	1.66
	14			1.35	1.30	1.62	1.53	1.75	1.55	1.85	1.56	2.07	1.69	2.14	1.65
	16			1.35	1.30	1.62	1.53	1.75	1.55	1.85	1.56	2.06	1.69	2.14	1.65
	18			1.35	1.30	1.62	1.53	1.75	1.55	1.85	1.56	2.05	1.68	2.13	1.65
Lo	20			1.35	1.30	1.62	1.53	1.75	1.55	1.85	1.56	2.05	1.68	2.12	1.65
	22			1.35	1.30	1.62	1.53	1.75	1.55	1.84	1.55	2.02	1.67	2.09	1.64
6	24			1.35	1.30	1.61	1.52	1.75	1.55	1.83	1.55	1.99	1.66	2.06	1.63
(m³/min)	26			1.35	1.30	1.61	1.52	1.73	1.54	1.81	1.54	1.96	1.65	2.03	1.62
	28	1.22	1.17	1.35	1.30	1.60	1.52	1.72	1.54	1.79	1.54	1.93	1.64	2.00	1.61
	30	1.22	1.17	1.34	1.29	1.59	1.52	1.70	1.53	1.77	1.53	1.90	1.63	1.97	1.60
	32	1.22	1.17	1.34	1.29	1.57	1.51	1.68	1.52	1.75	1.52	1.87	1.62	1.94	1.59
	34	1.22	1.17	1.33	1.28	1.57	1.51	1.66	1.52	1.72	1.51	1.83	1.61	1.90	1.58
	35	1.22	1.17	1.33	1.28	1.57	1.51	1.65	1.51	1.70	1.50	1.81	1.60	1.88	1.57
	36	1.22	1.17	1.33	1.28	1.55	1.49	1.64	1.51	1.69	1.50	1.78	1.59	1.84	1.56
	38	1.22	1.17	1.33	1.28	1.53	1.47	1.62	1.50	1.65	1.49	1.72	1.57	1.77	1.54
	39	1.22	1.17	1.33	1.28	1.52	1.46	1.62	1.50	1.64	1.48	1.68	1.56	1.73	1.53
	41	1.22	1.17	1.32	1.27	1.47	1.41	1.55	1.48	1.57	1.46	1.61	1.54	1.65	1.50
	43	1.22	1.17	1.32	1.27	1.43	1.37	1.48	1.42	1.50	1.43	1.53	1.47	1.57	1.48

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	1.07	1.07	1.07	1.07	1.07
	-17.8	-18	1.14	1.14	1.14	1.14	1.14
	-15.7	-16	1.21	1.21	1.21	1.21	1.21
	-13.7	-14	1.28	1.28	1.28	1.28	1.28
	-11.7	-12	1.35	1.35	1.35	1.35	1.35
Lo	-9.6	-10	1.42	1.42	1.42	1.42	1.42
	-7.5	-8	1.51	1.51	1.51	1.51	1.51
6	-5.5	-6	1.59	1.59	1.59	1.59	1.59
(m³/min)	-3.4	-4	1.65	1.65	1.64	1.63	1.61
	-1.3	-2	1.70	1.70	1.70	1.66	1.63
	0.8	0	1.80	1.77	1.75	1.68	1.62
	3.9	3	1.95	1.88	1.81	1.71	1.61
	7.0	6	2.13	1.99	1.85	1.72	1.59
	10.1	9	2.12	1.98	1.85	1.71	1.58
	13.2	12	2.10	1.97	1.83	1.70	1.57
	16.9	15.5	2.09	1.95	1.82	1.68	1.55

Notes(1) This data shows average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

PJF000Z513

Model **FDTC28KXZE1** Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			2.30	2.11	2.74	2.38	2.97	2.42	3.16	2.45	3.54	2.65	3.67	2.59
	12			2.30	2.11	2.74	2.38	2.97	2.42	3.15	2.45	3.52	2.65	3.66	2.59
	14			2.30	2.11	2.74	2.38	2.97	2.42	3.15	2.45	3.51	2.64	3.64	2.58
	16			2.30	2.11	2.74	2.38	2.97	2.42	3.14	2.44	3.50	2.64	3.63	2.58
	18			2.30	2.11	2.74	2.38	2.97	2.42	3.14	2.44	3.49	2.64	3.61	2.57
P-Hi	20			2.30	2.11	2.74	2.38	2.97	2.42	3.14	2.44	3.47	2.63	3.59	2.57
	22			2.29	2.11	2.74	2.38	2.97	2.42	3.12	2.44	3.43	2.62	3.54	2.55
9	24			2.29	2.11	2.74	2.38	2.97	2.42	3.11	2.43	3.39	2.60	3.50	2.54
(m³/min)	26			2.29	2.11	2.73	2.38	2.94	2.41	3.07	2.42	3.33	2.58	3.44	2.52
	28	2.07	1.99	2.28	2.11	2.72	2.37	2.91	2.40	3.03	2.40	3.28	2.56	3.39	2.50
	30	2.07	1.99	2.28	2.11	2.70	2.37	2.88	2.39	3.00	2.39	3.23	2.54	3.34	2.49
	32	2.07	1.99	2.27	2.10	2.67	2.35	2.86	2.38	2.96	2.37	3.18	2.53	3.29	2.47
	34	2.07	1.99	2.27	2.10	2.66	2.35	2.82	2.37	2.92	2.36	3.11	2.50	3.22	2.45
	35	2.07	1.99	2.26	2.10	2.66	2.35	2.80	2.36	2.89	2.35	3.08	2.49	3.18	2.44
	36	2.07	1.99	2.26	2.10	2.64	2.34	2.79	2.36	2.86	2.34	3.02	2.47	3.12	2.42
	38	2.07	1.99	2.25	2.09	2.60	2.33	2.76	2.34	2.81	2.32	2.91	2.44	3.00	2.38
	39	2.07	1.99	2.25	2.09	2.58	2.32	2.74	2.34	2.78	2.31	2.86	2.42	2.94	2.36
	41	2.07	1.99	2.24	2.09	2.50	2.29	2.63	2.30	2.66	2.27	2.73	2.37	2.80	2.32
	43	2.07	1.99	2.24	2.09	2.43	2.26	2.52	2.26	2.55	2.23	2.60	2.33	2.66	2.27

Heating mode (kW)

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	1.86	1.86	1.86	1.86	1.86
	-17.8	-18	1.98	1.98	1.98	1.98	1.98
	-15.7	-16	2.09	2.09	2.09	2.09	2.09
	-13.7	-14	2.21	2.21	2.21	2.21	2.21
	-11.7	-12	2.33	2.33	2.33	2.33	2.33
P-Hi	-9.6	-10	2.45	2.45	2.45	2.45	2.45
	-7.5	-8	2.60	2.60	2.60	2.60	2.60
9	-5.5	-6	2.75	2.75	2.75	2.75	2.75
(m³/min)	-3.4	-4	2.85	2.84	2.84	2.81	2.78
	-1.3	-2	2.94	2.94	2.93	2.87	2.82
	0.8	0	3.10	3.06	3.02	2.91	2.80
	3.9	3	3.37	3.25	3.13	2.95	2.78
	7.0	6	3.68	3.44	3.20	2.98	2.75
	10.1	9	3.66	3.42	3.19	2.96	2.73
	13.2	12	3.63	3.40	3.17	2.94	2.70
	16.9	15.5	3.60	3.37	3.14	2.91	2.68

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			2.12	1.92	2.54	2.17	2.74	2.21	2.92	2.23	3.27	2.42	3.39	2.36
	12			2.12	1.92	2.54	2.17	2.74	2.21	2.91	2.23	3.26	2.41	3.38	2.35
	14			2.12	1.92	2.54	2.17	2.74	2.21	2.91	2.23	3.25	2.41	3.37	2.35
	16			2.12	1.92	2.54	2.17	2.74	2.21	2.91	2.23	3.23	2.40	3.35	2.34
	18			2.12	1.92	2.54	2.17	2.74	2.21	2.90	2.22	3.22	2.40	3.34	2.34
Hi	20			2.12	1.92	2.54	2.17	2.74	2.21	2.90	2.22	3.21	2.39	3.32	2.33
	22			2.12	1.92	2.54	2.17	2.74	2.21	2.89	2.22	3.17	2.38	3.28	2.32
8	24			2.12	1.92	2.53	2.17	2.74	2.21	2.87	2.21	3.13	2.36	3.23	2.31
(m³/min)	26			2.11	1.92	2.52	2.16	2.72	2.20	2.84	2.20	3.08	2.35	3.18	2.29
	28	1.92	1.84	2.11	1.92	2.51	2.16	2.69	2.19	2.80	2.19	3.03	2.33	3.13	2.27
	30	1.92	1.84	2.11	1.92	2.49	2.15	2.67	2.18	2.77	2.17	2.98	2.31	3.08	2.26
	32	1.92	1.84	2.10	1.91	2.47	2.14	2.64	2.17	2.74	2.16	2.94	2.30	3.04	2.25
	34	1.92	1.84	2.09	1.91	2.46	2.14	2.61	2.16	2.70	2.15	2.88	2.28	2.98	2.21
	35	1.92	1.84	2.09	1.91	2.46	2.14	2.59	2.15	2.67	2.14	2.85	2.27	2.94	2.20
	36	1.92	1.84	2.09	1.91	2.44	2.13	2.58	2.14	2.65	2.13	2.79	2.23	2.89	2.19
	38	1.92	1.84	2.08	1.90	2.40	2.11	2.55	2.13	2.60	2.11	2.69	2.20	2.77	2.15
	39	1.92	1.84	2.08	1.90	2.38	2.11	2.54	2.13	2.57	2.10	2.64	2.18	2.72	2.13
	41	1.92	1.84	2.07	1.90	2.31	2.08	2.43	2.09	2.46	2.06	2.52	2.14	2.59	2.09
	43	1.92	1.84	2.07	1.90	2.24	2.05	2.33	2.05	2.36	2.02	2.41	2.11	2.46	2.05

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	1.71	1.71	1.71	1.71	1.71
	-17.8	-18	1.82	1.82	1.82	1.82	1.82
	-15.7	-16	1.93	1.93	1.93	1.93	1.93
	-13.7	-14	2.04	2.04	2.04	2.04	2.04
	-11.7	-12	2.15	2.15	2.15	2.15	2.15
Hi	-9.6	-10	2.26	2.26	2.26	2.26	2.26
	-7.5	-8	2.40	2.40	2.40	2.40	2.40
8	-5.5	-6	2.53	2.53	2.53	2.53	2.53
(m³/min)	-3.4	-4	2.62	2.62	2.61	2.59	2.56
	-1.3	-2	2.71	2.70	2.69	2.64	2.59
	0.8	0	2.86	2.82	2.78	2.68	2.58
	3.9	3	3.10	2.99	2.88	2.72	2.56
	7.0	6	3.39	3.17	2.95	2.74	2.53
	10.1	9	3.36	3.15	2.93	2.72	2.51
	13.2	12	3.34	3.13	2.92	2.70	2.49
	16.9	15.5	3.32	3.10	2.89	2.68	2.46

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			1.93	1.72	2.31	1.94	2.50	1.97	2.66	1.99	2.98	2.16	3.09	2.11
	12			1.93	1.72	2.31	1.94	2.50	1.97	2.65	1.99	2.96	2.16	3.08	2.11
	14			1.93	1.72	2.31	1.94	2.50	1.97	2.65	1.99	2.95	2.15	3.06	2.10
	16			1.93	1.72	2.31	1.94	2.50	1.97	2.65	1.99	2.94	2.15	3.05	2.10
	18			1.93	1.72	2.31	1.94	2.50	1.97	2.64	1.99	2.93	2.15	3.04	2.10
Me	20			1.93	1.72	2.31	1.94	2.50	1.97	2.64	1.99	2.92	2.14	3.02	2.09
	22			1.93	1.72	2.31	1.94	2.50	1.97	2.63	1.98	2.88	2.13	2.98	2.08
7	24			1.93	1.72	2.31	1.94	2.50	1.97	2.61	1.98	2.85	2.12	2.94	2.06
(m³/min)	26			1.92	1.71	2.30	1.93	2.47	1.96	2.58	1.96	2.80	2.10	2.90	2.05
	28	1.74	1.67	1.92	1.71	2.28	1.93	2.45	1.95	2.55	1.95	2.76	2.09	2.85	2.03
	30	1.74	1.67	1.92	1.71	2.27	1.92	2.43	1.95	2.52	1.94	2.72	2.07	2.81	2.02
	32	1.74	1.67	1.91	1.71	2.25	1.91	2.40	1.93	2.49	1.93	2.67	2.05	2.76	2.01
	34	1.74	1.67	1.91	1.71	2.24	1.91	2.37	1.92	2.45	1.92	2.62	2.04	2.71	1.99
	35	1.74	1.67	1.90	1.70	2.24	1.91	2.36	1.92	2.43	1.91	2.59	2.03	2.68	1.98
	36	1.74	1.67	1.90	1.70	2.22	1.90	2.34	1.91	2.41	1.90	2.54	2.01	2.63	1.96
	38	1.74	1.67	1.90	1.70	2.19	1.89	2.32	1.90	2.36	1.88	2.45	1.98	2.52	1.93
	39	1.74	1.67	1.89	1.70	2.17	1.88	2.31	1.90	2.34	1.87	2.40	1.96	2.47	1.91
	41	1.74	1.67	1.89	1.70	2.11	1.86	2.21	1.86	2.24	1.84	2.30	1.92	2.36	1.88
	43	1.74	1.67	1.88	1.70	2.04	1.83	2.12	1.83	2.14	1.80	2.19	1.89	2.24	1.84

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	1.55	1.55	1.55	1.55	1.55
	-17.8	-18	1.65	1.65	1.65	1.65	1.65
	-15.7	-16	1.75	1.75	1.75	1.75	1.75
	-13.7	-14	1.85	1.85	1.85	1.85	1.85
	-11.7	-12	1.95	1.95	1.95	1.95	1.95
Me	-9.6	-10	2.05	2.05	2.05	2.05	2.05
	-7.5	-8	2.17	2.17	2.17	2.17	2.17
7	-5.5	-6	2.30	2.30	2.30	2.30	2.30
(m³/min)	-3.4	-4	2.38	2.37	2.37	2.35	2.32
	-1.3	-2	2.46	2.45	2.44	2.40	2.35
	0.8	0	2.59	2.55	2.52	2.43	2.34
	3.9	3	2.81	2.71	2.61	2.46	2.32
	7.0	6	3.07	2.87	2.67	2.48	2.30
	10.1	9	3.05	2.86	2.66	2.47	2.28
	13.2	12	3.03	2.84	2.64	2.45	2.26
	16.9	15.5	3.01	2.81	2.62	2.43	2.23

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			1.72	1.51	2.06	1.70	2.22	1.73	2.37	1.76	2.65	1.90	2.75	1.85
	12			1.72	1.51	2.06	1.70	2.22	1.73	2.36	1.75	2.64	1.89	2.74	1.85
	14			1.72	1.51	2.06	1.70	2.22	1.73	2.36	1.75	2.63	1.89	2.73	1.84
	16			1.72	1.51	2.06	1.70	2.22	1.73	2.36	1.75	2.62	1.89	2.72	1.84
	18			1.72	1.51	2.06	1.70	2.22	1.73	2.35	1.75	2.61	1.88	2.71	1.84
Lo	20			1.72	1.51	2.06	1.70	2.22	1.73	2.35	1.75	2.60	1.88	2.69	1.83
	22			1.72	1.51	2.06	1.70	2.22	1.73	2.34	1.74	2.57	1.87	2.66	1.82
6	24			1.72	1.51	2.06	1.70	2.22	1.73	2.33	1.74	2.54	1.86	2.62	1.81
(m³/min)	26			1.71	1.50	2.05	1.70	2.20	1.73	2.30	1.73	2.50	1.84	2.58	1.80
	28	1.55	1.49	1.71	1.50	2.04	1.69	2.18	1.72	2.27	1.72	2.46	1.83	2.54	1.78
	30	1.55	1.49	1.71	1.50	2.02	1.69	2.16	1.71	2.25	1.71	2.42	1.81	2.50	1.77
	32	1.55	1.49	1.70	1.50	2.00	1.68	2.14	1.70	2.22	1.70	2.38	1.80	2.46	1.76
	34	1.55	1.49	1.70	1.50	2.00	1.68	2.11	1.69	2.19	1.69	2.33	1.78	2.41	1.74
	35	1.55	1.49	1.70	1.50	1.99	1.67	2.10	1.68	2.17	1.68	2.31	1.78	2.39	1.73
	36	1.55	1.49	1.69	1.49	1.98	1.67	2.09	1.68	2.15	1.67	2.27	1.76	2.34	1.72
	38	1.55	1.49	1.69	1.49	1.95	1.66	2.07	1.67	2.11	1.65	2.18	1.73	2.25	1.69
	39	1.55	1.49	1.69	1.49	1.93	1.65	2.06	1.67	2.09	1.65	2.14	1.71	2.20	1.67
	41	1.55	1.49	1.68	1.49	1.88	1.63	1.97	1.63	2.00	1.61	2.05	1.68	2.10	1.64
	43	1.55	1.49	1.68	1.49	1.82	1.61	1.89	1.60	1.91	1.58	1.95	1.65	2.00	1.61

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	1.38	1.38	1.38	1.38	1.38
	-17.8	-18	1.46	1.46	1.46	1.46	1.46
	-15.7	-16	1.55	1.55	1.55	1.55	1.55
	-13.7	-14	1.64	1.64	1.64	1.64	1.64
	-11.7	-12	1.73	1.73	1.73	1.73	1.73
Lo	-9.6	-10	1.82	1.82	1.82	1.82	1.82
	-7.5	-8	1.93	1.93	1.93	1.93	1.93
6	-5.5	-6	2.04	2.04	2.04	2.04	2.04
(m³/min)	-3.4	-4	2.11	2.11	2.10	2.08	2.06
	-1.3	-2	2.18	2.18	2.17	2.13	2.09
	0.8	0	2.30	2.27	2.24	2.16	2.08
	3.9	3	2.50	2.41	2.32	2.19	2.06
	7.0	6	2.73	2.55	2.37	2.21	2.04
	10.1	9	2.71	2.54	2.36	2.19	2.02
	13.2	12	2.69	2.52	2.35	2.18	2.00
	16.9	15.5	2.67	2.50	2.33	2.16	1.98

Notes(1) This data shows average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

PJF000Z513

Model **FDTC36KXZE1** Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
P-Hi	10			2.95	2.55	3.53	2.88	3.82	2.94	4.06	2.97	4.55	3.22	4.72	3.14
	12			2.95	2.55	3.53	2.88	3.82	2.94	4.05	2.97	4.53	3.21	4.70	3.13
	14			2.95	2.55	3.53	2.88	3.82	2.94	4.05	2.97	4.51	3.20	4.68	3.13
	16			2.95	2.55	3.53	2.88	3.82	2.94	4.04	2.96	4.50	3.20	4.66	3.12
	18			2.95	2.55	3.53	2.88	3.82	2.94	4.04	2.96	4.48	3.19	4.64	3.11
	20			2.95	2.55	3.53	2.88	3.82	2.94	4.03	2.96	4.47	3.19	4.62	3.11
	22			2.95	2.55	3.53	2.88	3.82	2.94	4.01	2.95	4.41	3.17	4.56	3.09
10	24			2.94	2.55	3.52	2.88	3.82	2.94	3.99	2.94	4.35	3.15	4.49	3.06
(m³/min)	26			2.94	2.55	3.51	2.87	3.78	2.92	3.95	2.93	4.28	3.12	4.43	3.04
	28	2.66	2.52	2.94	2.55	3.49	2.86	3.74	2.91	3.90	2.91	4.22	3.10	4.36	3.02
	30	2.66	2.52	2.93	2.55	3.47	2.86	3.71	2.89	3.86	2.89	4.15	3.07	4.29	3.00
	32	2.66	2.52	2.92	2.54	3.44	2.84	3.67	2.88	3.81	2.87	4.09	3.05	4.23	2.98
	34	2.66	2.52	2.91	2.54	3.43	2.84	3.62	2.86	3.75	2.85	4.00	3.02	4.14	2.95
	35	2.66	2.52	2.91	2.54	3.42	2.84	3.60	2.85	3.72	2.84	3.96	3.01	4.09	2.93
	36	2.66	2.52	2.91	2.54	3.39	2.82	3.58	2.84	3.68	2.82	3.89	2.98	4.02	2.91
	38	2.66	2.52	2.90	2.53	3.34	2.80	3.55	2.83	3.61	2.80	3.74	2.93	3.86	2.86
	39	2.66	2.52	2.89	2.53	3.32	2.80	3.53	2.82	3.58	2.79	3.67	2.91	3.78	2.83
	41	2.66	2.52	2.88	2.52	3.22	2.76	3.38	2.76	3.43	2.73	3.51	2.85	3.60	2.78
	43	2.66	2.52	2.87	2.52	3.12	2.71	3.24	2.71	3.28	2.67	3.35	2.80	3.42	2.72

Heating mode (kW)

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
P-Hi	-19.8	-20	2.32	2.32	2.32	2.32	2.32
	-17.8	-18	2.47	2.47	2.47	2.47	2.47
	-15.7	-16	2.62	2.62	2.62	2.62	2.62
	-13.7	-14	2.77	2.77	2.77	2.77	2.77
	-11.7	-12	2.92	2.92	2.92	2.92	2.92
	-9.6	-10	3.07	3.07	3.07	3.07	3.07
	-7.5	-8	3.25	3.25	3.25	3.25	3.25
10	-5.5	-6	3.44	3.44	3.44	3.44	3.44
(m³/min)	-3.4	-4	3.56	3.56	3.55	3.52	3.48
	-1.3	-2	3.68	3.67	3.66	3.59	3.52
	0.8	0	3.88	3.83	3.77	3.64	3.50
	3.9	3	4.21	4.06	3.91	3.69	3.47
	7.0	6	4.60	4.30	4.00	3.72	3.44
	10.1	9	4.57	4.28	3.99	3.70	3.41
	13.2	12	4.54	4.25	3.96	3.67	3.38
	16.9	15.5	4.51	4.22	3.93	3.64	3.35

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
Hi	10			2.72	2.33	3.25	2.63	3.51	2.68	3.74	2.72	4.19	2.93	4.35	2.86
	12			2.72	2.33	3.25	2.63	3.51	2.68	3.73	2.71	4.17	2.92	4.33	2.85
	14			2.72	2.33	3.25	2.63	3.51	2.68	3.73	2.71	4.15	2.91	4.31	2.84
	16			2.72	2.33	3.25	2.63	3.51	2.68	3.72	2.71	4.14	2.91	4.29	2.83
	18			2.72	2.33	3.25	2.63	3.51	2.68	3.72	2.71	4.12	2.90	4.27	2.83
	20			2.72	2.33	3.25	2.63	3.51	2.68	3.71	2.71	4.11	2.90	4.25	2.82
	22			2.71	2.32	3.25	2.63	3.51	2.68	3.69	2.70	4.06	2.88	4.19	2.80
9	24			2.71	2.32	3.24	2.63	3.51	2.68	3.68	2.69	4.01	2.86	4.14	2.78
(m³/min)	26			2.71	2.32	3.23	2.63	3.48	2.67	3.63	2.67	3.94	2.84	4.07	2.76
	28	2.45	2.30	2.70	2.32	3.21	2.62	3.45	2.66	3.59	2.66	3.88	2.81	4.01	2.74
	30	2.45	2.30	2.70	2.32	3.19	2.61	3.41	2.64	3.55	2.64	3.82	2.79	3.95	2.72
	32	2.45	2.30	2.69	2.32	3.16	2.60	3.38	2.63	3.51	2.63	3.76	2.77	3.89	2.70
	34	2.45	2.30	2.68	2.31	3.15	2.59	3.34	2.62	3.45	2.60	3.68	2.74	3.81	2.68
	35	2.45	2.30	2.68	2.31	3.15	2.59	3.31	2.60	3.42	2.59	3.64	2.73	3.77	2.66
	36	2.45	2.30	2.67	2.31	3.12	2.58	3.30	2.60	3.39	2.58	3.58	2.71	3.70	2.64
	38	2.45	2.30	2.67	2.31	3.08	2.56	3.26	2.58	3.32	2.55	3.45	2.66	3.55	2.59
	39	2.45	2.30	2.66	2.30	3.05	2.55	3.25	2.58	3.29	2.54	3.38	2.64	3.48	2.57
	41	2.45	2.30	2.65	2.30	2.96	2.51	3.11	2.52	3.15	2.49	3.23	2.58	3.31	2.52
	43	2.45	2.30	2.64	2.29	2.87	2.47	2.98	2.47	3.01	2.43	3.08	2.53	3.15	2.47

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
Hi	-19.8	-20	2.11	2.11	2.11	2.11	2.11
	-17.8	-18	2.25	2.25	2.25	2.25	2.25
	-15.7	-16	2.39	2.39	2.39	2.39	2.39
	-13.7	-14	2.52	2.52	2.52	2.52	2.52
	-11.7	-12	2.66	2.66	2.66	2.66	2.66
	-9.6	-10	2.79	2.79	2.79	2.79	2.79
	-7.5	-8	2.96	2.96	2.96	2.96	2.96
9	-5.5	-6	3.13	3.13	3.13	3.13	3.13
(m³/min)	-3.4	-4	3.24	3.24	3.23	3.20	3.17
	-1.3	-2	3.35	3.34	3.33	3.27	3.21
	0.8	0	3.53	3.48	3.43	3.31	3.19
	3.9	3	3.84	3.70	3.56	3.36	3.16
	7.0	6	4.19	3.92	3.64	3.39	3.13
	10.1	9	4.16	3.90	3.63	3.37	3.11
	13.2	12	4.14	3.87	3.61	3.34	3.08
	16.9	15.5	4.10	3.84	3.58	3.31	3.05

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
Me	10			2.47	2.10	2.95	2.36	3.19	2.41	3.39	2.44	3.80	2.64	3.95	2.56
	12			2.47	2.10	2.95	2.36	3.19	2.41	3.39	2.44	3.79	2.63	3.93	2.56
	14			2.47	2.10	2.95	2.36	3.19	2.41	3.39	2.44	3.77	2.63	3.91	2.55
	16			2.47	2.10	2.95	2.36	3.19	2.41	3.38	2.44	3.76	2.62	3.90	2.55
	18			2.47	2.10	2.95	2.36	3.19	2.41	3.38	2.44	3.75	2.62	3.88	2.54
	20			2.47	2.10	2.95	2.36	3.19	2.41	3.37	2.43	3.73	2.61	3.86	2.53
	22			2.46	2.09	2.95	2.36	3.19	2.41	3.36	2.43	3.69	2.59	3.81	2.52
8	24			2.46	2.09	2.95	2.36	3.19	2.41	3.34	2.42	3.64	2.57	3.76	2.50
(m³/min)	26			2.46	2.09	2.93	2.36	3.16	2.40	3.30	2.40	3.58	2.55	3.70	2.48
	28	2.23	2.07	2.46	2.09	2.92	2.35	3.13	2.39	3.26	2.39	3.52	2.53	3.64	2.46
	30	2.23	2.07	2.45	2.09	2.90	2.34	3.10	2.38	3.22	2.37	3.47	2.51	3.59	2.44
	32	2.23	2.07	2.44	2.08	2.87	2.33	3.07	2.36	3.19	2.36	3.42	2.49	3.53	2.42
	34	2.23	2.07	2.44	2.08	2.86	2.33	3.03	2.35	3.13	2.34	3.34	2.46	3.46	2.40
	35	2.23	2.07	2.43	2.08	2.86	2.33	3.01	2.34	3.11	2.33	3.31	2.45	3.42	2.39
	36	2.23	2.07	2.43	2.08	2.84	2.32	2.99	2.33	3.08	2.32	3.25	2.43	3.36	2.37
	38	2.23	2.07	2.42	2.07	2.79	2.30	2.96	2.32	3.02	2.30	3.13	2.39	3.22	2.32
	39	2.23	2.07	2.42	2.07	2.77	2.29	2.95	2.32	2.99	2.28	3.07	2.37	3.16	2.30
	41	2.23	2.07	2.41	2.07	2.69	2.26	2.83	2.27	2.86	2.24	2.93	2.32	3.01	2.26
	43	2.23	2.07	2.40	2.06	2.61	2.23	2.71	2.22	2.74	2.19	2.80	2.27	2.86	2.21

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
Me	-19.8	-20	1.90	1.90	1.90	1.90	1.90
	-17.8	-18	2.02	2.02	2.02	2.02	2.02
	-15.7	-16	2.14	2.14	2.14	2.14	2.14
	-13.7	-14	2.27	2.27	2.27	2.27	2.27
	-11.7	-12	2.39	2.39	2.39	2.39	2.39
	-9.6	-10	2.51	2.51	2.51	2.51	2.51
	-7.5	-8	2.66	2.66	2.66	2.66	2.66
8	-5.5	-6	2.82	2.82	2.82	2.82	2.82
(m³/min)	-3.4	-4	2.92	2.91	2.91	2.88	2.85
	-1.3	-2	3.01	3.01	3.00	2.94	2.88
	0.8	0	3.18	3.13	3.09	2.98	2.87
	3.9	3	3.45	3.32	3.20	3.02	2.84
	7.0	6	3.77	3.52	3.28	3.05	2.82
	10.1	9	3.74	3.50	3.26	3.03	2.79
	13.2	12	3.72	3.48	3.24	3.01	2.77
	16.9	15.5	3.69	3.45	3.21	2.98	2.74

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
Lo	10			1.93	1.61	2.30	1.81	2.49	1.85	2.65	1.87	2.97	2.03	3.08	1.98
	12			1.93	1.61	2.30	1.81	2.49	1.85	2.65	1.87	2.96	2.02	3.07	1.97
	14			1.93	1.61	2.30	1.81	2.49	1.85	2.64	1.87	2.95	2.02	3.06	1.97
	16			1.93	1.61	2.30	1.81	2.49	1.85	2.64	1.87	2.94	2.01	3.04	1.96
	18			1.93	1.61	2.30	1.81	2.49	1.85	2.64	1.87	2.93	2.01	3.03	1.96
	20			1.93	1.61	2.30	1.81	2.49	1.85	2.63	1.87	2.92	2.01	3.02	1.95
	22			1.92	1.60	2.30	1.81	2.49	1.85	2.62	1.86	2.88	1.99	2.98	1.94
6	24			1.92	1.60	2.30	1.81	2.49	1.85	2.61	1.86	2.84	1.98	2.94	1.92
(m³/min)	26			1.92	1.60	2.29	1.81	2.47	1.84	2.58	1.85	2.80	1.96	2.89	1.91
	28	1.74	1.58	1.92	1.60	2.28	1.80	2.45	1.83	2.55	1.83	2.75	1.94	2.85	1.89
	30	1.74	1.58	1.91	1.60	2.26	1.80	2.42	1.82	2.52	1.82	2.71	1.93	2.80	1.88
	32	1.74	1.58	1.91	1.60	2.25	1.79	2.40	1.81	2.49	1.81	2.67	1.91	2.76	1.86
	34	1.74	1.58	1.90	1.59	2.24	1.79	2.37	1.80	2.45	1.80	2.61	1.89	2.70	1.84
	35	1.74	1.58	1.90	1.59	2.23	1.78	2.35	1.79	2.43	1.79	2.58	1.88	2.67	1.83
	36	1.74	1.58	1.90	1.59	2.22	1.78	2.34	1.79	2.41	1.78	2.54	1.87	2.62	1.82
	38	1.74	1.58	1.89	1.59	2.18	1.76	2.32	1.78	2.36	1.76	2.45	1.83	2.52	1.78
	39	1.74	1.58	1.89	1.59	2.17	1.76	2.30	1.77	2.34	1.75	2.40	1.82	2.47	1.77
	41	1.74	1.58	1.88	1.59	2.10	1.73	2.21	1.74	2.24	1.71	2.29	1.78	2.35	1.73
	43	1.74	1.58	1.88	1.59	2.04	1.70	2.12	1.70	2.14	1.68	2.19	1.74	2.24	1.70

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
Lo	-19.8	-20	1.45	1.45	1.45	1.45	1.45
	-17.8	-18	1.55	1.55	1.55	1.55	1.55
	-15.7	-16	1.64	1.64	1.64	1.64	1.64
	-13.7	-14	1.73	1.73	1.73	1.73	1.73
	-11.7	-12	1.83	1.83	1.83	1.83	1.83
	-9.6	-10	1.92	1.92	1.92	1.92	1.92
	-7.5	-8	2.04	2.04	2.04	2.04	2.04
6	-5.5	-6	2.15	2.15	2.15	2.15	2.15
(m³/min)	-3.4	-4	2.23	2.23	2.22	2.20	2.18
	-1.3	-2	2.30	2.30	2.29	2.25	2.20
	0.8	0	2.43	2.39	2.36	2.28	2.19
	3.9	3	2.64	2.54	2.45	2.31	2.17
	7.0	6	2.88	2.69	2.50	2.33	2.15
	10.1	9	2.86	2.68	2.49	2.31	2.13
	13.2	12	2.84	2.66	2.48	2.30	2.12
	16.9	15.5	2.82	2.64	2.46	2.28	2.09

Notes(1) This data shows average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

PJF000Z513

Model **FDTC45KXZE1** Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			3.69	3.13	4.41	3.53	4.77	3.60	5.07	3.64	5.68	3.94	5.90	3.85
	12			3.69	3.13	4.41	3.53	4.77	3.60	5.07	3.64	5.66	3.93	5.88	3.84
	14			3.69	3.13	4.41	3.53	4.77	3.60	5.06	3.64	5.64	3.93	5.85	3.83
	16			3.69	3.13	4.41	3.53	4.77	3.60	5.05	3.64	5.62	3.92	5.83	3.82
	18			3.69	3.13	4.41	3.53	4.77	3.60	5.05	3.64	5.60	3.91	5.80	3.81
P-Hi	20			3.69	3.13	4.41	3.53	4.77	3.60	5.04	3.63	5.58	3.90	5.78	3.81
	22			3.68	3.12	4.41	3.53	4.77	3.60	5.02	3.63	5.51	3.88	5.70	3.78
12	24			3.68	3.12	4.41	3.53	4.77	3.60	4.99	3.61	5.44	3.85	5.62	3.75
(m³/min)	26			3.68	3.12	4.39	3.52	4.73	3.59	4.93	3.59	5.35	3.82	5.53	3.72
	28	3.33	3.09	3.67	3.12	4.37	3.52	4.68	3.57	4.88	3.57	5.27	3.79	5.44	3.69
	30	3.33	3.09	3.66	3.11	4.33	3.50	4.64	3.55	4.82	3.55	5.19	3.76	5.36	3.66
	32	3.33	3.09	3.65	3.11	4.30	3.49	4.59	3.53	4.76	3.52	5.11	3.73	5.28	3.63
	34	3.33	3.09	3.64	3.10	4.28	3.48	4.53	3.51	4.69	3.50	5.00	3.69	5.17	3.60
	35	3.33	3.09	3.64	3.10	4.28	3.48	4.50	3.50	4.65	3.48	4.95	3.67	5.12	3.58
	36	3.33	3.09	3.63	3.10	4.24	3.46	4.48	3.49	4.60	3.46	4.86	3.64	5.02	3.55
	38	3.33	3.09	3.62	3.10	4.18	3.44	4.43	3.47	4.52	3.43	4.68	3.58	4.82	3.48
	39	3.33	3.09	3.62	3.10	4.15	3.43	4.41	3.46	4.47	3.41	4.59	3.54	4.72	3.45
	41	3.33	3.09	3.61	3.09	4.02	3.37	4.23	3.39	4.28	3.34	4.39	3.48	4.50	3.38
	43	3.33	3.09	3.59	3.08	3.90	3.32	4.05	3.31	4.09	3.26	4.18	3.40	4.28	3.31

Heating mode (kW)

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	2.90	2.90	2.90	2.90	2.90
	-17.8	-18	3.09	3.09	3.09	3.09	3.09
	-15.7	-16	3.27	3.27	3.27	3.27	3.27
	-13.7	-14	3.46	3.46	3.46	3.46	3.46
	-11.7	-12	3.65	3.65	3.65	3.65	3.65
P-Hi	-9.6	-10	3.83	3.83	3.83	3.83	3.83
	-7.5	-8	4.07	4.07	4.07	4.07	4.07
12	-5.5	-6	4.30	4.30	4.30	4.30	4.30
(m³/min)	-3.4	-4	4.45	4.44	4.44	4.39	4.35
	-1.3	-2	4.60	4.59	4.58	4.49	4.40
	0.8	0	4.85	4.78	4.71	4.54	4.38
	3.9	3	5.26	5.08	4.89	4.61	4.34
	7.0	6	5.75	5.38	5.00	4.65	4.30
	10.1	9	5.71	5.35	4.98	4.62	4.26
	13.2	12	5.68	5.31	4.95	4.59	4.23
	16.9	15.5	5.63	5.27	4.91	4.54	4.18

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			3.22	2.67	3.85	3.01	4.16	3.08	4.43	3.12	4.96	3.37	5.15	3.29
	12			3.22	2.67	3.85	3.01	4.16	3.08	4.42	3.11	4.94	3.36	5.13	3.28
	14			3.22	2.67	3.85	3.01	4.16	3.08	4.42	3.11	4.93	3.36	5.11	3.27
	16			3.22	2.67	3.85	3.01	4.16	3.08	4.41	3.11	4.91	3.35	5.09	3.26
	18			3.22	2.67	3.85	3.01	4.16	3.08	4.41	3.11	4.89	3.34	5.06	3.25
Hi	20			3.22	2.67	3.85	3.01	4.16	3.08	4.40	3.10	4.87	3.34	5.04	3.25
	22			3.22	2.67	3.85	3.01	4.16	3.08	4.38	3.10	4.81	3.31	4.97	3.22
10	24			3.21	2.67	3.85	3.01	4.16	3.08	4.36	3.09	4.75	3.29	4.90	3.20
(m³/min)	26			3.21	2.67	3.83	3.01	4.12	3.06	4.31	3.07	4.67	3.26	4.83	3.18
	28	2.91	2.64	3.21	2.67	3.81	3.00	4.08	3.04	4.26	3.05	4.60	3.24	4.75	3.15
	30	2.91	2.64	3.20	2.66	3.78	2.98	4.05	3.03	4.21	3.03	4.53	3.21	4.68	3.13
	32	2.91	2.64	3.19	2.66	3.75	2.97	4.01	3.02	4.16	3.01	4.46	3.19	4.61	3.10
	34	2.91	2.64	3.18	2.65	3.74	2.97	3.95	2.99	4.09	2.98	4.36	3.15	4.52	3.07
	35	2.91	2.64	3.17	2.65	3.73	2.96	3.93	2.98	4.06	2.97	4.32	3.13	4.47	3.06
	36	2.91	2.64	3.17	2.65	3.70	2.95	3.91	2.97	4.02	2.95	4.24	3.11	4.38	3.03
	38	2.91	2.64	3.16	2.64	3.65	2.93	3.87	2.96	3.94	2.92	4.08	3.05	4.21	2.97
	39	2.91	2.64	3.16	2.64	3.62	2.92	3.85	2.95	3.90	2.91	4.01	3.02	4.12	2.94
	41	2.91	2.64	3.15	2.64	3.51	2.87	3.69	2.89	3.74	2.85	3.83	2.96	3.93	2.88
	43	2.91	2.64	3.14	2.64	3.40	2.83	3.53	2.82	3.57	2.78	3.65	2.90	3.73	2.82

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	2.48	2.48	2.48	2.48	2.48
	-17.8	-18	2.64	2.64	2.64	2.64	2.64
	-15.7	-16	2.80	2.80	2.80	2.80	2.80
	-13.7	-14	2.96	2.96	2.96	2.96	2.96
	-11.7	-12	3.12	3.12	3.12	3.12	3.12
Hi	-9.6	-10	3.28	3.28	3.28	3.28	3.28
	-7.5	-8	3.48	3.48	3.48	3.48	3.48
10	-5.5	-6	3.68	3.68	3.68	3.68	3.68
(m³/min)	-3.4	-4	3.81	3.80	3.79	3.76	3.72
	-1.3	-2	3.93	3.92	3.91	3.84	3.76
	0.8	0	4.15	4.09	4.03	3.89	3.74
	3.9	3	4.50	4.34	4.18	3.94	3.71
	7.0	6	4.92	4.60	4.28	3.98	3.68
	10.1	9	4.89	4.57	4.26	3.95	3.65
	13.2	12	4.85	4.54	4.23	3.92	3.61
	16.9	15.5	4.82	4.51	4.20	3.89	3.58

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			2.96	2.44	3.54	2.75	3.83	2.81	4.08	2.85	4.57	3.07	4.74	2.99
	12			2.96	2.44	3.54	2.75	3.83	2.81	4.07	2.85	4.55	3.06	4.72	2.98
	14			2.96	2.44	3.54	2.75	3.83	2.81	4.07	2.85	4.53	3.05	4.70	2.98
	16			2.96	2.44	3.54	2.75	3.83	2.81	4.06	2.84	4.52	3.05	4.68	2.97
	18			2.96	2.44	3.54	2.75	3.83	2.81	4.05	2.84	4.50	3.04	4.66	2.96
Me	20			2.96	2.44	3.54	2.75	3.83	2.81	4.05	2.84	4.48	3.04	4.64	2.95
	22			2.96	2.44	3.54	2.75	3.83	2.81	4.03	2.83	4.43	3.02	4.58	2.93
9	24			2.95	2.43	3.54	2.75	3.83	2.81	4.01	2.82	4.37	2.99	4.51	2.91
(m³/min)	26			2.95	2.43	3.52	2.75	3.80	2.80	3.96	2.80	4.30	2.97	4.44	2.89
	28	2.67	2.40	2.95	2.43	3.51	2.74	3.76	2.79	3.92	2.79	4.23	2.94	4.37	2.86
	30	2.67	2.40	2.94	2.43	3.48	2.73	3.72	2.77	3.87	2.77	4.17	2.92	4.31	2.84
	32	2.67	2.40	2.94	2.43	3.45	2.72	3.69	2.76	3.83	2.75	4.10	2.89	4.24	2.82
	34	2.67	2.40	2.93	2.42	3.44	2.71	3.64	2.74	3.76	2.72	4.02	2.86	4.16	2.79
	35	2.67	2.40	2.92	2.42	3.43	2.71	3.61	2.73	3.73	2.71	3.97	2.85	4.11	2.77
	36	2.67	2.40	2.92	2.42	3.41	2.70	3.60	2.72	3.70	2.70	3.90	2.82	4.03	2.75
	38	2.67	2.40	2.91	2.41	3.36	2.68	3.56	2.70	3.63	2.67	3.76	2.77	3.87	2.70
	39	2.67	2.40	2.91	2.41	3.33	2.67	3.54	2.70	3.59	2.66	3.69	2.75	3.79	2.67
	41	2.67	2.40	2.90	2.41	3.23	2.63	3.40	2.64	3.44	2.60	3.52	2.69	3.61	2.61
	43	2.67	2.40	2.89	2.40	3.13	2.58	3.25	2.58	3.29	2.54	3.36	2.63	3.44	2.56

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	2.26	2.26	2.26	2.26	2.26
	-17.8	-18	2.40	2.40	2.40	2.40	2.40
	-15.7	-16	2.55	2.55	2.55	2.55	2.55
	-13.7	-14	2.70	2.70	2.70	2.70	2.70
	-11.7	-12	2.84	2.84	2.84	2.84	2.84
Me	-9.6	-10	2.99	2.99	2.99	2.99	2.99
	-7.5	-8	3.17	3.17	3.17	3.17	3.17
9	-5.5	-6	3.35	3.35	3.35	3.35	3.35
(m³/min)	-3.4	-4	3.47	3.46	3.46	3.42	3.39
	-1.3	-2	3.58	3.57	3.56	3.50	3.43
	0.8	0	3.78	3.72	3.67	3.54	3.41
	3.9	3	4.10	3.95	3.81	3.59	3.38
	7.0	6	4.48	4.19	3.90	3.62	3.35
	10.1	9	4.45	4.17	3.88	3.60	3.32
	13.2	12	4.42	4.14	3.86	3.57	3.29
	16.9	15.5	4.39	4.10	3.82	3.54	3.26

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			2.40	1.94	2.87	2.19	3.11	2.25	3.31	2.28	3.71	2.46	3.85	2.39
	12			2.40	1.94	2.87	2.19	3.11	2.25	3.30	2.27	3.69	2.45	3.83	2.39
	14			2.40	1.94	2.87	2.19	3.11	2.25	3.30	2.27	3.68	2.45	3.81	2.38
	16			2.40	1.94	2.87	2.19	3.11	2.25	3.30	2.27	3.67	2.44	3.80	2.38
	18			2.40	1.94	2.87	2.19	3.11	2.25	3.29	2.27	3.65	2.44	3.78	2.37
Lo	20			2.40	1.94	2.87	2.19	3.11	2.25	3.29	2.27	3.64	2.43	3.77	2.37
	22			2.40	1.94	2.87	2.19	3.11	2.25	3.27	2.26	3.59	2.41	3.71	2.35
7	24			2.40	1.94	2.87	2.19	3.11	2.25	3.26	2.25	3.55	2.39	3.66	2.32
(m³/min)	26			2.40	1.94	2.86	2.19	3.08	2.23	3.22	2.24	3.49	2.37	3.61	2.31
	28	2.17	1.91	2.39	1.94	2.85	2.18	3.05	2.22	3.18	2.22	3.44	2.35	3.55	2.29
	30	2.17	1.91	2.39	1.94	2.82	2.17	3.02	2.21	3.14	2.21	3.38	2.33	3.50	2.27
	32	2.17	1.91	2.38	1.93	2.80	2.16	2.99	2.20	3.11	2.19	3.33	2.31	3.44	2.25
	34	2.17	1.91	2.37	1.93	2.79	2.16	2.95	2.18	3.06	2.17	3.26	2.29	3.37	2.22
	35	2.17	1.91	2.37	1.93	2.79	2.16	2.93	2.17	3.03	2.16	3.22	2.27	3.34	2.21
	36	2.17	1.91	2.37	1.93	2.77	2.15	2.92	2.17	3.00	2.15	3.17	2.25	3.27	2.19
	38	2.17	1.91	2.36	1.92	2.72	2.13	2.89	2.15	2.94	2.13	3.05	2.21	3.14	2.15
	39	2.17	1.91	2.36	1.92	2.70	2.12	2.88	2.15	2.91	2.11	2.99	2.19	3.08	2.13
	41	2.17	1.91	2.35	1.92	2.62	2.09	2.76	2.10	2.79	2.07	2.86	2.14	2.93	2.08
	43	2.17	1.91	2.34	1.91	2.54	2.05	2.64	2.05	2.67	2.02	2.73	2.09	2.79	2.03

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	1.80	1.80	1.80	1.80	1.80
	-17.8	-18	1.91	1.91	1.91	1.91	1.91
	-15.7	-16	2.03	2.03	2.03	2.03	2.03
	-13.7	-14	2.14	2.14	2.14	2.14	2.14
	-11.7	-12	2.26	2.26	2.26	2.26	2.26
Lo	-9.6	-10	2.37	2.37	2.37	2.37	2.37
	-7.5	-8	2.52	2.52	2.52	2.52	2.52
7	-5.5	-6	2.66	2.66	2.66	2.66	2.66
(m³/min)	-3.4	-4	2.75	2.75	2.75	2.72	2.69
	-1.3	-2	2.85	2.84	2.83	2.78	2.72
	0.8	0	3.00	2.96	2.92	2.81	2.71
	3.9	3	3.26	3.14	3.03	2.85	2.68
	7.0	6	3.56	3.33	3.09	2.88	2.66
	10.1	9	3.54	3.31	3.08	2.86	2.64
	13.2	12	3.51	3.29	3.06	2.84	2.62
	16.9	15.5	3.49	3.26	3.04	2.81	2.59

Notes(1) This data shows average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

PJF000Z513

Model **FDTC56KXZE1** Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			4.59	3.76	5.49	4.26	5.94	4.35	6.32	4.41	7.07	4.76	7.35	4.64
	12			4.59	3.76	5.49	4.26	5.94	4.35	6.31	4.41	7.05	4.75	7.31	4.63
	14			4.59	3.76	5.49	4.26	5.94	4.35	6.30	4.40	7.02	4.74	7.28	4.62
	16			4.59	3.76	5.49	4.26	5.94	4.35	6.29	4.39	7.00	4.73	7.25	4.61
	18			4.59	3.76	5.49	4.26	5.94	4.35	6.28	4.39	6.97	4.72	7.22	4.60
P-Hi	20			4.59	3.76	5.49	4.26	5.94	4.35	6.27	4.38	6.95	4.71	7.19	4.58
	22			4.58	3.76	5.49	4.26	5.94	4.35	6.24	4.37	6.86	4.68	7.09	4.55
14	24			4.58	3.76	5.48	4.25	5.94	4.35	6.21	4.36	6.77	4.65	6.99	4.51
(m³/min)	26			4.57	3.75	5.46	4.25	5.88	4.33	6.14	4.33	6.66	4.60	6.88	4.47
	28	4.14	3.71	4.57	3.75	5.43	4.23	5.82	4.30	6.07	4.30	6.56	4.56	6.78	4.44
	30	4.14	3.71	4.56	3.75	5.39	4.22	5.77	4.28	6.00	4.28	6.46	4.52	6.67	4.40
	32	4.14	3.71	4.55	3.74	5.35	4.20	5.71	4.26	5.93	4.25	6.36	4.49	6.57	4.37
	34	4.14	3.71	4.53	3.74	5.33	4.19	5.64	4.23	5.83	4.21	6.22	4.44	6.44	4.33
	35	4.14	3.71	4.52	3.73	5.32	4.19	5.60	4.21	5.79	4.20	6.16	4.41	6.37	4.30
	36	4.14	3.71	4.52	3.73	5.28	4.17	5.57	4.20	5.73	4.17	6.05	4.37	6.25	4.26
	38	4.14	3.71	4.51	3.73	5.20	4.14	5.52	4.18	5.62	4.13	5.82	4.29	6.00	4.18
	39	4.14	3.71	4.50	3.72	5.16	4.12	5.49	4.17	5.56	4.11	5.71	4.25	5.87	4.14
	41	4.14	3.71	4.49	3.72	5.00	4.05	5.26	4.07	5.33	4.02	5.46	4.16	5.60	4.05
	43	4.14	3.71	4.47	3.71	4.85	3.99	5.04	3.98	5.10	3.92	5.21	4.07	5.32	3.96

Heating mode (kW)

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	3.65	3.65	3.65	3.65	3.65
	-17.8	-18	3.89	3.89	3.89	3.89	3.89
	-15.7	-16	4.12	4.12	4.12	4.12	4.12
	-13.7	-14	4.36	4.36	4.36	4.36	4.36
	-11.7	-12	4.59	4.59	4.59	4.59	4.59
P-Hi	-9.6	-10	4.83	4.83	4.83	4.83	4.83
	-7.5	-8	5.12	5.12	5.12	5.12	5.12
14	-5.5	-6	5.42	5.42	5.42	5.42	5.42
(m³/min)	-3.4	-4	5.61	5.60	5.59	5.54	5.48
	-1.3	-2	5.80	5.78	5.76	5.65	5.54
	0.8	0	6.11	6.02	5.94	5.73	5.51
	3.9	3	6.63	6.39	6.16	5.81	5.47
	7.0	6	7.25	6.77	6.30	5.86	5.42
	10.1	9	7.20	6.74	6.28	5.82	5.37
	13.2	12	7.15	6.69	6.24	5.78	5.32
	16.9	15.5	7.10	6.64	6.18	5.73	5.27

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			4.12	3.31	4.92	3.75	5.33	3.84	5.67	3.89	6.35	4.20	6.59	4.08
	12			4.12	3.31	4.92	3.75	5.33	3.84	5.66	3.89	6.33	4.19	6.56	4.07
	14			4.12	3.31	4.92	3.75	5.33	3.84	5.65	3.88	6.30	4.18	6.53	4.06
	16			4.12	3.31	4.92	3.75	5.33	3.84	5.64	3.88	6.28	4.17	6.51	4.06
	18			4.12	3.31	4.92	3.75	5.33	3.84	5.64	3.88	6.26	4.16	6.48	4.05
Hi	20			4.12	3.31	4.92	3.75	5.33	3.84	5.63	3.87	6.23	4.15	6.45	4.03
	22			4.11	3.31	4.92	3.75	5.33	3.84	5.60	3.86	6.15	4.12	6.36	4.00
12	24			4.11	3.31	4.92	3.75	5.33	3.84	5.58	3.85	6.08	4.09	6.27	3.97
(m³/min)	26			4.10	3.31	4.90	3.74	5.28	3.81	5.51	3.83	5.98	4.05	6.18	3.94
	28	3.72	3.27	4.10	3.31	4.87	3.73	5.23	3.79	5.45	3.80	5.88	4.02	6.08	3.91
	30	3.72	3.27	4.09	3.30	4.84	3.71	5.18	3.77	5.38	3.77	5.79	3.98	5.99	3.88
	32	3.72	3.27	4.08	3.30	4.80	3.70	5.13	3.75	5.32	3.74	5.70	3.95	5.90	3.85
	34	3.72	3.27	4.07	3.29	4.78	3.69	5.06	3.72	5.23	3.71	5.58	3.90	5.78	3.81
	35	3.72	3.27	4.06	3.29	4.77	3.68	5.03	3.71	5.19	3.69	5.52	3.88	5.72	3.79
	36	3.72	3.27	4.06	3.29	4.74	3.67	5.00	3.70	5.14	3.67	5.42	3.85	5.60	3.75
	38	3.72	3.27	4.05	3.28	4.67	3.64	4.95	3.68	5.04	3.63	5.23	3.77	5.38	3.67
	39	3.72	3.27	4.04	3.28	4.63	3.62	4.92	3.67	4.99	3.61	5.13	3.73	5.27	3.63
	41	3.72	3.27	4.03	3.28	4.49	3.57	4.72	3.58	4.78	3.53	4.90	3.65	5.02	3.55
	43	3.72	3.27	4.01	3.27	4.35	3.51	4.52	3.50	4.57	3.45	4.67	3.57	4.78	3.47

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	3.22	3.22	3.22	3.22	3.22
	-17.8	-18	3.43	3.43	3.43	3.43	3.43
	-15.7	-16	3.63	3.63	3.63	3.63	3.63
	-13.7	-14	3.84	3.84	3.84	3.84	3.84
	-11.7	-12	4.05	4.05	4.05	4.05	4.05
Hi	-9.6	-10	4.26	4.26	4.26	4.26	4.26
	-7.5	-8	4.52	4.52	4.52	4.52	4.52
12	-5.5	-6	4.77	4.77	4.77	4.77	4.77
(m³/min)	-3.4	-4	4.94	4.93	4.93	4.88	4.83
	-1.3	-2	5.11	5.09	5.08	4.98	4.89
	0.8	0	5.39	5.31	5.23	5.05	4.86
	3.9	3	5.84	5.63	5.43	5.12	4.82
	7.0	6	6.38	5.97	5.55	5.16	4.77
	10.1	9	6.34	5.94	5.53	5.13	4.73
	13.2	12	6.30	5.90	5.50	5.09	4.69
	16.9	15.5	6.25	5.85	5.45	5.05	4.64

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			3.60	2.84	4.30	3.21	4.65	3.29	4.95	3.34	5.54	3.59	5.75	3.50
	12			3.60	2.84	4.30	3.21	4.65	3.29	4.94	3.33	5.52	3.59	5.73	3.49
	14			3.60	2.84	4.30	3.21	4.65	3.29	4.93	3.33	5.50	3.58	5.70	3.48
	16			3.60	2.84	4.30	3.21	4.65	3.29	4.93	3.33	5.48	3.57	5.68	3.47
	18			3.60	2.84	4.30	3.21	4.65	3.29	4.92	3.33	5.46	3.56	5.65	3.46
Me	20			3.60	2.84	4.30	3.21	4.65	3.29	4.91	3.32	5.44	3.55	5.63	3.45
	22			3.59	2.84	4.30	3.21	4.65	3.29	4.89	3.31	5.37	3.53	5.55	3.43
10	24			3.59	2.84	4.29	3.20	4.65	3.29	4.87	3.30	5.30	3.50	5.48	3.40
(m³/min)	26			3.58	2.84	4.27	3.19	4.61	3.27	4.81	3.28	5.22	3.47	5.39	3.37
	28	3.25	2.80	3.58	2.84	4.25	3.19	4.56	3.25	4.75	3.26	5.14	3.44	5.31	3.34
	30	3.25	2.80	3.57	2.83	4.22	3.17	4.52	3.24	4.70	3.23	5.06	3.41	5.23	3.31
	32	3.25	2.80	3.56	2.83	4.19	3.16	4.47	3.21	4.64	3.20	4.98	3.38	5.15	3.29
	34	3.25	2.80	3.55	2.82	4.17	3.15	4.42	3.18	4.57	3.17	4.87	3.34	5.04	3.25
	35	3.25	2.80	3.54	2.82	4.17	3.15	4.39	3.17	4.53	3.16	4.82	3.32	4.99	3.23
	36	3.25	2.80	3.54	2.82	4.14	3.14	4.36	3.16	4.49	3.14	4.74	3.29	4.89	3.20
	38	3.25	2.80	3.53	2.81	4.07	3.11	4.32	3.14	4.40	3.10	4.56	3.22	4.70	3.13
	39	3.25	2.80	3.53	2.81	4.04	3.09	4.30	3.13	4.36	3.09	4.48	3.19	4.60	3.10
	41	3.25	2.80	3.51	2.80	3.92	3.04	4.12	3.06	4.17	3.01	4.28	3.12	4.39	3.03
	43	3.25	2.80	3.50	2.80	3.80	2.99	3.95	2.99	3.99	2.94	4.08	3.05	4.17	2.96

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	2.75	2.75	2.75	2.75	2.75
	-17.8	-18	2.93	2.93	2.93	2.93	2.93
	-15.7	-16	3.11	3.11	3.11	3.11	3.11
	-13.7	-14	3.29	3.29	3.29	3.29	3.29
	-11.7	-12	3.46	3.46	3.46	3.46	3.46
Me	-9.6	-10	3.64	3.64	3.64	3.64	3.64
	-7.5	-8	3.86	3.86	3.86	3.86	3.86
10	-5.5	-6	4.08	4.08	4.08	4.08	4.08
(m³/min)	-3.4	-4	4.23	4.22	4.21	4.17	4.13
	-1.3	-2	4.37	4.36	4.34	4.26	4.18
	0.8	0	4.61	4.54	4.47	4.31	4.15
	3.9	3	5.00	4.82	4.64	4.38	4.12
	7.0	6	5.46	5.10	4.75	4.42	4.08
	10.1	9	5.42	5.08	4.73	4.39	4.05
	13.2	12	5.39	5.04	4.70	4.36	4.01
	16.9	15.5	5.35	5.00	4.66	4.31	3.97

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			3.01	2.34	3.59	2.64	3.89	2.71	4.14	2.75	4.63	2.96	4.81	2.88
	12			3.01	2.34	3.59	2.64	3.89	2.71	4.13	2.75	4.62	2.96	4.79	2.88
	14			3.01	2.34	3.59	2.64	3.89	2.71	4.12	2.74	4.60	2.95	4.77	2.87
	16			3.01	2.34	3.59	2.64	3.89	2.71	4.12	2.74	4.58	2.94	4.75	2.86
	18			3.01	2.34	3.59	2.64	3.89	2.71	4.11	2.74	4.57	2.94	4.73	2.85
Lo	20			3.01	2.34	3.59	2.64	3.89	2.71	4.11	2.74	4.55	2.93	4.71	2.85
	22			3.00	2.33	3.59	2.64	3.89	2.71	4.09	2.73	4.49	2.91	4.64	2.82
8	24			3.00	2.33	3.59	2.64	3.89	2.71	4.07	2.72	4.43	2.88	4.58	2.80
(m³/min)	26			2.99	2.33	3.57	2.63	3.85	2.69	4.02	2.70	4.36	2.85	4.51	2.77
	28	2.71	2.29	2.99	2.33	3.56	2.63	3.81	2.68	3.97	2.68	4.29	2.83	4.44	2.75
	30	2.71	2.29	2.99	2.33	3.53	2.61	3.78	2.66	3.93	2.66	4.23	2.80	4.37	2.72
	32	2.71	2.29	2.98	2.32	3.50	2.60	3.74	2.65	3.88	2.64	4.16	2.78	4.30	2.70
	34	2.71	2.29	2.97	2.32	3.49	2.60	3.69	2.62	3.82	2.62	4.07	2.74	4.22	2.67
	35	2.71	2.29	2.96	2.31	3.48	2.59	3.67	2.61	3.79	2.60	4.03	2.73	4.17	2.65
	36	2.71	2.29	2.96	2.31	3.46	2.58	3.65	2.61	3.75	2.59	3.96	2.70	4.09	2.63
	38	2.71	2.29	2.95	2.31	3.40	2.56	3.61	2.59	3.68	2.56	3.81	2.64	3.93	2.56
	39	2.71	2.29	2.95	2.31	3.38	2.55	3.59	2.58	3.64	2.54	3.74	2.62	3.85	2.53
	41	2.71	2.29	2.94	2.30	3.28	2.50	3.45	2.52	3.49	2.48	3.58	2.55	3.67	2.47
	43	2.71	2.29	2.93	2.30	3.18	2.46	3.30	2.46	3.34	2.42	3.41	2.49	3.49	2.41

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	2.25	2.25	2.25	2.25	2.25
	-17.8	-18	2.40	2.40	2.40	2.40	2.40
	-15.7	-16	2.55	2.55	2.55	2.55	2.55
	-13.7	-14	2.69	2.69	2.69	2.69	2.69
	-11.7	-12	2.84	2.84	2.84	2.84	2.84
Lo	-9.6	-10	2.98	2.98	2.98	2.98	2.98
	-7.5	-8	3.16	3.16	3.16	3.16	3.16
8	-5.5	-6	3.34	3.34	3.34	3.34	3.34
(m³/min)	-3.4	-4	3.46	3.46	3.45	3.42	3.38
	-1.3	-2	3.58	3.57	3.56	3.49	3.42
	0.8	0	3.77	3.72	3.66	3.53	3.40
	3.9	3	4.09	3.95	3.80	3.59	3.37
	7.0	6	4.47	4.18	3.89	3.62	3.34
	10.1	9	4.44	4.16	3.87	3.59	3.31
	13.2	12	4.41	4.13	3.85	3.57	3.28
	16.9	15.5	4.38	4.10	3.81	3.53	3.25

Notes(1) This data shows average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

PJF000Z513

(3) Ceiling cassette-2 way type (FDTW)

Model FDTW28KXE6F Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			2.30	2.06	2.74	2.32	2.97	2.35	3.16	2.40	3.54	2.59	3.67	2.52
	12			2.30	2.06	2.74	2.32	2.97	2.35	3.15	2.39	3.52	2.59	3.66	2.51
	14			2.30	2.06	2.74	2.32	2.97	2.35	3.15	2.39	3.51	2.56	3.64	2.51
	16			2.30	2.06	2.74	2.32	2.97	2.35	3.14	2.39	3.50	2.56	3.63	2.51
	18			2.30	2.06	2.74	2.32	2.97	2.35	3.14	2.39	3.49	2.56	3.61	2.50
P-Hi	20			2.30	2.06	2.74	2.32	2.97	2.35	3.14	2.39	3.47	2.55	3.59	2.50
	22			2.29	2.06	2.74	2.32	2.97	2.35	3.12	2.38	3.43	2.54	3.54	2.49
14.5	24			2.29	2.06	2.74	2.32	2.97	2.35	3.11	2.38	3.39	2.53	3.50	2.48
(m³/min)	26			2.29	2.06	2.73	2.32	2.94	2.35	3.07	2.34	3.33	2.52	3.44	2.46
	28	2.07	1.99	2.28	2.05	2.72	2.31	2.91	2.34	3.03	2.33	3.28	2.50	3.39	2.44
	30	2.07	1.99	2.28	2.05	2.70	2.31	2.88	2.33	3.00	2.32	3.23	2.48	3.34	2.42
	32	2.07	1.99	2.27	2.04	2.67	2.29	2.86	2.32	2.96	2.31	3.18	2.47	3.29	2.41
	34	2.07	1.99	2.27	2.04	2.66	2.29	2.82	2.31	2.92	2.30	3.11	2.44	3.22	2.39
	35	2.07	1.99	2.26	2.04	2.66	2.29	2.80	2.30	2.89	2.30	3.08	2.43	3.18	2.37
	36	2.07	1.99	2.26	2.04	2.64	2.28	2.79	2.30	2.86	2.28	3.02	2.41	3.12	2.36
	38	2.07	1.99	2.25	2.04	2.60	2.27	2.76	2.29	2.81	2.27	2.91	2.37	3.00	2.31
	39	2.07	1.99	2.25	2.04	2.58	2.25	2.74	2.28	2.78	2.25	2.86	2.36	2.94	2.27
	41	2.07	1.99	2.24	2.03	2.50	2.22	2.63	2.23	2.66	2.21	2.73	2.29	2.80	2.24
	43	2.07	1.99	2.24	2.03	2.43	2.19	2.52	2.20	2.55	2.16	2.60	2.26	2.66	2.21

Heating mode (kW)

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	1.86	1.86	1.86	1.86	1.86
	-17.8	-18	1.98	1.98	1.98	1.98	1.98
	-15.7	-16	2.09	2.09	2.09	2.09	2.09
	-13.7	-14	2.21	2.21	2.21	2.21	2.21
	-11.7	-12	2.33	2.33	2.33	2.33	2.33
P-Hi	-9.6	-10	2.45	2.45	2.45	2.45	2.45
	-7.5	-8	2.60	2.60	2.60	2.60	2.60
14.5	-5.5	-6	2.75	2.75	2.75	2.75	2.75
(m³/min)	-3.4	-4	2.85	2.84	2.84	2.81	2.78
	-1.3	-2	2.94	2.94	2.93	2.87	2.82
	0.8	0	3.10	3.06	3.02	2.91	2.80
	3.9	3	3.37	3.25	3.13	2.95	2.78
	7.0	6	3.68	3.44	3.20	2.98	2.75
	10.1	9	3.66	3.42	3.19	2.96	2.73
	13.2	12	3.63	3.40	3.17	2.94	2.70
	16.9	15.5	3.60	3.37	3.14	2.91	2.68

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			2.04	1.80	2.44	2.03	2.64	2.06	2.81	2.10	3.15	2.27	3.27	2.22
	12			2.04	1.80	2.44	2.03	2.64	2.06	2.80	2.09	3.13	2.26	3.25	2.21
	14			2.04	1.80	2.44	2.03	2.64	2.06	2.80	2.09	3.12	2.26	3.24	2.21
	16			2.04	1.80	2.44	2.03	2.64	2.06	2.80	2.09	3.11	2.26	3.22	2.20
	18			2.04	1.80	2.44	2.03	2.64	2.06	2.79	2.09	3.10	2.26	3.21	2.20
Hi	20			2.04	1.80	2.44	2.03	2.64	2.06	2.79	2.09	3.09	2.25	3.20	2.19
	22			2.04	1.80	2.44	2.03	2.64	2.06	2.78	2.09	3.05	2.24	3.15	2.16
12	24			2.04	1.80	2.44	2.03	2.64	2.06	2.76	2.06	3.01	2.22	3.11	2.15
(m³/min)	26			2.03	1.79	2.43	2.03	2.62	2.06	2.73	2.05	2.96	2.19	3.06	2.14
	28	1.84	1.77	2.03	1.79	2.42	2.03	2.59	2.05	2.70	2.05	2.92	2.18	3.01	2.13
	30	1.84	1.77	2.03	1.79	2.40	2.01	2.57	2.04	2.67	2.04	2.87	2.17	2.97	2.11
	32	1.84	1.77	2.02	1.79	2.38	2.01	2.54	2.03	2.64	2.03	2.83	2.16	2.92	2.11
	34	1.84	1.77	2.02	1.79	2.37	2.00	2.51	2.02	2.59	2.01	2.77	2.13	2.86	2.08
	35	1.84	1.77	2.01	1.79	2.37	2.00	2.49	2.01	2.57	2.00	2.74	2.12	2.83	2.07
	36	1.84	1.77	2.01	1.79	2.35	2.00	2.48	2.01	2.55	2.00	2.69	2.10	2.78	2.06
	38	1.84	1.77	2.00	1.78	2.31	1.98	2.45	2.00	2.50	1.98	2.59	2.07	2.67	2.02
	39	1.84	1.77	2.00	1.78	2.29	1.97	2.44	1.99	2.47	1.96	2.54	2.05	2.61	2.00
	41	1.84	1.77	2.00	1.78	2.23	1.95	2.34	1.95	2.37	1.93	2.43	2.02	2.49	1.94
	43	1.84	1.77	1.99	1.78	2.16	1.92	2.24	1.92	2.27	1.89	2.32	1.96	2.37	1.92

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	1.63	1.63	1.63	1.63	1.63
	-17.8	-18	1.73	1.73	1.73	1.73	1.73
	-15.7	-16	1.84	1.84	1.84	1.84	1.84
	-13.7	-14	1.94	1.94	1.94	1.94	1.94
	-11.7	-12	2.05	2.05	2.05	2.05	2.05
Hi	-9.6	-10	2.15	2.15	2.15	2.15	2.15
	-7.5	-8	2.29	2.29	2.29	2.29	2.29
12	-5.5	-6	2.42	2.42	2.42	2.42	2.42
(m³/min)	-3.4	-4	2.50	2.50	2.49	2.47	2.45
	-1.3	-2	2.59	2.58	2.57	2.52	2.47
	0.8	0	2.73	2.69	2.65	2.55	2.46
	3.9	3	2.96	2.85	2.75	2.59	2.44
	7.0	6	3.23	3.02	2.81	2.61	2.42
	10.1	9	3.21	3.01	2.80	2.60	2.40
	13.2	12	3.19	2.99	2.78	2.58	2.37
	16.9	15.5	3.17	2.96	2.76	2.55	2.35

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			1.81	1.57	2.17	1.78	2.34	1.82	2.49	1.83	2.79	1.99	2.90	1.94
	12			1.81	1.57	2.17	1.78	2.34	1.82	2.49	1.83	2.78	1.98	2.89	1.94
	14			1.81	1.57	2.17	1.78	2.34	1.82	2.49	1.83	2.77	1.98	2.87	1.93
	16			1.81	1.57	2.17	1.78	2.34	1.82	2.48	1.82	2.76	1.97	2.86	1.93
	18			1.81	1.57	2.17	1.78	2.34	1.82	2.48	1.82	2.75	1.97	2.85	1.93
Me	20			1.81	1.57	2.17	1.78	2.34	1.82	2.47	1.82	2.74	1.97	2.84	1.92
	22			1.81	1.57	2.16	1.78	2.34	1.82	2.46	1.82	2.71	1.96	2.80	1.89
10	24			1.81	1.57	2.16	1.78	2.34	1.82	2.45	1.82	2.67	1.94	2.76	1.88
(m³/min)	26			1.80	1.57	2.15	1.77	2.32	1.81	2.42	1.81	2.63	1.91	2.72	1.87
	28	1.64	1.55	1.80	1.57	2.14	1.77	2.30	1.80	2.39	1.79	2.59	1.90	2.67	1.86
	30	1.64	1.55	1.80	1.57	2.13	1.76	2.28	1.79	2.37	1.79	2.55	1.89	2.63	1.85
	32	1.64	1.55	1.79	1.56	2.11	1.76	2.25	1.78	2.34	1.78	2.51	1.88	2.59	1.84
	34	1.64	1.55	1.79	1.56	2.10	1.75	2.22	1.77	2.30	1.76	2.46	1.87	2.54	1.82
	35	1.64	1.55	1.79	1.56	2.10	1.75	2.21	1.76	2.28	1.75	2.43	1.86	2.51	1.81
	36	1.64	1.55	1.78	1.56	2.08	1.74	2.20	1.76	2.26	1.75	2.39	1.84	2.46	1.80
	38	1.64	1.55	1.78	1.56	2.05	1.73	2.18	1.75	2.22	1.73	2.30	1.81	2.37	1.76
	39	1.64	1.55	1.78	1.56	2.04	1.73	2.17	1.75	2.19	1.72	2.25	1.79	2.32	1.75
	41	1.64	1.55	1.77	1.55	1.97	1.70	2.08	1.71	2.10	1.69	2.15	1.76	2.21	1.70
	43	1.64	1.55	1.76	1.55	1.91	1.66	1.99	1.68	2.01	1.64	2.05	1.71	2.10	1.67

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	1.43	1.43	1.43	1.43	1.43
	-17.8	-18	1.52	1.52	1.52	1.52	1.52
	-15.7	-16	1.61	1.61	1.61	1.61	1.61
	-13.7	-14	1.71	1.71	1.71	1.71	1.71
	-11.7	-12	1.80	1.80	1.80	1.80	1.80
Me	-9.6	-10	1.89	1.89	1.89	1.89	1.89
	-7.5	-8	2.01	2.01	2.01	2.01	2.01
10	-5.5	-6	2.12	2.12	2.12	2.12	2.12
(m³/min)	-3.4	-4	2.19	2.19	2.19	2.17	2.15
	-1.3	-2	2.27	2.26	2.26	2.21	2.17
	0.8	0	2.39	2.36	2.32	2.24	2.16
	3.9	3	2.60	2.50	2.41	2.28	2.14
	7.0	6	2.84	2.65	2.47	2.29	2.12
	10.1	9	2.82	2.64	2.46	2.28	2.10
	13.2	12	2.80	2.62	2.44	2.26	2.08
	16.9	15.5	2.78	2.60	2.42	2.24	2.06

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			1.68	1.45	2.01	1.64	2.18	1.68	2.32	1.69	2.60	1.84	2.69	1.79
	12			1.68	1.45	2.01	1.64	2.18	1.68	2.31	1.69	2.59	1.84	2.68	1.79
	14			1.68	1.45	2.01	1.64	2.18	1.68	2.31	1.69	2.58	1.83	2.67	1.78
	16			1.68	1.45	2.01	1.64	2.18	1.68	2.31	1.69	2.57	1.83	2.66	1.78
	18			1.68	1.45	2.01	1.64	2.18	1.68	2.30	1.69	2.56	1.82	2.65	1.77
Lo	20			1.68	1.45	2.01	1.64	2.18	1.68	2.30	1.69	2.55	1.82	2.64	1.77
	22			1.68	1.45	2.01	1.64	2.18	1.68	2.29	1.68	2.52	1.81	2.60	1.76
9	24			1.68	1.45	2.01	1.64	2.18	1.68	2.28	1.68	2.48	1.79	2.56	1.73
(m³/min)	26			1.68	1.45	2.00	1.64	2.16	1.67	2.25	1.67	2.44	1.78	2.53	1.73
	28	1.52	1.43	1.68	1.45	1.99	1.63	2.14	1.66	2.23	1.66	2.41	1.75	2.49	1.72
	30	1.52	1.43	1.67	1.45	1.98	1.63	2.12	1.65	2.20	1.65	2.37	1.74	2.45	1.71
	32	1.52	1.43	1.67	1.45	1.96	1.62	2.10	1.64	2.17	1.64	2.33	1.73	2.41	1.69
	34	1.52	1.43	1.66	1.44	1.96	1.62	2.07	1.63	2.14	1.63	2.28	1.72	2.36	1.68
	35	1.52	1.43	1.66	1.44	1.95	1.62	2.05	1.63	2.12	1.62	2.26	1.71	2.34	1.67
	36	1.52	1.43	1.66	1.44	1.94	1.61	2.04	1.62	2.10	1.61	2.22	1.70	2.29	1.66
	38	1.52	1.43	1.65	1.44	1.91	1.60	2.02	1.61	2.06	1.59	2.14	1.67	2.20	1.62
	39	1.52	1.43	1.65	1.44	1.89	1.59	2.01	1.61	2.04	1.59	2.10	1.66	2.16	1.62
	41	1.52	1.43	1.65	1.44	1.84	1.57	1.93	1.58	1.96	1.56	2.00	1.62	2.05	1.58
	43	1.52	1.43	1.64	1.43	1.78	1.54	1.85	1.53	1.87	1.52	1.91	1.58	1.95	1.54

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	1.32	1.32	1.32	1.32	1.32
	-17.8	-18	1.41	1.41	1.41	1.41	1.41
	-15.7	-16	1.49	1.49	1.49	1.49	1.49
	-13.7	-14	1.58	1.58	1.58	1.58	1.58
	-11.7	-12	1.66	1.66	1.66	1.66	1.66
Lo	-9.6	-10	1.75	1.75	1.75	1.75	1.75
	-7.5	-8	1.86	1.86	1.86	1.86	1.86
9	-5.5	-6	1.96	1.96	1.96	1.96	1.96
(m³/min)	-3.4	-4	2.03	2.03	2.03	2.01	1.99
	-1.3	-2	2.10	2.09	2.09	2.05	2.01
	0.8	0	2.21	2.18	2.15	2.07	2.00
	3.9	3	2.40	2.32	2.23	2.11	1.98
	7.0	6	2.62	2.45	2.28	2.12	1.96
	10.1	9	2.61	2.44	2.27	2.11	1.95
	13.2	12	2.59	2.43	2.26	2.09	1.93
	16.9	15.5	2.57	2.41	2.24	2.07	1.91

Notes (1) This data shows average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

PJB001Z731

Model **FDTW45KXE6F** Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			3.69	3.00	4.41	3.39	4.77	3.46	5.07	3.51	5.68	3.78	5.90	3.70
	12			3.69	3.00	4.41	3.39	4.77	3.46	5.07	3.51	5.66	3.78	5.88	3.69
	14			3.69	3.00	4.41	3.39	4.77	3.46	5.06	3.51	5.64	3.77	5.85	3.68
	16			3.69	3.00	4.41	3.39	4.77	3.46	5.05	3.51	5.62	3.76	5.83	3.68
	18			3.69	3.00	4.41	3.39	4.77	3.46	5.05	3.51	5.60	3.76	5.80	3.67
P-Hi	20			3.69	3.00	4.41	3.39	4.77	3.46	5.04	3.50	5.58	3.75	5.78	3.66
	22			3.68	3.00	4.41	3.39	4.77	3.46	5.02	3.50	5.51	3.73	5.70	3.64
14.5	24			3.68	3.00	4.41	3.39	4.77	3.46	4.99	3.48	5.44	3.70	5.62	3.61
(m³/min)	26			3.68	3.00	4.39	3.39	4.73	3.45	4.93	3.45	5.35	3.67	5.53	3.58
	28	3.33	2.96	3.67	2.99	4.37	3.38	4.68	3.43	4.88	3.43	5.27	3.64	5.44	3.54
	30	3.33	2.96	3.66	2.99	4.33	3.36	4.64	3.42	4.82	3.41	5.19	3.61	5.36	3.51
	32	3.33	2.96	3.65	2.99	4.30	3.35	4.59	3.40	4.76	3.39	5.11	3.58	5.28	3.49
	34	3.33	2.96	3.64	2.98	4.28	3.34	4.53	3.37	4.69	3.36	5.00	3.54	5.17	3.45
	35	3.33	2.96	3.64	2.98	4.28	3.34	4.50	3.36	4.65	3.35	4.95	3.52	5.12	3.41
	36	3.33	2.96	3.63	2.98	4.24	3.32	4.48	3.35	4.60	3.33	4.86	3.49	5.02	3.38
	38	3.33	2.96	3.62	2.97	4.18	3.30	4.43	3.33	4.52	3.29	4.68	3.41	4.82	3.33
	39	3.33	2.96	3.62	2.97	4.15	3.28	4.41	3.32	4.47	3.28	4.59	3.39	4.72	3.30
	41	3.33	2.96	3.61	2.96	4.02	3.23	4.23	3.25	4.28	3.20	4.39	3.32	4.50	3.23
	43	3.33	2.96	3.59	2.96	3.90	3.18	4.05	3.18	4.09	3.13	4.18	3.24	4.28	3.15

Heating mode (kW)

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	2.90	2.90	2.90	2.90	2.90
	-17.8	-18	3.09	3.09	3.09	3.09	3.09
	-15.7	-16	3.27	3.27	3.27	3.27	3.27
	-13.7	-14	3.46	3.46	3.46	3.46	3.46
	-11.7	-12	3.65	3.65	3.65	3.65	3.65
P-Hi	-9.6	-10	3.83	3.83	3.83	3.83	3.83
	-7.5	-8	4.07	4.07	4.07	4.07	4.07
14.5	-5.5	-6	4.30	4.30	4.30	4.30	4.30
(m³/min)	-3.4	-4	4.45	4.44	4.44	4.39	4.35
	-1.3	-2	4.60	4.59	4.58	4.49	4.40
	0.8	0	4.85	4.78	4.71	4.54	4.38
	3.9	3	5.26	5.08	4.89	4.61	4.34
	7.0	6	5.75	5.38	5.00	4.65	4.30
	10.1	9	5.71	5.35	4.98	4.62	4.26
	13.2	12	5.68	5.31	4.95	4.59	4.23
	16.9	15.5	5.63	5.27	4.91	4.54	4.18

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			3.20	2.57	3.82	2.90	4.14	2.98	4.40	3.02	4.93	3.26	5.12	3.18
	12			3.20	2.57	3.82	2.90	4.14	2.98	4.40	3.02	4.91	3.25	5.10	3.16
	14			3.20	2.57	3.82	2.90	4.14	2.98	4.39	3.02	4.90	3.25	5.08	3.16
	16			3.20	2.57	3.82	2.90	4.14	2.98	4.38	3.01	4.88	3.24	5.05	3.15
	18			3.20	2.57	3.82	2.90	4.14	2.98	4.38	3.01	4.86	3.23	5.03	3.14
Hi	20			3.20	2.57	3.82	2.90	4.14	2.98	4.37	3.00	4.84	3.22	5.01	3.13
	22			3.19	2.56	3.82	2.90	4.14	2.98	4.35	3.00	4.78	3.20	4.94	3.10
12	24			3.19	2.56	3.82	2.90	4.14	2.98	4.33	2.99	4.72	3.18	4.87	3.08
(m³/min)	26			3.19	2.56	3.80	2.90	4.10	2.96	4.28	2.97	4.64	3.13	4.80	3.06
	28	2.89	2.53	3.19	2.56	3.79	2.89	4.06	2.94	4.23	2.95	4.57	3.11	4.72	3.03
	30	2.89	2.53	3.18	2.56	3.76	2.88	4.02	2.92	4.18	2.93	4.50	3.09	4.65	3.01
	32	2.89	2.53	3.17	2.56	3.73	2.87	3.98	2.90	4.13	2.89	4.43	3.07	4.58	2.99
	34	2.89	2.53	3.16	2.55	3.71	2.86	3.93	2.89	4.07	2.88	4.34	3.03	4.49	2.96
	35	2.89	2.53	3.15	2.55	3.71	2.86	3.90	2.88	4.03	2.86	4.29	3.01	4.44	2.94
	36	2.89	2.53	3.15	2.55	3.68	2.84	3.88	2.87	3.99	2.85	4.21	2.98	4.35	2.91
	38	2.89	2.53	3.14	2.55	3.62	2.82	3.84	2.85	3.92	2.82	4.06	2.92	4.18	2.85
	39	2.89	2.53	3.14	2.55	3.60	2.81	3.83	2.85	3.88	2.81	3.98	2.90	4.09	2.80
	41	2.89	2.53	3.13	2.54	3.49	2.76	3.67	2.78	3.71	2.74	3.81	2.83	3.90	2.75
	43	2.89	2.53	3.12	2.54	3.38	2.72	3.51	2.71	3.55	2.68	3.63	2.77	3.71	2.69

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	2.47	2.47	2.47	2.47	2.47
	-17.8	-18	2.63	2.63	2.63	2.63	2.63
	-15.7	-16	2.78	2.78	2.78	2.78	2.78
	-13.7	-14	2.94	2.94	2.94	2.94	2.94
	-11.7	-12	3.10	3.10	3.10	3.10	3.10
Hi	-9.6	-10	3.26	3.26	3.26	3.26	3.26
	-7.5	-8	3.46	3.46	3.46	3.46	3.46
12	-5.5	-6	3.66	3.66	3.66	3.66	3.66
(m³/min)	-3.4	-4	3.79	3.78	3.77	3.74	3.70
	-1.3	-2	3.91	3.90	3.89	3.82	3.74
	0.8	0	4.13	4.07	4.01	3.87	3.72
	3.9	3	4.48	4.32	4.16	3.92	3.69
	7.0	6	4.89	4.57	4.25	3.96	3.66
	10.1	9	4.86	4.55	4.24	3.93	3.63
	13.2	12	4.83	4.52	4.21	3.90	3.59
	16.9	15.5	4.79	4.48	4.17	3.87	3.56

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			2.77	2.20	3.31	2.49	3.58	2.54	3.81	2.59	4.27	2.79	4.43	2.72
	12			2.77	2.20	3.31	2.49	3.58	2.54	3.80	2.58	4.25	2.78	4.41	2.71
	14			2.77	2.20	3.31	2.49	3.58	2.54	3.80	2.58	4.23	2.78	4.39	2.70
	16			2.77	2.20	3.31	2.49	3.58	2.54	3.79	2.58	4.22	2.77	4.37	2.70
	18			2.77	2.20	3.31	2.49	3.58	2.54	3.79	2.58	4.20	2.76	4.35	2.67
Me	20			2.77	2.20	3.31	2.49	3.58	2.54	3.78	2.57	4.19	2.76	4.33	2.67
	22			2.76	2.19	3.31	2.49	3.58	2.54	3.76	2.57	4.14	2.74	4.27	2.65
10	24			2.76	2.19	3.31	2.49	3.58	2.54	3.75	2.56	4.08	2.71	4.21	2.64
(m³/min)	26			2.76	2.19	3.29	2.48	3.55	2.53	3.70	2.53	4.02	2.69	4.15	2.61
	28	2.50	2.17	2.76	2.19	3.28	2.48	3.51	2.52	3.66	2.52	3.95	2.67	4.09	2.59
	30	2.50	2.17	2.75	2.19	3.25	2.46	3.48	2.51	3.62	2.50	3.89	2.64	4.02	2.57
	32	2.50	2.17	2.74	2.19	3.22	2.45	3.44	2.49	3.57	2.49	3.83	2.62	3.96	2.55
	34	2.50	2.17	2.73	2.18	3.21	2.45	3.40	2.47	3.52	2.47	3.75	2.59	3.88	2.52
	35	2.50	2.17	2.73	2.18	3.21	2.45	3.38	2.46	3.49	2.46	3.71	2.57	3.84	2.51
	36	2.50	2.17	2.72	2.18	3.18	2.43	3.36	2.46	3.45	2.44	3.64	2.55	3.77	2.49
	38	2.50	2.17	2.72	2.18	3.13	2.41	3.33	2.44	3.39	2.41	3.51	2.50	3.62	2.42
	39	2.50	2.17	2.71	2.18	3.11	2.40	3.31	2.43	3.35	2.39	3.44	2.46	3.54	2.40
	41	2.50	2.17	2.71	2.18	3.02	2.36	3.17	2.38	3.21	2.34	3.29	2.42	3.38	2.35
	43	2.50	2.17	2.70	2.17	2.92	2.32	3.04	2.32	3.07	2.29	3.14	2.36	3.21	2.30

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	2.10	2.10	2.10	2.10	2.10
	-17.8	-18	2.24	2.24	2.24	2.24	2.24
	-15.7	-16	2.37	2.37	2.37	2.37	2.37
	-13.7	-14	2.51	2.51	2.51	2.51	2.51
	-11.7	-12	2.64	2.64	2.64	2.64	2.64
Me	-9.6	-10	2.78	2.78	2.78	2.78	2.78
	-7.5	-8	2.95	2.95	2.95	2.95	2.95
10	-5.5	-6	3.12	3.12	3.12	3.12	3.12
(m³/min)	-3.4	-4	3.23	3.22	3.22	3.19	3.15
	-1.3	-2	3.33	3.33	3.32	3.25	3.19
	0.8	0	3.52	3.47	3.42	3.29	3.17
	3.9	3	3.81	3.68	3.54	3.34	3.14
	7.0	6	4.17	3.90	3.62	3.37	3.12
	10.1	9	4.14	3.88	3.61	3.35	3.09
	13.2	12	4.11	3.85	3.59	3.33	3.06
	16.9	15.5	4.08	3.82	3.56	3.29	3.03

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			2.54	2.01	3.03	2.27	3.28	2.33	3.49	2.36	3.91	2.55	4.06	2.48
	12			2.54	2.01	3.03	2.27	3.28	2.33	3.49	2.36	3.90	2.54	4.04	2.47
	14			2.54	2.01	3.03	2.27	3.28	2.33	3.48	2.36	3.88	2.53	4.03	2.47
	16			2.54	2.01	3.03	2.27	3.28	2.33	3.48	2.36	3.87	2.53	4.01	2.46
	18			2.54	2.01	3.03	2.27	3.28	2.33	3.47	2.35	3.85	2.52	3.99	2.45
Lo	20			2.54	2.01	3.03	2.27	3.28	2.33	3.47	2.35	3.84	2.52	3.97	2.45
	22			2.53	2.00	3.03	2.27	3.28	2.33	3.45	2.34	3.79	2.50	3.92	2.43
9	24			2.53	2.00	3.03	2.27	3.28	2.33	3.44	2.34	3.74	2.48	3.86	2.41
(m³/min)	26			2.53	2.00	3.02	2.25	3.25	2.31	3.39	2.32	3.68	2.45	3.80	2.39
	28	2.29	1.97	2.53	2.00	3.00	2.25	3.22	2.30	3.35	2.30	3.62	2.43	3.75	2.37
	30	2.29	1.97	2.52	2.00	2.98	2.24	3.19	2.29	3.32	2.29	3.57	2.41	3.69	2.33
	32	2.29	1.97	2.51	1.99	2.96	2.23	3.16	2.27	3.28	2.27	3.51	2.38	3.63	2.32
	34	2.29	1.97	2.51	1.99	2.95	2.23	3.12	2.26	3.22	2.25	3.44	2.36	3.56	2.30
	35	2.29	1.97	2.50	1.99	2.94	2.23	3.10	2.24	3.20	2.24	3.40	2.34	3.52	2.28
	36	2.29	1.97	2.50	1.99	2.92	2.22	3.08	2.23	3.17	2.22	3.34	2.32	3.45	2.26
	38	2.29	1.97	2.49	1.98	2.87	2.20	3.05	2.22	3.11	2.20	3.22	2.28	3.32	2.21
	39	2.29	1.97	2.49	1.98	2.85	2.19	3.03	2.21	3.08	2.19	3.16	2.26	3.25	2.19
	41	2.29	1.97	2.48	1.98	2.77	2.16	2.91	2.17	2.95	2.14	3.02	2.21	3.10	2.14
	43	2.29	1.97	2.47	1.98	2.68	2.12	2.79	2.12	2.82	2.09	2.88	2.16	2.94	2.08

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	1.91	1.91	1.91	1.91	1.91
	-17.8	-18	2.04	2.04	2.04	2.04	2.04
	-15.7	-16	2.16	2.16	2.16	2.16	2.16
	-13.7	-14	2.28	2.28	2.28	2.28	2.28
	-11.7	-12	2.41	2.41	2.41	2.41	2.41
Lo	-9.6	-10	2.53	2.53	2.53	2.53	2.53
	-7.5	-8	2.68	2.68	2.68	2.68	2.68
9	-5.5	-6	2.84	2.84	2.84	2.84	2.84
(m³/min)	-3.4	-4	2.94	2.93	2.93	2.90	2.87
	-1.3	-2	3.03	3.03	3.02	2.96	2.90
	0.8	0	3.20	3.15	3.11	3.00	2.89
	3.9	3	3.47	3.35	3.22	3.04	2.86
	7.0	6	3.79	3.55	3.30	3.07	2.84
	10.1	9	3.77	3.53	3.29	3.05	2.81
	13.2	12	3.74	3.50	3.27	3.03	2.79
	16.9	15.5	3.71	3.48	3.24	3.00	2.76

Notes (1) This data shows average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

PJB001Z731

Model **FDTW56KXE6F** Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			4.59	3.57	5.49	4.05	5.94	4.15	6.32	4.21	7.07	4.54	7.35	4.41
	12			4.59	3.57	5.49	4.05	5.94	4.15	6.31	4.21	7.05	4.53	7.31	4.39
	14			4.59	3.57	5.49	4.05	5.94	4.15	6.30	4.20	7.02	4.50	7.28	4.39
	16			4.59	3.57	5.49	4.05	5.94	4.15	6.29	4.20	7.00	4.49	7.25	4.38
	18			4.59	3.57	5.49	4.05	5.94	4.15	6.28	4.20	6.97	4.48	7.22	4.37
P-Hi	20			4.59	3.57	5.49	4.05	5.94	4.15	6.27	4.19	6.95	4.48	7.19	4.36
	22			4.58	3.56	5.49	4.05	5.94	4.15	6.24	4.17	6.86	4.45	7.09	4.32
14.5	24			4.58	3.56	5.48	4.04	5.94	4.15	6.21	4.16	6.77	4.42	6.99	4.28
(m³/min)	26			4.57	3.56	5.46	4.03	5.88	4.12	6.14	4.13	6.66	4.37	6.88	4.24
	28	4.14	3.51	4.57	3.56	5.43	4.02	5.82	4.08	6.07	4.11	6.56	4.33	6.78	4.21
	30	4.14	3.51	4.56	3.55	5.39	4.00	5.77	4.07	6.00	4.06	6.46	4.29	6.67	4.17
	32	4.14	3.51	4.55	3.55	5.35	3.99	5.71	4.04	5.93	4.03	6.36	4.25	6.57	4.14
	34	4.14	3.51	4.53	3.54	5.33	3.98	5.64	4.02	5.83	4.00	6.22	4.20	6.44	4.09
	35	4.14	3.51	4.52	3.54	5.32	3.97	5.60	4.00	5.79	3.98	6.16	4.17	6.37	4.06
	36	4.14	3.51	4.52	3.54	5.28	3.95	5.57	3.99	5.73	3.96	6.05	4.14	6.25	4.00
	38	4.14	3.51	4.51	3.53	5.20	3.92	5.52	3.97	5.62	3.92	5.82	4.03	6.00	3.93
	39	4.14	3.51	4.50	3.53	5.16	3.90	5.49	3.95	5.56	3.89	5.71	4.00	5.87	3.89
	41	4.14	3.51	4.49	3.53	5.00	3.83	5.26	3.86	5.33	3.80	5.46	3.91	5.60	3.80
	43	4.14	3.51	4.47	3.52	4.85	3.77	5.04	3.76	5.10	3.71	5.21	3.83	5.32	3.71

Heating mode (kW)

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	3.65	3.65	3.65	3.65	3.65
	-17.8	-18	3.89	3.89	3.89	3.89	3.89
	-15.7	-16	4.12	4.12	4.12	4.12	4.12
	-13.7	-14	4.36	4.36	4.36	4.36	4.36
	-11.7	-12	4.59	4.59	4.59	4.59	4.59
P-Hi	-9.6	-10	4.83	4.83	4.83	4.83	4.83
	-7.5	-8	5.12	5.12	5.12	5.12	5.12
14.5	-5.5	-6	5.42	5.42	5.42	5.42	5.42
(m³/min)	-3.4	-4	5.61	5.60	5.59	5.54	5.48
	-1.3	-2	5.80	5.78	5.76	5.65	5.54
	0.8	0	6.11	6.02	5.94	5.73	5.51
	3.9	3	6.63	6.39	6.16	5.81	5.47
	7.0	6	7.25	6.77	6.30	5.86	5.42
	10.1	9	7.20	6.74	6.28	5.82	5.37
	13.2	12	7.15	6.69	6.24	5.78	5.32
	16.9	15.5	7.10	6.64	6.18	5.73	5.27

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			3.98	3.04	4.76	3.45	5.15	3.54	5.48	3.59	6.14	3.88	6.37	3.77
	12			3.98	3.04	4.76	3.45	5.15	3.54	5.47	3.59	6.11	3.87	6.34	3.76
	14			3.98	3.04	4.76	3.45	5.15	3.54	5.46	3.59	6.09	3.86	6.32	3.75
	16			3.98	3.04	4.76	3.45	5.15	3.54	5.46	3.59	6.07	3.85	6.29	3.74
	18			3.98	3.04	4.76	3.45	5.15	3.54	5.45	3.58	6.05	3.84	6.26	3.73
Hi	20			3.98	3.04	4.76	3.45	5.15	3.54	5.44	3.58	6.03	3.84	6.23	3.72
	22			3.98	3.04	4.76	3.45	5.15	3.54	5.42	3.57	5.95	3.80	6.15	3.69
12	24			3.97	3.04	4.76	3.45	5.15	3.54	5.39	3.55	5.87	3.77	6.06	3.65
(m³/min)	26			3.97	3.04	4.73	3.44	5.10	3.52	5.33	3.53	5.78	3.73	5.97	3.61
	28	3.59	2.98	3.96	3.04	4.71	3.43	5.05	3.50	5.26	3.50	5.69	3.69	5.88	3.58
	30	3.59	2.98	3.95	3.03	4.68	3.41	5.00	3.47	5.20	3.47	5.60	3.65	5.79	3.55
	32	3.59	2.98	3.94	3.03	4.64	3.40	4.95	3.45	5.14	3.45	5.51	3.62	5.70	3.52
	34	3.59	2.98	3.93	3.02	4.62	3.38	4.89	3.43	5.06	3.42	5.40	3.58	5.58	3.48
	35	3.59	2.98	3.92	3.01	4.61	3.38	4.86	3.41	5.02	3.40	5.34	3.56	5.52	3.45
	36	3.59	2.98	3.92	3.01	4.58	3.36	4.83	3.40	4.97	3.38	5.24	3.52	5.42	3.42
	38	3.59	2.98	3.91	3.01	4.51	3.33	4.78	3.38	4.87	3.34	5.05	3.44	5.20	3.35
	39	3.59	2.98	3.91	3.01	4.48	3.32	4.76	3.37	4.83	3.31	4.96	3.41	5.10	3.31
	41	3.59	2.98	3.89	3.00	4.34	3.26	4.57	3.28	4.62	3.23	4.74	3.33	4.86	3.21
	43	3.59	2.98	3.88	3.00	4.21	3.20	4.37	3.20	4.42	3.15	4.52	3.24	4.62	3.14

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	3.11	3.11	3.11	3.11	3.11
	-17.8	-18	3.31	3.31	3.31	3.31	3.31
	-15.7	-16	3.51	3.51	3.51	3.51	3.51
	-13.7	-14	3.71	3.71	3.71	3.71	3.71
	-11.7	-12	3.91	3.91	3.91	3.91	3.91
Hi	-9.6	-10	4.11	4.11	4.11	4.11	4.11
	-7.5	-8	4.36	4.36	4.36	4.36	4.36
12	-5.5	-6	4.61	4.61	4.61	4.61	4.61
(m³/min)	-3.4	-4	4.77	4.76	4.76	4.71	4.66
	-1.3	-2	4.93	4.92	4.90	4.81	4.72
	0.8	0	5.20	5.12	5.05	4.87	4.69
	3.9	3	5.64	5.44	5.24	4.94	4.65
	7.0	6	6.16	5.76	5.36	4.98	4.61
	10.1	9	6.12	5.73	5.34	4.95	4.57
	13.2	12	6.08	5.69	5.31	4.92	4.53
	16.9	15.5	6.04	5.65	5.26	4.87	4.48

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			3.44	2.60	4.12	2.95	4.45	3.03	4.74	3.08	5.31	3.32	5.51	3.23
	12			3.44	2.60	4.12	2.95	4.45	3.03	4.73	3.08	5.29	3.32	5.49	3.22
	14			3.44	2.60	4.12	2.95	4.45	3.03	4.73	3.08	5.27	3.31	5.46	3.21
	16			3.44	2.60	4.12	2.95	4.45	3.03	4.72	3.07	5.25	3.30	5.44	3.21
	18			3.44	2.60	4.12	2.95	4.45	3.03	4.71	3.07	5.23	3.29	5.42	3.19
Me	20			3.44	2.60	4.12	2.95	4.45	3.03	4.71	3.07	5.21	3.28	5.39	3.18
	22			3.44	2.60	4.12	2.95	4.45	3.03	4.68	3.05	5.15	3.26	5.32	3.16
10	24			3.43	2.60	4.11	2.94	4.45	3.03	4.66	3.05	5.08	3.23	5.25	3.12
(m³/min)	26			3.43	2.60	4.09	2.94	4.41	3.01	4.61	3.03	5.00	3.19	5.16	3.09
	28	3.11	2.56	3.43	2.60	4.08	2.93	4.37	3.00	4.55	3.00	4.92	3.16	5.08	3.07
	30	3.11	2.56	3.42	2.59	4.04	2.92	4.33	2.98	4.50	2.98	4.84	3.13	5.01	3.04
	32	3.11	2.56	3.41	2.59	4.01	2.90	4.29	2.96	4.45	2.96	4.77	3.10	4.93	3.01
	34	3.11	2.56	3.40	2.58	4.00	2.90	4.23	2.93	4.38	2.92	4.67	3.06	4.83	2.98
	35	3.11	2.56	3.39	2.58	3.99	2.90	4.20	2.91	4.34	2.90	4.62	3.05	4.78	2.96
	36	3.11	2.56	3.39	2.58	3.96	2.88	4.18	2.91	4.30	2.89	4.54	3.01	4.69	2.92
	38	3.11	2.56	3.38	2.58	3.90	2.86	4.14	2.89	4.22	2.86	4.37	2.95	4.50	2.86
	39	3.11	2.56	3.38	2.58	3.87	2.84	4.12	2.88	4.17	2.84	4.29	2.92	4.41	2.81
	41	3.11	2.56	3.37	2.57	3.76	2.79	3.95	2.81	4.00	2.77	4.10	2.83	4.20	2.75
	43	3.11	2.56	3.35	2.56	3.64	2.74	3.78	2.74	3.82	2.69	3.91	2.77	3.99	2.68

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	2.65	2.65	2.65	2.65	2.65
	-17.8	-18	2.82	2.82	2.82	2.82	2.82
	-15.7	-16	2.99	2.99	2.99	2.99	2.99
	-13.7	-14	3.16	3.16	3.16	3.16	3.16
	-11.7	-12	3.33	3.33	3.33	3.33	3.33
Me	-9.6	-10	3.50	3.50	3.50	3.50	3.50
	-7.5	-8	3.71	3.71	3.71	3.71	3.71
10	-5.5	-6	3.93	3.93	3.93	3.93	3.93
(m³/min)	-3.4	-4	4.06	4.06	4.05	4.01	3.97
	-1.3	-2	4.20	4.19	4.18	4.10	4.02
	0.8	0	4.43	4.37	4.30	4.15	4.00
	3.9	3	4.81	4.64	4.46	4.21	3.96
	7.0	6	5.25	4.91	4.57	4.25	3.93
	10.1	9	5.22	4.88	4.55	4.22	3.89
	13.2	12	5.18	4.85	4.52	4.19	3.86
	16.9	15.5	5.14	4.81	4.48	4.15	3.82

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			3.16	2.38	3.77	2.69	4.08	2.77	4.34	2.81	4.87	3.03	5.05	2.95
	12			3.16	2.38	3.77	2.69	4.08	2.77	4.34	2.81	4.85	3.02	5.03	2.94
	14			3.16	2.38	3.77	2.69	4.08	2.77	4.33	2.80	4.83	3.01	5.01	2.93
	16			3.16	2.38	3.77	2.69	4.08	2.77	4.33	2.80	4.81	3.01	4.99	2.92
	18			3.16	2.38	3.77	2.69	4.08	2.77	4.32	2.80	4.80	3.00	4.97	2.92
Lo	20			3.16	2.38	3.77	2.69	4.08	2.77	4.31	2.80	4.78	3.00	4.94	2.90
	22			3.15	2.37	3.77	2.69	4.08	2.77	4.29	2.79	4.72	2.97	4.88	2.88
9	24			3.15	2.37	3.77	2.69	4.08	2.77	4.27	2.78	4.66	2.95	4.81	2.85
(m³/min)	26			3.15	2.37	3.75	2.68	4.04	2.75	4.22	2.76	4.58	2.92	4.74	2.83
	28	2.85	2.34	3.14	2.37	3.74	2.68	4.01	2.74	4.17	2.74	4.51	2.89	4.66	2.80
	30	2.85	2.34	3.14	2.37	3.71	2.67	3.97	2.72	4.13	2.72	4.44	2.86	4.59	2.77
	32	2.85	2.34	3.13	2.37	3.68	2.65	3.93	2.70	4.08	2.70	4.37	2.83	4.52	2.74
	34	2.85	2.34	3.12	2.36	3.67	2.65	3.88	2.68	4.01	2.67	4.28	2.79	4.43	2.71
	35	2.85	2.34	3.11	2.35	3.66	2.64	3.85	2.66	3.98	2.66	4.23	2.76	4.38	2.69
	36	2.85	2.34	3.11	2.35	3.63	2.63	3.83	2.66	3.94	2.64	4.16	2.74	4.30	2.67
	38	2.85	2.34	3.10	2.35	3.58	2.61	3.79	2.64	3.87	2.61	4.01	2.69	4.13	2.61
	39	2.85	2.34	3.10	2.35	3.55	2.59	3.78	2.63	3.83	2.59	3.93	2.66	4.04	2.58
	41	2.85	2.34	3.09	2.35	3.44	2.54	3.62	2.56	3.67	2.52	3.76	2.59	3.85	2.51
	43	2.85	2.34	3.08	2.34	3.34	2.50	3.47	2.50	3.51	2.46	3.58	2.52	3.66	2.44

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	2.41	2.41	2.41	2.41	2.41
	-17.8	-18	2.57	2.57	2.57	2.57	2.57
	-15.7	-16	2.72	2.72	2.72	2.72	2.72
	-13.7	-14	2.88	2.88	2.88	2.88	2.88
	-11.7	-12	3.03	3.03	3.03	3.03	3.03
Lo	-9.6	-10	3.19	3.19	3.19	3.19	3.19
	-7.5	-8	3.38	3.38	3.38	3.38	3.38
9	-5.5	-6	3.57	3.57	3.57	3.57	3.57
(m³/min)	-3.4	-4	3.70	3.69	3.69	3.65	3.62
	-1.3	-2	3.82	3.81	3.80	3.73	3.66
	0.8	0	4.03	3.97	3.92	3.78	3.64
	3.9	3	4.37	4.22	4.06	3.83	3.60
	7.0	6	4.78	4.47	4.16	3.86	3.57
	10.1	9	4.75	4.44	4.14	3.84	3.54
	13.2	12	4.72	4.42	4.11	3.81	3.51
	16.9	15.5	4.68	4.38	4.08	3.78	3.48

Notes (1) This data shows average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

PJB001Z731

Model FDTW71KXE6F Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			5.82	4.29	6.96	4.87	7.53	5.01	8.01	5.09	8.97	5.48	9.31	5.32
	12			5.82	4.29	6.96	4.87	7.53	5.01	8.00	5.09	8.94	5.46	9.27	5.31
	14			5.82	4.29	6.96	4.87	7.53	5.01	7.99	5.08	8.90	5.45	9.23	5.29
	16			5.82	4.29	6.96	4.87	7.53	5.01	7.97	5.08	8.87	5.44	9.19	5.28
	18			5.82	4.29	6.96	4.87	7.53	5.01	7.96	5.07	8.84	5.43	9.15	5.26
P-Hi	20			5.82	4.29	6.96	4.87	7.53	5.01	7.95	5.07	8.81	5.41	9.11	5.25
	22			5.81	4.29	6.95	4.86	7.53	5.01	7.92	5.06	8.70	5.37	8.99	5.20
14.5	24			5.80	4.28	6.95	4.86	7.53	5.01	7.88	5.04	8.58	5.32	8.86	5.15
(m³/min)	26			5.80	4.28	6.92	4.85	7.46	4.98	7.79	4.99	8.45	5.27	8.73	5.10
	28	5.25	4.20	5.79	4.28	6.89	4.84	7.38	4.94	7.69	4.95	8.31	5.21	8.59	5.05
	30	5.25	4.20	5.78	4.27	6.83	4.80	7.31	4.91	7.60	4.91	8.19	5.16	8.46	5.00
	32	5.25	4.20	5.77	4.27	6.78	4.78	7.24	4.88	7.51	4.87	8.06	5.10	8.33	4.95
	34	5.25	4.20	5.75	4.26	6.76	4.77	7.15	4.83	7.39	4.82	7.89	5.04	8.16	4.89
	35	5.25	4.20	5.74	4.25	6.75	4.76	7.10	4.81	7.33	4.79	7.80	5.00	8.08	4.85
	36	5.25	4.20	5.73	4.25	6.69	4.74	7.06	4.79	7.26	4.76	7.66	4.94	7.92	4.80
	38	5.25	4.20	5.72	4.24	6.59	4.70	6.99	4.75	7.12	4.69	7.38	4.83	7.61	4.66
	39	5.25	4.20	5.71	4.23	6.54	4.67	6.96	4.74	7.05	4.66	7.24	4.77	7.45	4.61
	41	5.25	4.20	5.69	4.23	6.35	4.59	6.67	4.62	6.76	4.55	6.92	4.64	7.10	4.50
	43	5.25	4.20	5.67	4.22	6.15	4.50	6.39	4.50	6.46	4.42	6.60	4.53	6.75	4.38

Heating mode (kW)

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	4.64	4.64	4.64	4.64	4.64
	-17.8	-18	4.94	4.94	4.94	4.94	4.94
	-15.7	-16	5.24	5.24	5.24	5.24	5.24
	-13.7	-14	5.54	5.54	5.54	5.54	5.54
	-11.7	-12	5.83	5.83	5.83	5.83	5.83
P-Hi	-9.6	-10	6.13	6.13	6.13	6.13	6.13
	-7.5	-8	6.51	6.51	6.51	6.51	6.51
14.5	-5.5	-6	6.88	6.88	6.88	6.88	6.88
(m³/min)	-3.4	-4	7.12	7.11	7.10	7.03	6.96
	-1.3	-2	7.36	7.34	7.32	7.18	7.04
	0.8	0	7.76	7.65	7.54	7.27	7.00
	3.9	3	8.42	8.12	7.82	7.38	6.94
	7.0	6	9.20	8.60	8.00	7.44	6.88
	10.1	9	9.14	8.56	7.97	7.40	6.82
	13.2	12	9.08	8.50	7.92	7.34	6.76
	16.9	15.5	9.01	8.43	7.85	7.27	6.69

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			4.99	3.64	5.96	4.13	6.45	4.25	6.86	4.33	7.68	4.66	7.98	4.52
	12			4.99	3.64	5.96	4.13	6.45	4.25	6.85	4.32	7.66	4.65	7.94	4.51
	14			4.99	3.64	5.96	4.13	6.45	4.25	6.84	4.32	7.63	4.64	7.91	4.50
	16			4.99	3.64	5.96	4.13	6.45	4.25	6.83	4.31	7.60	4.62	7.87	4.48
	18			4.99	3.64	5.96	4.13	6.45	4.25	6.82	4.31	7.57	4.61	7.84	4.47
Hi	20			4.99	3.64	5.96	4.13	6.45	4.25	6.81	4.31	7.54	4.60	7.81	4.46
	22			4.98	3.64	5.96	4.13	6.45	4.25	6.78	4.29	7.45	4.56	7.70	4.41
12	24			4.97	3.63	5.96	4.13	6.45	4.25	6.75	4.28	7.35	4.51	7.59	4.37
(m³/min)	26			4.97	3.63	5.93	4.11	6.39	4.23	6.67	4.24	7.24	4.47	7.48	4.32
	28	4.50	3.56	4.96	3.63	5.90	4.10	6.33	4.19	6.59	4.20	7.12	4.41	7.36	4.27
	30	4.50	3.56	4.95	3.62	5.85	4.08	6.26	4.16	6.51	4.16	7.01	4.36	7.25	4.24
	32	4.50	3.56	4.94	3.62	5.81	4.06	6.20	4.13	6.44	4.14	6.90	4.32	7.14	4.20
	34	4.50	3.56	4.92	3.60	5.79	4.05	6.12	4.10	6.33	4.09	6.76	4.26	6.99	4.14
	35	4.50	3.56	4.91	3.60	5.78	4.05	6.08	4.08	6.28	4.06	6.69	4.24	6.92	4.11
	36	4.50	3.56	4.91	3.60	5.73	4.02	6.05	4.06	6.22	4.04	6.57	4.19	6.78	4.06
	38	4.50	3.56	4.90	3.59	5.65	3.99	5.99	4.04	6.10	3.99	6.33	4.09	6.51	3.96
	39	4.50	3.56	4.89	3.59	5.60	3.96	5.96	4.03	6.04	3.96	6.21	4.04	6.38	3.91
	41	4.50	3.56	4.87	3.58	5.44	3.89	5.72	3.92	5.79	3.85	5.93	3.93	6.08	3.80
	43	4.50	3.56	4.86	3.58	5.27	3.80	5.47	3.81	5.53	3.73	5.65	3.82	5.78	3.70

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	3.89	3.89	3.89	3.89	3.89
	-17.8	-18	4.14	4.14	4.14	4.14	4.14
	-15.7	-16	4.39	4.39	4.39	4.39	4.39
	-13.7	-14	4.64	4.64	4.64	4.64	4.64
	-11.7	-12	4.89	4.89	4.89	4.89	4.89
Hi	-9.6	-10	5.14	5.14	5.14	5.14	5.14
	-7.5	-8	5.46	5.46	5.46	5.46	5.46
12	-5.5	-6	5.77	5.77	5.77	5.77	5.77
(m³/min)	-3.4	-4	5.97	5.96	5.95	5.90	5.84
	-1.3	-2	6.17	6.16	6.14	6.02	5.90
	0.8	0	6.51	6.42	6.32	6.10	5.87
	3.9	3	7.06	6.81	6.56	6.19	5.82
	7.0	6	7.72	7.21	6.71	6.24	5.77
	10.1	9	7.67	7.17	6.68	6.20	5.72
	13.2	12	7.61	7.13	6.64	6.16	5.67
	16.9	15.5	7.56	7.07	6.58	6.10	5.61

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			4.27	3.09	5.10	3.51	5.52	3.61	5.87	3.68	6.58	3.97	6.83	3.85
	12			4.27	3.09	5.10	3.51	5.52	3.61	5.86	3.68	6.55	3.95	6.80	3.83
	14			4.27	3.09	5.10	3.51	5.52	3.61	5.85	3.67	6.53	3.94	6.77	3.82
	16			4.27	3.09	5.10	3.51	5.52	3.61	5.85	3.67	6.50	3.93	6.74	3.81
	18			4.27	3.09	5.10	3.51	5.52	3.61	5.84	3.66	6.48	3.92	6.71	3.80
Me	20			4.27	3.09	5.10	3.51	5.52	3.61	5.83	3.66	6.46	3.91	6.68	3.79
	22			4.26	3.08	5.10	3.51	5.52	3.61	5.80	3.65	6.38	3.88	6.59	3.75
10	24			4.25	3.08	5.10	3.51	5.52	3.61	5.78	3.64	6.29	3.84	6.50	3.72
(m³/min)	26			4.25	3.08	5.07	3.49	5.47	3.59	5.71	3.60	6.19	3.80	6.40	3.67
	28	3.85	3.02	4.25	3.08	5.05	3.48	5.41	3.56	5.64	3.57	6.10	3.76	6.30	3.63
	30	3.85	3.02	4.24	3.07	5.01	3.47	5.36	3.54	5.58	3.54	6.00	3.71	6.20	3.59
	32	3.85	3.02	4.23	3.07	4.97	3.44	5.31	3.52	5.51	3.51	5.91	3.68	6.11	3.56
	34	3.85	3.02	4.21	3.06	4.95	3.44	5.24	3.49	5.42	3.47	5.78	3.62	5.98	3.50
	35	3.85	3.02	4.21	3.06	4.95	3.44	5.21	3.47	5.38	3.46	5.72	3.59	5.92	3.48
	36	3.85	3.02	4.20	3.05	4.91	3.42	5.18	3.46	5.33	3.43	5.62	3.55	5.81	3.44
	38	3.85	3.02	4.19	3.05	4.83	3.38	5.13	3.43	5.22	3.39	5.41	3.47	5.58	3.36
	39	3.85	3.02	4.19	3.05	4.80	3.37	5.10	3.42	5.17	3.36	5.31	3.43	5.46	3.31
	41	3.85	3.02	4.17	3.04	4.65	3.30	4.89	3.32	4.95	3.27	5.08	3.34	5.21	3.22
	43	3.85	3.02	4.16	3.03	4.51	3.23	4.68	3.23	4.74	3.17	4.84	3.24	4.95	3.13

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	3.27	3.27	3.27	3.27	3.27
	-17.8	-18	3.48	3.48	3.48	3.48	3.48
	-15.7	-16	3.69	3.69	3.69	3.69	3.69
	-13.7	-14	3.91	3.91	3.91	3.91	3.91
	-11.7	-12	4.12	4.12	4.12	4.12	4.12
Me	-9.6	-10	4.33	4.33	4.33	4.33	4.33
	-7.5	-8	4.59	4.59	4.59	4.59	4.59
10	-5.5	-6	4.85	4.85	4.85	4.85	4.85
(m³/min)	-3.4	-4	5.02	5.02	5.01	4.96	4.91
	-1.3	-2	5.19	5.18	5.16	5.07	4.97
	0.8	0	5.47	5.40	5.32	5.13	4.94
	3.9	3	5.94	5.73	5.52	5.21	4.90
	7.0	6	6.49	6.07	5.64	5.25	4.85
	10.1	9	6.45	6.04	5.62	5.22	4.81
	13.2	12	6.41	6.00	5.59	5.18	4.77
	16.9	15.5	6.36	5.95	5.54	5.13	4.72

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			3.89	2.80	4.65	3.19	5.03	3.28	5.35	3.34	5.99	3.60	6.22	3.49
	12			3.89	2.80	4.65	3.19	5.03	3.28	5.34	3.34	5.97	3.59	6.20	3.49
	14			3.89	2.80	4.65	3.19	5.03	3.28	5.34	3.34	5.95	3.58	6.17	3.47
	16			3.89	2.80	4.65	3.19	5.03	3.28	5.33	3.33	5.93	3.57	6.14	3.46
	18			3.89	2.80	4.65	3.19	5.03	3.28	5.32	3.33	5.91	3.57	6.12	3.45
Lo	20			3.89	2.80	4.65	3.19	5.03	3.28	5.32	3.33	5.89	3.56	6.09	3.44
	22			3.88	2.80	4.65	3.19	5.03	3.28	5.29	3.31	5.81	3.52	6.01	3.41
9	24			3.88	2.80	4.65	3.19	5.03	3.28	5.27	3.31	5.74	3.49	5.92	3.37
(m³/min)	26			3.88	2.80	4.62	3.17	4.98	3.25	5.20	3.28	5.65	3.45	5.83	3.33
	28	3.51	2.75	3.87	2.80	4.60	3.16	4.93	3.23	5.14	3.25	5.56	3.41	5.74	3.30
	30	3.51	2.75	3.86	2.79	4.57	3.15	4.89	3.21	5.08	3.21	5.47	3.37	5.66	3.27
	32	3.51	2.75	3.85	2.79	4.53	3.13	4.84	3.19	5.02	3.19	5.39	3.34	5.57	3.23
	34	3.51	2.75	3.84	2.78	4.52	3.13	4.78	3.17	4.94	3.15	5.27	3.29	5.45	3.19
	35	3.51	2.75	3.83	2.78	4.51	3.12	4.75	3.15	4.90	3.14	5.22	3.27	5.40	3.17
	36	3.51	2.75	3.83	2.78	4.47	3.10	4.72	3.14	4.85	3.12	5.12	3.23	5.29	3.12
	38	3.51	2.75	3.82	2.77	4.41	3.07	4.67	3.12	4.76	3.08	4.93	3.14	5.08	3.04
	39	3.51	2.75	3.82	2.77	4.37	3.05	4.65	3.11	4.71	3.05	4.84	3.11	4.98	3.01
	41	3.51	2.75	3.80	2.76	4.24	2.99	4.46	3.02	4.52	2.97	4.63	3.03	4.74	2.92
	43	3.51	2.75	3.79	2.75	4.11	2.94	4.27	2.93	4.32	2.89	4.41	2.94	4.51	2.84

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	2.96	2.96	2.96	2.96	2.96
	-17.8	-18	3.15	3.15	3.15	3.15	3.15
	-15.7	-16	3.34	3.34	3.34	3.34	3.34
	-13.7	-14	3.53	3.53	3.53	3.53	3.53
	-11.7	-12	3.72	3.72	3.72	3.72	3.72
Lo	-9.6	-10	3.91	3.91	3.91	3.91	3.91
	-7.5	-8	4.15	4.15	4.15	4.15	4.15
9	-5.5	-6	4.39	4.39	4.39	4.39	4.39
(m³/min)	-3.4	-4	4.54	4.53	4.53	4.48	4.44
	-1.3	-2	4.69	4.68	4.67	4.58	4.49
	0.8	0	4.95	4.88	4.81	4.64	4.46
	3.9	3	5.37	5.18	4.99	4.71	4.43
	7.0	6	5.87	5.48	5.10	4.74	4.39
	10.1	9	5.83	5.46	5.08	4.72	4.35
	13.2	12	5.79	5.42	5.05	4.68	4.31
	16.9	15.5	5.75	5.38	5.01	4.64	4.27

Notes (1) This data shows average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

PJB001Z731

Model **FDTW90KXE6F** Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			7.38	6.08	8.82	6.90	9.54	7.02	10.15	7.14	11.37	7.71	11.80	7.53
	12			7.38	6.08	8.82	6.90	9.54	7.02	10.14	7.14	11.33	7.70	11.75	7.50
	14			7.38	6.08	8.82	6.90	9.54	7.02	10.12	7.13	11.29	7.69	11.70	7.48
	16			7.38	6.08	8.82	6.90	9.54	7.02	10.11	7.13	11.25	7.66	11.65	7.47
	18			7.38	6.08	8.82	6.90	9.54	7.02	10.09	7.12	11.20	7.65	11.60	7.46
P-Hi	20			7.38	6.08	8.82	6.90	9.54	7.02	10.08	7.11	11.16	7.64	11.55	7.43
	22			7.37	6.08	8.82	6.90	9.54	7.02	10.03	7.09	11.02	7.58	11.39	7.37
31	24			7.36	6.07	8.81	6.89	9.54	7.02	9.99	7.08	10.88	7.53	11.24	7.33
(m³/min)	26			7.35	6.07	8.77	6.88	9.45	6.99	9.87	6.99	10.71	7.46	11.06	7.27
	28	6.66	6.01	7.34	6.07	8.73	6.85	9.36	6.96	9.75	6.95	10.54	7.40	10.89	7.21
	30	6.66	6.01	7.33	6.06	8.66	6.83	9.27	6.93	9.64	6.92	10.38	7.33	10.73	7.15
	32	6.66	6.01	7.31	6.06	8.60	6.81	9.18	6.90	9.53	6.89	10.22	7.27	10.56	7.05
	34	6.66	6.01	7.28	6.04	8.57	6.80	9.06	6.85	9.37	6.82	10.00	7.16	10.35	7.00
	35	6.66	6.01	7.27	6.04	8.55	6.77	9.00	6.83	9.30	6.80	9.89	7.13	10.24	6.97
	36	6.66	6.01	7.26	6.04	8.49	6.75	8.96	6.82	9.21	6.77	9.72	7.08	10.04	6.92
	38	6.66	6.01	7.25	6.03	8.36	6.69	8.87	6.77	9.03	6.70	9.36	6.96	9.64	6.79
	39	6.66	6.01	7.24	6.03	8.29	6.67	8.82	6.75	8.94	6.65	9.18	6.90	9.44	6.72
	41	6.66	6.01	7.21	6.02	8.04	6.57	8.46	6.61	8.56	6.50	8.77	6.75	9.00	6.57
	43	6.66	6.01	7.19	6.01	7.80	6.47	8.10	6.46	8.19	6.37	8.37	6.62	8.56	6.44

Heating mode (kW)

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	5.80	5.80	5.80	5.80	5.80
	-17.8	-18	6.17	6.17	6.17	6.17	6.17
	-15.7	-16	6.55	6.55	6.55	6.55	6.55
	-13.7	-14	6.92	6.92	6.92	6.92	6.92
	-11.7	-12	7.29	7.29	7.29	7.29	7.29
P-Hi	-9.6	-10	7.67	7.67	7.67	7.67	7.67
	-7.5	-8	8.13	8.13	8.13	8.13	8.13
31	-5.5	-6	8.60	8.60	8.60	8.60	8.60
(m³/min)	-3.4	-4	8.90	8.89	8.88	8.79	8.70
	-1.3	-2	9.20	9.18	9.15	8.98	8.80
	0.8	0	9.70	9.56	9.43	9.09	8.75
	3.9	3	10.53	10.15	9.78	9.23	8.68
	7.0	6	11.50	10.75	10.00	9.30	8.60
	10.1	9	11.43	10.69	9.96	9.24	8.53
	13.2	12	11.35	10.63	9.90	9.18	8.45
	16.9	15.5	11.26	10.54	9.81	9.09	8.36

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			6.67	5.45	7.97	6.17	8.63	6.31	9.18	6.36	10.28	6.90	10.67	6.73
	12			6.67	5.45	7.97	6.17	8.63	6.31	9.16	6.35	10.24	6.88	10.63	6.72
	14			6.67	5.45	7.97	6.17	8.63	6.31	9.15	6.35	10.21	6.88	10.58	6.69
	16			6.67	5.45	7.97	6.17	8.63	6.31	9.14	6.35	10.17	6.87	10.54	6.68
	18			6.67	5.45	7.97	6.17	8.63	6.31	9.13	6.35	10.13	6.84	10.49	6.67
Hi	20			6.67	5.45	7.97	6.17	8.63	6.31	9.11	6.34	10.09	6.83	10.44	6.64
	22			6.66	5.45	7.97	6.17	8.63	6.31	9.07	6.33	9.97	6.78	10.30	6.60
27	24			6.65	5.44	7.97	6.17	8.63	6.31	9.03	6.31	9.84	6.73	10.16	6.55
(m³/min)	26			6.65	5.44	7.93	6.15	8.54	6.27	8.92	6.28	9.68	6.67	10.00	6.49
	28	6.02	5.37	6.64	5.44	7.89	6.12	8.46	6.24	8.82	6.25	9.53	6.61	9.85	6.44
	30	6.02	5.37	6.62	5.43	7.83	6.10	8.38	6.20	8.72	6.20	9.38	6.55	9.70	6.35
	32	6.02	5.37	6.61	5.43	7.77	6.08	8.30	6.17	8.61	6.15	9.24	6.47	9.55	6.32
	34	6.02	5.37	6.59	5.42	7.74	6.06	8.19	6.12	8.48	6.10	9.04	6.41	9.35	6.27
	35	6.02	5.37	6.57	5.40	7.73	6.06	8.14	6.11	8.41	6.08	8.94	6.38	9.26	6.23
	36	6.02	5.37	6.57	5.40	7.67	6.04	8.10	6.08	8.33	6.05	8.78	6.34	9.08	6.18
	38	6.02	5.37	6.55	5.39	7.56	5.98	8.02	6.05	8.16	5.99	8.46	6.22	8.72	6.06
	39	6.02	5.37	6.54	5.39	7.50	5.96	7.97	6.04	8.08	5.95	8.30	6.16	8.54	6.00
	41	6.02	5.37	6.52	5.38	7.27	5.87	7.65	5.90	7.74	5.81	7.93	6.02	8.14	5.86
	43	6.02	5.37	6.50	5.37	7.05	5.75	7.32	5.74	7.40	5.66	7.57	5.89	7.74	5.69

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	5.17	5.17	5.17	5.17	5.17
	-17.8	-18	5.50	5.50	5.50	5.50	5.50
	-15.7	-16	5.83	5.83	5.83	5.83	5.83
	-13.7	-14	6.17	6.17	6.17	6.17	6.17
	-11.7	-12	6.50	6.50	6.50	6.50	6.50
Hi	-9.6	-10	6.83	6.83	6.83	6.83	6.83
	-7.5	-8	7.25	7.25	7.25	7.25	7.25
27	-5.5	-6	7.66	7.66	7.66	7.66	7.66
(m³/min)	-3.4	-4	7.93	7.92	7.91	7.83	7.75
	-1.3	-2	8.20	8.18	8.15	8.00	7.84
	0.8	0	8.65	8.52	8.40	8.10	7.80
	3.9	3	9.38	9.05	8.71	8.22	7.73
	7.0	6	10.25	9.58	8.91	8.29	7.66
	10.1	9	10.18	9.53	8.88	8.24	7.60
	13.2	12	10.12	9.47	8.82	8.18	7.53
	16.9	15.5	10.04	9.39	8.75	8.10	7.45

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			5.90	4.78	7.05	5.40	7.63	5.53	8.12	5.60	9.09	6.04	9.44	5.90
	12			5.90	4.78	7.05	5.40	7.63	5.53	8.11	5.57	9.06	6.03	9.40	5.88
	14			5.90	4.78	7.05	5.40	7.63	5.53	8.10	5.57	9.03	6.02	9.36	5.87
	16			5.90	4.78	7.05	5.40	7.63	5.53	8.09	5.57	9.00	6.01	9.32	5.86
	18			5.90	4.78	7.05	5.40	7.63	5.53	8.07	5.56	8.96	6.00	9.28	5.83
Me	20			5.90	4.78	7.05	5.40	7.63	5.53	8.06	5.56	8.93	5.99	9.24	5.82
	22			5.89	4.77	7.05	5.40	7.63	5.53	8.03	5.55	8.82	5.95	9.11	5.78
23	24			5.88	4.77	7.05	5.40	7.63	5.53	7.99	5.53	8.70	5.90	8.99	5.73
(m³/min)	26			5.88	4.77	7.02	5.39	7.56	5.50	7.89	5.50	8.57	5.85	8.85	5.68
	28	5.33	4.71	5.87	4.77	6.98	5.37	7.49	5.47	7.80	5.47	8.43	5.80	8.71	5.63
	30	5.33	4.71	5.86	4.76	6.93	5.35	7.41	5.43	7.71	5.43	8.30	5.75	8.58	5.59
	32	5.33	4.71	5.85	4.76	6.88	5.33	7.34	5.41	7.62	5.40	8.17	5.70	8.45	5.51
	34	5.33	4.71	5.83	4.74	6.85	5.32	7.25	5.36	7.50	5.35	8.00	5.64	8.28	5.47
	35	5.33	4.71	5.82	4.74	6.84	5.30	7.20	5.35	7.44	5.32	7.91	5.57	8.19	5.44
	36	5.33	4.71	5.81	4.73	6.79	5.29	7.16	5.34	7.37	5.30	7.77	5.53	8.03	5.41
	38	5.33	4.71	5.80	4.73	6.68	5.24	7.09	5.30	7.22	5.24	7.49	5.44	7.71	5.29
	39	5.33	4.71	5.79	4.72	6.63	5.22	7.05	5.29	7.15	5.21	7.34	5.38	7.55	5.24
	41	5.33	4.71	5.77	4.72	6.43	5.14	6.77	5.17	6.85	5.09	7.02	5.27	7.20	5.12
	43	5.33	4.71	5.75	4.71	6.24	5.04	6.48	5.03	6.55	4.96	6.69	5.16	6.84	5.00

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	4.51	4.51	4.51	4.51	4.51
	-17.8	-18	4.80	4.80	4.80	4.80	4.80
	-15.7	-16	5.09	5.09	5.09	5.09	5.09
	-13.7	-14	5.38	5.38	5.38	5.38	5.38
	-11.7	-12	5.67	5.67	5.67	5.67	5.67
Me	-9.6	-10	5.96	5.96	5.96	5.96	5.96
	-7.5	-8	6.32	6.32	6.32	6.32	6.32
23	-5.5	-6	6.68	6.68	6.68	6.68	6.68
(m³/min)	-3.4	-4	6.92	6.91	6.90	6.83	6.76
	-1.3	-2	7.15	7.13	7.11	6.98	6.84
	0.8	0	7.54	7.43	7.32	7.06	6.80
	3.9	3	8.18	7.89	7.60	7.17	6.74
	7.0	6	8.94	8.35	7.77	7.23	6.68
	10.1	9	8.88	8.31	7.74	7.18	6.63
	13.2	12	8.82	8.26	7.69	7.13	6.57
	16.9	15.5	8.75	8.19	7.63	7.06	6.50

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			5.28	4.24	6.31	4.79	6.83	4.90	7.26	4.98	8.13	5.37	8.45	5.24
	12			5.28	4.24	6.31	4.79	6.83	4.90	7.25	4.97	8.11	5.36	8.41	5.21
	14			5.28	4.24	6.31	4.79	6.83	4.90	7.24	4.97	8.08	5.35	8.37	5.20
	16			5.28	4.24	6.31	4.79	6.83	4.90	7.23	4.96	8.05	5.33	8.34	5.20
	18			5.28	4.24	6.31	4.79	6.83	4.90	7.22	4.95	8.02	5.32	8.30	5.17
Lo	20			5.28	4.24	6.31	4.79	6.83	4.90	7.21	4.95	7.99	5.31	8.26	5.16
	22			5.27	4.21	6.31	4.79	6.83	4.90	7.18	4.94	7.89	5.28	8.15	5.12
20	24			5.26	4.21	6.31	4.79	6.83	4.90	7.15	4.93	7.79	5.24	8.04	5.08
(m³/min)	26			5.26	4.21	6.28	4.78	6.76	4.88	7.06	4.89	7.66	5.19	7.92	5.02
	28	4.77	4.18	5.25	4.21	6.25	4.77	6.70	4.85	6.98	4.86	7.54	5.14	7.79	4.98
	30	4.77	4.18	5.24	4.20	6.20	4.74	6.63	4.83	6.90	4.82	7.43	5.08	7.68	4.96
	32	4.77	4.18	5.23	4.20	6.15	4.71	6.57	4.80	6.82	4.79	7.31	5.04	7.56	4.91
	34	4.77	4.18	5.21	4.19	6.13	4.70	6.48	4.76	6.71	4.75	7.16	5.00	7.40	4.86
	35	4.77	4.18	5.20	4.19	6.12	4.70	6.44	4.74	6.65	4.72	7.08	4.96	7.32	4.84
	36	4.77	4.18	5.20	4.19	6.07	4.68	6.41	4.73	6.59	4.70	6.95	4.92	7.18	4.79
	38	4.77	4.18	5.18	4.18	5.98	4.65	6.34	4.68	6.46	4.63	6.70	4.82	6.90	4.69
	39	4.77	4.18	5.18	4.18	5.93	4.63	6.31	4.67	6.40	4.61	6.57	4.77	6.76	4.65
	41	4.77	4.18	5.16	4.17	5.76	4.56	6.05	4.58	6.13	4.51	6.28	4.67	6.44	4.52
	43	4.77	4.18	5.14	4.16	5.58	4.48	5.80	4.48	5.86	4.40	5.99	4.55	6.12	4.43

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	3.99	3.99	3.99	3.99	3.99
	-17.8	-18	4.24	4.24	4.24	4.24	4.24
	-15.7	-16	4.50	4.50	4.50	4.50	4.50
	-13.7	-14	4.76	4.76	4.76	4.76	4.76
	-11.7	-12	5.01	5.01	5.01	5.01	5.01
Lo	-9.6	-10	5.27	5.27	5.27	5.27	5.27
	-7.5	-8	5.59	5.59	5.59	5.59	5.59
20	-5.5	-6	5.91	5.91	5.91	5.91	5.91
(m³/min)	-3.4	-4	6.12	6.11	6.10	6.04	5.98
	-1.3	-2	6.32	6.31	6.29	6.17	6.05
	0.8	0	6.67	6.57	6.48	6.25	6.02
	3.9	3	7.24	6.98	6.72	6.34	5.96
	7.0	6	7.91	7.39	6.87	6.39	5.91
	10.1	9	7.85	7.35	6.85	6.36	5.86
	13.2	12	7.80	7.30	6.81	6.31	5.81
	16.9	15.5	7.74	7.24	6.75	6.25	5.75

Notes (1) This data shows average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

PJB001Z731

Model **FDTW112KXE6F** Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			9.18	7.26	10.97	8.22	11.87	8.42	12.63	8.54	14.15	9.22	14.69	8.95
	12			9.18	7.26	10.97	8.22	11.87	8.42	12.61	8.53	14.10	9.21	14.63	8.93
	14			9.18	7.26	10.97	8.22	11.87	8.42	12.60	8.53	14.05	9.14	14.56	8.91
	16			9.18	7.26	10.97	8.22	11.87	8.42	12.58	8.52	14.00	9.13	14.50	8.89
	18			9.18	7.26	10.97	8.22	11.87	8.42	12.56	8.51	13.94	9.11	14.44	8.88
P-Hi	20			9.18	7.26	10.97	8.22	11.87	8.42	12.55	8.51	13.89	9.09	14.37	8.86
	22			9.17	7.26	10.97	8.22	11.87	8.42	12.49	8.49	13.72	9.04	14.18	8.79
31	24			9.15	7.25	10.97	8.22	11.87	8.42	12.43	8.45	13.54	8.98	13.98	8.71
(m³/min)	26			9.15	7.25	10.92	8.17	11.76	8.38	12.28	8.40	13.33	8.90	13.77	8.65
	28	8.29	7.15	9.14	7.24	10.86	8.14	11.65	8.33	12.14	8.34	13.11	8.81	13.55	8.57
	30	8.29	7.15	9.12	7.23	10.78	8.11	11.54	8.28	12.00	8.27	12.91	8.73	13.35	8.50
	32	8.29	7.15	9.09	7.22	10.70	8.08	11.42	8.23	11.85	8.22	12.71	8.65	13.15	8.42
	34	8.29	7.15	9.06	7.21	10.66	8.07	11.27	8.16	11.66	8.14	12.45	8.55	12.87	8.33
	35	8.29	7.15	9.05	7.21	10.64	8.06	11.20	8.10	11.57	8.11	12.31	8.49	12.74	8.27
	36	8.29	7.15	9.04	7.20	10.56	8.03	11.14	8.08	11.46	8.02	12.09	8.43	12.49	8.15
	38	8.29	7.15	9.02	7.20	10.40	7.97	11.03	8.04	11.24	7.95	11.65	8.22	12.00	8.01
	39	8.29	7.15	9.00	7.19	10.32	7.94	10.98	8.02	11.13	7.91	11.43	8.15	11.75	7.94
	41	8.29	7.15	8.97	7.17	10.01	7.80	10.53	7.84	10.66	7.74	10.92	7.98	11.20	7.75
	43	8.29	7.15	8.94	7.16	9.70	7.67	10.08	7.67	10.19	7.55	10.41	7.81	10.65	7.58

Heating mode (kW)

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	7.25	7.25	7.25	7.25	7.25
	-17.8	-18	7.72	7.72	7.72	7.72	7.72
	-15.7	-16	8.18	8.18	8.18	8.18	8.18
	-13.7	-14	8.65	8.65	8.65	8.65	8.65
	-11.7	-12	9.12	9.12	9.12	9.12	9.12
P-Hi	-9.6	-10	9.58	9.58	9.58	9.58	9.58
	-7.5	-8	10.17	10.17	10.17	10.17	10.17
31	-5.5	-6	10.75	10.75	10.75	10.75	10.75
(m³/min)	-3.4	-4	11.13	11.11	11.09	10.98	10.88
	-1.3	-2	11.50	11.47	11.44	11.22	11.00
	0.8	0	12.13	11.95	11.78	11.36	10.94
	3.9	3	13.16	12.69	12.22	11.53	10.84
	7.0	6	14.38	13.44	12.50	11.63	10.75
	10.1	9	14.28	13.37	12.45	11.55	10.66
	13.2	12	14.19	13.28	12.38	11.47	10.56
	16.9	15.5	14.08	13.17	12.27	11.36	10.45

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			8.30	6.48	9.92	7.35	10.73	7.51	11.42	7.64	12.79	8.24	13.28	8.02
	12			8.30	6.48	9.92	7.35	10.73	7.51	11.40	7.64	12.75	8.23	13.23	8.01
	14			8.30	6.48	9.92	7.35	10.73	7.51	11.39	7.63	12.70	8.21	13.17	7.98
	16			8.30	6.48	9.92	7.35	10.73	7.51	11.37	7.61	12.65	8.18	13.11	7.96
	18			8.30	6.48	9.92	7.35	10.73	7.51	11.36	7.61	12.61	8.17	13.05	7.94
Hi	20			8.30	6.48	9.92	7.35	10.73	7.51	11.34	7.60	12.56	8.15	13.00	7.91
	22			8.29	6.48	9.92	7.35	10.73	7.51	11.29	7.58	12.40	8.08	12.82	7.86
27	24			8.28	6.47	9.92	7.35	10.73	7.51	11.24	7.57	12.24	8.02	12.64	7.79
(m³/min)	26			8.27	6.47	9.87	7.32	10.63	7.47	11.11	7.48	12.05	7.94	12.45	7.72
	28	7.49	6.39	8.26	6.46	9.82	7.30	10.53	7.43	10.97	7.43	11.86	7.87	12.25	7.65
	30	7.49	6.39	8.24	6.45	9.75	7.27	10.43	7.40	10.85	7.39	11.68	7.80	12.07	7.58
	32	7.49	6.39	8.22	6.45	9.67	7.23	10.33	7.35	10.72	7.34	11.50	7.73	11.89	7.48
	34	7.49	6.39	8.20	6.44	9.64	7.22	10.19	7.30	10.55	7.27	11.25	7.60	11.64	7.41
	35	7.49	6.39	8.18	6.43	9.62	7.21	10.13	7.26	10.46	7.24	11.13	7.57	11.52	7.38
	36	7.49	6.39	8.17	6.43	9.55	7.18	10.08	7.24	10.36	7.19	10.93	7.50	11.29	7.31
	38	7.49	6.39	8.15	6.42	9.40	7.12	9.97	7.20	10.16	7.11	10.53	7.36	10.85	7.16
	39	7.49	6.39	8.14	6.41	9.33	7.09	9.92	7.17	10.06	7.07	10.33	7.28	10.62	7.08
	41	7.49	6.39	8.11	6.40	9.05	6.97	9.52	7.02	9.64	6.90	9.87	7.11	10.13	6.91
	43	7.49	6.39	8.08	6.39	8.77	6.84	9.11	6.84	9.21	6.73	9.41	6.94	9.63	6.74

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	6.46	6.46	6.46	6.46	6.46
	-17.8	-18	6.88	6.88	6.88	6.88	6.88
	-15.7	-16	7.29	7.29	7.29	7.29	7.29
	-13.7	-14	7.71	7.71	7.71	7.71	7.71
	-11.7	-12	8.13	8.13	8.13	8.13	8.13
Hi	-9.6	-10	8.54	8.54	8.54	8.54	8.54
	-7.5	-8	9.06	9.06	9.06	9.06	9.06
27	-5.5	-6	9.58	9.58	9.58	9.58	9.58
(m³/min)	-3.4	-4	9.92	9.90	9.89	9.79	9.69
	-1.3	-2	10.25	10.22	10.19	10.00	9.80
	0.8	0	10.81	10.65	10.50	10.12	9.75
	3.9	3	11.73	11.31	10.89	10.28	9.66
	7.0	6	12.81	11.98	11.14	10.36	9.58
	10.1	9	12.73	11.91	11.10	10.30	9.50
	13.2	12	12.64	11.84	11.03	10.22	9.41
	16.9	15.5	12.55	11.74	10.93	10.12	9.32

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			7.34	5.69	8.78	6.44	9.50	6.59	10.10	6.70	11.32	7.22	11.75	7.03
	12			7.34	5.69	8.78	6.44	9.50	6.59	10.09	6.70	11.28	7.21	11.70	7.01
	14			7.34	5.69	8.78	6.44	9.50	6.59	10.08	6.69	11.24	7.19	11.65	7.00
	16			7.34	5.69	8.78	6.44	9.50	6.59	10.06	6.69	11.19	7.18	11.60	6.97
	18			7.34	5.69	8.78	6.44	9.50	6.59	10.05	6.67	11.15	7.15	11.55	6.96
Me	20			7.34	5.69	8.78	6.44	9.50	6.59	10.04	6.67	11.11	7.14	11.50	6.94
	22			7.33	5.68	8.78	6.44	9.50	6.59	9.99	6.63	10.97	7.08	11.34	6.88
23	24			7.32	5.67	8.77	6.44	9.50	6.59	9.94	6.61	10.83	7.02	11.18	6.82
(m³/min)	26			7.32	5.67	8.73	6.41	9.41	6.56	9.82	6.57	10.66	6.96	11.01	6.76
	28	6.63	5.58	7.31	5.66	8.69	6.40	9.32	6.52	9.71	6.53	10.49	6.89	10.84	6.70
	30	6.63	5.58	7.29	5.66	8.62	6.37	9.23	6.48	9.59	6.48	10.33	6.83	10.68	6.64
	32	6.63	5.58	7.27	5.65	8.56	6.33	9.14	6.44	9.48	6.43	10.17	6.76	10.52	6.55
	34	6.63	5.58	7.25	5.64	8.53	6.32	9.02	6.40	9.33	6.37	9.96	6.66	10.30	6.49
	35	6.63	5.58	7.24	5.63	8.51	6.32	8.96	6.36	9.26	6.34	9.85	6.62	10.19	6.46
	36	6.63	5.58	7.23	5.63	8.45	6.29	8.91	6.34	9.17	6.30	9.67	6.57	9.99	6.40
	38	6.63	5.58	7.21	5.62	8.32	6.23	8.82	6.31	8.99	6.23	9.32	6.44	9.60	6.26
	39	6.63	5.58	7.20	5.62	8.25	6.21	8.78	6.28	8.90	6.19	9.14	6.37	9.40	6.19
	41	6.63	5.58	7.18	5.61	8.01	6.09	8.42	6.14	8.53	6.04	8.73	6.22	8.96	6.04
	43	6.63	5.58	7.15	5.60	7.76	5.99	8.06	5.99	8.15	5.86	8.33	6.07	8.52	5.88

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	5.63	5.63	5.63	5.63	5.63
	-17.8	-18	6.00	6.00	6.00	6.00	6.00
	-15.7	-16	6.36	6.36	6.36	6.36	6.36
	-13.7	-14	6.72	6.72	6.72	6.72	6.72
	-11.7	-12	7.09	7.09	7.09	7.09	7.09
Me	-9.6	-10	7.45	7.45	7.45	7.45	7.45
	-7.5	-8	7.90	7.90	7.90	7.90	7.90
23	-5.5	-6	8.35	8.35	8.35	8.35	8.35
(m³/min)	-3.4	-4	8.65	8.63	8.62	8.54	8.45
	-1.3	-2	8.94	8.91	8.89	8.72	8.55
	0.8	0	9.42	9.29	9.16	8.83	8.50
	3.9	3	10.22	9.86	9.50	8.96	8.43
	7.0	6	11.17	10.44	9.71	9.03	8.35
	10.1	9	11.10	10.39	9.68	8.98	8.28
	13.2	12	11.03	10.32	9.62	8.91	8.21
	16.9	15.5	10.94	10.24	9.53	8.83	8.12

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			6.57	5.04	7.85	5.70	8.49	5.85	9.04	5.95	10.12	6.41	10.51	6.24
	12			6.57	5.04	7.85	5.70	8.49	5.85	9.03	5.95	10.09	6.40	10.47	6.23
	14			6.57	5.04	7.85	5.70	8.49	5.85	9.01	5.94	10.05	6.39	10.42	6.20
	16			6.57	5.04	7.85	5.70	8.49	5.85	9.00	5.94	10.01	6.36	10.38	6.19
	18			6.57	5.04	7.85	5.70	8.49	5.85	8.99	5.93	9.98	6.35	10.33	6.17
Lo	20			6.57	5.04	7.85	5.70	8.49	5.85	8.98	5.92	9.94	6.34	10.28	6.15
	22			6.56	5.04	7.85	5.70	8.49	5.85	8.93	5.90	9.81	6.29	10.14	6.07
20	24			6.55	5.03	7.85	5.70	8.49	5.85	8.89	5.88	9.69	6.24	10.00	6.03
(m³/min)	26			6.54	5.03	7.81	5.69	8.41	5.82	8.79	5.84	9.54	6.16	9.85	5.99
	28	5.93	4.95	6.54	5.03	7.77	5.65	8.33	5.78	8.68	5.79	9.38	6.10	9.70	5.93
	30	5.93	4.95	6.52	5.01	7.71	5.63	8.25	5.75	8.58	5.75	9.24	6.06	9.55	5.89
	32	5.93	4.95	6.51	5.01	7.65	5.61	8.17	5.71	8.48	5.71	9.10	6.00	9.41	5.84
	34	5.93	4.95	6.49	5.00	7.63	5.60	8.07	5.67	8.35	5.65	8.90	5.93	9.21	5.76
	35	5.93	4.95	6.47	4.99	7.61	5.59	8.01	5.64	8.28	5.63	8.81	5.89	9.11	5.72
	36	5.93	4.95	6.47	4.99	7.56	5.57	7.97	5.61	8.20	5.57	8.65	5.82	8.94	5.66
	38	5.93	4.95	6.45	4.98	7.44	5.53	7.89	5.58	8.04	5.51	8.33	5.70	8.58	5.54
	39	5.93	4.95	6.44	4.98	7.38	5.49	7.85	5.56	7.96	5.48	8.18	5.64	8.41	5.45
	41	5.93	4.95	6.42	4.95	7.16	5.40	7.53	5.43	7.63	5.36	7.81	5.49	8.01	5.34
	43	5.93	4.95	6.40	4.94	6.94	5.31	7.21	5.31	7.29	5.22	7.45	5.38	7.62	5.21

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	4.98	4.98	4.98	4.98	4.98
	-17.8	-18	5.31	5.31	5.31	5.31	5.31
	-15.7	-16	5.63	5.63	5.63	5.63	5.63
	-13.7	-14	5.95	5.95	5.95	5.95	5.95
	-11.7	-12	6.27	6.27	6.27	6.27	6.27
Lo	-9.6	-10	6.59	6.59	6.59	6.59	6.59
	-7.5	-8	6.99	6.99	6.99	6.99	6.99
20	-5.5	-6	7.39	7.39	7.39	7.39	7.39
(m³/min)	-3.4	-4	7.65	7.64	7.63	7.55	7.48
	-1.3	-2	7.91	7.88	7.86	7.71	7.56
	0.8	0	8.34	8.22	8.10	7.81	7.52
	3.9	3	9.04	8.72	8.40	7.93	7.46
	7.0	6	9.88	9.24	8.59	7.99	7.39
	10.1	9	9.82	9.19	8.56	7.94	7.33
	13.2	12	9.75	9.13	8.51	7.88	7.26
	16.9	15.5	9.68	9.06	8.43	7.81	7.19

Notes (1) This data shows average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

PJB001Z731

Model FDTW140KXE6F Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			11.48	8.86	13.72	10.03	14.84	10.29	15.79	10.45	17.69	11.26	18.36	10.95
	12			11.48	8.86	13.72	10.03	14.84	10.29	15.77	10.44	17.62	11.23	18.28	10.93
	14			11.48	8.86	13.72	10.03	14.84	10.29	15.75	10.43	17.56	11.21	18.20	10.90
	16			11.48	8.86	13.72	10.03	14.84	10.29	15.72	10.42	17.49	11.18	18.13	10.87
	18			11.48	8.86	13.72	10.03	14.84	10.29	15.70	10.41	17.43	11.16	18.05	10.85
P-Hi	20			11.48	8.86	13.72	10.03	14.84	10.29	15.68	10.40	17.37	11.14	17.97	10.80
	22			11.46	8.85	13.71	10.03	14.84	10.29	15.61	10.37	17.15	11.05	17.72	10.71
31	24			11.44	8.84	13.71	10.03	14.84	10.29	15.54	10.33	16.93	10.95	17.48	10.63
(m³/min)	26			11.43	8.83	13.64	10.00	14.70	10.23	15.35	10.25	16.66	10.85	17.21	10.54
	28	10.36	8.72	11.42	8.83	13.58	9.97	14.56	10.17	15.17	10.18	16.39	10.75	16.94	10.39
	30	10.36	8.72	11.40	8.82	13.48	9.93	14.42	10.11	14.99	10.10	16.14	10.64	16.69	10.31
	32	10.36	8.72	11.37	8.81	13.37	9.88	14.28	10.04	14.82	10.04	15.89	10.51	16.43	10.22
	34	10.36	8.72	11.33	8.79	13.32	9.86	14.09	9.96	14.58	9.92	15.56	10.39	16.09	10.10
	35	10.36	8.72	11.31	8.78	13.30	9.85	14.00	9.92	14.46	9.88	15.39	10.32	15.92	10.04
	36	10.36	8.72	11.30	8.78	13.20	9.81	13.93	9.89	14.32	9.82	15.11	10.22	15.61	9.94
	38	10.36	8.72	11.27	8.76	13.00	9.72	13.79	9.83	14.05	9.71	14.56	10.02	15.00	9.73
	39	10.36	8.72	11.26	8.76	12.90	9.67	13.72	9.80	13.91	9.66	14.28	9.92	14.69	9.63
	41	10.36	8.72	11.22	8.74	12.51	9.50	13.16	9.56	13.32	9.41	13.65	9.69	14.00	9.41
	43	10.36	8.72	11.18	8.72	12.13	9.34	12.60	9.33	12.74	9.18	13.02	9.47	13.31	9.17

Heating mode (kW)

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	9.28	9.28	9.28	9.28	9.28
	-17.8	-18	9.88	9.88	9.88	9.88	9.88
	-15.7	-16	10.47	10.47	10.47	10.47	10.47
	-13.7	-14	11.07	11.07	11.07	11.07	11.07
	-11.7	-12	11.67	11.67	11.67	11.67	11.67
P-Hi	-9.6	-10	12.27	12.27	12.27	12.27	12.27
	-7.5	-8	13.01	13.01	13.01	13.01	13.01
31	-5.5	-6	13.76	13.76	13.76	13.76	13.76
(m³/min)	-3.4	-4	14.24	14.22	14.20	14.06	13.92
	-1.3	-2	14.72	14.68	14.64	14.36	14.08
	0.8	0	15.52	15.30	15.08	14.54	14.00
	3.9	3	16.84	16.24	15.64	14.76	13.88
	7.0	6	18.40	17.20	16.00	14.88	13.76
	10.1	9	18.28	17.11	15.94	14.79	13.64
	13.2	12	18.16	17.00	15.84	14.68	13.52
	16.9	15.5	18.02	16.86	15.70	14.54	13.38

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			10.38	7.75	12.40	8.78	13.42	9.03	14.28	9.17	15.99	9.89	16.60	9.60
	12			10.38	7.75	12.40	8.78	13.42	9.03	14.26	9.16	15.93	9.86	16.53	9.58
	14			10.38	7.75	12.40	8.78	13.42	9.03	14.24	9.15	15.87	9.83	16.46	9.55
	16			10.38	7.75	12.40	8.78	13.42	9.03	14.22	9.15	15.82	9.81	16.39	9.49
	18			10.38	7.75	12.40	8.78	13.42	9.03	14.20	9.14	15.76	9.79	16.32	9.46
Hi	20			10.38	7.75	12.40	8.78	13.42	9.03	14.18	9.13	15.70	9.76	16.25	9.44
	22			10.36	7.74	12.40	8.78	13.42	9.03	14.11	9.10	15.50	9.65	16.02	9.36
27	24			10.35	7.73	12.39	8.77	13.42	9.03	14.05	9.08	15.30	9.57	15.80	9.29
(m³/min)	26			10.34	7.73	12.34	8.75	13.29	8.96	13.88	8.99	15.06	9.48	15.56	9.21
	28	9.37	7.60	10.33	7.72	12.28	8.72	13.16	8.91	13.72	8.92	14.82	9.39	15.32	9.11
	30	9.37	7.60	10.30	7.71	12.18	8.68	13.04	8.85	13.56	8.85	14.60	9.30	15.09	9.02
	32	9.37	7.60	10.28	7.70	12.09	8.63	12.91	8.79	13.40	8.78	14.37	9.22	14.86	8.94
	34	9.37	7.60	10.24	7.67	12.05	8.61	12.74	8.71	13.18	8.69	14.07	9.09	14.55	8.83
	35	9.37	7.60	10.23	7.67	12.03	8.61	12.66	8.68	13.08	8.65	13.91	9.02	14.40	8.76
	36	9.37	7.60	10.22	7.66	11.93	8.56	12.59	8.65	12.95	8.59	13.66	8.92	14.12	8.67
	38	9.37	7.60	10.19	7.65	11.75	8.48	12.47	8.60	12.70	8.48	13.16	8.73	13.56	8.46
	39	9.37	7.60	10.18	7.64	11.66	8.44	12.40	8.56	12.57	8.43	12.91	8.64	13.28	8.37
	41	9.37	7.60	10.14	7.63	11.31	8.28	11.90	8.34	12.05	8.21	12.34	8.41	12.66	8.11
	43	9.37	7.60	10.11	7.61	10.96	8.11	11.39	8.10	11.52	7.97	11.77	8.17	12.03	7.91

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	8.27	8.27	8.27	8.27	8.27
	-17.8	-18	8.80	8.80	8.80	8.80	8.80
	-15.7	-16	9.34	9.34	9.34	9.34	9.34
	-13.7	-14	9.87	9.87	9.87	9.87	9.87
	-11.7	-12	10.40	10.40	10.40	10.40	10.40
Hi	-9.6	-10	10.93	10.93	10.93	10.93	10.93
	-7.5	-8	11.60	11.60	11.60	11.60	11.60
27	-5.5	-6	12.26	12.26	12.26	12.26	12.26
(m³/min)	-3.4	-4	12.69	12.67	12.66	12.53	12.41
	-1.3	-2	13.12	13.08	13.05	12.80	12.55
	0.8	0	13.83	13.64	13.44	12.96	12.48
	3.9	3	15.01	14.47	13.94	13.15	12.37
	7.0	6	16.40	15.33	14.26	13.26	12.26
	10.1	9	16.29	15.25	14.21	13.18	12.16
	13.2	12	16.19	15.15	14.12	13.08	12.05
	16.9	15.5	16.06	15.03	13.99	12.96	11.92

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			9.18	6.78	10.97	7.69	11.87	7.91	12.63	8.05	14.15	8.66	14.69	8.41
	12			9.18	6.78	10.97	7.69	11.87	7.91	12.61	8.04	14.10	8.64	14.63	8.39
	14			9.18	6.78	10.97	7.69	11.87	7.91	12.59	8.03	14.04	8.61	14.56	8.37
	16			9.18	6.78	10.97	7.69	11.87	7.91	12.58	8.03	13.99	8.59	14.50	8.35
	18			9.18	6.78	10.97	7.69	11.87	7.91	12.56	8.02	13.94	8.58	14.44	8.33
Me	20			9.18	6.78	10.97	7.69	11.87	7.91	12.54	8.01	13.89	8.56	14.37	8.29
	22			9.17	6.78	10.97	7.69	11.87	7.91	12.49	7.98	13.72	8.49	14.18	8.22
23	24			9.15	6.77	10.96	7.69	11.87	7.91	12.43	7.95	13.54	8.41	13.98	8.14
(m³/min)	26			9.15	6.77	10.91	7.65	11.76	7.86	12.28	7.89	13.33	8.32	13.76	8.05
	28	8.29	6.65	9.14	6.76	10.86	7.62	11.65	7.81	12.13	7.82	13.11	8.22	13.55	7.98
	30	8.29	6.65	9.12	6.75	10.78	7.59	11.53	7.75	11.99	7.76	12.91	8.15	13.35	7.90
	32	8.29	6.65	9.09	6.73	10.69	7.55	11.42	7.71	11.85	7.70	12.71	8.06	13.14	7.82
	34	8.29	6.65	9.06	6.72	10.66	7.54	11.27	7.64	11.66	7.62	12.44	7.95	12.87	7.71
	35	8.29	6.65	9.05	6.72	10.64	7.53	11.20	7.58	11.57	7.57	12.31	7.90	12.74	7.67
	36	8.29	6.65	9.04	6.71	10.56	7.50	11.14	7.56	11.46	7.51	12.09	7.81	12.49	7.58
	38	8.29	6.65	9.01	6.70	10.40	7.43	11.03	7.51	11.24	7.42	11.65	7.64	12.00	7.38
	39	8.29	6.65	9.00	6.69	10.32	7.39	10.97	7.49	11.12	7.37	11.43	7.52	11.75	7.29
	41	8.29	6.65	8.97	6.68	10.01	7.25	10.53	7.31	10.66	7.18	10.92	7.34	11.20	7.12
	43	8.29	6.65	8.94	6.66	9.70	7.11	10.08	7.11	10.19	6.99	10.41	7.15	10.65	6.93

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	7.21	7.21	7.21	7.21	7.21
	-17.8	-18	7.68	7.68	7.68	7.68	7.68
	-15.7	-16	8.14	8.14	8.14	8.14	8.14
	-13.7	-14	8.61	8.61	8.61	8.61	8.61
	-11.7	-12	9.07	9.07	9.07	9.07	9.07
Me	-9.6	-10	9.53	9.53	9.53	9.53	9.53
	-7.5	-8	10.11	10.11	10.11	10.11	10.11
23	-5.5	-6	10.69	10.69	10.69	10.69	10.69
(m³/min)	-3.4	-4	11.07	11.05	11.04	10.93	10.82
	-1.3	-2	11.44	11.41	11.38	11.16	10.94
	0.8	0	12.06	11.89	11.72	11.30	10.88
	3.9	3	13.09	12.62	12.16	11.47	10.79
	7.0	6	14.30	13.37	12.43	11.56	10.69
	10.1	9	14.21	13.30	12.39	11.49	10.60
	13.2	12	14.11	13.21	12.31	11.41	10.51
	16.9	15.5	14.00	13.10	12.20	11.30	10.40

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			8.21	6.01	9.82	6.83	10.62	7.02	11.30	7.15	12.65	7.70	13.14	7.48
	12			8.21	6.01	9.82	6.83	10.62	7.02	11.28	7.14	12.61	7.68	13.08	7.45
	14			8.21	6.01	9.82	6.83	10.62	7.02	11.27	7.14	12.56	7.66	13.03	7.43
	16			8.21	6.01	9.82	6.83	10.62	7.02	11.25	7.13	12.52	7.64	12.97	7.41
	18			8.21	6.01	9.82	6.83	10.62	7.02	11.24	7.12	12.47	7.62	12.91	7.38
Lo	20			8.21	6.01	9.82	6.83	10.62	7.02	11.22	7.11	12.43	7.60	12.86	7.37
	22			8.20	6.01	9.81	6.83	10.62	7.02	11.17	7.09	12.27	7.53	12.68	7.27
20	24			8.19	6.00	9.81	6.83	10.62	7.02	11.12	7.06	12.11	7.46	12.51	7.21
(m³/min)	26			8.18	6.00	9.76	6.80	10.52	6.98	10.99	7.01	11.92	7.37	12.31	7.14
	28	7.41	5.89	8.17	5.99	9.72	6.78	10.42	6.93	10.85	6.94	11.73	7.30	12.12	7.08
	30	7.41	5.89	8.15	5.98	9.64	6.74	10.32	6.89	10.73	6.88	11.55	7.23	11.94	7.00
	32	7.41	5.89	8.13	5.97	9.57	6.71	10.22	6.84	10.60	6.83	11.37	7.15	11.76	6.93
	34	7.41	5.89	8.11	5.97	9.53	6.69	10.08	6.78	10.43	6.75	11.13	7.05	11.51	6.85
	35	7.41	5.89	8.09	5.96	9.52	6.69	10.02	6.75	10.35	6.72	11.01	7.00	11.39	6.79
	36	7.41	5.89	8.08	5.95	9.44	6.65	9.97	6.72	10.25	6.68	10.81	6.92	11.17	6.71
	38	7.41	5.89	8.06	5.94	9.30	6.59	9.87	6.68	10.05	6.59	10.42	6.77	10.73	6.55
	39	7.41	5.89	8.05	5.93	9.23	6.56	9.82	6.66	9.95	6.55	10.22	6.68	10.51	6.47
	41	7.41	5.89	8.03	5.92	8.95	6.41	9.42	6.48	9.53	6.36	9.77	6.51	10.02	6.30
	43	7.41	5.89	8.00	5.91	8.68	6.29	9.02	6.29	9.11	6.18	9.31	6.32	9.52	6.10

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	6.38	6.38	6.38	6.38	6.38
	-17.8	-18	6.79	6.79	6.79	6.79	6.79
	-15.7	-16	7.20	7.20	7.20	7.20	7.20
	-13.7	-14	7.61	7.61	7.61	7.61	7.61
	-11.7	-12	8.02	8.02	8.02	8.02	8.02
Lo	-9.6	-10	8.43	8.43	8.43	8.43	8.43
	-7.5	-8	8.95	8.95	8.95	8.95	8.95
20	-5.5	-6	9.46	9.46	9.46	9.46	9.46
(m³/min)	-3.4	-4	9.79	9.78	9.76	9.67	9.57
	-1.3	-2	10.12	10.09	10.06	9.87	9.68
	0.8	0	10.67	10.52	10.37	10.00	9.62
	3.9	3	11.58	11.16	10.75	10.15	9.54
	7.0	6	12.65	11.82	11.00	10.23	9.46
	10.1	9	12.57	11.76	10.96	10.17	9.38
	13.2	12	12.48	11.69	10.89	10.09	9.29
	16.9	15.5	12.39	11.59	10.79	10.00	9.20

Notes (1) This data shows average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

PJB001Z731

(4) Ceiling cassette-1 way type (FDTS)

Model **FDTS45KXE6F** Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			3.69	2.94	4.41	3.32	4.77	3.40	5.07	3.45	5.68	3.72	5.90	3.61
	12			3.69	2.94	4.41	3.32	4.77	3.40	5.07	3.45	5.66	3.71	5.88	3.61
	14			3.69	2.94	4.41	3.32	4.77	3.40	5.06	3.45	5.64	3.71	5.85	3.60
	16			3.69	2.94	4.41	3.32	4.77	3.40	5.05	3.44	5.62	3.70	5.83	3.59
	18			3.69	2.94	4.41	3.32	4.77	3.40	5.05	3.44	5.60	3.67	5.80	3.58
P-Hi	20			3.69	2.94	4.41	3.32	4.77	3.40	5.04	3.44	5.58	3.67	5.78	3.58
	22			3.68	2.93	4.41	3.32	4.77	3.40	5.02	3.43	5.51	3.65	5.70	3.56
13	24			3.68	2.93	4.41	3.32	4.77	3.40	4.99	3.42	5.44	3.63	5.62	3.53
(m³/min)	26			3.68	2.93	4.39	3.32	4.73	3.38	4.93	3.39	5.35	3.59	5.53	3.49
	28	3.33	2.89	3.67	2.93	4.37	3.30	4.68	3.37	4.88	3.37	5.27	3.56	5.44	3.46
	30	3.33	2.89	3.66	2.93	4.33	3.29	4.64	3.35	4.82	3.34	5.19	3.53	5.36	3.43
	32	3.33	2.89	3.65	2.92	4.30	3.28	4.59	3.33	4.76	3.32	5.11	3.50	5.28	3.40
	34	3.33	2.89	3.64	2.92	4.28	3.26	4.53	3.30	4.69	3.29	5.00	3.46	5.17	3.37
	35	3.33	2.89	3.64	2.92	4.28	3.26	4.50	3.29	4.65	3.27	4.95	3.44	5.12	3.35
	36	3.33	2.89	3.63	2.91	4.24	3.25	4.48	3.28	4.60	3.26	4.86	3.41	5.02	3.32
	38	3.33	2.89	3.62	2.90	4.18	3.22	4.43	3.26	4.52	3.22	4.68	3.32	4.82	3.24
	39	3.33	2.89	3.62	2.90	4.15	3.20	4.41	3.25	4.47	3.20	4.59	3.30	4.72	3.21
	41	3.33	2.89	3.61	2.90	4.02	3.15	4.23	3.16	4.28	3.12	4.39	3.23	4.50	3.14
	43	3.33	2.89	3.59	2.89	3.90	3.11	4.05	3.10	4.09	3.06	4.18	3.16	4.28	3.07

Heating mode (kW)

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	2.90	2.90	2.90	2.90	2.90
	-17.8	-18	3.09	3.09	3.09	3.09	3.09
	-15.7	-16	3.27	3.27	3.27	3.27	3.27
	-13.7	-14	3.46	3.46	3.46	3.46	3.46
	-11.7	-12	3.65	3.65	3.65	3.65	3.65
P-Hi	-9.6	-10	3.83	3.83	3.83	3.83	3.83
	-7.5	-8	4.07	4.07	4.07	4.07	4.07
13	-5.5	-6	4.30	4.30	4.30	4.30	4.30
(m³/min)	-3.4	-4	4.45	4.44	4.44	4.39	4.35
	-1.3	-2	4.60	4.59	4.58	4.49	4.40
	0.8	0	4.85	4.78	4.71	4.54	4.38
	3.9	3	5.26	5.08	4.89	4.61	4.34
	7.0	6	5.75	5.38	5.00	4.65	4.30
	10.1	9	5.71	5.35	4.98	4.62	4.26
	13.2	12	5.68	5.31	4.95	4.59	4.23
	16.9	15.5	5.63	5.27	4.91	4.54	4.18

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			3.48	2.76	4.16	3.12	4.50	3.19	4.79	3.24	5.37	3.49	5.57	3.40
	12			3.48	2.76	4.16	3.12	4.50	3.19	4.78	3.23	5.35	3.49	5.55	3.40
	14			3.48	2.76	4.16	3.12	4.50	3.19	4.78	3.23	5.33	3.48	5.52	3.38
	16			3.48	2.76	4.16	3.12	4.50	3.19	4.77	3.23	5.31	3.48	5.50	3.38
	18			3.48	2.76	4.16	3.12	4.50	3.19	4.77	3.23	5.29	3.46	5.48	3.37
Hi	20			3.48	2.76	4.16	3.12	4.50	3.19	4.76	3.23	5.27	3.46	5.45	3.36
	22			3.48	2.76	4.16	3.12	4.50	3.19	4.74	3.22	5.20	3.43	5.38	3.34
12	24			3.47	2.75	4.16	3.12	4.50	3.19	4.71	3.20	5.14	3.40	5.30	3.31
(m³/min)	26			3.47	2.75	4.14	3.11	4.46	3.18	4.66	3.19	5.06	3.37	5.22	3.28
	28	3.14	2.71	3.47	2.75	4.12	3.10	4.42	3.15	4.60	3.16	4.97	3.34	5.14	3.25
	30	3.14	2.71	3.46	2.74	4.09	3.09	4.38	3.13	4.55	3.12	4.90	3.31	5.06	3.21
	32	3.14	2.71	3.45	2.74	4.06	3.07	4.33	3.11	4.50	3.11	4.82	3.27	4.99	3.19
	34	3.14	2.71	3.44	2.73	4.04	3.07	4.28	3.10	4.42	3.08	4.72	3.24	4.88	3.16
	35	3.14	2.71	3.43	2.73	4.04	3.07	4.25	3.09	4.39	3.07	4.67	3.22	4.83	3.14
	36	3.14	2.71	3.43	2.73	4.01	3.05	4.23	3.08	4.35	3.06	4.59	3.20	4.74	3.11
	38	3.14	2.71	3.42	2.73	3.94	3.02	4.18	3.05	4.26	3.02	4.42	3.13	4.55	3.05
	39	3.14	2.71	3.42	2.73	3.91	3.01	4.16	3.05	4.22	3.00	4.33	3.10	4.46	3.01
	41	3.14	2.71	3.40	2.72	3.80	2.96	3.99	2.98	4.04	2.93	4.14	3.03	4.25	2.94
	43	3.14	2.71	3.39	2.72	3.68	2.91	3.82	2.90	3.87	2.87	3.95	2.96	4.04	2.86

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	2.72	2.72	2.72	2.72	2.72
	-17.8	-18	2.89	2.89	2.89	2.89	2.89
	-15.7	-16	3.07	3.07	3.07	3.07	3.07
	-13.7	-14	3.24	3.24	3.24	3.24	3.24
	-11.7	-12	3.42	3.42	3.42	3.42	3.42
Hi	-9.6	-10	3.59	3.59	3.59	3.59	3.59
	-7.5	-8	3.81	3.81	3.81	3.81	3.81
12	-5.5	-6	4.03	4.03	4.03	4.03	4.03
(m³/min)	-3.4	-4	4.17	4.16	4.16	4.11	4.07
	-1.3	-2	4.31	4.30	4.28	4.20	4.12
	0.8	0	4.54	4.48	4.41	4.26	4.10
	3.9	3	4.93	4.75	4.58	4.32	4.06
	7.0	6	5.38	5.03	4.68	4.35	4.03
	10.1	9	5.35	5.01	4.66	4.33	3.99
	13.2	12	5.31	4.98	4.64	4.30	3.96
	16.9	15.5	5.27	4.93	4.59	4.26	3.92

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			3.27	2.57	3.90	2.90	4.22	2.97	4.49	3.02	5.03	3.26	5.23	3.17
	12			3.27	2.57	3.90	2.90	4.22	2.97	4.49	3.02	5.02	3.25	5.20	3.16
	14			3.27	2.57	3.90	2.90	4.22	2.97	4.48	3.01	5.00	3.25	5.18	3.16
	16			3.27	2.57	3.90	2.90	4.22	2.97	4.48	3.01	4.98	3.24	5.16	3.15
	18			3.27	2.57	3.90	2.90	4.22	2.97	4.47	3.01	4.96	3.23	5.14	3.14
Me	20			3.27	2.57	3.90	2.90	4.22	2.97	4.46	3.01	4.94	3.22	5.11	3.11
	22			3.26	2.56	3.90	2.90	4.22	2.97	4.44	3.00	4.88	3.20	5.04	3.09
11	24			3.26	2.56	3.90	2.90	4.22	2.97	4.42	2.99	4.82	3.16	4.97	3.08
(m³/min)	26			3.25	2.56	3.88	2.90	4.18	2.96	4.37	2.97	4.74	3.14	4.90	3.06
	28	2.95	2.53	3.25	2.56	3.87	2.89	4.14	2.94	4.32	2.95	4.67	3.11	4.82	3.03
	30	2.95	2.53	3.24	2.56	3.84	2.88	4.10	2.93	4.27	2.93	4.59	3.08	4.75	3.00
	32	2.95	2.53	3.24	2.56	3.81	2.86	4.06	2.91	4.22	2.91	4.52	3.06	4.68	2.98
	34	2.95	2.53	3.23	2.55	3.79	2.86	4.01	2.89	4.15	2.88	4.43	3.02	4.58	2.94
	35	2.95	2.53	3.22	2.55	3.79	2.86	3.98	2.87	4.12	2.87	4.38	3.01	4.53	2.92
	36	2.95	2.53	3.22	2.55	3.76	2.85	3.96	2.87	4.08	2.85	4.30	2.98	4.44	2.89
	38	2.95	2.53	3.21	2.54	3.70	2.82	3.92	2.85	4.00	2.81	4.14	2.91	4.27	2.82
	39	2.95	2.53	3.20	2.54	3.67	2.80	3.91	2.84	3.96	2.80	4.07	2.89	4.18	2.79
	41	2.95	2.53	3.19	2.53	3.56	2.75	3.75	2.77	3.79	2.72	3.89	2.81	3.98	2.74
	43	2.95	2.53	3.18	2.53	3.45	2.71	3.59	2.71	3.63	2.67	3.70	2.75	3.79	2.67

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	2.53	2.53	2.53	2.53	2.53
	-17.8	-18	2.69	2.69	2.69	2.69	2.69
	-15.7	-16	2.85	2.85	2.85	2.85	2.85
	-13.7	-14	3.01	3.01	3.01	3.01	3.01
	-11.7	-12	3.18	3.18	3.18	3.18	3.18
Me	-9.6	-10	3.34	3.34	3.34	3.34	3.34
	-7.5	-8	3.54	3.54	3.54	3.54	3.54
11	-5.5	-6	3.74	3.74	3.74	3.74	3.74
(m³/min)	-3.4	-4	3.88	3.87	3.86	3.83	3.79
	-1.3	-2	4.01	3.99	3.98	3.91	3.83
	0.8	0	4.22	4.16	4.10	3.96	3.81
	3.9	3	4.58	4.42	4.26	4.02	3.78
	7.0	6	5.01	4.68	4.35	4.05	3.74
	10.1	9	4.97	4.66	4.34	4.02	3.71
	13.2	12	4.94	4.63	4.31	3.99	3.68
	16.9	15.5	4.90	4.59	4.27	3.96	3.64

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			2.92	2.27	3.49	2.57	3.77	2.64	4.02	2.68	4.50	2.89	4.67	2.81
	12			2.92	2.27	3.49	2.57	3.77	2.64	4.01	2.67	4.48	2.88	4.65	2.81
	14			2.92	2.27	3.49	2.57	3.77	2.64	4.00	2.67	4.47	2.88	4.63	2.78
	16			2.92	2.27	3.49	2.57	3.77	2.64	4.00	2.67	4.45	2.87	4.61	2.78
	18			2.92	2.27	3.49	2.57	3.77	2.64	3.99	2.67	4.43	2.86	4.59	2.77
Lo	20			2.92	2.27	3.49	2.57	3.77	2.64	3.99	2.67	4.42	2.86	4.57	2.77
	22			2.91	2.27	3.49	2.57	3.77	2.64	3.97	2.66	4.36	2.82	4.51	2.75
9.5	24			2.91	2.27	3.49	2.57	3.77	2.64	3.95	2.65	4.31	2.81	4.45	2.73
(m³/min)	26			2.91	2.27	3.47	2.57	3.74	2.63	3.91	2.63	4.24	2.78	4.38	2.70
	28	2.64	2.24	2.91	2.27	3.45	2.55	3.70	2.61	3.86	2.61	4.17	2.76	4.31	2.68
	30	2.64	2.24	2.90	2.26	3.43	2.54	3.67	2.59	3.81	2.59	4.11	2.73	4.24	2.65
	32	2.64	2.24	2.89	2.26	3.40	2.53	3.63	2.58	3.77	2.58	4.04	2.71	4.18	2.63
	34	2.64	2.24	2.88	2.25	3.39	2.52	3.58	2.55	3.71	2.55	3.96	2.68	4.09	2.60
	35	2.64	2.24	2.88	2.25	3.38	2.52	3.56	2.55	3.68	2.53	3.91	2.66	4.05	2.59
	36	2.64	2.24	2.87	2.25	3.36	2.51	3.54	2.53	3.64	2.52	3.84	2.63	3.97	2.56
	38	2.64	2.24	2.87	2.25	3.31	2.49	3.51	2.51	3.57	2.48	3.70	2.56	3.81	2.50
	39	2.64	2.24	2.86	2.25	3.28	2.48	3.49	2.51	3.54	2.47	3.63	2.54	3.74	2.48
	41	2.64	2.24	2.85	2.24	3.18	2.44	3.35	2.46	3.39	2.42	3.47	2.49	3.56	2.42
	43	2.64	2.24	2.84	2.24	3.08	2.39	3.20	2.39	3.24	2.36	3.31	2.43	3.39	2.36

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	2.23	2.23	2.23	2.23	2.23
	-17.8	-18	2.37	2.37	2.37	2.37	2.37
	-15.7	-16	2.52	2.52	2.52	2.52	2.52
	-13.7	-14	2.66	2.66	2.66	2.66	2.66
	-11.7	-12	2.80	2.80	2.80	2.80	2.80
Lo	-9.6	-10	2.95	2.95	2.95	2.95	2.95
	-7.5	-8	3.13	3.13	3.13	3.13	3.13
9.5	-5.5	-6	3.30	3.30	3.30	3.30	3.30
(m³/min)	-3.4	-4	3.42	3.41	3.41	3.38	3.34
	-1.3	-2	3.54	3.53	3.52	3.45	3.38
	0.8	0	3.73	3.67	3.62	3.49	3.36
	3.9	3	4.04	3.90	3.76	3.54	3.33
	7.0	6	4.42	4.13	3.84	3.57	3.30
	10.1	9	4.39	4.11	3.83	3.55	3.28
	13.2	12	4.36	4.08	3.80	3.53	3.25
	16.9	15.5	4.33	4.05	3.77	3.49	3.21

Notes (1) This data shows average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

PJC001Z355

Model **FDTS71KXE6F** Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			5.82	4.44	6.96	5.03	7.53	5.17	8.01	5.25	8.97	5.66	9.31	5.50
	12			5.82	4.44	6.96	5.03	7.53	5.17	8.00	5.25	8.94	5.65	9.27	5.49
	14			5.82	4.44	6.96	5.03	7.53	5.17	7.99	5.24	8.90	5.63	9.23	5.48
	16			5.82	4.44	6.96	5.03	7.53	5.17	7.97	5.24	8.87	5.62	9.19	5.46
	18			5.82	4.44	6.96	5.03	7.53	5.17	7.96	5.22	8.84	5.60	9.15	5.44
P-Hi	20			5.82	4.44	6.96	5.03	7.53	5.17	7.95	5.22	8.81	5.59	9.11	5.43
	22			5.81	4.44	6.95	5.03	7.53	5.17	7.92	5.21	8.70	5.55	8.99	5.38
17	24			5.80	4.44	6.95	5.03	7.53	5.17	7.88	5.19	8.58	5.50	8.86	5.32
(m³/min)	26			5.80	4.44	6.92	5.01	7.46	5.14	7.79	5.15	8.45	5.44	8.73	5.27
	28	5.25	4.37	5.79	4.43	6.89	5.00	7.38	5.11	7.69	5.12	8.31	5.38	8.59	5.23
	30	5.25	4.37	5.78	4.43	6.83	4.98	7.31	5.07	7.60	5.07	8.19	5.34	8.46	5.18
	32	5.25	4.37	5.77	4.42	6.78	4.96	7.24	5.03	7.51	5.03	8.06	5.29	8.33	5.14
	34	5.25	4.37	5.75	4.41	6.76	4.95	7.15	4.99	7.39	4.97	7.89	5.23	8.16	5.08
	35	5.25	4.37	5.74	4.41	6.75	4.95	7.10	4.97	7.33	4.95	7.80	5.19	8.08	5.05
	36	5.25	4.37	5.73	4.41	6.69	4.92	7.06	4.96	7.26	4.92	7.66	5.13	7.92	4.99
	38	5.25	4.37	5.72	4.40	6.59	4.88	6.99	4.93	7.12	4.87	7.38	5.03	7.61	4.89
	39	5.25	4.37	5.71	4.40	6.54	4.85	6.96	4.92	7.05	4.84	7.24	4.97	7.45	4.83
	41	5.25	4.37	5.69	4.39	6.35	4.76	6.67	4.79	6.76	4.72	6.92	4.85	7.10	4.69
	43	5.25	4.37	5.67	4.37	6.15	4.68	6.39	4.68	6.46	4.60	6.60	4.72	6.75	4.58

Heating mode (kW)

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	4.64	4.64	4.64	4.64	4.64
	-17.8	-18	4.94	4.94	4.94	4.94	4.94
	-15.7	-16	5.24	5.24	5.24	5.24	5.24
	-13.7	-14	5.54	5.54	5.54	5.54	5.54
	-11.7	-12	5.83	5.83	5.83	5.83	5.83
P-Hi	-9.6	-10	6.13	6.13	6.13	6.13	6.13
	-7.5	-8	6.51	6.51	6.51	6.51	6.51
17	-5.5	-6	6.88	6.88	6.88	6.88	6.88
(m³/min)	-3.4	-4	7.12	7.11	7.10	7.03	6.96
	-1.3	-2	7.36	7.34	7.32	7.18	7.04
	0.8	0	7.76	7.65	7.54	7.27	7.00
	3.9	3	8.42	8.12	7.82	7.38	6.94
	7.0	6	9.20	8.60	8.00	7.44	6.88
	10.1	9	9.14	8.56	7.97	7.40	6.82
	13.2	12	9.08	8.50	7.92	7.34	6.76
	16.9	15.5	9.01	8.43	7.85	7.27	6.69

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			5.28	4.00	6.31	4.53	6.83	4.66	7.27	4.72	8.14	5.08	8.45	4.95
	12			5.28	4.00	6.31	4.53	6.83	4.66	7.26	4.72	8.11	5.07	8.42	4.94
	14			5.28	4.00	6.31	4.53	6.83	4.66	7.25	4.72	8.08	5.06	8.38	4.93
	16			5.28	4.00	6.31	4.53	6.83	4.66	7.24	4.71	8.05	5.05	8.34	4.91
	18			5.28	4.00	6.31	4.53	6.83	4.66	7.23	4.71	8.02	5.04	8.31	4.90
Hi	20			5.28	4.00	6.31	4.53	6.83	4.66	7.22	4.71	7.99	5.03	8.27	4.89
	22			5.27	3.99	6.31	4.53	6.83	4.66	7.18	4.69	7.89	5.00	8.16	4.85
15	24			5.27	3.99	6.31	4.53	6.83	4.66	7.15	4.68	7.79	4.95	8.04	4.80
(m³/min)	26			5.26	3.99	6.28	4.52	6.77	4.63	7.07	4.64	7.67	4.90	7.92	4.76
	28	4.77	3.92	5.26	3.99	6.25	4.50	6.70	4.60	6.98	4.61	7.55	4.85	7.80	4.71
	30	4.77	3.92	5.25	3.98	6.20	4.48	6.64	4.57	6.90	4.57	7.43	4.81	7.68	4.67
	32	4.77	3.92	5.23	3.97	6.15	4.46	6.57	4.54	6.82	4.53	7.32	4.76	7.56	4.62
	34	4.77	3.92	5.22	3.97	6.13	4.45	6.49	4.50	6.71	4.49	7.16	4.70	7.41	4.57
	35	4.77	3.92	5.21	3.97	6.12	4.45	6.44	4.49	6.66	4.47	7.08	4.67	7.33	4.54
	36	4.77	3.92	5.20	3.96	6.08	4.43	6.41	4.47	6.59	4.44	6.96	4.62	7.19	4.47
	38	4.77	3.92	5.19	3.96	5.98	4.39	6.35	4.44	6.47	4.39	6.70	4.51	6.90	4.39
	39	4.77	3.92	5.18	3.95	5.94	4.36	6.32	4.43	6.40	4.36	6.57	4.47	6.76	4.33
	41	4.77	3.92	5.16	3.95	5.76	4.29	6.06	4.32	6.13	4.25	6.28	4.36	6.44	4.23
	43	4.77	3.92	5.14	3.94	5.58	4.20	5.80	4.20	5.86	4.13	5.99	4.25	6.13	4.12

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	4.16	4.16	4.16	4.16	4.16
	-17.8	-18	4.43	4.43	4.43	4.43	4.43
	-15.7	-16	4.70	4.70	4.70	4.70	4.70
	-13.7	-14	4.96	4.96	4.96	4.96	4.96
	-11.7	-12	5.23	5.23	5.23	5.23	5.23
Hi	-9.6	-10	5.50	5.50	5.50	5.50	5.50
	-7.5	-8	5.83	5.83	5.83	5.83	5.83
15	-5.5	-6	6.17	6.17	6.17	6.17	6.17
(m³/min)	-3.4	-4	6.38	6.37	6.37	6.30	6.24
	-1.3	-2	6.60	6.58	6.56	6.44	6.31
	0.8	0	6.96	6.86	6.76	6.52	6.28
	3.9	3	7.55	7.28	7.01	6.62	6.22
	7.0	6	8.25	7.71	7.17	6.67	6.17
	10.1	9	8.19	7.67	7.15	6.63	6.11
	13.2	12	8.14	7.62	7.10	6.58	6.06
	16.9	15.5	8.08	7.56	7.04	6.52	6.00

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			4.41	3.30	5.27	3.74	5.70	3.84	6.06	3.90	6.79	4.21	7.05	4.09
	12			4.41	3.30	5.27	3.74	5.70	3.84	6.05	3.90	6.77	4.20	7.02	4.07
	14			4.41	3.30	5.27	3.74	5.70	3.84	6.05	3.90	6.74	4.18	6.99	4.07
	16			4.41	3.30	5.27	3.74	5.70	3.84	6.04	3.90	6.72	4.18	6.96	4.06
	18			4.41	3.30	5.27	3.74	5.70	3.84	6.03	3.89	6.69	4.17	6.93	4.04
Me	20			4.41	3.30	5.27	3.74	5.70	3.84	6.02	3.88	6.67	4.16	6.90	4.03
	22			4.40	3.29	5.27	3.74	5.70	3.84	5.99	3.87	6.58	4.12	6.80	3.99
12	24			4.39	3.29	5.26	3.73	5.70	3.84	5.97	3.86	6.50	4.09	6.71	3.96
(m³/min)	26			4.39	3.29	5.24	3.72	5.64	3.82	5.90	3.83	6.40	4.05	6.61	3.92
	28	3.98	3.24	4.39	3.29	5.21	3.71	5.59	3.79	5.83	3.80	6.29	4.00	6.50	3.88
	30	3.98	3.24	4.38	3.28	5.17	3.68	5.54	3.77	5.76	3.77	6.20	3.96	6.41	3.85
	32	3.98	3.24	4.36	3.28	5.13	3.67	5.48	3.74	5.69	3.74	6.10	3.92	6.31	3.80
	34	3.98	3.24	4.35	3.27	5.12	3.66	5.41	3.71	5.60	3.70	5.97	3.86	6.18	3.76
	35	3.98	3.24	4.34	3.27	5.11	3.66	5.38	3.69	5.55	3.68	5.91	3.84	6.11	3.73
	36	3.98	3.24	4.34	3.27	5.07	3.64	5.35	3.68	5.50	3.66	5.80	3.80	6.00	3.69
	38	3.98	3.24	4.33	3.26	4.99	3.61	5.29	3.65	5.39	3.60	5.59	3.72	5.76	3.60
	39	3.98	3.24	4.32	3.26	4.95	3.59	5.27	3.64	5.34	3.58	5.48	3.68	5.64	3.57
	41	3.98	3.24	4.31	3.25	4.80	3.53	5.05	3.56	5.12	3.50	5.24	3.58	5.38	3.47
	43	3.98	3.24	4.29	3.24	4.66	3.46	4.84	3.46	4.89	3.40	5.00	3.49	5.11	3.38

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	3.41	3.41	3.41	3.41	3.41
	-17.8	-18	3.63	3.63	3.63	3.63	3.63
	-15.7	-16	3.84	3.84	3.84	3.84	3.84
	-13.7	-14	4.06	4.06	4.06	4.06	4.06
	-11.7	-12	4.28	4.28	4.28	4.28	4.28
Me	-9.6	-10	4.50	4.50	4.50	4.50	4.50
	-7.5	-8	4.78	4.78	4.78	4.78	4.78
12	-5.5	-6	5.05	5.05	5.05	5.05	5.05
(m³/min)	-3.4	-4	5.23	5.22	5.21	5.16	5.11
	-1.3	-2	5.40	5.39	5.37	5.27	5.17
	0.8	0	5.70	5.62	5.53	5.34	5.14
	3.9	3	6.18	5.96	5.74	5.42	5.09
	7.0	6	6.75	6.31	5.87	5.46	5.05
	10.1	9	6.71	6.28	5.85	5.43	5.01
	13.2	12	6.67	6.24	5.81	5.39	4.96
	16.9	15.5	6.61	6.19	5.76	5.34	4.91

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			3.77	2.80	4.51	3.18	4.88	3.27	5.19	3.32	5.81	3.58	6.04	3.48
	12			3.77	2.80	4.51	3.18	4.88	3.27	5.18	3.32	5.79	3.57	6.01	3.47
	14			3.77	2.80	4.51	3.18	4.88	3.27	5.18	3.32	5.77	3.56	5.98	3.45
	16			3.77	2.80	4.51	3.18	4.88	3.27	5.17	3.31	5.75	3.55	5.96	3.45
	18			3.77	2.80	4.51	3.18	4.88	3.27	5.16	3.30	5.73	3.54	5.93	3.44
Lo	20			3.77	2.80	4.51	3.18	4.88	3.27	5.15	3.29	5.71	3.54	5.91	3.41
	22			3.77	2.80	4.51	3.18	4.88	3.27	5.13	3.29	5.64	3.51	5.82	3.39
10	24			3.76	2.79	4.51	3.18	4.88	3.27	5.11	3.28	5.56	3.46	5.74	3.36
(m³/min)	26			3.76	2.79	4.48	3.16	4.83	3.24	5.05	3.26	5.48	3.43	5.66	3.33
	28	3.40	2.74	3.75	2.79	4.46	3.16	4.79	3.23	4.99	3.23	5.39	3.40	5.57	3.30
	30	3.40	2.74	3.75	2.79	4.43	3.14	4.74	3.20	4.93	3.20	5.31	3.37	5.48	3.26
	32	3.40	2.74	3.74	2.79	4.39	3.12	4.69	3.18	4.87	3.18	5.22	3.33	5.40	3.23
	34	3.40	2.74	3.72	2.78	4.38	3.12	4.63	3.15	4.79	3.15	5.11	3.29	5.29	3.19
	35	3.40	2.74	3.72	2.78	4.37	3.12	4.60	3.14	4.75	3.13	5.06	3.26	5.23	3.17
	36	3.40	2.74	3.71	2.77	4.34	3.10	4.58	3.13	4.71	3.11	4.97	3.23	5.13	3.13
	38	3.40	2.74	3.70	2.76	4.27	3.07	4.53	3.11	4.62	3.07	4.79	3.16	4.93	3.05
	39	3.40	2.74	3.70	2.76	4.24	3.05	4.51	3.10	4.57	3.05	4.69	3.12	4.83	3.02
	41	3.40	2.74	3.69	2.76	4.11	2.99	4.33	3.02	4.38	2.97	4.49	3.04	4.60	2.94
	43	3.40	2.74	3.67	2.75	3.99	2.93	4.14	2.94	4.19	2.88	4.28	2.96	4.37	2.86

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	2.88	2.88	2.88	2.88	2.88
	-17.8	-18	3.06	3.06	3.06	3.06	3.06
	-15.7	-16	3.25	3.25	3.25	3.25	3.25
	-13.7	-14	3.43	3.43	3.43	3.43	3.43
	-11.7	-12	3.62	3.62	3.62	3.62	3.62
Lo	-9.6	-10	3.81	3.81	3.81	3.81	3.81
	-7.5	-8	4.04	4.04	4.04	4.04	4.04
10	-5.5	-6	4.27	4.27	4.27	4.27	4.27
(m³/min)	-3.4	-4	4.42	4.41	4.40	4.36	4.32
	-1.3	-2	4.57	4.55	4.54	4.45	4.37
	0.8	0	4.81	4.75	4.68	4.51	4.34
	3.9	3	5.22	5.04	4.85	4.58	4.31
	7.0	6	5.71	5.34	4.96	4.62	4.27
	10.1	9	5.67	5.31	4.94	4.59	4.23
	13.2	12	5.63	5.27	4.91	4.55	4.19
	16.9	15.5	5.59	5.23	4.87	4.51	4.15

Notes (1) This data shows average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

PJC001Z355

(5) Duct connected-High static pressure type (FDU)

Model **FDU45KXE6F** Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			3.69	3.26	4.41	3.69	4.77	3.76	5.07	3.80	5.68	4.11	5.90	4.01
	12			3.69	3.26	4.41	3.69	4.77	3.76	5.07	3.80	5.66	4.10	5.88	4.00
	14			3.69	3.26	4.41	3.69	4.77	3.76	5.06	3.79	5.64	4.09	5.85	4.00
	16			3.69	3.26	4.41	3.69	4.77	3.76	5.05	3.79	5.62	4.09	5.83	3.99
	18			3.69	3.26	4.41	3.69	4.77	3.76	5.05	3.79	5.60	4.08	5.80	3.98
P-Hi	20			3.69	3.26	4.41	3.69	4.77	3.76	5.04	3.79	5.58	4.07	5.78	3.97
	22			3.68	3.26	4.41	3.69	4.77	3.76	5.02	3.78	5.51	4.05	5.70	3.95
13	24			3.68	3.26	4.41	3.69	4.77	3.76	4.99	3.77	5.44	4.02	5.62	3.92
(m³/min)	26			3.68	3.26	4.39	3.68	4.73	3.74	4.93	3.74	5.35	3.99	5.53	3.89
	28	3.33	3.20	3.67	3.25	4.37	3.67	4.68	3.72	4.88	3.72	5.27	3.96	5.44	3.86
	30	3.33	3.20	3.66	3.25	4.33	3.66	4.64	3.71	4.82	3.70	5.19	3.93	5.36	3.84
	32	3.33	3.20	3.65	3.25	4.30	3.64	4.59	3.69	4.76	3.68	5.11	3.90	5.28	3.81
	34	3.33	3.20	3.64	3.24	4.28	3.64	4.53	3.66	4.69	3.65	5.00	3.87	5.17	3.77
	35	3.33	3.20	3.64	3.24	4.28	3.64	4.50	3.65	4.65	3.64	4.95	3.85	5.12	3.76
	36	3.33	3.20	3.63	3.24	4.24	3.62	4.48	3.64	4.60	3.62	4.86	3.82	5.02	3.73
	38	3.33	3.20	3.62	3.23	4.18	3.60	4.43	3.62	4.52	3.59	4.68	3.75	4.82	3.66
	39	3.33	3.20	3.62	3.23	4.15	3.58	4.41	3.62	4.47	3.57	4.59	3.72	4.72	3.63
	41	3.33	3.20	3.61	3.23	4.02	3.53	4.23	3.55	4.28	3.50	4.39	3.66	4.50	3.54
	43	3.33	3.20	3.59	3.22	3.90	3.48	4.05	3.48	4.09	3.43	4.18	3.59	4.28	3.47

Heating mode (kW)

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	2.90	2.90	2.90	2.90	2.90
	-17.8	-18	3.09	3.09	3.09	3.09	3.09
	-15.7	-16	3.27	3.27	3.27	3.27	3.27
	-13.7	-14	3.46	3.46	3.46	3.46	3.46
	-11.7	-12	3.65	3.65	3.65	3.65	3.65
P-Hi	-9.6	-10	3.83	3.83	3.83	3.83	3.83
	-7.5	-8	4.07	4.07	4.07	4.07	4.07
13	-5.5	-6	4.30	4.30	4.30	4.30	4.30
(m³/min)	-3.4	-4	4.45	4.44	4.44	4.39	4.35
	-1.3	-2	4.60	4.59	4.58	4.49	4.40
	0.8	0	4.85	4.78	4.71	4.54	4.38
	3.9	3	5.26	5.08	4.89	4.61	4.34
	7.0	6	5.75	5.38	5.00	4.65	4.30
	10.1	9	5.71	5.35	4.98	4.62	4.26
	13.2	12	5.68	5.31	4.95	4.59	4.23
	16.9	15.5	5.63	5.27	4.91	4.54	4.18

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			3.58	2.84	4.28	3.21	4.63	3.29	4.93	3.33	5.52	3.60	5.73	3.50
	12			3.58	2.84	4.28	3.21	4.63	3.29	4.92	3.33	5.50	3.59	5.71	3.50
	14			3.58	2.84	4.28	3.21	4.63	3.29	4.91	3.33	5.48	3.58	5.68	3.49
	16			3.58	2.84	4.28	3.21	4.63	3.29	4.91	3.33	5.46	3.58	5.66	3.48
	18			3.58	2.84	4.28	3.21	4.63	3.29	4.90	3.32	5.44	3.57	5.63	3.47
Hi	20			3.58	2.84	4.28	3.21	4.63	3.29	4.90	3.32	5.42	3.56	5.61	3.46
	22			3.58	2.84	4.28	3.21	4.63	3.29	4.87	3.31	5.35	3.53	5.53	3.43
10	24			3.57	2.84	4.28	3.21	4.63	3.29	4.85	3.30	5.28	3.51	5.46	3.41
(m³/min)	26			3.57	2.84	4.26	3.20	4.59	3.27	4.79	3.28	5.20	3.47	5.37	3.37
	28	3.23	2.79	3.57	2.84	4.24	3.19	4.54	3.25	4.74	3.25	5.12	3.44	5.29	3.35
	30	3.23	2.79	3.56	2.83	4.21	3.18	4.50	3.23	4.68	3.23	5.04	3.41	5.21	3.32
	32	3.23	2.79	3.55	2.83	4.17	3.16	4.46	3.21	4.63	3.21	4.96	3.38	5.13	3.29
	34	3.23	2.79	3.54	2.82	4.16	3.16	4.40	3.19	4.55	3.18	4.86	3.34	5.02	3.25
	35	3.23	2.79	3.53	2.82	4.15	3.15	4.37	3.18	4.51	3.16	4.80	3.32	4.97	3.23
	36	3.23	2.79	3.53	2.82	4.12	3.14	4.35	3.17	4.47	3.15	4.72	3.29	4.87	3.20
	38	3.23	2.79	3.52	2.81	4.06	3.12	4.30	3.15	4.38	3.11	4.54	3.22	4.68	3.13
	39	3.23	2.79	3.51	2.81	4.03	3.10	4.28	3.14	4.34	3.09	4.46	3.19	4.58	3.10
	41	3.23	2.79	3.50	2.80	3.91	3.05	4.11	3.07	4.16	3.02	4.26	3.12	4.37	3.03
	43	3.23	2.79	3.49	2.80	3.78	3.00	3.93	3.00	3.98	2.95	4.06	3.05	4.15	2.96

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	2.80	2.80	2.80	2.80	2.80
	-17.8	-18	2.98	2.98	2.98	2.98	2.98
	-15.7	-16	3.16	3.16	3.16	3.16	3.16
	-13.7	-14	3.34	3.34	3.34	3.34	3.34
	-11.7	-12	3.52	3.52	3.52	3.52	3.52
Hi	-9.6	-10	3.70	3.70	3.70	3.70	3.70
	-7.5	-8	3.93	3.93	3.93	3.93	3.93
10	-5.5	-6	4.15	4.15	4.15	4.15	4.15
(m³/min)	-3.4	-4	4.30	4.29	4.29	4.24	4.20
	-1.3	-2	4.44	4.43	4.42	4.33	4.25
	0.8	0	4.69	4.62	4.55	4.39	4.23
	3.9	3	5.08	4.90	4.72	4.46	4.19
	7.0	6	5.55	5.19	4.83	4.49	4.15
	10.1	9	5.52	5.17	4.81	4.46	4.12
	13.2	12	5.48	5.13	4.78	4.43	4.08
	16.9	15.5	5.44	5.09	4.74	4.39	4.04

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			3.34	2.61	4.00	2.95	4.32	3.02	4.60	3.07	5.15	3.31	5.35	3.22
	12			3.34	2.61	4.00	2.95	4.32	3.02	4.60	3.07	5.14	3.31	5.33	3.22
	14			3.34	2.61	4.00	2.95	4.32	3.02	4.59	3.07	5.12	3.30	5.31	3.21
	16			3.34	2.61	4.00	2.95	4.32	3.02	4.58	3.06	5.10	3.29	5.28	3.20
	18			3.34	2.61	4.00	2.95	4.32	3.02	4.58	3.06	5.08	3.28	5.26	3.19
Me	20			3.34	2.61	4.00	2.95	4.32	3.02	4.57	3.06	5.06	3.28	5.24	3.18
	22			3.34	2.61	4.00	2.95	4.32	3.02	4.55	3.05	5.00	3.25	5.16	3.15
9	24			3.33	2.60	3.99	2.95	4.32	3.02	4.53	3.04	4.93	3.22	5.09	3.13
(m³/min)	26			3.33	2.60	3.98	2.95	4.28	3.01	4.47	3.02	4.86	3.20	5.02	3.10
	28	3.02	2.57	3.33	2.60	3.96	2.94	4.24	2.99	4.42	2.99	4.78	3.17	4.94	3.08
	30	3.02	2.57	3.32	2.60	3.93	2.92	4.20	2.97	4.37	2.97	4.70	3.13	4.86	3.05
	32	3.02	2.57	3.31	2.60	3.90	2.91	4.16	2.95	4.32	2.95	4.63	3.11	4.79	3.02
	34	3.02	2.57	3.30	2.59	3.88	2.90	4.11	2.93	4.25	2.92	4.53	3.07	4.69	2.99
	35	3.02	2.57	3.30	2.59	3.88	2.90	4.08	2.92	4.21	2.91	4.48	3.05	4.64	2.97
	36	3.02	2.57	3.29	2.59	3.85	2.89	4.06	2.91	4.17	2.89	4.40	3.02	4.55	2.93
	38	3.02	2.57	3.28	2.58	3.79	2.86	4.02	2.90	4.09	2.86	4.24	2.96	4.37	2.87
	39	3.02	2.57	3.28	2.58	3.76	2.85	4.00	2.89	4.05	2.84	4.16	2.93	4.28	2.84
	41	3.02	2.57	3.27	2.58	3.65	2.80	3.84	2.82	3.88	2.77	3.98	2.86	4.08	2.78
	43	3.02	2.57	3.26	2.57	3.53	2.75	3.67	2.75	3.71	2.71	3.79	2.79	3.88	2.71

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	2.60	2.60	2.60	2.60	2.60
	-17.8	-18	2.77	2.77	2.77	2.77	2.77
	-15.7	-16	2.94	2.94	2.94	2.94	2.94
	-13.7	-14	3.11	3.11	3.11	3.11	3.11
	-11.7	-12	3.27	3.27	3.27	3.27	3.27
Me	-9.6	-10	3.44	3.44	3.44	3.44	3.44
	-7.5	-8	3.65	3.65	3.65	3.65	3.65
9	-5.5	-6	3.86	3.86	3.86	3.86	3.86
(m³/min)	-3.4	-4	4.00	3.99	3.98	3.95	3.91
	-1.3	-2	4.13	4.12	4.11	4.03	3.95
	0.8	0	4.36	4.29	4.23	4.08	3.93
	3.9	3	4.73	4.56	4.39	4.14	3.90
	7.0	6	5.16	4.83	4.49	4.18	3.86
	10.1	9	5.13	4.80	4.47	4.15	3.83
	13.2	12	5.10	4.77	4.45	4.12	3.79
	16.9	15.5	5.06	4.73	4.41	4.08	3.75

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			3.13	2.39	3.74	2.71	4.05	2.78	4.31	2.82	4.83	3.04	5.01	2.96
	12			3.13	2.39	3.74	2.71	4.05	2.78	4.30	2.82	4.81	3.04	4.99	2.95
	14			3.13	2.39	3.74	2.71	4.05	2.78	4.30	2.82	4.79	3.03	4.97	2.94
	16			3.13	2.39	3.74	2.71	4.05	2.78	4.29	2.82	4.77	3.02	4.95	2.94
	18			3.13	2.39	3.74	2.71	4.05	2.78	4.28	2.81	4.76	3.02	4.92	2.93
Lo	20			3.13	2.39	3.74	2.71	4.05	2.78	4.28	2.81	4.74	3.01	4.90	2.92
	22			3.13	2.39	3.74	2.71	4.05	2.78	4.26	2.80	4.68	2.98	4.84	2.90
8	24			3.12	2.39	3.74	2.71	4.05	2.78	4.24	2.79	4.62	2.96	4.77	2.87
(m³/min)	26			3.12	2.39	3.72	2.70	4.01	2.77	4.19	2.77	4.55	2.93	4.70	2.84
	28	2.83	2.36	3.12	2.39	3.71	2.69	3.97	2.75	4.14	2.75	4.47	2.90	4.62	2.82
	30	2.83	2.36	3.11	2.38	3.68	2.68	3.93	2.73	4.09	2.73	4.40	2.87	4.55	2.79
	32	2.83	2.36	3.10	2.38	3.65	2.67	3.90	2.71	4.04	2.71	4.34	2.85	4.48	2.77
	34	2.83	2.36	3.09	2.37	3.64	2.66	3.85	2.69	3.98	2.69	4.24	2.81	4.39	2.73
	35	2.83	2.36	3.09	2.37	3.63	2.66	3.82	2.68	3.95	2.67	4.20	2.79	4.34	2.72
	36	2.83	2.36	3.08	2.37	3.60	2.65	3.80	2.67	3.91	2.65	4.12	2.76	4.26	2.69
	38	2.83	2.36	3.08	2.37	3.55	2.62	3.76	2.65	3.83	2.62	3.97	2.70	4.09	2.62
	39	2.83	2.36	3.07	2.37	3.52	2.61	3.74	2.64	3.79	2.60	3.90	2.68	4.01	2.60
	41	2.83	2.36	3.06	2.36	3.41	2.56	3.59	2.58	3.64	2.54	3.72	2.61	3.82	2.53
	43	2.83	2.36	3.05	2.36	3.31	2.52	3.44	2.52	3.48	2.48	3.55	2.55	3.63	2.47

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	2.44	2.44	2.44	2.44	2.44
	-17.8	-18	2.60	2.60	2.60	2.60	2.60
	-15.7	-16	2.76	2.76	2.76	2.76	2.76
	-13.7	-14	2.91	2.91	2.91	2.91	2.91
	-11.7	-12	3.07	3.07	3.07	3.07	3.07
Lo	-9.6	-10	3.23	3.23	3.23	3.23	3.23
	-7.5	-8	3.42	3.42	3.42	3.42	3.42
8	-5.5	-6	3.62	3.62	3.62	3.62	3.62
(m³/min)	-3.4	-4	3.75	3.74	3.74	3.70	3.66
	-1.3	-2	3.87	3.86	3.85	3.78	3.70
	0.8	0	4.08	4.03	3.97	3.83	3.68
	3.9	3	4.43	4.27	4.12	3.88	3.65
	7.0	6	4.84	4.53	4.21	3.92	3.62
	10.1	9	4.81	4.50	4.19	3.89	3.59
	13.2	12	4.78	4.47	4.17	3.86	3.56
	16.9	15.5	4.74	4.44	4.13	3.83	3.52

Notes (1) This data shows average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

PJG000Z054

Model **FDU56KXE6F** Cooling mode (kW)

Air flow	Outdoor air temperature (ºCDB)	Indoor air temperature 21 ºCDB 14 ºCWB TC	21 ºCDB 14 ºCWB SHC	23 ºCDB 16 ºCWB TC	23 ºCDB 16 ºCWB SHC	26 ºCDB 18 ºCWB TC	26 ºCDB 18 ºCWB SHC	27 ºCDB 19 ºCWB TC	27 ºCDB 19 ºCWB SHC	28 ºCDB 20 ºCWB TC	28 ºCDB 20 ºCWB SHC	31 ºCDB 22 ºCWB TC	31 ºCDB 22 ºCWB SHC	33 ºCDB 24 ºCWB TC	33 ºCDB 24 ºCWB SHC
	10			4.59	3.66	5.49	4.14	5.94	4.24	6.32	4.30	7.07	4.64	7.35	4.52
	12			4.59	3.66	5.49	4.14	5.94	4.24	6.31	4.29	7.05	4.63	7.31	4.50
	14			4.59	3.66	5.49	4.14	5.94	4.24	6.30	4.29	7.02	4.62	7.28	4.49
	16			4.59	3.66	5.49	4.14	5.94	4.24	6.29	4.28	7.00	4.61	7.25	4.48
	18			4.59	3.66	5.49	4.14	5.94	4.24	6.28	4.28	6.97	4.60	7.22	4.47
P-Hi	20			4.59	3.66	5.49	4.14	5.94	4.24	6.27	4.28	6.95	4.59	7.19	4.46
	22			4.58	3.66	5.49	4.14	5.94	4.24	6.24	4.26	6.86	4.56	7.09	4.43
13	24			4.58	3.66	5.48	4.14	5.94	4.24	6.21	4.25	6.77	4.52	6.99	4.39
(m³/min)	26			4.57	3.65	5.46	4.13	5.88	4.21	6.14	4.22	6.66	4.48	6.88	4.35
	28	4.14	3.60	4.57	3.65	5.43	4.12	5.82	4.19	6.07	4.19	6.56	4.44	6.78	4.32
	30	4.14	3.60	4.56	3.65	5.39	4.10	5.77	4.17	6.00	4.17	6.46	4.40	6.67	4.27
	32	4.14	3.60	4.55	3.65	5.35	4.08	5.71	4.14	5.93	4.14	6.36	4.36	6.57	4.24
	34	4.14	3.60	4.53	3.64	5.33	4.07	5.64	4.11	5.83	4.10	6.22	4.31	6.44	4.19
	35	4.14	3.60	4.52	3.63	5.32	4.07	5.60	4.10	5.79	4.08	6.16	4.28	6.37	4.17
	36	4.14	3.60	4.52	3.63	5.28	4.05	5.57	4.08	5.73	4.06	6.05	4.24	6.25	4.13
	38	4.14	3.60	4.51	3.63	5.20	4.02	5.52	4.06	5.62	4.01	5.82	4.16	6.00	4.05
	39	4.14	3.60	4.50	3.62	5.16	4.00	5.49	4.05	5.56	3.99	5.71	4.12	5.87	4.00
	41	4.14	3.60	4.49	3.62	5.00	3.93	5.26	3.96	5.33	3.90	5.46	4.03	5.60	3.91
	43	4.14	3.60	4.47	3.61	4.85	3.87	5.04	3.87	5.10	3.81	5.21	3.94	5.32	3.82

Heating mode (kW)

Air flow	Outdoor air temperature ºCDB	ºCWB	Indoor air temperature 16 ºCDB	18 ºCDB	20 ºCDB	22 ºCDB	24 ºCDB
	-19.8	-20	3.65	3.65	3.65	3.65	3.65
	-17.8	-18	3.89	3.89	3.89	3.89	3.89
	-15.7	-16	4.12	4.12	4.12	4.12	4.12
	-13.7	-14	4.36	4.36	4.36	4.36	4.36
	-11.7	-12	4.59	4.59	4.59	4.59	4.59
P-Hi	-9.6	-10	4.83	4.83	4.83	4.83	4.83
	-7.5	-8	5.12	5.12	5.12	5.12	5.12
13	-5.5	-6	5.42	5.42	5.42	5.42	5.42
(m³/min)	-3.4	-4	5.61	5.60	5.59	5.54	5.48
	-1.3	-2	5.80	5.78	5.76	5.65	5.54
	0.8	0	6.11	6.02	5.94	5.73	5.51
	3.9	3	6.63	6.39	6.16	5.81	5.47
	7.0	6	7.25	6.77	6.30	5.86	5.42
	10.1	9	7.20	6.74	6.28	5.82	5.37
	13.2	12	7.15	6.69	6.24	5.78	5.32
	16.9	15.5	7.10	6.64	6.18	5.73	5.27

Air flow	Outdoor air temperature (ºCDB)	Indoor air temperature 21 ºCDB 14 ºCWB TC	21 ºCDB 14 ºCWB SHC	23 ºCDB 16 ºCWB TC	23 ºCDB 16 ºCWB SHC	26 ºCDB 18 ºCWB TC	26 ºCDB 18 ºCWB SHC	27 ºCDB 19 ºCWB TC	27 ºCDB 19 ºCWB SHC	28 ºCDB 20 ºCWB TC	28 ºCDB 20 ºCWB SHC	31 ºCDB 22 ºCWB TC	31 ºCDB 22 ºCWB SHC	33 ºCDB 24 ºCWB TC	33 ºCDB 24 ºCWB SHC
	10			4.41	3.23	5.27	3.66	5.70	3.77	6.07	3.83	6.80	4.13	7.06	4.01
	12			4.41	3.23	5.27	3.66	5.70	3.77	6.06	3.83	6.77	4.12	7.03	4.00
	14			4.41	3.23	5.27	3.66	5.70	3.77	6.05	3.82	6.75	4.11	7.00	3.99
	16			4.41	3.23	5.27	3.66	5.70	3.77	6.04	3.82	6.72	4.10	6.97	3.97
	18			4.41	3.23	5.27	3.66	5.70	3.77	6.03	3.81	6.70	4.09	6.94	3.96
Hi	20			4.41	3.23	5.27	3.66	5.70	3.77	6.03	3.81	6.67	4.08	6.90	3.95
	22			4.40	3.22	5.27	3.66	5.70	3.77	6.00	3.80	6.59	4.04	6.81	3.91
10	24			4.40	3.22	5.27	3.66	5.70	3.77	5.97	3.79	6.50	4.00	6.72	3.88
(m³/min)	26			4.39	3.22	5.24	3.65	5.65	3.74	5.90	3.76	6.40	3.96	6.61	3.83
	28	3.98	3.16	4.39	3.22	5.22	3.64	5.60	3.72	5.83	3.72	6.30	3.92	6.51	3.80
	30	3.98	3.16	4.38	3.21	5.18	3.62	5.54	3.69	5.76	3.69	6.20	3.87	6.41	3.75
	32	3.98	3.16	4.37	3.21	5.14	3.60	5.49	3.67	5.69	3.66	6.11	3.84	6.31	3.72
	34	3.98	3.16	4.35	3.20	5.12	3.59	5.42	3.64	5.60	3.62	5.98	3.78	6.18	3.67
	35	3.98	3.16	4.35	3.20	5.11	3.59	5.38	3.62	5.56	3.61	5.91	3.75	6.12	3.65
	36	3.98	3.16	4.34	3.19	5.07	3.57	5.35	3.61	5.50	3.58	5.81	3.71	6.00	3.60
	38	3.98	3.16	4.33	3.19	5.00	3.54	5.30	3.58	5.40	3.54	5.60	3.63	5.76	3.51
	39	3.98	3.16	4.33	3.19	4.96	3.52	5.27	3.57	5.34	3.51	5.49	3.59	5.64	3.47
	41	3.98	3.16	4.31	3.18	4.81	3.45	5.06	3.48	5.12	3.42	5.25	3.49	5.38	3.38
	43	3.98	3.16	4.30	3.17	4.66	3.38	4.84	3.38	4.90	3.32	5.00	3.39	5.11	3.28

Air flow	Outdoor air temperature ºCDB	ºCWB	Indoor air temperature 16 ºCDB	18 ºCDB	20 ºCDB	22 ºCDB	24 ºCDB
	-19.8	-20	3.52	3.52	3.52	3.52	3.52
	-17.8	-18	3.75	3.75	3.75	3.75	3.75
	-15.7	-16	3.97	3.97	3.97	3.97	3.97
	-13.7	-14	4.20	4.20	4.20	4.20	4.20
	-11.7	-12	4.43	4.43	4.43	4.43	4.43
Hi	-9.6	-10	4.65	4.65	4.65	4.65	4.65
	-7.5	-8	4.94	4.94	4.94	4.94	4.94
10	-5.5	-6	5.22	5.22	5.22	5.22	5.22
(m³/min)	-3.4	-4	5.40	5.39	5.39	5.33	5.28
	-1.3	-2	5.58	5.57	5.55	5.45	5.34
	0.8	0	5.89	5.80	5.72	5.52	5.31
	3.9	3	6.39	6.16	5.93	5.60	5.27
	7.0	6	6.98	6.53	6.07	5.65	5.22
	10.1	9	6.93	6.49	6.05	5.61	5.17
	13.2	12	6.89	6.45	6.01	5.57	5.13
	16.9	15.5	6.84	6.40	5.96	5.52	5.08

Air flow	Outdoor air temperature (ºCDB)	Indoor air temperature 21 ºCDB 14 ºCWB TC	21 ºCDB 14 ºCWB SHC	23 ºCDB 16 ºCWB TC	23 ºCDB 16 ºCWB SHC	26 ºCDB 18 ºCWB TC	26 ºCDB 18 ºCWB SHC	27 ºCDB 19 ºCWB TC	27 ºCDB 19 ºCWB SHC	28 ºCDB 20 ºCWB TC	28 ºCDB 20 ºCWB SHC	31 ºCDB 22 ºCWB TC	31 ºCDB 22 ºCWB SHC	33 ºCDB 24 ºCWB TC	33 ºCDB 24 ºCWB SHC
	10			4.11	2.97	4.92	3.38	5.32	3.48	5.66	3.54	6.34	3.81	6.58	3.70
	12			4.11	2.97	4.92	3.38	5.32	3.48	5.65	3.54	6.32	3.81	6.56	3.69
	14			4.11	2.97	4.92	3.38	5.32	3.48	5.65	3.54	6.30	3.80	6.53	3.68
	16			4.11	2.97	4.92	3.38	5.32	3.48	5.64	3.53	6.27	3.78	6.50	3.67
	18			4.11	2.97	4.92	3.38	5.32	3.48	5.63	3.53	6.25	3.78	6.47	3.66
Me	20			4.11	2.97	4.92	3.38	5.32	3.48	5.62	3.53	6.23	3.77	6.44	3.64
	22			4.11	2.97	4.92	3.38	5.32	3.48	5.60	3.52	6.15	3.73	6.35	3.61
9	24			4.10	2.97	4.92	3.38	5.32	3.48	5.57	3.50	6.07	3.70	6.27	3.58
(m³/min)	26			4.10	2.97	4.89	3.37	5.27	3.45	5.51	3.47	5.97	3.65	6.17	3.54
	28	3.71	2.91	4.10	2.97	4.87	3.36	5.22	3.43	5.44	3.44	5.88	3.62	6.07	3.50
	30	3.71	2.91	4.09	2.96	4.83	3.34	5.17	3.41	5.38	3.41	5.79	3.58	5.98	3.46
	32	3.71	2.91	4.08	2.96	4.79	3.32	5.12	3.39	5.31	3.38	5.70	3.54	5.89	3.43
	34	3.71	2.91	4.06	2.95	4.78	3.31	5.05	3.35	5.23	3.34	5.58	3.49	5.77	3.38
	35	3.71	2.91	4.06	2.95	4.77	3.31	5.02	3.34	5.19	3.33	5.52	3.46	5.71	3.36
	36	3.71	2.91	4.05	2.94	4.73	3.29	4.99	3.33	5.14	3.31	5.42	3.42	5.60	3.31
	38	3.71	2.91	4.04	2.94	4.66	3.26	4.94	3.30	5.04	3.26	5.22	3.34	5.38	3.23
	39	3.71	2.91	4.04	2.94	4.63	3.24	4.92	3.29	4.99	3.24	5.12	3.30	5.27	3.19
	41	3.71	2.91	4.02	2.93	4.49	3.18	4.72	3.20	4.78	3.15	4.89	3.21	5.02	3.10
	43	3.71	2.91	4.01	2.92	4.35	3.11	4.52	3.11	4.57	3.06	4.67	3.12	4.77	3.02

Air flow	Outdoor air temperature ºCDB	ºCWB	Indoor air temperature 16 ºCDB	18 ºCDB	20 ºCDB	22 ºCDB	24 ºCDB
	-19.8	-20	3.22	3.22	3.22	3.22	3.22
	-17.8	-18	3.43	3.43	3.43	3.43	3.43
	-15.7	-16	3.64	3.64	3.64	3.64	3.64
	-13.7	-14	3.85	3.85	3.85	3.85	3.85
	-11.7	-12	4.06	4.06	4.06	4.06	4.06
Me	-9.6	-10	4.26	4.26	4.26	4.26	4.26
	-7.5	-8	4.52	4.52	4.52	4.52	4.52
9	-5.5	-6	4.78	4.78	4.78	4.78	4.78
(m³/min)	-3.4	-4	4.95	4.94	4.93	4.89	4.84
	-1.3	-2	5.12	5.10	5.09	4.99	4.89
	0.8	0	5.39	5.32	5.24	5.05	4.87
	3.9	3	5.85	5.64	5.43	5.13	4.82
	7.0	6	6.39	5.98	5.56	5.17	4.78
	10.1	9	6.35	5.95	5.54	5.14	4.74
	13.2	12	6.31	5.91	5.50	5.10	4.70
	16.9	15.5	6.26	5.86	5.46	5.05	4.65

Air flow	Outdoor air temperature (ºCDB)	Indoor air temperature 21 ºCDB 14 ºCWB TC	21 ºCDB 14 ºCWB SHC	23 ºCDB 16 ºCWB TC	23 ºCDB 16 ºCWB SHC	26 ºCDB 18 ºCWB TC	26 ºCDB 18 ºCWB SHC	27 ºCDB 19 ºCWB TC	27 ºCDB 19 ºCWB SHC	28 ºCDB 20 ºCWB TC	28 ºCDB 20 ºCWB SHC	31 ºCDB 22 ºCWB TC	31 ºCDB 22 ºCWB SHC	33 ºCDB 24 ºCWB TC	33 ºCDB 24 ºCWB SHC
	10			3.80	2.71	4.55	3.09	4.92	3.19	5.23	3.24	5.86	3.49	6.09	3.39
	12			3.80	2.71	4.55	3.09	4.92	3.19	5.23	3.24	5.84	3.49	6.06	3.38
	14			3.80	2.71	4.55	3.09	4.92	3.19	5.22	3.24	5.82	3.48	6.03	3.37
	16			3.80	2.71	4.55	3.09	4.92	3.19	5.21	3.23	5.80	3.47	6.01	3.36
	18			3.80	2.71	4.55	3.09	4.92	3.19	5.20	3.23	5.78	3.46	5.98	3.35
Lo	20			3.80	2.71	4.55	3.09	4.92	3.19	5.20	3.23	5.76	3.45	5.95	3.33
	22			3.80	2.71	4.54	3.08	4.92	3.19	5.17	3.21	5.68	3.41	5.87	3.30
8	24			3.79	2.71	4.54	3.08	4.92	3.19	5.15	3.20	5.61	3.38	5.79	3.26
(m³/min)	26			3.79	2.71	4.52	3.07	4.87	3.16	5.09	3.18	5.52	3.34	5.70	3.23
	28	3.43	2.66	3.79	2.71	4.50	3.06	4.83	3.14	5.03	3.15	5.43	3.30	5.61	3.19
	30	3.43	2.66	3.78	2.70	4.47	3.05	4.78	3.12	4.97	3.12	5.35	3.27	5.53	3.16
	32	3.43	2.66	3.77	2.70	4.43	3.03	4.73	3.09	4.91	3.09	5.27	3.23	5.45	3.13
	34	3.43	2.66	3.76	2.69	4.42	3.03	4.67	3.06	4.83	3.05	5.16	3.19	5.33	3.08
	35	3.43	2.66	3.75	2.69	4.41	3.02	4.64	3.05	4.79	3.04	5.10	3.16	5.28	3.06
	36	3.43	2.66	3.74	2.68	4.37	3.00	4.62	3.04	4.75	3.02	5.01	3.12	5.18	3.02
	38	3.43	2.66	3.74	2.68	4.31	2.97	4.57	3.02	4.66	2.98	4.83	3.04	4.97	2.94
	39	3.43	2.66	3.73	2.68	4.28	2.96	4.55	3.01	4.61	2.96	4.73	3.00	4.87	2.91
	41	3.43	2.66	3.72	2.67	4.15	2.90	4.36	2.92	4.42	2.87	4.52	2.92	4.64	2.82
	43	3.43	2.66	3.70	2.66	4.02	2.84	4.18	2.84	4.22	2.79	4.31	2.84	4.41	2.74

Air flow	Outdoor air temperature ºCDB	ºCWB	Indoor air temperature 16 ºCDB	18 ºCDB	20 ºCDB	22 ºCDB	24 ºCDB
	-19.8	-20	3.00	3.00	3.00	3.00	3.00
	-17.8	-18	3.19	3.19	3.19	3.19	3.19
	-15.7	-16	3.38	3.38	3.38	3.38	3.38
	-13.7	-14	3.58	3.58	3.58	3.58	3.58
	-11.7	-12	3.77	3.77	3.77	3.77	3.77
Lo	-9.6	-10	3.96	3.96	3.96	3.96	3.96
	-7.5	-8	4.20	4.20	4.20	4.20	4.20
8	-5.5	-6	4.45	4.45	4.45	4.45	4.45
(m³/min)	-3.4	-4	4.60	4.59	4.59	4.54	4.50
	-1.3	-2	4.76	4.74	4.73	4.64	4.55
	0.8	0	5.01	4.94	4.87	4.70	4.52
	3.9	3	5.44	5.25	5.05	4.77	4.48
	7.0	6	5.95	5.56	5.17	4.81	4.45
	10.1	9	5.91	5.53	5.15	4.78	4.41
	13.2	12	5.87	5.49	5.12	4.74	4.37
	16.9	15.5	5.82	5.45	5.07	4.70	4.32

Notes(1) This data shows average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

PJG000Z054

Model **FDU71KXE6F** Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			5.82	5.32	6.96	6.01	7.53	6.12	8.01	6.19	8.97	6.70	9.31	6.54
	12			5.82	5.32	6.96	6.01	7.53	6.12	8.00	6.19	8.94	6.69	9.27	6.52
	14			5.82	5.32	6.96	6.01	7.53	6.12	7.99	6.18	8.90	6.68	9.23	6.51
	16			5.82	5.32	6.96	6.01	7.53	6.12	7.97	6.16	8.87	6.67	9.19	6.50
	18			5.82	5.32	6.96	6.01	7.53	6.12	7.96	6.16	8.84	6.66	9.15	6.49
P-Hi	20			5.82	5.32	6.96	6.01	7.53	6.12	7.95	6.15	8.81	6.63	9.11	6.48
	22			5.81	5.31	6.95	6.00	7.53	6.12	7.92	6.14	8.70	6.60	8.99	6.44
24	24			5.80	5.31	6.95	6.00	7.53	6.12	7.88	6.13	8.58	6.56	8.86	6.40
(m³/min)	26			5.80	5.31	6.92	5.99	7.46	6.10	7.79	6.10	8.45	6.51	8.73	6.35
	28	5.25	5.04	5.79	5.31	6.89	5.98	7.38	6.07	7.69	6.06	8.31	6.46	8.59	6.31
	30	5.25	5.04	5.78	5.30	6.83	5.96	7.31	6.03	7.60	6.03	8.19	6.42	8.46	6.27
	32	5.25	5.04	5.77	5.30	6.78	5.94	7.24	6.00	7.51	6.00	8.06	6.38	8.33	6.23
	34	5.25	5.04	5.75	5.29	6.76	5.93	7.15	5.97	7.39	5.94	7.89	6.32	8.16	6.17
	35	5.25	5.04	5.74	5.29	6.75	5.93	7.10	5.95	7.33	5.92	7.80	6.28	8.08	6.14
	36	5.25	5.04	5.73	5.28	6.69	5.91	7.06	5.94	7.26	5.90	7.66	6.23	7.92	6.10
	38	5.25	5.04	5.72	5.28	6.59	5.86	6.99	5.91	7.12	5.85	7.38	6.14	7.61	5.99
	39	5.25	5.04	5.71	5.27	6.54	5.84	6.96	5.90	7.05	5.83	7.24	6.08	7.45	5.95
	41	5.25	5.04	5.69	5.27	6.35	5.77	6.67	5.78	6.76	5.71	6.92	5.98	7.10	5.84
	43	5.25	5.04	5.67	5.26	6.15	5.69	6.39	5.68	6.46	5.61	6.60	5.87	6.75	5.73

Heating mode (kW)

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	4.64	4.64	4.64	4.64	4.64
	-17.8	-18	4.94	4.94	4.94	4.94	4.94
	-15.7	-16	5.24	5.24	5.24	5.24	5.24
	-13.7	-14	5.54	5.54	5.54	5.54	5.54
	-11.7	-12	5.83	5.83	5.83	5.83	5.83
P-Hi	-9.6	-10	6.13	6.13	6.13	6.13	6.13
	-7.5	-8	6.51	6.51	6.51	6.51	6.51
24	-5.5	-6	6.88	6.88	6.88	6.88	6.88
(m³/min)	-3.4	-4	7.12	7.11	7.10	7.03	6.96
	-1.3	-2	7.36	7.34	7.32	7.18	7.04
	0.8	0	7.76	7.65	7.54	7.27	7.00
	3.9	3	8.42	8.12	7.82	7.38	6.94
	7.0	6	9.20	8.60	8.00	7.44	6.88
	10.1	9	9.14	8.56	7.97	7.40	6.82
	13.2	12	9.08	8.50	7.92	7.34	6.76
	16.9	15.5	9.01	8.43	7.85	7.27	6.69

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			5.65	4.71	6.75	5.33	7.30	5.44	7.77	5.50	8.70	5.95	9.04	5.81
	12			5.65	4.71	6.75	5.33	7.30	5.44	7.76	5.50	8.67	5.94	9.00	5.79
	14			5.65	4.71	6.75	5.33	7.30	5.44	7.75	5.50	8.64	5.93	8.96	5.77
	16			5.65	4.71	6.75	5.33	7.30	5.44	7.74	5.49	8.61	5.92	8.92	5.76
	18			5.65	4.71	6.75	5.33	7.30	5.44	7.73	5.49	8.58	5.91	8.88	5.75
Hi	20			5.65	4.71	6.75	5.33	7.30	5.44	7.72	5.49	8.55	5.90	8.84	5.74
	22			5.64	4.71	6.75	5.33	7.30	5.44	7.68	5.47	8.44	5.85	8.72	5.70
19	24			5.63	4.70	6.75	5.33	7.30	5.44	7.65	5.46	8.33	5.81	8.60	5.65
(m³/min)	26			5.63	4.70	6.71	5.30	7.23	5.41	7.56	5.43	8.20	5.77	8.47	5.61
	28	5.10	4.65	5.62	4.70	6.68	5.29	7.17	5.38	7.47	5.39	8.07	5.71	8.34	5.57
	30	5.10	4.65	5.61	4.69	6.63	5.27	7.10	5.36	7.38	5.35	7.94	5.67	8.21	5.51
	32	5.10	4.65	5.59	4.68	6.58	5.25	7.03	5.33	7.29	5.32	7.82	5.63	8.09	5.48
	34	5.10	4.65	5.58	4.68	6.56	5.24	6.94	5.29	7.18	5.28	7.66	5.56	7.92	5.42
	35	5.10	4.65	5.57	4.68	6.55	5.24	6.89	5.27	7.12	5.25	7.57	5.53	7.84	5.40
	36	5.10	4.65	5.56	4.67	6.50	5.22	6.86	5.25	7.05	5.22	7.44	5.49	7.68	5.34
	38	5.10	4.65	5.55	4.67	6.40	5.18	6.79	5.23	6.91	5.17	7.17	5.39	7.38	5.25
	39	5.10	4.65	5.54	4.66	6.35	5.16	6.75	5.21	6.84	5.14	7.03	5.34	7.23	5.19
	41	5.10	4.65	5.52	4.65	6.16	5.08	6.48	5.11	6.56	5.03	6.72	5.23	6.89	5.09
	43	5.10	4.65	5.50	4.65	5.97	5.00	6.20	5.00	6.27	4.92	6.41	5.11	6.55	4.98

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	4.49	4.49	4.49	4.49	4.49
	-17.8	-18	4.78	4.78	4.78	4.78	4.78
	-15.7	-16	5.07	5.07	5.07	5.07	5.07
	-13.7	-14	5.36	5.36	5.36	5.36	5.36
	-11.7	-12	5.65	5.65	5.65	5.65	5.65
Hi	-9.6	-10	5.93	5.93	5.93	5.93	5.93
	-7.5	-8	6.30	6.30	6.30	6.30	6.30
19	-5.5	-6	6.66	6.66	6.66	6.66	6.66
(m³/min)	-3.4	-4	6.89	6.88	6.87	6.80	6.73
	-1.3	-2	7.12	7.10	7.08	6.95	6.81
	0.8	0	7.51	7.40	7.29	7.03	6.77
	3.9	3	8.15	7.86	7.57	7.14	6.71
	7.0	6	8.90	8.32	7.74	7.20	6.66
	10.1	9	8.84	8.28	7.71	7.15	6.60
	13.2	12	8.78	8.22	7.66	7.10	6.54
	16.9	15.5	8.72	8.16	7.59	7.03	6.47

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			5.37	4.17	6.42	4.71	6.94	4.84	7.39	4.91	8.27	5.29	8.59	5.15
	12			5.37	4.17	6.42	4.71	6.94	4.84	7.38	4.91	8.24	5.28	8.55	5.13
	14			5.37	4.17	6.42	4.71	6.94	4.84	7.37	4.90	8.21	5.27	8.52	5.12
	16			5.37	4.17	6.42	4.71	6.94	4.84	7.36	4.90	8.18	5.25	8.48	5.11
	18			5.37	4.17	6.42	4.71	6.94	4.84	7.35	4.89	8.15	5.24	8.44	5.10
Me	20			5.37	4.17	6.42	4.71	6.94	4.84	7.34	4.88	8.12	5.23	8.41	5.08
	22			5.36	4.16	6.42	4.71	6.94	4.84	7.30	4.87	8.02	5.19	8.29	5.04
15	24			5.35	4.16	6.41	4.70	6.94	4.84	7.27	4.86	7.92	5.15	8.18	5.00
(m³/min)	26			5.35	4.16	6.38	4.69	6.88	4.81	7.18	4.82	7.79	5.10	8.05	4.95
	28	4.85	4.10	5.34	4.15	6.35	4.68	6.81	4.78	7.10	4.79	7.67	5.05	7.93	4.91
	30	4.85	4.10	5.33	4.15	6.30	4.66	6.75	4.74	7.02	4.75	7.55	5.00	7.81	4.87
	32	4.85	4.10	5.32	4.14	6.26	4.64	6.68	4.71	6.93	4.70	7.44	4.96	7.69	4.82
	34	4.85	4.10	5.30	4.14	6.23	4.63	6.59	4.67	6.82	4.66	7.28	4.90	7.53	4.77
	35	4.85	4.10	5.29	4.13	6.22	4.62	6.55	4.66	6.77	4.64	7.20	4.87	7.45	4.74
	36	4.85	4.10	5.29	4.13	6.18	4.61	6.52	4.64	6.70	4.61	7.07	4.82	7.31	4.69
	38	4.85	4.10	5.27	4.12	6.08	4.57	6.45	4.62	6.57	4.56	6.81	4.72	7.02	4.58
	39	4.85	4.10	5.27	4.12	6.03	4.54	6.42	4.60	6.51	4.53	6.68	4.67	6.87	4.53
	41	4.85	4.10	5.25	4.11	5.85	4.47	6.16	4.50	6.23	4.43	6.39	4.57	6.55	4.42
	43	4.85	4.10	5.23	4.11	5.67	4.39	5.90	4.39	5.96	4.32	6.09	4.45	6.23	4.30

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	4.22	4.22	4.22	4.22	4.22
	-17.8	-18	4.49	4.49	4.49	4.49	4.49
	-15.7	-16	4.76	4.76	4.76	4.76	4.76
	-13.7	-14	5.03	5.03	5.03	5.03	5.03
	-11.7	-12	5.30	5.30	5.30	5.30	5.30
Me	-9.6	-10	5.57	5.57	5.57	5.57	5.57
	-7.5	-8	5.91	5.91	5.91	5.91	5.91
15	-5.5	-6	6.25	6.25	6.25	6.25	6.25
(m³/min)	-3.4	-4	6.47	6.46	6.45	6.39	6.32
	-1.3	-2	6.69	6.67	6.65	6.52	6.40
	0.8	0	7.05	6.95	6.85	6.61	6.36
	3.9	3	7.65	7.38	7.11	6.71	6.31
	7.0	6	8.36	7.82	7.27	6.76	6.25
	10.1	9	8.31	7.77	7.24	6.72	6.20
	13.2	12	8.25	7.72	7.20	6.67	6.14
	16.9	15.5	8.19	7.66	7.13	6.61	6.08

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			4.81	3.39	5.75	3.86	6.22	3.99	6.62	4.07	7.42	4.38	7.70	4.24
	12			4.81	3.39	5.75	3.86	6.22	3.99	6.61	4.06	7.39	4.37	7.67	4.23
	14			4.81	3.39	5.75	3.86	6.22	3.99	6.60	4.06	7.36	4.35	7.63	4.21
	16			4.81	3.39	5.75	3.86	6.22	3.99	6.59	4.05	7.33	4.34	7.60	4.20
	18			4.81	3.39	5.75	3.86	6.22	3.99	6.58	4.05	7.31	4.33	7.57	4.19
Lo	20			4.81	3.39	5.75	3.86	6.22	3.99	6.58	4.05	7.28	4.31	7.53	4.17
	22			4.80	3.38	5.75	3.86	6.22	3.99	6.54	4.03	7.19	4.27	7.43	4.13
10	24			4.80	3.38	5.75	3.86	6.22	3.99	6.51	4.02	7.10	4.23	7.33	4.09
(m³/min)	26			4.79	3.38	5.72	3.85	6.16	3.95	6.44	3.98	6.99	4.19	7.22	4.04
	28	4.34	3.31	4.79	3.38	5.69	3.83	6.10	3.92	6.36	3.94	6.87	4.13	7.10	3.99
	30	4.34	3.31	4.78	3.37	5.65	3.81	6.05	3.90	6.29	3.90	6.77	4.08	7.00	3.95
	32	4.34	3.31	4.77	3.37	5.61	3.79	5.99	3.87	6.21	3.87	6.66	4.04	6.89	3.91
	34	4.34	3.31	4.75	3.36	5.59	3.78	5.91	3.83	6.11	3.82	6.52	3.97	6.75	3.85
	35	4.34	3.31	4.74	3.36	5.58	3.78	5.87	3.82	6.06	3.80	6.45	3.95	6.68	3.82
	36	4.34	3.31	4.74	3.36	5.53	3.75	5.84	3.80	6.01	3.78	6.34	3.90	6.55	3.77
	38	4.34	3.31	4.73	3.35	5.45	3.72	5.78	3.77	5.89	3.72	6.10	3.79	6.29	3.67
	39	4.34	3.31	4.72	3.35	5.41	3.69	5.75	3.76	5.83	3.69	5.99	3.75	6.16	3.62
	41	4.34	3.31	4.70	3.34	5.25	3.62	5.52	3.65	5.59	3.58	5.72	3.64	5.87	3.51
	43	4.34	3.31	4.69	3.33	5.08	3.54	5.28	3.54	5.34	3.47	5.46	3.53	5.58	3.39

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	3.77	3.77	3.77	3.77	3.77
	-17.8	-18	4.01	4.01	4.01	4.01	4.01
	-15.7	-16	4.26	4.26	4.26	4.26	4.26
	-13.7	-14	4.50	4.50	4.50	4.50	4.50
	-11.7	-12	4.74	4.74	4.74	4.74	4.74
Lo	-9.6	-10	4.98	4.98	4.98	4.98	4.98
	-7.5	-8	5.29	5.29	5.29	5.29	5.29
10	-5.5	-6	5.59	5.59	5.59	5.59	5.59
(m³/min)	-3.4	-4	5.79	5.78	5.77	5.71	5.66
	-1.3	-2	5.98	5.96	5.95	5.83	5.72
	0.8	0	6.31	6.22	6.13	5.91	5.69
	3.9	3	6.84	6.60	6.35	6.00	5.64
	7.0	6	7.48	6.99	6.50	6.05	5.59
	10.1	9	7.43	6.95	6.48	6.01	5.54
	13.2	12	7.38	6.91	6.44	5.96	5.49
	16.9	15.5	7.32	6.85	6.38	5.91	5.44

Notes(1) This data shows average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

PJG000Z054

Model **FDU90KXE6F** Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			7.38	6.01	8.82	6.77	9.54	6.94	10.15	7.03	11.37	7.59	11.80	7.40
	12			7.38	6.01	8.82	6.77	9.54	6.94	10.14	7.03	11.33	7.58	11.75	7.39
	14			7.38	6.01	8.82	6.77	9.54	6.94	10.12	7.02	11.29	7.56	11.70	7.36
	16			7.38	6.01	8.82	6.77	9.54	6.94	10.11	7.02	11.25	7.55	11.65	7.34
	18			7.38	6.01	8.82	6.77	9.54	6.94	10.09	7.01	11.20	7.53	11.60	7.33
P-Hi	20			7.38	6.01	8.82	6.77	9.54	6.94	10.08	7.01	11.16	7.52	11.55	7.31
	22			7.37	6.00	8.82	6.77	9.54	6.94	10.03	6.99	11.02	7.45	11.39	7.24
24	24			7.36	6.00	8.81	6.76	9.54	6.94	9.99	6.97	10.88	7.41	11.24	7.20
(m³/min)	26			7.35	5.99	8.77	6.75	9.45	6.91	9.87	6.91	10.71	7.33	11.06	7.14
	28	6.66	5.92	7.34	5.99	8.73	6.73	9.36	6.86	9.75	6.87	10.54	7.28	10.89	7.08
	30	6.66	5.92	7.33	5.97	8.66	6.70	9.27	6.80	9.64	6.83	10.38	7.21	10.73	7.03
	32	6.66	5.92	7.31	5.97	8.60	6.68	9.18	6.77	9.53	6.75	10.22	7.15	10.56	6.93
	34	6.66	5.92	7.28	5.95	8.57	6.67	9.06	6.72	9.37	6.69	10.00	7.04	10.35	6.87
	35	6.66	5.92	7.27	5.95	8.55	6.66	9.00	6.70	9.30	6.67	9.89	7.01	10.24	6.83
	36	6.66	5.92	7.26	5.94	8.49	6.64	8.96	6.68	9.21	6.63	9.72	6.95	10.04	6.77
	38	6.66	5.92	7.25	5.94	8.36	6.59	8.87	6.65	9.03	6.57	9.36	6.83	9.64	6.65
	39	6.66	5.92	7.24	5.94	8.29	6.56	8.82	6.63	8.94	6.54	9.18	6.77	9.44	6.59
	41	6.66	5.92	7.21	5.92	8.04	6.45	8.46	6.49	8.56	6.40	8.77	6.62	9.00	6.44
	43	6.66	5.92	7.19	5.92	7.80	6.36	8.10	6.34	8.19	6.25	8.37	6.49	8.56	6.30

Heating mode (kW)

Air flow	Outdoor air temperature °CWB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	5.80	5.80	5.80	5.80	5.80
	-17.8	-18	6.17	6.17	6.17	6.17	6.17
	-15.7	-16	6.55	6.55	6.55	6.55	6.55
	-13.7	-14	6.92	6.92	6.92	6.92	6.92
	-11.7	-12	7.29	7.29	7.29	7.29	7.29
P-Hi	-9.6	-10	7.67	7.67	7.67	7.67	7.67
	-7.5	-8	8.13	8.13	8.13	8.13	8.13
24	-5.5	-6	8.60	8.60	8.60	8.60	8.60
(m³/min)	-3.4	-4	8.90	8.89	8.88	8.79	8.70
	-1.3	-2	9.20	9.18	9.15	8.98	8.80
	0.8	0	9.70	9.56	9.43	9.09	8.75
	3.9	3	10.53	10.15	9.78	9.23	8.68
	7.0	6	11.50	10.75	10.00	9.30	8.60
	10.1	9	11.43	10.69	9.96	9.24	8.53
	13.2	12	11.35	10.63	9.90	9.18	8.45
	16.9	15.5	11.26	10.54	9.81	9.09	8.36

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			7.25	5.45	8.67	6.17	9.38	6.35	9.98	6.44	11.18	6.94	11.61	6.75
	12			7.25	5.45	8.67	6.17	9.38	6.35	9.97	6.44	11.14	6.93	11.56	6.73
	14			7.25	5.45	8.67	6.17	9.38	6.35	9.95	6.43	11.10	6.91	11.51	6.71
	16			7.25	5.45	8.67	6.17	9.38	6.35	9.94	6.43	11.06	6.90	11.46	6.69
	18			7.25	5.45	8.67	6.17	9.38	6.35	9.93	6.42	11.02	6.87	11.41	6.68
Hi	20			7.25	5.45	8.67	6.17	9.38	6.35	9.91	6.41	10.98	6.86	11.36	6.65
	22			7.24	5.44	8.67	6.17	9.38	6.35	9.87	6.40	10.84	6.81	11.20	6.59
19	24			7.23	5.44	8.67	6.17	9.38	6.35	9.82	6.37	10.70	6.74	11.05	6.53
(m³/min)	26			7.23	5.44	8.62	6.15	9.29	6.30	9.71	6.32	10.53	6.67	10.88	6.47
	28	6.55	5.34	7.22	5.43	8.58	6.13	9.20	6.24	9.59	6.27	10.36	6.61	10.71	6.41
	30	6.55	5.34	7.20	5.42	8.52	6.10	9.12	6.21	9.48	6.21	10.20	6.54	10.55	6.35
	32	6.55	5.34	7.19	5.42	8.45	6.07	9.03	6.17	9.37	6.16	10.05	6.47	10.39	6.29
	34	6.55	5.34	7.16	5.40	8.42	6.06	8.91	6.12	9.22	6.10	9.83	6.39	10.17	6.21
	35	6.55	5.34	7.15	5.39	8.41	6.06	8.85	6.10	9.14	6.07	9.73	6.35	10.07	6.17
	36	6.55	5.34	7.14	5.39	8.34	6.02	8.81	6.08	9.05	6.04	9.55	6.28	9.87	6.08
	38	6.55	5.34	7.12	5.38	8.22	5.97	8.72	6.05	8.88	5.97	9.20	6.13	9.48	5.95
	39	6.55	5.34	7.12	5.38	8.15	5.94	8.67	6.02	8.79	5.93	9.03	6.07	9.28	5.89
	41	6.55	5.34	7.09	5.37	7.91	5.83	8.32	5.87	8.42	5.77	8.63	5.93	8.85	5.74
	43	6.55	5.34	7.07	5.36	7.67	5.72	7.97	5.72	8.05	5.62	8.23	5.78	8.41	5.59

Air flow	Outdoor air temperature °CWB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	5.66	5.66	5.66	5.66	5.66
	-17.8	-18	6.02	6.02	6.02	6.02	6.02
	-15.7	-16	6.38	6.38	6.38	6.38	6.38
	-13.7	-14	6.75	6.75	6.75	6.75	6.75
	-11.7	-12	7.11	7.11	7.11	7.11	7.11
Hi	-9.6	-10	7.48	7.48	7.48	7.48	7.48
	-7.5	-8	7.93	7.93	7.93	7.93	7.93
19	-5.5	-6	8.39	8.39	8.39	8.39	8.39
(m³/min)	-3.4	-4	8.68	8.67	8.65	8.57	8.48
	-1.3	-2	8.97	8.95	8.92	8.75	8.58
	0.8	0	9.46	9.32	9.19	8.86	8.53
	3.9	3	10.26	9.90	9.53	8.99	8.46
	7.0	6	11.21	10.48	9.75	9.07	8.39
	10.1	9	11.14	10.43	9.71	9.01	8.31
	13.2	12	11.07	10.36	9.65	8.95	8.24
	16.9	15.5	10.98	10.27	9.57	8.86	8.15

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			6.89	4.90	8.23	5.57	8.90	5.74	9.47	5.85	10.61	6.30	11.02	6.12
	12			6.89	4.90	8.23	5.57	8.90	5.74	9.46	5.84	10.57	6.29	10.97	6.09
	14			6.89	4.90	8.23	5.57	8.90	5.74	9.45	5.84	10.53	6.27	10.92	6.07
	16			6.89	4.90	8.23	5.57	8.90	5.74	9.43	5.83	10.50	6.26	10.88	6.06
	18			6.89	4.90	8.23	5.57	8.90	5.74	9.42	5.83	10.46	6.23	10.83	6.04
Me	20			6.89	4.90	8.23	5.57	8.90	5.74	9.41	5.82	10.42	6.22	10.78	6.01
	22			6.88	4.89	8.23	5.57	8.90	5.74	9.37	5.80	10.29	6.16	10.63	5.95
15	24			6.87	4.89	8.22	5.56	8.90	5.74	9.32	5.78	10.16	6.10	10.49	5.89
(m³/min)	26			6.86	4.88	8.19	5.55	8.82	5.70	9.21	5.72	10.00	6.03	10.33	5.83
	28	6.22	4.79	6.85	4.88	8.15	5.53	8.74	5.66	9.10	5.67	9.84	5.96	10.16	5.76
	30	6.22	4.79	6.84	4.87	8.09	5.50	8.65	5.62	9.00	5.63	9.69	5.89	10.01	5.70
	32	6.22	4.79	6.82	4.86	8.02	5.46	8.57	5.58	8.89	5.58	9.54	5.83	9.86	5.64
	34	6.22	4.79	6.80	4.85	7.99	5.45	8.46	5.53	8.75	5.51	9.33	5.74	9.66	5.56
	35	6.22	4.79	6.79	4.84	7.98	5.44	8.40	5.50	8.68	5.48	9.23	5.69	9.55	5.52
	36	6.22	4.79	6.78	4.84	7.92	5.42	8.36	5.48	8.59	5.44	9.07	5.63	9.37	5.43
	38	6.22	4.79	6.76	4.83	7.80	5.35	8.27	5.44	8.43	5.37	8.74	5.48	9.00	5.30
	39	6.22	4.79	6.75	4.82	7.74	5.33	8.23	5.42	8.34	5.32	8.57	5.41	8.81	5.23
	41	6.22	4.79	6.73	4.81	7.51	5.22	7.90	5.27	7.99	5.17	8.19	5.26	8.40	5.08
	43	6.22	4.79	6.71	4.81	7.28	5.11	7.56	5.11	7.64	5.01	7.81	5.11	7.99	4.93

Air flow	Outdoor air temperature °CWB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	5.34	5.34	5.34	5.34	5.34
	-17.8	-18	5.68	5.68	5.68	5.68	5.68
	-15.7	-16	6.02	6.02	6.02	6.02	6.02
	-13.7	-14	6.37	6.37	6.37	6.37	6.37
	-11.7	-12	6.71	6.71	6.71	6.71	6.71
Me	-9.6	-10	7.05	7.05	7.05	7.05	7.05
	-7.5	-8	7.48	7.48	7.48	7.48	7.48
15	-5.5	-6	7.91	7.91	7.91	7.91	7.91
(m³/min)	-3.4	-4	8.19	8.18	8.17	8.08	8.00
	-1.3	-2	8.46	8.44	8.42	8.26	8.10
	0.8	0	8.92	8.80	8.67	8.36	8.05
	3.9	3	9.68	9.34	8.99	8.49	7.98
	7.0	6	10.58	9.89	9.20	8.56	7.91
	10.1	9	10.51	9.84	9.17	8.50	7.84
	13.2	12	10.44	9.78	9.11	8.44	7.77
	16.9	15.5	10.36	9.69	9.03	8.36	7.69

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			5.99	4.02	7.16	4.61	7.75	4.79	8.24	4.91	9.23	5.31	9.59	5.13
	12			5.99	4.02	7.16	4.61	7.75	4.79	8.23	4.91	9.20	5.29	9.55	5.11
	14			5.99	4.02	7.16	4.61	7.75	4.79	8.22	4.90	9.17	5.27	9.51	5.09
	16			5.99	4.02	7.16	4.61	7.75	4.79	8.21	4.90	9.13	5.25	9.46	5.06
	18			5.99	4.02	7.16	4.61	7.75	4.79	8.20	4.89	9.10	5.23	9.42	5.04
Lo	20			5.99	4.02	7.16	4.61	7.75	4.79	8.19	4.89	9.07	5.22	9.38	5.02
	22			5.98	4.01	7.16	4.61	7.75	4.79	8.15	4.86	8.95	5.15	9.25	4.96
10	24			5.98	4.01	7.16	4.61	7.75	4.79	8.11	4.84	8.84	5.09	9.13	4.90
(m³/min)	26			5.97	4.01	7.12	4.59	7.68	4.75	8.02	4.79	8.70	5.02	8.99	4.83
	28	5.41	3.91	5.96	4.00	7.09	4.57	7.60	4.71	7.92	4.73	8.56	4.95	8.85	4.77
	30	5.41	3.91	5.95	4.00	7.04	4.54	7.53	4.67	7.83	4.68	8.43	4.88	8.71	4.70
	32	5.41	3.91	5.94	3.99	6.98	4.51	7.46	4.63	7.74	4.64	8.30	4.81	8.58	4.64
	34	5.41	3.91	5.92	3.98	6.96	4.50	7.36	4.58	7.61	4.57	8.12	4.72	8.40	4.56
	35	5.41	3.91	5.91	3.97	6.94	4.49	7.31	4.55	7.55	4.54	8.04	4.68	8.31	4.51
	36	5.41	3.91	5.90	3.97	6.89	4.46	7.27	4.53	7.48	4.50	7.89	4.61	8.15	4.44
	38	5.41	3.91	5.88	3.96	6.79	4.41	7.20	4.49	7.33	4.42	7.60	4.47	7.83	4.30
	39	5.41	3.91	5.88	3.96	6.73	4.37	7.16	4.47	7.26	4.39	7.46	4.40	7.67	4.23
	41	5.41	3.91	5.86	3.95	6.53	4.26	6.87	4.32	6.96	4.23	7.13	4.25	7.31	4.08
	43	5.41	3.91	5.84	3.93	6.33	4.16	6.58	4.17	6.65	4.08	6.80	4.10	6.95	3.93

Air flow	Outdoor air temperature °CWB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	4.59	4.59	4.59	4.59	4.59
	-17.8	-18	4.89	4.89	4.89	4.89	4.89
	-15.7	-16	5.18	5.18	5.18	5.18	5.18
	-13.7	-14	5.48	5.48	5.48	5.48	5.48
	-11.7	-12	5.78	5.78	5.78	5.78	5.78
Lo	-9.6	-10	6.07	6.07	6.07	6.07	6.07
	-7.5	-8	6.44	6.44	6.44	6.44	6.44
10	-5.5	-6	6.81	6.81	6.81	6.81	6.81
(m³/min)	-3.4	-4	7.05	7.04	7.03	6.96	6.89
	-1.3	-2	7.29	7.27	7.25	7.11	6.97
	0.8	0	7.68	7.57	7.46	7.20	6.93
	3.9	3	8.34	8.04	7.74	7.31	6.87
	7.0	6	9.11	8.51	7.92	7.37	6.81
	10.1	9	9.05	8.47	7.89	7.32	6.75
	13.2	12	8.99	8.42	7.84	7.27	6.69
	16.9	15.5	8.92	8.35	7.77	7.20	6.62

Notes(1) This data shows average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

PJG000Z054

Model **FDU112KXE6F** Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			9.18	7.72	10.97	8.72	11.87	8.91	12.63	9.01	14.15	9.75	14.69	9.51
	12			9.18	7.72	10.97	8.72	11.87	8.91	12.61	9.00	14.10	9.71	14.63	9.43
	14			9.18	7.72	10.97	8.72	11.87	8.91	12.60	9.00	14.05	9.70	14.56	9.41
	16			9.18	7.72	10.97	8.72	11.87	8.91	12.58	8.99	14.00	9.69	14.50	9.40
	18			9.18	7.72	10.97	8.72	11.87	8.91	12.56	8.98	13.94	9.67	14.44	9.38
P-Hi	20			9.18	7.72	10.97	8.72	11.87	8.91	12.55	8.98	13.89	9.65	14.37	9.36
	22			9.17	7.72	10.97	8.72	11.87	8.91	12.49	8.96	13.72	9.54	14.18	9.31
36	24			9.15	7.71	10.97	8.72	11.87	8.91	12.43	8.94	13.54	9.48	13.98	9.25
(m³/min)	26			9.15	7.71	10.92	8.70	11.76	8.87	12.28	8.87	13.33	9.42	13.77	9.19
	28	8.29	7.59	9.14	7.71	10.86	8.66	11.65	8.81	12.14	8.82	13.11	9.35	13.55	9.11
	30	8.29	7.59	9.12	7.68	10.78	8.63	11.54	8.77	12.00	8.76	12.91	9.27	13.35	9.04
	32	8.29	7.59	9.09	7.67	10.70	8.60	11.42	8.71	11.85	8.71	12.71	9.21	13.15	8.98
	34	8.29	7.59	9.06	7.66	10.66	8.59	11.27	8.66	11.66	8.62	12.45	9.11	12.87	8.88
	35	8.29	7.59	9.05	7.65	10.64	8.58	11.20	8.63	11.57	8.59	12.31	9.05	12.74	8.85
	36	8.29	7.59	9.04	7.65	10.56	8.55	11.14	8.61	11.46	8.56	12.09	8.98	12.49	8.76
	38	8.29	7.59	9.02	7.64	10.40	8.48	11.03	8.56	11.24	8.47	11.65	8.83	12.00	8.60
	39	8.29	7.59	9.00	7.60	10.32	8.45	10.98	8.54	11.13	8.43	11.43	8.75	11.75	8.52
	41	8.29	7.59	8.97	7.59	10.01	8.32	10.53	8.37	10.66	8.24	10.92	8.58	11.20	8.28
	43	8.29	7.59	8.94	7.58	9.70	8.19	10.08	8.17	10.19	8.06	10.41	8.34	10.65	8.13

Heating mode (kW)

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	7.25	7.25	7.25	7.25	7.25
	-17.8	-18	7.72	7.72	7.72	7.72	7.72
	-15.7	-16	8.18	8.18	8.18	8.18	8.18
	-13.7	-14	8.65	8.65	8.65	8.65	8.65
	-11.7	-12	9.12	9.12	9.12	9.12	9.12
P-Hi	-9.6	-10	9.58	9.58	9.58	9.58	9.58
	-7.5	-8	10.17	10.17	10.17	10.17	10.17
36	-5.5	-6	10.75	10.75	10.75	10.75	10.75
(m³/min)	-3.4	-4	11.13	11.11	11.09	10.98	10.88
	-1.3	-2	11.50	11.47	11.44	11.22	11.00
	0.8	0	12.13	11.95	11.78	11.36	10.94
	3.9	3	13.16	12.69	12.22	11.53	10.84
	7.0	6	14.38	13.44	12.50	11.63	10.75
	10.1	9	14.28	13.37	12.45	11.55	10.66
	13.2	12	14.19	13.28	12.38	11.47	10.56
	16.9	15.5	14.08	13.17	12.27	11.36	10.45

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			8.94	6.86	10.69	7.79	11.56	7.99	12.30	8.12	13.78	8.76	14.31	8.50
	12			8.94	6.86	10.69	7.79	11.56	7.99	12.29	8.11	13.73	8.74	14.25	8.48
	14			8.94	6.86	10.69	7.79	11.56	7.99	12.27	8.11	13.68	8.68	14.19	8.46
	16			8.94	6.86	10.69	7.79	11.56	7.99	12.25	8.10	13.63	8.67	14.13	8.44
	18			8.94	6.86	10.69	7.79	11.56	7.99	12.24	8.10	13.58	8.65	14.06	8.42
Hi	20			8.94	6.86	10.69	7.79	11.56	7.99	12.22	8.08	13.53	8.63	14.00	8.41
	22			8.93	6.85	10.69	7.79	11.56	7.99	12.16	8.05	13.36	8.58	13.81	8.33
28	24			8.92	6.85	10.68	7.79	11.56	7.99	12.11	8.04	13.19	8.51	13.62	8.26
(m³/min)	26			8.91	6.84	10.63	7.77	11.46	7.95	11.96	7.97	12.98	8.43	13.41	8.19
	28	8.07	6.77	8.90	6.84	10.58	7.75	11.35	7.90	11.82	7.91	12.77	8.34	13.20	8.11
	30	8.07	6.77	8.88	6.83	10.50	7.71	11.24	7.83	11.68	7.86	12.58	8.27	13.00	8.04
	32	8.07	6.77	8.86	6.82	10.42	7.68	11.13	7.79	11.55	7.77	12.39	8.19	12.81	7.97
	34	8.07	6.77	8.83	6.81	10.38	7.66	10.98	7.73	11.36	7.70	12.12	8.09	12.54	7.83
	35	8.07	6.77	8.82	6.81	10.36	7.65	10.91	7.71	11.27	7.67	11.99	8.04	12.41	7.79
	36	8.07	6.77	8.80	6.80	10.29	7.61	10.86	7.69	11.16	7.63	11.78	7.92	12.17	7.72
	38	8.07	6.77	8.78	6.79	10.13	7.55	10.75	7.64	10.95	7.55	11.35	7.79	11.69	7.57
	39	8.07	6.77	8.77	6.79	10.05	7.51	10.69	7.61	10.84	7.49	11.13	7.70	11.45	7.48
	41	8.07	6.77	8.74	6.77	9.75	7.38	10.26	7.43	10.38	7.31	10.64	7.52	10.91	7.30
	43	8.07	6.77	8.71	6.76	9.45	7.24	9.82	7.24	9.93	7.14	10.14	7.33	10.37	7.12

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	7.05	7.05	7.05	7.05	7.05
	-17.8	-18	7.51	7.51	7.51	7.51	7.51
	-15.7	-16	7.96	7.96	7.96	7.96	7.96
	-13.7	-14	8.41	8.41	8.41	8.41	8.41
	-11.7	-12	8.87	8.87	8.87	8.87	8.87
Hi	-9.6	-10	9.32	9.32	9.32	9.32	9.32
	-7.5	-8	9.89	9.89	9.89	9.89	9.89
28	-5.5	-6	10.46	10.46	10.46	10.46	10.46
(m³/min)	-3.4	-4	10.82	10.81	10.79	10.69	10.58
	-1.3	-2	11.19	11.16	11.13	10.91	10.70
	0.8	0	11.80	11.63	11.46	11.05	10.64
	3.9	3	12.80	12.34	11.89	11.22	10.55
	7.0	6	13.98	13.07	12.16	11.31	10.46
	10.1	9	13.89	13.00	12.11	11.24	10.37
	13.2	12	13.80	12.92	12.04	11.16	10.28
	16.9	15.5	13.70	12.81	11.93	11.05	10.17

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			8.43	6.41	10.07	7.26	10.90	7.46	11.59	7.55	12.99	8.16	13.48	7.94
	12			8.43	6.41	10.07	7.26	10.90	7.46	11.58	7.55	12.94	8.15	13.43	7.92
	14			8.43	6.41	10.07	7.26	10.90	7.46	11.56	7.54	12.89	8.13	13.37	7.89
	16			8.43	6.41	10.07	7.26	10.90	7.46	11.55	7.54	12.85	8.10	13.31	7.87
	18			8.43	6.41	10.07	7.26	10.90	7.46	11.53	7.53	12.80	8.09	13.25	7.86
Me	20			8.43	6.41	10.07	7.26	10.90	7.46	11.52	7.53	12.75	8.07	13.19	7.82
	22			8.41	6.40	10.07	7.26	10.90	7.46	11.46	7.51	12.59	8.00	13.01	7.76
25	24			8.40	6.39	10.07	7.26	10.90	7.46	11.41	7.49	12.43	7.94	12.83	7.69
(m³/min)	26			8.40	6.39	10.02	7.23	10.79	7.40	11.27	7.44	12.23	7.86	12.64	7.62
	28	7.61	6.29	8.39	6.39	9.97	7.21	10.69	7.36	11.14	7.38	12.04	7.78	12.44	7.54
	30	7.61	6.29	8.37	6.38	9.89	7.18	10.59	7.31	11.01	7.32	11.85	7.70	12.25	7.45
	32	7.61	6.29	8.35	6.37	9.82	7.14	10.49	7.28	10.88	7.26	11.67	7.63	12.07	7.39
	34	7.61	6.29	8.32	6.36	9.78	7.13	10.35	7.21	10.71	7.20	11.42	7.51	11.82	7.32
	35	7.61	6.29	8.31	6.35	9.77	7.12	10.28	7.19	10.62	7.15	11.30	7.47	11.69	7.28
	36	7.61	6.29	8.30	6.35	9.69	7.09	10.23	7.16	10.52	7.12	11.10	7.41	11.47	7.20
	38	7.61	6.29	8.28	6.34	9.55	7.03	10.13	7.12	10.31	7.02	10.69	7.25	11.01	7.04
	39	7.61	6.29	8.27	6.34	9.47	7.00	10.07	7.10	10.21	6.98	10.49	7.17	10.78	6.96
	41	7.61	6.29	8.24	6.32	9.19	6.85	9.66	6.92	9.78	6.78	10.02	6.99	10.28	6.78
	43	7.61	6.29	8.21	6.31	8.90	6.74	9.25	6.73	9.35	6.63	9.56	6.82	9.77	6.58

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	6.59	6.59	6.59	6.59	6.59
	-17.8	-18	7.01	7.01	7.01	7.01	7.01
	-15.7	-16	7.44	7.44	7.44	7.44	7.44
	-13.7	-14	7.86	7.86	7.86	7.86	7.86
	-11.7	-12	8.29	8.29	8.29	8.29	8.29
Me	-9.6	-10	8.71	8.71	8.71	8.71	8.71
	-7.5	-8	9.24	9.24	9.24	9.24	9.24
25	-5.5	-6	9.77	9.77	9.77	9.77	9.77
(m³/min)	-3.4	-4	10.11	10.10	10.08	9.98	9.88
	-1.3	-2	10.45	10.42	10.39	10.20	10.00
	0.8	0	11.02	10.86	10.71	10.32	9.94
	3.9	3	11.96	11.53	11.10	10.48	9.85
	7.0	6	13.06	12.21	11.36	10.56	9.77
	10.1	9	12.98	12.15	11.32	10.50	9.68
	13.2	12	12.89	12.07	11.25	10.42	9.60
	16.9	15.5	12.79	11.97	11.15	10.32	9.50

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			7.53	5.45	9.01	6.20	9.74	6.37	10.36	6.50	11.61	7.00	12.05	6.80
	12			7.53	5.45	9.01	6.20	9.74	6.37	10.35	6.49	11.57	6.98	12.00	6.77
	14			7.53	5.45	9.01	6.20	9.74	6.37	10.34	6.49	11.53	6.97	11.95	6.75
	16			7.53	5.45	9.01	6.20	9.74	6.37	10.32	6.47	11.48	6.94	11.90	6.73
	18			7.53	5.45	9.01	6.20	9.74	6.37	10.31	6.47	11.44	6.93	11.85	6.71
Lo	20			7.53	5.45	9.01	6.20	9.74	6.37	10.29	6.46	11.40	6.91	11.79	6.68
	22			7.52	5.44	9.00	6.19	9.74	6.37	10.25	6.45	11.26	6.85	11.63	6.60
19	24			7.51	5.44	9.00	6.19	9.74	6.37	10.20	6.42	11.11	6.78	11.47	6.55
(m³/min)	26			7.51	5.44	8.96	6.17	9.65	6.33	10.08	6.36	10.94	6.69	11.30	6.49
	28	6.80	5.34	7.50	5.44	8.91	6.15	9.56	6.30	9.96	6.30	10.76	6.63	11.12	6.42
	30	6.80	5.34	7.48	5.43	8.85	6.12	9.47	6.25	9.84	6.25	10.60	6.56	10.95	6.35
	32	6.80	5.34	7.46	5.42	8.78	6.09	9.37	6.21	9.73	6.21	10.43	6.48	10.79	6.29
	34	6.80	5.34	7.44	5.41	8.75	6.08	9.25	6.15	9.57	6.13	10.21	6.40	10.56	6.20
	35	6.80	5.34	7.43	5.40	8.73	6.06	9.19	6.12	9.49	6.10	10.10	6.35	10.45	6.15
	36	6.80	5.34	7.42	5.40	8.66	6.03	9.14	6.10	9.40	6.06	9.92	6.28	10.25	6.06
	38	6.80	5.34	7.40	5.39	8.53	5.97	9.05	6.06	9.22	5.98	9.56	6.12	9.84	5.93
	39	6.80	5.34	7.39	5.39	8.47	5.95	9.01	6.04	9.13	5.94	9.38	6.05	9.64	5.85
	41	6.80	5.34	7.36	5.37	8.21	5.81	8.64	5.87	8.75	5.78	8.96	5.88	9.19	5.69
	43	6.80	5.34	7.34	5.36	7.96	5.70	8.27	5.70	8.36	5.60	8.54	5.72	8.74	5.53

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	5.90	5.90	5.90	5.90	5.90
	-17.8	-18	6.28	6.28	6.28	6.28	6.28
	-15.7	-16	6.66	6.66	6.66	6.66	6.66
	-13.7	-14	7.04	7.04	7.04	7.04	7.04
	-11.7	-12	7.42	7.42	7.42	7.42	7.42
Lo	-9.6	-10	7.80	7.80	7.80	7.80	7.80
	-7.5	-8	8.27	8.27	8.27	8.27	8.27
19	-5.5	-6	8.75	8.75	8.75	8.75	8.75
(m³/min)	-3.4	-4	9.05	9.04	9.03	8.94	8.85
	-1.3	-2	9.36	9.33	9.31	9.13	8.95
	0.8	0	9.86	9.73	9.59	9.24	8.90
	3.9	3	10.70	10.32	9.94	9.38	8.82
	7.0	6	11.70	10.93	10.17	9.46	8.75
	10.1	9	11.62	10.88	10.13	9.40	8.67
	13.2	12	11.54	10.81	10.07	9.33	8.59
	16.9	15.5	11.45	10.72	9.98	9.24	8.50

Notes(1) This data shows average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

PJG000Z054

Model **FDU140KXE6F** Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			11.48	9.96	13.72	11.27	14.84	11.49	15.79	11.62	17.69	12.56	18.36	12.26
	12			11.48	9.96	13.72	11.27	14.84	11.49	15.77	11.61	17.62	12.53	18.28	12.23
	14			11.48	9.96	13.72	11.27	14.84	11.49	15.75	11.60	17.56	12.51	18.20	12.20
	16			11.48	9.96	13.72	11.27	14.84	11.49	15.72	11.59	17.49	12.49	18.13	12.18
	18			11.48	9.96	13.72	11.27	14.84	11.49	15.70	11.58	17.43	12.46	18.05	12.15
P-Hi	20			11.48	9.96	13.72	11.27	14.84	11.49	15.68	11.57	17.37	12.44	17.97	12.13
	22			11.46	9.96	13.71	11.26	14.84	11.49	15.61	11.55	17.15	12.36	17.72	12.04
39	24			11.44	9.95	13.71	11.26	14.84	11.49	15.54	11.52	16.93	12.28	17.48	11.96
(m³/min)	26			11.43	9.94	13.64	11.23	14.70	11.43	15.35	11.45	16.66	12.18	17.21	11.87
	28	10.36	9.84	11.42	9.94	13.58	11.21	14.56	11.38	15.17	11.38	16.39	12.09	16.94	11.79
	30	10.36	9.84	11.40	9.93	13.48	11.17	14.42	11.32	14.99	11.31	16.14	12.00	16.69	11.70
	32	10.36	9.84	11.37	9.92	13.37	11.12	14.28	11.26	14.82	11.24	15.89	11.91	16.43	11.62
	34	10.36	9.84	11.33	9.90	13.32	11.10	14.09	11.19	14.58	11.15	15.56	11.79	16.09	11.51
	35	10.36	9.84	11.31	9.89	13.30	11.09	14.00	11.15	14.46	11.10	15.39	11.73	15.92	11.45
	36	10.36	9.84	11.30	9.89	13.20	11.05	13.93	11.12	14.32	11.05	15.11	11.64	15.61	11.35
	38	10.36	9.84	11.27	9.87	13.00	10.97	13.79	11.07	14.05	10.95	14.56	11.44	15.00	11.16
	39	10.36	9.84	11.26	9.87	12.90	10.93	13.72	11.04	13.91	10.90	14.28	11.35	14.69	11.06
	41	10.36	9.84	11.22	9.85	12.51	10.78	13.16	10.82	13.32	10.68	13.65	11.13	14.00	10.84
	43	10.36	9.84	11.18	9.84	12.13	10.62	12.60	10.61	12.74	10.46	13.02	10.92	13.31	10.56

Heating mode (kW)

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	9.28	9.28	9.28	9.28	9.28
	-17.8	-18	9.88	9.88	9.88	9.88	9.88
	-15.7	-16	10.47	10.47	10.47	10.47	10.47
	-13.7	-14	11.07	11.07	11.07	11.07	11.07
	-11.7	-12	11.67	11.67	11.67	11.67	11.67
P-Hi	-9.6	-10	12.27	12.27	12.27	12.27	12.27
	-7.5	-8	13.01	13.01	13.01	13.01	13.01
39	-5.5	-6	13.76	13.76	13.76	13.76	13.76
(m³/min)	-3.4	-4	14.24	14.22	14.20	14.06	13.92
	-1.3	-2	14.72	14.68	14.64	14.36	14.08
	0.8	0	15.52	15.30	15.08	14.54	14.00
	3.9	3	16.84	16.24	15.64	14.76	13.88
	7.0	6	18.40	17.20	16.00	14.88	13.76
	10.1	9	18.28	17.11	15.94	14.79	13.64
	13.2	12	18.16	17.00	15.84	14.68	13.52
	16.9	15.5	18.02	16.86	15.70	14.54	13.38

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			11.29	9.01	13.49	10.19	14.60	10.42	15.53	10.56	17.40	11.41	18.06	11.11
	12			11.29	9.01	13.49	10.19	14.60	10.42	15.51	10.56	17.33	11.38	17.98	11.08
	14			11.29	9.01	13.49	10.19	14.60	10.42	15.49	10.55	17.27	11.36	17.91	11.06
	16			11.29	9.01	13.49	10.19	14.60	10.42	15.47	10.54	17.21	11.34	17.83	11.03
	18			11.29	9.01	13.49	10.19	14.60	10.42	15.45	10.53	17.14	11.31	17.75	11.00
Hi	20			11.29	9.01	13.49	10.19	14.60	10.42	15.42	10.52	17.08	11.29	17.67	10.97
	22			11.27	9.00	13.49	10.19	14.60	10.42	15.35	10.49	16.86	11.20	17.43	10.89
32	24			11.26	9.00	13.48	10.18	14.60	10.42	15.28	10.46	16.65	11.12	17.19	10.80
(m³/min)	26			11.25	8.99	13.42	10.16	14.46	10.37	15.10	10.39	16.39	11.02	16.93	10.71
	28	10.19	8.86	11.24	8.99	13.36	10.13	14.32	10.31	14.92	10.31	16.12	10.92	16.66	10.62
	30	10.19	8.86	11.21	8.98	13.25	10.08	14.18	10.25	14.75	10.24	15.88	10.81	16.41	10.51
	32	10.19	8.86	11.18	8.96	13.15	10.04	14.05	10.19	14.57	10.17	15.63	10.72	16.16	10.43
	34	10.19	8.86	11.14	8.95	13.10	10.02	13.86	10.11	14.34	10.08	15.30	10.59	15.83	10.32
	35	10.19	8.86	11.13	8.94	13.08	10.01	13.77	10.08	14.23	10.04	15.14	10.54	15.66	10.26
	36	10.19	8.86	11.11	8.93	12.98	9.97	13.70	10.05	14.09	9.98	14.86	10.43	15.36	10.16
	38	10.19	8.86	11.08	8.92	12.79	9.88	13.56	9.99	13.82	9.87	14.32	10.23	14.75	9.95
	39	10.19	8.86	11.07	8.91	12.69	9.84	13.49	9.96	13.68	9.82	14.05	10.14	14.45	9.85
	41	10.19	8.86	11.03	8.90	12.31	9.68	12.94	9.73	13.10	9.59	13.43	9.91	13.77	9.63
	43	10.19	8.86	10.99	8.88	11.93	9.52	12.39	9.51	12.53	9.37	12.80	9.69	13.09	9.41

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	9.09	9.09	9.09	9.09	9.09
	-17.8	-18	9.68	9.68	9.68	9.68	9.68
	-15.7	-16	10.27	10.27	10.27	10.27	10.27
	-13.7	-14	10.85	10.85	10.85	10.85	10.85
	-11.7	-12	11.44	11.44	11.44	11.44	11.44
Hi	-9.6	-10	12.02	12.02	12.02	12.02	12.02
	-7.5	-8	12.75	12.75	12.75	12.75	12.75
32	-5.5	-6	13.48	13.48	13.48	13.48	13.48
(m³/min)	-3.4	-4	13.96	13.94	13.92	13.78	13.64
	-1.3	-2	14.43	14.39	14.35	14.07	13.80
	0.8	0	15.21	14.99	14.78	14.25	13.72
	3.9	3	16.50	15.92	15.33	14.46	13.60
	7.0	6	18.03	16.86	15.68	14.58	13.48
	10.1	9	17.91	16.77	15.62	14.49	13.37
	13.2	12	17.80	16.66	15.52	14.39	13.25
	16.9	15.5	17.66	16.52	15.39	14.25	13.11

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			10.75	8.05	12.86	9.13	13.91	9.38	14.80	9.53	16.57	10.27	17.21	9.98
	12			10.75	8.05	12.86	9.13	13.91	9.38	14.78	9.52	16.51	10.24	17.13	9.95
	14			10.75	8.05	12.86	9.13	13.91	9.38	14.76	9.51	16.45	10.22	17.06	9.92
	16			10.75	8.05	12.86	9.13	13.91	9.38	14.74	9.50	16.39	10.19	16.99	9.89
	18			10.75	8.05	12.86	9.13	13.91	9.38	14.72	9.49	16.33	10.17	16.91	9.86
Me	20			10.75	8.05	12.86	9.13	13.91	9.38	14.70	9.48	16.27	10.13	16.84	9.82
	22			10.74	8.04	12.85	9.13	13.91	9.38	14.63	9.45	16.07	10.05	16.61	9.74
26	24			10.72	8.03	12.85	9.13	13.91	9.38	14.56	9.42	15.86	9.96	16.38	9.65
(m³/min)	26			10.72	8.03	12.79	9.10	13.78	9.32	14.39	9.35	15.61	9.86	16.13	9.56
	28	9.71	7.91	10.71	8.03	12.73	9.07	13.64	9.26	14.22	9.27	15.36	9.76	15.88	9.47
	30	9.71	7.91	10.68	8.01	12.63	9.03	13.51	9.20	14.05	9.20	15.13	9.67	15.64	9.38
	32	9.71	7.91	10.65	8.00	12.53	8.97	13.38	9.14	13.89	9.13	14.89	9.57	15.40	9.29
	34	9.71	7.91	10.62	7.98	12.49	8.95	13.21	9.06	13.66	9.03	14.58	9.45	15.08	9.17
	35	9.71	7.91	10.60	7.98	12.46	8.94	13.12	9.02	13.55	8.99	14.42	9.38	14.92	9.11
	36	9.71	7.91	10.59	7.97	12.37	8.90	13.05	8.99	13.42	8.93	14.16	9.28	14.63	9.01
	38	9.71	7.91	10.56	7.96	12.18	8.81	12.92	8.94	13.16	8.82	13.64	9.08	14.05	8.81
	39	9.71	7.91	10.55	7.95	12.09	8.77	12.86	8.91	13.03	8.77	13.39	8.98	13.76	8.70
	41	9.71	7.91	10.51	7.93	11.73	8.61	12.33	8.67	12.49	8.53	12.79	8.74	13.12	8.47
	43	9.71	7.91	10.47	7.91	11.36	8.45	11.81	8.45	11.94	8.31	12.20	8.52	12.47	8.25

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	8.61	8.61	8.61	8.61	8.61
	-17.8	-18	9.17	9.17	9.17	9.17	9.17
	-15.7	-16	9.72	9.72	9.72	9.72	9.72
	-13.7	-14	10.28	10.28	10.28	10.28	10.28
	-11.7	-12	10.83	10.83	10.83	10.83	10.83
Me	-9.6	-10	11.39	11.39	11.39	11.39	11.39
	-7.5	-8	12.08	12.08	12.08	12.08	12.08
26	-5.5	-6	12.77	12.77	12.77	12.77	12.77
(m³/min)	-3.4	-4	13.22	13.20	13.18	13.05	12.92
	-1.3	-2	13.66	13.62	13.59	13.33	13.07
	0.8	0	14.40	14.20	14.00	13.49	12.99
	3.9	3	15.63	15.07	14.52	13.70	12.88
	7.0	6	17.08	15.96	14.85	13.81	12.77
	10.1	9	16.97	15.88	14.79	13.73	12.66
	13.2	12	16.85	15.78	14.70	13.62	12.55
	16.9	15.5	16.72	15.65	14.57	13.49	12.42

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			9.62	6.84	11.49	7.78	12.43	8.03	13.23	8.18	14.82	8.81	15.39	8.54
	12			9.62	6.84	11.49	7.78	12.43	8.03	13.21	8.17	14.76	8.79	15.32	8.52
	14			9.62	6.84	11.49	7.78	12.43	8.03	13.19	8.16	14.71	8.76	15.25	8.49
	16			9.62	6.84	11.49	7.78	12.43	8.03	13.17	8.15	14.66	8.74	15.19	8.46
	18			9.62	6.84	11.49	7.78	12.43	8.03	13.16	8.15	14.60	8.71	15.12	8.43
Lo	20			9.62	6.84	11.49	7.78	12.43	8.03	13.14	8.14	14.55	8.69	15.05	8.40
	22			9.60	6.83	11.49	7.78	12.43	8.03	13.08	8.11	14.37	8.61	14.85	8.31
20	24			9.59	6.83	11.49	7.78	12.43	8.03	13.02	8.08	14.18	8.52	14.64	8.23
(m³/min)	26			9.58	6.82	11.43	7.75	12.32	7.97	12.86	8.01	13.96	8.42	14.42	8.14
	28	8.68	6.70	9.57	6.82	11.38	7.73	12.20	7.92	12.71	7.94	13.73	8.32	14.19	8.05
	30	8.68	6.70	9.55	6.81	11.29	7.68	12.08	7.86	12.56	7.87	13.53	8.23	13.98	7.96
	32	8.68	6.70	9.52	6.79	11.20	7.64	11.96	7.79	12.42	7.80	13.32	8.14	13.77	7.88
	34	8.68	6.70	9.49	6.78	11.16	7.62	11.81	7.72	12.22	7.71	13.03	8.02	13.48	7.77
	35	8.68	6.70	9.48	6.77	11.14	7.61	11.73	7.69	12.12	7.66	12.89	7.96	13.34	7.72
	36	8.68	6.70	9.47	6.77	11.06	7.57	11.67	7.66	12.00	7.60	12.66	7.86	13.08	7.62
	38	8.68	6.70	9.44	6.75	10.89	7.49	11.55	7.60	11.77	7.50	12.20	7.66	12.56	7.41
	39	8.68	6.70	9.43	6.75	10.81	7.45	11.50	7.58	11.65	7.45	11.97	7.57	12.31	7.32
	41	8.68	6.70	9.40	6.73	10.48	7.30	11.03	7.36	11.16	7.23	11.44	7.36	11.73	7.10
	43	8.68	6.70	9.36	6.71	10.16	7.15	10.56	7.15	10.67	7.02	10.90	7.14	11.15	6.89

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	7.68	7.68	7.68	7.68	7.68
	-17.8	-18	8.17	8.17	8.17	8.17	8.17
	-15.7	-16	8.67	8.67	8.67	8.67	8.67
	-13.7	-14	9.16	9.16	9.16	9.16	9.16
	-11.7	-12	9.66	9.66	9.66	9.66	9.66
Lo	-9.6	-10	10.15	10.15	10.15	10.15	10.15
	-7.5	-8	10.77	10.77	10.77	10.77	10.77
20	-5.5	-6	11.39	11.39	11.39	11.39	11.39
(m³/min)	-3.4	-4	11.78	11.77	11.75	11.63	11.52
	-1.3	-2	12.18	12.15	12.11	11.88	11.65
	0.8	0	12.84	12.66	12.48	12.03	11.59
	3.9	3	13.94	13.44	12.94	12.21	11.49
	7.0	6	15.23	14.23	13.24	12.31	11.39
	10.1	9	15.13	14.16	13.19	12.24	11.29
	13.2	12	15.03	14.07	13.11	12.15	11.19
	16.9	15.5	14.91	13.95	12.99	12.03	11.07

Notes(1) This data shows average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

PJG000Z054

Model **FDU160KXE6F** Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			13.12	11.09	15.68	12.51	16.96	12.79	18.04	12.94	20.21	13.99	20.99	13.66
	12			13.12	11.09	15.68	12.51	16.96	12.79	18.02	12.93	20.14	13.96	20.90	13.61
	14			13.12	11.09	15.68	12.51	16.96	12.79	18.00	12.93	20.07	13.94	20.81	13.58
	16			13.12	11.09	15.68	12.51	16.96	12.79	17.97	12.92	19.99	13.91	20.72	13.56
	18			13.12	11.09	15.68	12.51	16.96	12.79	17.95	12.91	19.92	13.89	20.62	13.53
P-Hi	20			13.12	11.09	15.68	12.51	16.96	12.79	17.92	12.90	19.85	13.84	20.53	13.50
	22			13.10	11.08	15.67	12.51	16.96	12.79	17.84	12.87	19.60	13.76	20.25	13.39
48	24			13.08	11.08	15.67	12.51	16.96	12.79	17.75	12.84	19.34	13.67	19.97	13.30
(m³/min)	26			13.07	11.07	15.59	12.48	16.80	12.73	17.55	12.74	19.04	13.55	19.67	13.19
	28	11.84	10.95	13.06	11.07	15.52	12.45	16.64	12.65	17.34	12.67	18.73	13.45	19.36	13.09
	30	11.84	10.95	13.02	11.05	15.40	12.41	16.48	12.59	17.14	12.59	18.45	13.33	19.07	12.98
	32	11.84	10.95	12.99	11.04	15.28	12.36	16.32	12.53	16.93	12.50	18.16	13.24	18.78	12.90
	34	11.84	10.95	12.95	11.00	15.23	12.34	16.11	12.45	16.66	12.40	17.78	13.09	18.39	12.76
	35	11.84	10.95	12.93	10.99	15.20	12.33	16.00	12.39	16.53	12.36	17.59	13.03	18.20	12.70
	36	11.84	10.95	12.91	10.98	15.09	12.29	15.92	12.36	16.37	12.27	17.27	12.90	17.85	12.60
	38	11.84	10.95	12.88	10.97	14.86	12.18	15.76	12.30	16.05	12.16	16.64	12.62	17.14	12.30
	39	11.84	10.95	12.86	10.96	14.74	12.13	15.68	12.27	15.89	12.11	16.32	12.52	16.79	12.20
	41	11.84	10.95	12.82	10.95	14.30	11.94	15.04	12.01	15.23	11.85	15.60	12.29	16.00	11.98
	43	11.84	10.95	12.77	10.93	13.86	11.78	14.40	11.76	14.56	11.60	14.87	12.06	15.21	11.75

Heating mode (kW)

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	10.44	10.44	10.44	10.44	10.44
	-17.8	-18	11.11	11.11	11.11	11.11	11.11
	-15.7	-16	11.78	11.78	11.78	11.78	11.78
	-13.7	-14	12.46	12.46	12.46	12.46	12.46
	-11.7	-12	13.13	13.13	13.13	13.13	13.13
P-Hi	-9.6	-10	13.80	13.80	13.80	13.80	13.80
	-7.5	-8	14.64	14.64	14.64	14.64	14.64
48	-5.5	-6	15.48	15.48	15.48	15.48	15.48
(m³/min)	-3.4	-4	16.02	16.00	15.98	15.82	15.66
	-1.3	-2	16.56	16.52	16.47	16.16	15.84
	0.8	0	17.46	17.21	16.97	16.36	15.75
	3.9	3	18.95	18.27	17.60	16.61	15.62
	7.0	6	20.70	19.35	18.00	16.74	15.48
	10.1	9	20.57	19.25	17.93	16.64	15.35
	13.2	12	20.43	19.13	17.82	16.52	15.21
	16.9	15.5	20.27	18.97	17.66	16.36	15.05

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			12.90	9.64	15.42	10.94	16.68	11.24	17.75	11.43	19.88	12.29	20.65	11.97
	12			12.90	9.64	15.42	10.94	16.68	11.24	17.73	11.42	19.81	12.27	20.56	11.94
	14			12.90	9.64	15.42	10.94	16.68	11.24	17.70	11.41	19.74	12.24	20.47	11.89
	16			12.90	9.64	15.42	10.94	16.68	11.24	17.68	11.40	19.67	12.22	20.38	11.86
	18			12.90	9.64	15.42	10.94	16.68	11.24	17.65	11.37	19.60	12.19	20.29	11.83
Hi	20			12.90	9.64	15.42	10.94	16.68	11.24	17.63	11.36	19.52	12.16	20.20	11.78
	22			12.88	9.63	15.42	10.94	16.68	11.24	17.55	11.33	19.28	12.06	19.92	11.68
35	24			12.87	9.63	15.41	10.94	16.68	11.24	17.47	11.30	19.03	11.95	19.65	11.59
(m³/min)	26			12.85	9.62	15.34	10.89	16.53	11.17	17.26	11.20	18.73	11.83	19.35	11.47
	28	11.65	9.47	12.84	9.62	15.27	10.86	16.37	11.10	17.06	11.11	18.43	11.70	19.05	11.36
	30	11.65	9.47	12.81	9.60	15.15	10.82	16.21	11.02	16.86	11.03	18.15	11.59	18.76	11.25
	32	11.65	9.47	12.78	9.59	15.03	10.75	16.05	10.96	16.66	10.94	17.87	11.47	18.48	11.14
	34	11.65	9.47	12.74	9.57	14.98	10.73	15.84	10.86	16.39	10.82	17.49	11.32	18.09	10.96
	35	11.65	9.47	12.72	9.56	14.95	10.72	15.74	10.82	16.26	10.77	17.30	11.24	17.90	10.90
	36	11.65	9.47	12.70	9.55	14.84	10.64	15.66	10.77	16.10	10.69	16.99	11.09	17.56	10.79
	38	11.65	9.47	12.67	9.54	14.61	10.55	15.50	10.71	15.79	10.58	16.37	10.88	16.86	10.56
	39	11.65	9.47	12.65	9.53	14.50	10.50	15.43	10.68	15.64	10.47	16.06	10.76	16.51	10.43
	41	11.65	9.47	12.61	9.50	14.07	10.33	14.80	10.39	14.98	10.22	15.35	10.48	15.74	10.15
	43	11.65	9.47	12.57	9.48	13.63	10.14	14.17	10.12	14.32	9.96	14.63	10.20	14.96	9.88

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	10.23	10.23	10.23	10.23	10.23
	-17.8	-18	10.89	10.89	10.89	10.89	10.89
	-15.7	-16	11.55	11.55	11.55	11.55	11.55
	-13.7	-14	12.21	12.21	12.21	12.21	12.21
	-11.7	-12	12.87	12.87	12.87	12.87	12.87
Hi	-9.6	-10	13.52	13.52	13.52	13.52	13.52
	-7.5	-8	14.35	14.35	14.35	14.35	14.35
35	-5.5	-6	15.17	15.17	15.17	15.17	15.17
(m³/min)	-3.4	-4	15.70	15.68	15.66	15.50	15.35
	-1.3	-2	16.23	16.18	16.14	15.83	15.52
	0.8	0	17.11	16.87	16.63	16.03	15.44
	3.9	3	18.57	17.90	17.24	16.27	15.30
	7.0	6	20.29	18.96	17.64	16.41	15.17
	10.1	9	20.15	18.86	17.57	16.31	15.04
	13.2	12	20.02	18.74	17.46	16.18	14.91
	16.9	15.5	19.87	18.59	17.31	16.03	14.75

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			12.07	8.60	14.42	9.77	15.60	10.08	16.60	10.27	18.60	11.07	19.31	10.74
	12			12.07	8.60	14.42	9.77	15.60	10.08	16.58	10.27	18.53	11.04	19.22	10.70
	14			12.07	8.60	14.42	9.77	15.60	10.08	16.56	10.26	18.46	11.02	19.14	10.67
	16			12.07	8.60	14.42	9.77	15.60	10.08	16.53	10.25	18.39	10.98	19.06	10.64
	18			12.07	8.60	14.42	9.77	15.60	10.08	16.51	10.24	18.33	10.95	18.97	10.59
Me	20			12.07	8.60	14.42	9.77	15.60	10.08	16.49	10.23	18.26	10.93	18.89	10.56
	22			12.05	8.57	14.42	9.77	15.60	10.08	16.41	10.18	18.03	10.81	18.63	10.45
28	24			12.03	8.56	14.41	9.77	15.60	10.08	16.33	10.15	17.80	10.71	18.38	10.35
(m³/min)	26			12.02	8.55	14.35	9.74	15.46	10.00	16.14	10.06	17.52	10.59	18.09	10.23
	28	10.89	8.41	12.01	8.55	14.28	9.70	15.31	9.93	15.95	9.97	17.24	10.46	17.81	10.10
	30	10.89	8.41	11.98	8.54	14.17	9.65	15.16	9.87	15.77	9.87	16.97	10.32	17.54	10.00
	32	10.89	8.41	11.95	8.52	14.06	9.59	15.01	9.79	15.58	9.79	16.71	10.22	17.28	9.90
	34	10.89	8.41	11.91	8.50	14.01	9.57	14.82	9.70	15.33	9.68	16.36	10.08	16.92	9.77
	35	10.89	8.41	11.89	8.50	13.98	9.56	14.72	9.66	15.21	9.63	16.18	10.00	16.74	9.69
	36	10.89	8.41	11.88	8.49	13.88	9.52	14.65	9.63	15.06	9.56	15.89	9.87	16.42	9.57
	38	10.89	8.41	11.85	8.48	13.67	9.41	14.50	9.56	14.77	9.43	15.31	9.64	15.77	9.31
	39	10.89	8.41	11.83	8.47	13.56	9.35	14.43	9.53	14.62	9.36	15.02	9.52	15.44	9.16
	41	10.89	8.41	11.79	8.45	13.16	9.17	13.84	9.25	14.01	9.09	14.35	9.22	14.72	8.93
	43	10.89	8.41	11.75	8.43	12.75	8.96	13.25	8.95	13.39	8.80	13.68	8.97	13.99	8.67

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	9.60	9.60	9.60	9.60	9.60
	-17.8	-18	10.22	10.22	10.22	10.22	10.22
	-15.7	-16	10.84	10.84	10.84	10.84	10.84
	-13.7	-14	11.46	11.46	11.46	11.46	11.46
	-11.7	-12	12.08	12.08	12.08	12.08	12.08
Me	-9.6	-10	12.70	12.70	12.70	12.70	12.70
	-7.5	-8	13.47	13.47	13.47	13.47	13.47
28	-5.5	-6	14.24	14.24	14.24	14.24	14.24
(m³/min)	-3.4	-4	14.74	14.72	14.70	14.55	14.41
	-1.3	-2	15.24	15.19	15.15	14.86	14.57
	0.8	0	16.06	15.84	15.61	15.05	14.49
	3.9	3	17.43	16.81	16.19	15.28	14.37
	7.0	6	19.04	17.80	16.56	15.40	14.24
	10.1	9	18.92	17.71	16.50	15.31	14.12
	13.2	12	18.80	17.60	16.39	15.19	13.99
	16.9	15.5	18.65	17.45	16.25	15.05	13.85

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			10.99	7.53	13.14	8.60	14.21	8.91	15.12	9.11	16.94	9.83	17.59	9.51
	12			10.99	7.53	13.14	8.60	14.21	8.91	15.10	9.10	16.88	9.80	17.51	9.47
	14			10.99	7.53	13.14	8.60	14.21	8.91	15.08	9.09	16.82	9.77	17.44	9.45
	16			10.99	7.53	13.14	8.60	14.21	8.91	15.06	9.08	16.76	9.74	17.36	9.41
	18			10.99	7.53	13.14	8.60	14.21	8.91	15.04	9.07	16.70	9.71	17.29	9.37
Lo	20			10.99	7.53	13.14	8.60	14.21	8.91	15.02	9.06	16.63	9.68	17.21	9.34
	22			10.98	7.52	13.14	8.60	14.21	8.91	14.95	9.03	16.42	9.57	16.98	9.23
22	24			10.96	7.51	13.13	8.60	14.21	8.91	14.88	8.99	16.21	9.47	16.74	9.11
(m³/min)	26			10.95	7.51	13.07	8.57	14.08	8.84	14.71	8.91	15.96	9.33	16.48	9.01
	28	9.92	7.35	10.94	7.50	13.01	8.54	13.95	8.78	14.53	8.82	15.70	9.22	16.23	8.90
	30	9.92	7.35	10.92	7.49	12.91	8.49	13.81	8.70	14.36	8.73	15.46	9.11	15.98	8.79
	32	9.92	7.35	10.89	7.48	12.81	8.43	13.68	8.64	14.19	8.64	15.22	8.99	15.74	8.69
	34	9.92	7.35	10.85	7.46	12.76	8.41	13.50	8.54	13.97	8.53	14.90	8.84	15.42	8.53
	35	9.92	7.35	10.84	7.46	12.74	8.40	13.41	8.50	13.85	8.46	14.74	8.76	15.25	8.47
	36	9.92	7.35	10.82	7.45	12.64	8.35	13.34	8.47	13.72	8.40	14.48	8.64	14.96	8.36
	38	9.92	7.35	10.80	7.43	12.45	8.25	13.21	8.40	13.45	8.28	13.95	8.41	14.36	8.10
	39	9.92	7.35	10.78	7.42	12.36	8.20	13.14	8.37	13.32	8.21	13.68	8.28	14.07	7.98
	41	9.92	7.35	10.74	7.40	11.98	8.01	12.61	8.10	12.76	7.94	13.07	8.00	13.41	7.73
	43	9.92	7.35	10.71	7.39	11.61	7.82	12.07	7.84	12.20	7.67	12.47	7.76	12.75	7.46

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	8.39	8.39	8.39	8.39	8.39
	-17.8	-18	8.93	8.93	8.93	8.93	8.93
	-15.7	-16	9.47	9.47	9.47	9.47	9.47
	-13.7	-14	10.01	10.01	10.01	10.01	10.01
	-11.7	-12	10.55	10.55	10.55	10.55	10.55
Lo	-9.6	-10	11.09	11.09	11.09	11.09	11.09
	-7.5	-8	11.77	11.77	11.77	11.77	11.77
22	-5.5	-6	12.44	12.44	12.44	12.44	12.44
(m³/min)	-3.4	-4	12.88	12.86	12.84	12.72	12.59
	-1.3	-2	13.31	13.28	13.24	12.99	12.73
	0.8	0	14.04	13.84	13.64	13.15	12.66
	3.9	3	15.23	14.69	14.14	13.35	12.55
	7.0	6	16.64	15.56	14.47	13.46	12.44
	10.1	9	16.53	15.47	14.42	13.38	12.34
	13.2	12	16.42	15.37	14.33	13.28	12.23
	16.9	15.5	16.30	15.25	14.20	13.15	12.10

Notes(1) This data shows average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

PJG000Z054

Model **FDU224KXZE1** Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature													
		21 °CDB 14 °CWB		23 °CDB 16 °CWB		26 °CDB 18 °CWB		27 °CDB 19 °CWB		28 °CDB 20 °CWB		31 °CDB 22 °CWB		33 °CDB 24 °CWB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	10			18.36	17.63	21.95	19.91	23.74	20.22	25.26	20.44	28.30	22.13	29.38	21.66
	12			18.36	17.63	21.95	19.91	23.74	20.22	25.23	20.38	28.19	22.09	29.25	21.61
	14			18.36	17.63	21.95	19.91	23.74	20.22	25.19	20.37	28.09	22.05	29.13	21.58
	16			18.36	17.63	21.95	19.91	23.74	20.22	25.16	20.36	27.99	22.02	29.00	21.54
	18			18.36	17.63	21.95	19.91	23.74	20.22	25.13	20.35	27.89	21.99	28.87	21.50
P-Hi	20			18.36	17.63	21.95	19.91	23.74	20.22	25.09	20.33	27.79	21.96	28.75	21.46
	22			18.34	17.61	21.94	19.90	23.74	20.22	24.97	20.29	27.43	21.84	28.36	21.20
80	24			18.31	17.58	21.93	19.90	23.74	20.22	24.86	20.25	27.08	21.72	27.96	21.08
(m^3/min)	26			18.29	17.56	21.83	19.86	23.52	20.14	24.57	20.14	26.66	21.45	27.53	20.95
	28	16.58	15.92	18.28	17.55	21.73	19.82	23.30	20.06	24.27	20.04	26.23	21.31	27.10	20.82
	30	16.58	15.92	18.23	17.50	21.56	19.71	23.07	19.97	23.99	19.94	25.83	21.18	26.70	20.70
	32	16.58	15.92	18.19	17.46	21.39	19.65	22.85	19.89	23.71	19.84	25.43	21.04	26.29	20.58
	34	16.58	15.92	18.13	17.40	21.32	19.62	22.55	19.78	23.33	19.71	24.89	20.87	25.75	20.42
	35	16.58	15.92	18.10	17.38	21.28	19.61	22.40	19.72	23.14	19.64	24.62	20.78	25.48	20.34
	36	16.58	15.92	18.08	17.36	21.12	19.55	22.29	19.68	22.92	19.57	24.18	20.64	24.98	20.20
	38	16.58	15.92	18.03	17.31	20.80	19.43	22.06	19.60	22.47	19.36	23.30	20.35	23.99	19.90
	39	16.58	15.92	18.01	17.29	20.64	19.37	21.95	19.52	22.25	19.29	22.85	20.21	23.50	19.76
	41	16.58	15.92	17.95	17.23	20.02	19.13	21.06	19.20	21.32	18.96	21.84	19.89	22.40	19.44
	43	16.58	15.92	17.88	17.16	19.40	18.62	20.16	18.87	20.38	18.64	20.82	19.57	21.30	19.12

Heating mode (kW)

Air flow	Outdoor air temperature		Indoor air temperature				
	°CDB	°CWB	16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	14.50	14.50	14.50	14.50	14.50
	-17.8	-18	15.43	15.43	15.43	15.43	15.43
	-15.7	-16	16.37	16.37	16.37	16.37	16.37
	-13.7	-14	17.30	17.30	17.30	17.30	17.30
	-11.7	-12	18.23	18.23	18.23	18.23	18.23
P-Hi	-9.6	-10	19.17	19.17	19.17	19.17	19.17
	-7.5	-8	20.33	20.33	20.33	20.33	20.33
80	-5.5	-6	21.50	21.50	21.50	21.50	21.50
(m^3/min)	-3.4	-4	22.25	22.22	22.19	21.97	21.75
	-1.3	-2	23.00	22.94	22.88	22.44	22.00
	0.8	0	24.25	23.91	23.56	22.72	21.88
	3.9	3	26.31	25.38	24.44	23.06	21.69
	7.0	6	28.75	26.88	25.00	23.25	21.50
	10.1	9	28.56	26.73	24.91	23.11	21.31
	13.2	12	28.38	26.56	24.75	22.94	21.13
	16.9	15.5	28.16	26.34	24.53	22.72	20.91

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature													
		21 °CDB 14 °CWB		23 °CDB 16 °CWB		26 °CDB 18 °CWB		27 °CDB 19 °CWB		28 °CDB 20 °CWB		31 °CDB 22 °CWB		33 °CDB 24 °CWB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	10			16.56	15.89	19.79	17.93	21.41	18.21	22.78	18.41	25.52	19.93	26.50	19.51
	12			16.56	15.89	19.79	17.93	21.41	18.21	22.75	18.40	25.43	19.90	26.38	19.47
	14			16.56	15.89	19.79	17.93	21.41	18.21	22.72	18.35	25.33	19.86	26.27	19.44
	16			16.56	15.89	19.79	17.93	21.41	18.21	22.69	18.34	25.24	19.84	26.15	19.40
	18			16.56	15.89	19.79	17.93	21.41	18.21	22.66	18.33	25.15	19.81	26.04	19.37
Hi	20			16.56	15.89	19.79	17.93	21.41	18.21	22.63	18.32	25.06	19.78	25.92	19.33
	22			16.53	15.87	19.79	17.93	21.41	18.21	22.52	18.28	24.74	19.67	25.57	19.10
72	24			16.51	15.85	19.78	17.92	21.41	18.21	22.42	18.24	24.42	19.56	25.22	18.99
(m^3/min)	26			16.50	15.84	19.69	17.89	21.21	18.14	22.15	18.14	24.04	19.44	24.83	18.87
	28	14.95	14.35	16.48	15.82	19.59	17.85	21.01	18.06	21.89	18.05	23.65	19.19	24.44	18.76
	30	14.95	14.35	16.44	15.78	19.44	17.76	20.81	17.99	21.63	17.96	23.29	19.07	24.08	18.65
	32	14.95	14.35	16.40	15.74	19.29	17.70	20.60	17.92	21.38	17.87	22.93	18.95	23.71	18.54
	34	14.95	14.35	16.35	15.70	19.22	17.68	20.33	17.81	21.04	17.75	22.45	18.80	23.22	18.39
	35	14.95	14.35	16.32	15.67	19.19	17.66	20.20	17.77	20.87	17.69	22.20	18.72	22.98	18.32
	36	14.95	14.35	16.30	15.65	19.05	17.61	20.10	17.73	20.67	17.62	21.81	18.59	22.53	18.19
	38	14.95	14.35	16.26	15.61	18.76	17.50	19.90	17.66	20.27	17.45	21.01	18.33	21.64	17.93
	39	14.95	14.35	16.24	15.59	18.61	17.44	19.80	17.58	20.07	17.37	20.61	18.20	21.19	17.79
	41	14.95	14.35	16.18	15.53	18.05	17.23	18.99	17.29	19.22	17.08	19.69	17.91	20.20	17.50
	43	14.95	14.35	16.13	15.48	17.50	16.80	18.18	17.00	18.38	16.79	18.78	17.62	19.20	17.22

Air flow	Outdoor air temperature		Indoor air temperature				
	°CDB	°CWB	16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	13.05	13.05	13.05	13.05	13.05
	-17.8	-18	13.89	13.89	13.89	13.89	13.89
	-15.7	-16	14.73	14.73	14.73	14.73	14.73
	-13.7	-14	15.57	15.57	15.57	15.57	15.57
	-11.7	-12	16.41	16.41	16.41	16.41	16.41
Hi	-9.6	-10	17.25	17.25	17.25	17.25	17.25
	-7.5	-8	18.30	18.30	18.30	18.30	18.30
72	-5.5	-6	19.35	19.35	19.35	19.35	19.35
(m^3/min)	-3.4	-4	20.03	20.00	19.97	19.77	19.58
	-1.3	-2	20.70	20.64	20.59	20.19	19.80
	0.8	0	21.83	21.52	21.21	20.45	19.69
	3.9	3	23.68	22.84	21.99	20.76	19.52
	7.0	6	25.88	24.19	22.50	20.93	19.35
	10.1	9	25.71	24.06	22.42	20.80	19.18
	13.2	12	25.54	23.91	22.28	20.64	19.01
	16.9	15.5	25.34	23.71	22.08	20.45	18.82

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature													
		21 °CDB 14 °CWB		23 °CDB 16 °CWB		26 °CDB 18 °CWB		27 °CDB 19 °CWB		28 °CDB 20 °CWB		31 °CDB 22 °CWB		33 °CDB 24 °CWB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	10			14.75	14.14	17.64	15.96	19.08	16.21	20.30	16.38	22.74	17.73	23.61	17.36
	12			14.75	14.14	17.64	15.96	19.08	16.21	20.27	16.37	22.66	17.71	23.51	17.33
	14			14.75	14.14	17.64	15.96	19.08	16.21	20.24	16.36	22.57	17.68	23.41	17.30
	16			14.75	14.14	17.64	15.96	19.08	16.21	20.22	16.35	22.49	17.65	23.30	17.26
	18			14.75	14.14	17.64	15.96	19.08	16.21	20.19	16.31	22.41	17.62	23.20	17.23
Me	20			14.75	14.14	17.64	15.96	19.08	16.21	20.16	16.30	22.33	17.60	23.10	17.20
	22			14.73	14.13	17.63	15.95	19.08	16.21	20.07	16.26	22.05	17.51	22.79	16.99
64	24			14.71	14.12	17.62	15.95	19.08	16.21	19.97	16.23	21.76	17.41	22.47	16.89
(m^3/min)	26			14.70	14.11	17.54	15.91	18.90	16.14	19.74	16.15	21.42	17.30	22.13	16.79
	28	13.32	12.79	14.69	14.10	17.46	15.89	18.72	16.07	19.51	16.07	21.08	17.08	21.78	16.69
	30	13.32	12.79	14.65	14.06	17.33	15.84	18.54	16.01	19.28	15.98	20.75	16.97	21.45	16.59
	32	13.32	12.79	14.62	14.04	17.19	15.75	18.36	15.94	19.05	15.90	20.43	16.86	21.13	16.49
	34	13.32	12.79	14.57	13.99	17.13	15.73	18.12	15.85	18.75	15.80	20.00	16.72	20.69	16.36
	35	13.32	12.79	14.54	13.96	17.10	15.72	18.00	15.81	18.60	15.75	19.79	16.66	20.47	16.30
	36	13.32	12.79	14.53	13.95	16.97	15.67	17.91	15.78	18.42	15.68	19.43	16.54	20.08	16.18
	38	13.32	12.79	14.49	13.91	16.71	15.57	17.73	15.71	18.06	15.55	18.72	16.31	19.28	15.95
	39	13.32	12.79	14.47	13.89	16.58	15.52	17.64	15.65	17.88	15.46	18.36	16.20	18.88	15.83
	41	13.32	12.79	14.42	13.84	16.09	15.34	16.92	15.38	17.13	15.20	17.55	15.94	18.00	15.57
	43	13.32	12.79	14.37	13.80	15.59	14.97	16.20	15.12	16.38	14.94	16.73	15.68	17.11	15.32

Air flow	Outdoor air temperature		Indoor air temperature				
	°CDB	°CWB	16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	11.60	11.60	11.60	11.60	11.60
	-17.8	-18	12.35	12.35	12.35	12.35	12.35
	-15.7	-16	13.09	13.09	13.09	13.09	13.09
	-13.7	-14	13.84	13.84	13.84	13.84	13.84
	-11.7	-12	14.59	14.59	14.59	14.59	14.59
Me	-9.6	-10	15.33	15.33	15.33	15.33	15.33
	-7.5	-8	16.27	16.27	16.27	16.27	16.27
64	-5.5	-6	17.20	17.20	17.20	17.20	17.20
(m^3/min)	-3.4	-4	17.80	17.78	17.75	17.58	17.40
	-1.3	-2	18.40	18.35	18.30	17.95	17.60
	0.8	0	19.40	19.13	18.85	18.18	17.50
	3.9	3	21.05	20.30	19.55	18.45	17.35
	7.0	6	23.00	21.50	20.00	18.60	17.20
	10.1	9	22.85	21.39	19.93	18.49	17.05
	13.2	12	22.70	21.25	19.80	18.35	16.90
	16.9	15.5	22.53	21.08	19.63	18.18	16.73

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature													
		21 °CDB 14 °CWB		23 °CDB 16 °CWB		26 °CDB 18 °CWB		27 °CDB 19 °CWB		28 °CDB 20 °CWB		31 °CDB 22 °CWB		33 °CDB 24 °CWB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	10			12.87	12.36	15.38	13.94	16.64	14.16	17.71	14.32	19.83	15.50	20.59	15.17
	12			12.87	12.36	15.38	13.94	16.64	14.16	17.68	14.27	19.76	15.47	20.50	15.14
	14			12.87	12.36	15.38	13.94	16.64	14.16	17.66	14.27	19.69	15.45	20.42	15.12
	16			12.87	12.36	15.38	13.94	16.64	14.16	17.63	14.26	19.62	15.43	20.33	15.09
	18			12.87	12.36	15.38	13.94	16.64	14.16	17.61	14.25	19.55	15.40	20.24	15.06
Lo	20			12.87	12.36	15.38	13.94	16.64	14.16	17.59	14.24	19.47	15.38	20.15	15.03
	22			12.85	12.34	15.38	13.94	16.64	14.16	17.50	14.21	19.23	15.30	19.87	14.85
56	24			12.83	12.32	15.37	13.94	16.64	14.16	17.42	14.18	18.98	15.22	19.60	14.77
(m^3/min)	26			12.82	12.31	15.30	13.91	16.49	14.11	17.22	14.11	18.68	15.02	19.30	14.68
	28	11.62	11.16	12.81	12.30	15.23	13.88	16.33	14.05	17.01	14.04	18.38	14.92	19.00	14.58
	30	11.62	11.16	12.78	12.27	15.11	13.81	16.17	13.99	16.81	13.96	18.10	14.83	18.71	14.50
	32	11.62	11.16	12.75	12.24	14.99	13.76	16.01	13.93	16.62	13.90	17.82	14.74	18.43	14.42
	34	11.62	11.16	12.71	12.20	14.94	13.74	15.80	13.85	16.35	13.80	17.45	14.62	18.05	14.30
	35	11.62	11.16	12.69	12.18	14.92	13.74	15.70	13.82	16.22	13.76	17.26	14.56	17.86	14.24
	36	11.62	11.16	12.67	12.16	14.80	13.69	15.62	13.78	16.06	13.70	16.95	14.46	17.51	14.14
	38	11.62	11.16	12.64	12.13	14.58	13.61	15.46	13.73	15.75	13.56	16.33	14.25	16.82	13.94
	39	11.62	11.16	12.62	12.12	14.47	13.57	15.39	13.67	15.60	13.51	16.02	14.16	16.47	13.83
	41	11.62	11.16	12.58	12.08	14.03	13.40	14.76	13.44	14.94	13.28	15.31	13.93	15.70	13.61
	43	11.62	11.16	12.53	12.03	13.60	13.06	14.13	13.21	14.29	13.05	14.60	13.71	14.93	13.39

Air flow	Outdoor air temperature		Indoor air temperature				
	°CDB	°CWB	16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	10.15	10.15	10.15	10.15	10.15
	-17.8	-18	10.80	10.80	10.80	10.80	10.80
	-15.7	-16	11.46	11.46	11.46	11.46	11.46
	-13.7	-14	12.11	12.11	12.11	12.11	12.11
	-11.7	-12	12.76	12.76	12.76	12.76	12.76
Lo	-9.6	-10	13.42	13.42	13.42	13.42	13.42
	-7.5	-8	14.23	14.23	14.23	14.23	14.23
56	-5.5	-6	15.05	15.05	15.05	15.05	15.05
(m^3/min)	-3.4	-4	15.58	15.55	15.53	15.38	15.23
	-1.3	-2	16.10	16.06	16.01	15.71	15.40
	0.8	0	16.98	16.73	16.49	15.90	15.31
	3.9	3	18.42	17.76	17.11	16.14	15.18
	7.0	6	20.13	18.81	17.50	16.28	15.05
	10.1	9	19.99	18.71	17.43	16.18	14.92
	13.2	12	19.86	18.59	17.33	16.06	14.79
	16.9	15.5	19.71	18.44	17.17	15.90	14.63

Notes (1) These data show average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity (kW)
SHC :Sensible heat capacity (kW)

PJG000Z303

Model **FDU280KXZE1** Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			22.95	19.57	27.44	22.09	29.68	22.51	31.58	22.83	35.37	24.71	36.73	24.08
	12			22.95	19.57	27.44	22.09	29.68	22.51	31.53	22.81	35.24	24.66	36.57	24.03
	14			22.95	19.57	27.44	22.09	29.68	22.51	31.49	22.80	35.12	24.62	36.41	23.98
	16			22.95	19.57	27.44	22.09	29.68	22.51	31.45	22.78	34.99	24.53	36.25	23.93
	18			22.95	19.57	27.44	22.09	29.68	22.51	31.41	22.77	34.86	24.49	36.09	23.88
P-Hi	20			22.95	19.57	27.44	22.09	29.68	22.51	31.36	22.75	34.73	24.44	35.93	23.83
	22			22.92	19.55	27.43	22.08	29.68	22.51	31.22	22.61	34.29	24.29	35.44	23.67
80	24			22.89	19.54	27.42	22.08	29.68	22.51	31.07	22.56	33.85	24.14	34.95	23.52
(m^3/min)	26			22.87	19.54	27.29	22.02	29.40	22.40	30.71	22.42	33.32	23.96	34.42	23.30
	28	20.72	19.34	22.85	19.53	27.16	21.97	29.12	22.29	30.34	22.28	32.78	23.73	33.88	23.13
	30	20.72	19.34	22.79	19.50	26.95	21.89	28.84	22.18	29.99	22.16	32.29	23.56	33.37	22.98
	32	20.72	19.34	22.74	19.48	26.74	21.81	28.56	22.07	29.64	22.03	31.79	23.39	32.87	22.82
	34	20.72	19.34	22.66	19.45	26.65	21.77	28.19	21.93	29.16	21.85	31.11	23.11	32.19	22.56
	35	20.72	19.34	22.62	19.43	26.60	21.75	28.00	21.86	28.93	21.76	30.78	23.00	31.85	22.46
	36	20.72	19.34	22.60	19.42	26.40	21.67	27.86	21.81	28.65	21.66	30.23	22.82	31.23	22.27
	38	20.72	19.34	22.54	19.40	26.00	21.51	27.58	21.70	28.09	21.45	29.12	22.44	29.99	21.84
	39	20.72	19.34	22.51	19.38	25.80	21.43	27.44	21.65	27.82	21.36	28.57	22.21	29.37	21.65
	41	20.72	19.34	22.43	19.35	25.02	21.13	26.32	21.22	26.65	20.94	27.30	21.79	28.00	21.09
	43	20.72	19.34	22.35	19.32	24.25	20.83	25.20	20.80	25.48	20.51	26.03	21.24	26.62	20.68

Heating mode (kW)

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	18.27	18.27	18.27	18.27	18.27
	-17.8	-18	19.45	19.45	19.45	19.45	19.45
	-15.7	-16	20.62	20.62	20.62	20.62	20.62
	-13.7	-14	21.80	21.80	21.80	21.80	21.80
	-11.7	-12	22.97	22.97	22.97	22.97	22.97
P-Hi	-9.6	-10	24.15	24.15	24.15	24.15	24.15
	-7.5	-8	25.62	25.62	25.62	25.62	25.62
80	-5.5	-6	27.09	27.09	27.09	27.09	27.09
(m^3/min)	-3.4	-4	28.04	28.00	27.96	27.68	27.41
	-1.3	-2	28.98	28.90	28.82	28.27	27.72
	0.8	0	30.56	30.12	29.69	28.63	27.56
	3.9	3	33.15	31.97	30.79	29.06	27.33
	7.0	6	36.23	33.86	31.50	29.30	27.09
	10.1	9	35.99	33.69	31.38	29.12	26.85
	13.2	12	35.75	33.47	31.19	28.90	26.62
	16.9	15.5	35.48	33.19	30.91	28.63	26.34

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			20.66	17.62	24.69	19.87	26.71	20.25	28.42	20.54	31.83	22.24	33.05	21.67
	12			20.66	17.62	24.69	19.87	26.71	20.25	28.38	20.53	31.72	22.20	32.91	21.63
	14			20.66	17.62	24.69	19.87	26.71	20.25	28.34	20.52	31.60	22.16	32.77	21.58
	16			20.66	17.62	24.69	19.87	26.71	20.25	28.30	20.50	31.49	22.08	32.63	21.54
	18			20.66	17.62	24.69	19.87	26.71	20.25	28.27	20.49	31.37	22.04	32.48	21.49
Hi	20			20.66	17.62	24.69	19.87	26.71	20.25	28.23	20.47	31.26	22.00	32.34	21.44
	22			20.63	17.60	24.68	19.87	26.71	20.25	28.10	20.35	30.86	21.86	31.90	21.30
72	24			20.60	17.59	24.67	19.86	26.71	20.25	27.96	20.30	30.47	21.73	31.46	21.16
(m^3/min)	26			20.58	17.58	24.56	19.82	26.46	20.16	27.64	20.18	29.99	21.56	30.98	20.98
	28	18.65	17.41	20.56	17.57	24.44	19.77	26.21	20.06	27.31	20.06	29.51	21.36	30.49	20.82
	30	18.65	17.41	20.51	17.55	24.26	19.70	25.96	19.96	26.99	19.94	29.06	21.20	30.04	20.68
	32	18.65	17.41	20.46	17.53	24.07	19.63	25.70	19.86	26.67	19.82	28.61	21.05	29.58	20.53
	34	18.65	17.41	20.40	17.51	23.98	19.59	25.37	19.74	26.25	19.67	28.00	20.80	28.97	20.31
	35	18.65	17.41	20.36	17.49	23.94	19.58	25.20	19.67	26.03	19.58	27.70	20.70	28.66	20.21
	36	18.65	17.41	20.34	17.48	23.76	19.51	25.07	19.62	25.78	19.49	27.20	20.53	28.11	20.04
	38	18.65	17.41	20.29	17.46	23.40	19.36	24.82	19.53	25.28	19.31	26.21	20.20	26.99	19.65
	39	18.65	17.41	20.26	17.45	23.22	19.29	24.70	19.48	25.03	19.22	25.71	19.99	26.44	19.49
	41	18.65	17.41	20.19	17.42	22.52	19.02	23.69	19.10	23.98	18.84	24.57	19.61	25.20	18.99
	43	18.65	17.41	20.12	17.39	21.83	18.75	22.68	18.72	22.93	18.46	23.43	19.12	23.96	18.61

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	16.47	16.47	16.47	16.47	16.47
	-17.8	-18	17.53	17.53	17.53	17.53	17.53
	-15.7	-16	18.59	18.59	18.59	18.59	18.59
	-13.7	-14	19.65	19.65	19.65	19.65	19.65
	-11.7	-12	20.71	20.71	20.71	20.71	20.71
Hi	-9.6	-10	21.77	21.77	21.77	21.77	21.77
	-7.5	-8	23.10	23.10	23.10	23.10	23.10
72	-5.5	-6	24.42	24.42	24.42	24.42	24.42
(m^3/min)	-3.4	-4	25.28	25.24	25.21	24.96	24.71
	-1.3	-2	26.13	26.06	25.99	25.49	24.99
	0.8	0	27.55	27.16	26.77	25.81	24.85
	3.9	3	29.89	28.83	27.76	26.20	24.64
	7.0	6	32.66	30.53	28.40	26.41	24.42
	10.1	9	32.45	30.37	28.29	26.25	24.21
	13.2	12	32.23	30.18	28.12	26.06	24.00
	16.9	15.5	31.99	29.93	27.87	25.81	23.75

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			18.36	15.65	21.95	17.67	23.74	18.01	25.26	18.26	28.30	19.77	29.38	19.26
	12			18.36	15.65	21.95	17.67	23.74	18.01	25.23	18.25	28.19	19.73	29.25	19.22
	14			18.36	15.65	21.95	17.67	23.74	18.01	25.19	18.24	28.09	19.70	29.13	19.18
	16			18.36	15.65	21.95	17.67	23.74	18.01	25.16	18.23	27.99	19.63	29.00	19.14
	18			18.36	15.65	21.95	17.67	23.74	18.01	25.13	18.21	27.89	19.59	28.87	19.10
Me	20			18.36	15.65	21.95	17.67	23.74	18.01	25.09	18.20	27.79	19.56	28.75	19.07
	22			18.34	15.65	21.94	17.66	23.74	18.01	24.97	18.09	27.43	19.43	28.36	18.94
64	24			18.31	15.64	21.93	17.66	23.74	18.01	24.86	18.05	27.08	19.31	27.96	18.81
(m^3/min)	26			18.29	15.63	21.83	17.62	23.52	17.92	24.57	17.94	26.66	19.16	27.53	18.64
	28	16.58	15.47	18.28	15.62	21.73	17.58	23.30	17.83	24.27	17.83	26.23	18.98	27.10	18.51
	30	16.58	15.47	18.23	15.60	21.56	17.51	23.07	17.74	23.99	17.72	25.83	18.85	26.70	18.38
	32	16.58	15.47	18.19	15.58	21.39	17.44	22.85	17.66	23.71	17.62	25.43	18.71	26.29	18.25
	34	16.58	15.47	18.13	15.56	21.32	17.41	22.55	17.54	23.33	17.48	24.89	18.49	25.75	18.05
	35	16.58	15.47	18.10	15.55	21.28	17.40	22.40	17.49	23.14	17.41	24.62	18.40	25.48	17.97
	36	16.58	15.47	18.08	15.54	21.12	17.34	22.29	17.44	22.92	17.33	24.18	18.25	24.98	17.81
	38	16.58	15.47	18.03	15.52	20.80	17.21	22.06	17.36	22.47	17.16	23.30	17.96	23.99	17.47
	39	16.58	15.47	18.01	15.51	20.64	17.15	21.95	17.32	22.25	17.08	22.85	17.77	23.50	17.32
	41	16.58	15.47	17.95	15.48	20.02	16.90	21.06	16.98	21.32	16.75	21.84	17.43	22.40	16.88
	43	16.58	15.47	17.88	15.45	19.40	16.66	20.16	16.64	20.38	16.41	20.82	16.99	21.30	16.54

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	14.62	14.62	14.62	14.62	14.62
	-17.8	-18	15.56	15.56	15.56	15.56	15.56
	-15.7	-16	16.50	16.50	16.50	16.50	16.50
	-13.7	-14	17.44	17.44	17.44	17.44	17.44
	-11.7	-12	18.38	18.38	18.38	18.38	18.38
Me	-9.6	-10	19.32	19.32	19.32	19.32	19.32
	-7.5	-8	20.50	20.50	20.50	20.50	20.50
64	-5.5	-6	21.67	21.67	21.67	21.67	21.67
(m^3/min)	-3.4	-4	22.43	22.40	22.37	22.14	21.92
	-1.3	-2	23.18	23.12	23.06	22.62	22.18
	0.8	0	24.44	24.10	23.75	22.90	22.05
	3.9	3	26.52	25.58	24.63	23.25	21.86
	7.0	6	28.98	27.09	25.20	23.44	21.67
	10.1	9	28.79	26.95	25.11	23.29	21.48
	13.2	12	28.60	26.78	24.95	23.12	21.29
	16.9	15.5	28.38	26.55	24.73	22.90	21.07

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			16.07	13.70	19.21	15.46	20.78	15.76	22.10	15.98	24.76	17.30	25.71	16.86
	12			16.07	13.70	19.21	15.46	20.78	15.76	22.07	15.97	24.67	17.26	25.60	16.82
	14			16.07	13.70	19.21	15.46	20.78	15.76	22.04	15.96	24.58	17.23	25.49	16.79
	16			16.07	13.70	19.21	15.46	20.78	15.76	22.01	15.95	24.49	17.17	25.38	16.75
	18			16.07	13.70	19.21	15.46	20.78	15.76	21.98	15.93	24.40	17.14	25.27	16.72
Lo	20			16.07	13.70	19.21	15.46	20.78	15.76	21.95	15.92	24.31	17.11	25.15	16.68
	22			16.04	13.69	19.20	15.46	20.78	15.76	21.85	15.83	24.00	17.00	24.81	16.57
56	24			16.02	13.68	19.19	15.45	20.78	15.76	21.75	15.79	23.70	16.90	24.47	16.46
(m^3/min)	26			16.01	13.68	19.10	15.41	20.58	15.68	21.49	15.69	23.32	16.77	24.09	16.31
	28	14.50	13.54	15.99	13.67	19.01	15.38	20.38	15.60	21.24	15.60	22.95	16.61	23.72	16.20
	30	14.50	13.54	15.95	13.65	18.87	15.32	20.19	15.53	20.99	15.51	22.60	16.49	23.36	16.08
	32	14.50	13.54	15.92	13.64	18.72	15.26	19.99	15.45	20.74	15.41	22.25	16.37	23.01	15.97
	34	14.50	13.54	15.86	13.61	18.65	15.24	19.73	15.35	20.41	15.29	21.78	16.18	22.53	15.79
	35	14.50	13.54	15.84	13.60	18.62	15.23	19.60	15.30	20.25	15.23	21.54	16.10	22.29	15.72
	36	14.50	13.54	15.82	13.59	18.48	15.17	19.50	15.26	20.05	15.16	21.16	15.97	21.86	15.59
	38	14.50	13.54	15.78	13.58	18.20	15.06	19.31	15.19	19.67	15.02	20.38	15.71	21.00	15.29
	39	14.50	13.54	15.76	13.57	18.06	15.00	19.21	15.15	19.47	14.95	20.00	15.55	20.56	15.16
	41	14.50	13.54	15.70	13.55	17.52	14.79	18.42	14.85	18.65	14.65	19.11	15.25	19.60	14.77
	43	14.50	13.54	15.65	13.52	16.98	14.58	17.64	14.56	17.83	14.36	18.22	14.87	18.63	14.47

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	12.82	12.82	12.82	12.82	12.82
	-17.8	-18	13.64	13.64	13.64	13.64	13.64
	-15.7	-16	14.47	14.47	14.47	14.47	14.47
	-13.7	-14	15.29	15.29	15.29	15.29	15.29
	-11.7	-12	16.12	16.12	16.12	16.12	16.12
Lo	-9.6	-10	16.94	16.94	16.94	16.94	16.94
	-7.5	-8	17.97	17.97	17.97	17.97	17.97
56	-5.5	-6	19.01	19.01	19.01	19.01	19.01
(m^3/min)	-3.4	-4	19.67	19.64	19.61	19.42	19.23
	-1.3	-2	20.33	20.28	20.22	19.83	19.45
	0.8	0	21.44	21.13	20.83	20.08	19.34
	3.9	3	23.26	22.43	21.60	20.39	19.17
	7.0	6	25.42	23.76	22.10	20.55	19.01
	10.1	9	25.25	23.63	22.02	20.43	18.84
	13.2	12	25.08	23.48	21.88	20.28	18.67
	16.9	15.5	24.89	23.29	21.69	20.08	18.48

Notes (1) These data show average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity (kW)
SHC :Sensible heat capacity (kW)

PJG000Z303

(6) Duct connected-Low/Middle static pressure type (FDUM)

Model **FDUM22KXE6F** Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21°CDB 14°CWB TC	21°CDB 14°CWB SHC	23°CDB 16°CWB TC	23°CDB 16°CWB SHC	26°CDB 18°CWB TC	26°CDB 18°CWB SHC	27°CDB 19°CWB TC	27°CDB 19°CWB SHC	28°CDB 20°CWB TC	28°CDB 20°CWB SHC	31°CDB 22°CWB TC	31°CDB 22°CWB SHC	33°CDB 24°CWB TC	33°CDB 24°CWB SHC
	10			1.80	1.73	2.16	2.07	2.33	2.24	2.48	2.38	2.78	2.67	2.89	2.77
	12			1.80	1.73	2.16	2.07	2.33	2.24	2.48	2.38	2.77	2.66	2.87	2.76
	14			1.80	1.73	2.16	2.07	2.33	2.24	2.47	2.37	2.76	2.65	2.86	2.75
	16			1.80	1.73	2.16	2.07	2.33	2.24	2.47	2.37	2.75	2.64	2.85	2.74
	18			1.80	1.73	2.16	2.07	2.33	2.24	2.47	2.37	2.74	2.63	2.84	2.73
P-Hi	20			1.80	1.73	2.16	2.07	2.33	2.24	2.46	2.36	2.73	2.62	2.82	2.71
	22			1.80	1.73	2.15	2.06	2.33	2.24	2.45	2.35	2.69	2.58	2.78	2.67
13	24			1.80	1.73	2.15	2.06	2.33	2.24	2.44	2.34	2.66	2.55	2.75	2.64
(m³/min)	26			1.80	1.73	2.14	2.05	2.31	2.22	2.41	2.31	2.62	2.52	2.70	2.59
	28	1.63	1.56	1.80	1.73	2.13	2.04	2.29	2.20	2.38	2.28	2.58	2.48	2.66	2.55
	30	1.63	1.56	1.79	1.72	2.12	2.04	2.27	2.18	2.36	2.27	2.54	2.44	2.62	2.52
	32	1.63	1.56	1.79	1.72	2.10	2.02	2.24	2.15	2.33	2.24	2.50	2.40	2.58	2.48
	34	1.63	1.56	1.78	1.71	2.09	2.01	2.21	2.12	2.29	2.20	2.44	2.34	2.53	2.43
	35	1.63	1.56	1.78	1.71	2.09	2.01	2.20	2.11	2.27	2.18	2.42	2.32	2.50	2.40
	36	1.63	1.56	1.78	1.71	2.07	1.99	2.19	2.10	2.25	2.16	2.37	2.28	2.45	2.35
	38	1.63	1.56	1.77	1.70	2.04	1.96	2.17	2.08	2.21	2.12	2.29	2.20	2.36	2.27
	39	1.63	1.56	1.77	1.70	2.03	1.95	2.16	2.07	2.19	2.10	2.24	2.15	2.31	2.22
	41	1.63	1.56	1.76	1.69	1.97	1.89	2.07	1.99	2.09	2.01	2.14	2.05	2.20	2.11
	43	1.63	1.56	1.76	1.69	1.91	1.83	1.98	1.90	2.00	1.92	2.05	1.97	2.09	2.01

Heating mode (kW)

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16°CDB	18°CDB	20°CDB	22°CDB	24°CDB
	-19.8	-20	1.45	1.45	1.45	1.45	1.45
	-17.8	-18	1.54	1.54	1.54	1.54	1.54
	-15.7	-16	1.64	1.64	1.64	1.64	1.64
	-13.7	-14	1.73	1.73	1.73	1.73	1.73
	-11.7	-12	1.82	1.82	1.82	1.82	1.82
P-Hi	-9.6	-10	1.92	1.92	1.92	1.92	1.92
	-7.5	-8	2.03	2.03	2.03	2.03	2.03
13	-5.5	-6	2.15	2.15	2.15	2.15	2.15
(m³/min)	-3.4	-4	2.23	2.22	2.22	2.20	2.18
	-1.3	-2	2.30	2.29	2.29	2.24	2.20
	0.8	0	2.43	2.39	2.36	2.27	2.19
	3.9	3	2.63	2.54	2.44	2.31	2.17
	7.0	6	2.88	2.69	2.50	2.33	2.15
	10.1	9	2.86	2.67	2.49	2.31	2.13
	13.2	12	2.84	2.66	2.48	2.29	2.11
	16.9	15.5	2.82	2.63	2.45	2.27	2.09

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21°CDB 14°CWB TC	21°CDB 14°CWB SHC	23°CDB 16°CWB TC	23°CDB 16°CWB SHC	26°CDB 18°CWB TC	26°CDB 18°CWB SHC	27°CDB 19°CWB TC	27°CDB 19°CWB SHC	28°CDB 20°CWB TC	28°CDB 20°CWB SHC	31°CDB 22°CWB TC	31°CDB 22°CWB SHC	33°CDB 24°CWB TC	33°CDB 24°CWB SHC
	10			1.78	1.71	2.13	2.04	2.30	2.21	2.45	2.35	2.74	2.58	2.85	2.54
	12			1.78	1.71	2.13	2.04	2.30	2.21	2.44	2.34	2.73	2.58	2.83	2.53
	14			1.78	1.71	2.13	2.04	2.30	2.21	2.44	2.34	2.72	2.58	2.82	2.53
	16			1.78	1.71	2.13	2.04	2.30	2.21	2.44	2.34	2.71	2.57	2.81	2.52
	18			1.78	1.71	2.13	2.04	2.30	2.21	2.43	2.33	2.70	2.57	2.80	2.52
Hi	20			1.78	1.71	2.13	2.04	2.30	2.21	2.43	2.33	2.69	2.57	2.78	2.52
	22			1.78	1.71	2.13	2.04	2.30	2.21	2.42	2.32	2.66	2.55	2.75	2.51
10	24			1.77	1.70	2.12	2.04	2.30	2.21	2.41	2.31	2.62	2.52	2.71	2.49
(m³/min)	26			1.77	1.70	2.11	2.03	2.28	2.19	2.38	2.28	2.58	2.48	2.67	2.48
	28	1.61	1.55	1.77	1.70	2.10	2.02	2.26	2.17	2.35	2.26	2.54	2.44	2.63	2.47
	30	1.61	1.55	1.77	1.70	2.09	2.01	2.24	2.15	2.32	2.23	2.50	2.40	2.59	2.46
	32	1.61	1.55	1.76	1.69	2.07	1.99	2.21	2.12	2.30	2.21	2.46	2.36	2.55	2.45
	34	1.61	1.55	1.76	1.69	2.07	1.99	2.18	2.09	2.26	2.17	2.41	2.31	2.49	2.39
	35	1.61	1.55	1.75	1.68	2.06	1.98	2.17	2.08	2.24	2.15	2.39	2.29	2.47	2.37
	36	1.61	1.55	1.75	1.68	2.05	1.97	2.16	2.07	2.22	2.13	2.34	2.25	2.42	2.32
	38	1.61	1.55	1.75	1.68	2.01	1.93	2.14	2.05	2.18	2.09	2.26	2.17	2.32	2.23
	39	1.61	1.55	1.74	1.67	2.00	1.92	2.13	2.04	2.16	2.07	2.21	2.12	2.28	2.19
	41	1.61	1.55	1.74	1.67	1.94	1.86	2.04	1.96	2.07	1.99	2.12	2.04	2.17	2.08
	43	1.61	1.55	1.73	1.66	1.88	1.80	1.95	1.87	1.97	1.89	2.02	1.94	2.06	1.98

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16°CDB	18°CDB	20°CDB	22°CDB	24°CDB
	-19.8	-20	1.43	1.43	1.43	1.43	1.43
	-17.8	-18	1.52	1.52	1.52	1.52	1.52
	-15.7	-16	1.61	1.61	1.61	1.61	1.61
	-13.7	-14	1.70	1.70	1.70	1.70	1.70
	-11.7	-12	1.79	1.79	1.79	1.79	1.79
Hi	-9.6	-10	1.89	1.89	1.89	1.89	1.89
	-7.5	-8	2.00	2.00	2.00	2.00	2.00
10	-5.5	-6	2.12	2.12	2.12	2.12	2.12
(m³/min)	-3.4	-4	2.19	2.19	2.18	2.16	2.14
	-1.3	-2	2.26	2.26	2.25	2.21	2.16
	0.8	0	2.39	2.35	2.32	2.24	2.15
	3.9	3	2.59	2.50	2.40	2.27	2.13
	7.0	6	2.83	2.64	2.46	2.29	2.12
	10.1	9	2.81	2.63	2.45	2.27	2.10
	13.2	12	2.79	2.61	2.44	2.26	2.08
	16.9	15.5	2.77	2.59	2.41	2.24	2.06

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21°CDB 14°CWB TC	21°CDB 14°CWB SHC	23°CDB 16°CWB TC	23°CDB 16°CWB SHC	26°CDB 18°CWB TC	26°CDB 18°CWB SHC	27°CDB 19°CWB TC	27°CDB 19°CWB SHC	28°CDB 20°CWB TC	28°CDB 20°CWB SHC	31°CDB 22°CWB TC	31°CDB 22°CWB SHC	33°CDB 24°CWB TC	33°CDB 24°CWB SHC
	10			1.70	1.63	2.04	1.96	2.20	2.11	2.35	2.20	2.63	2.38	2.73	2.33
	12			1.70	1.63	2.04	1.96	2.20	2.11	2.34	2.19	2.62	2.38	2.72	2.33
	14			1.70	1.63	2.04	1.96	2.20	2.11	2.34	2.19	2.61	2.37	2.70	2.32
	16			1.70	1.63	2.04	1.96	2.20	2.11	2.34	2.19	2.60	2.37	2.69	2.32
	18			1.70	1.63	2.04	1.96	2.20	2.11	2.33	2.19	2.59	2.37	2.68	2.32
Me	20			1.70	1.63	2.04	1.96	2.20	2.11	2.33	2.19	2.58	2.36	2.67	2.31
	22			1.70	1.63	2.04	1.96	2.20	2.11	2.32	2.19	2.55	2.35	2.63	2.30
9	24			1.70	1.63	2.04	1.96	2.20	2.11	2.31	2.18	2.51	2.34	2.60	2.29
(m³/min)	26			1.70	1.63	2.03	1.95	2.18	2.09	2.28	2.17	2.48	2.33	2.56	2.28
	28	1.54	1.48	1.70	1.63	2.02	1.94	2.16	2.07	2.25	2.16	2.44	2.32	2.52	2.27
	30	1.54	1.48	1.69	1.62	2.00	1.92	2.14	2.05	2.23	2.14	2.40	2.30	2.48	2.26
	32	1.54	1.48	1.69	1.62	1.99	1.91	2.12	2.04	2.20	2.11	2.36	2.27	2.44	2.25
	34	1.54	1.48	1.68	1.61	1.98	1.90	2.09	2.01	2.17	2.08	2.31	2.22	2.39	2.23
	35	1.54	1.48	1.68	1.61	1.98	1.90	2.08	2.00	2.15	2.06	2.29	2.20	2.37	2.22
	36	1.54	1.48	1.68	1.61	1.96	1.88	2.07	1.99	2.13	2.04	2.25	2.16	2.32	2.21
	38	1.54	1.48	1.67	1.60	1.93	1.85	2.05	1.97	2.09	2.01	2.16	2.07	2.23	2.14
	39	1.54	1.48	1.67	1.60	1.92	1.84	2.04	1.96	2.07	1.99	2.12	2.04	2.18	2.09
	41	1.54	1.48	1.67	1.60	1.86	1.79	1.96	1.88	1.98	1.90	2.03	1.95	2.08	2.00
	43	1.54	1.48	1.66	1.59	1.80	1.73	1.87	1.80	1.89	1.81	1.93	1.85	1.98	1.90

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16°CDB	18°CDB	20°CDB	22°CDB	24°CDB
	-19.8	-20	1.36	1.36	1.36	1.36	1.36
	-17.8	-18	1.45	1.45	1.45	1.45	1.45
	-15.7	-16	1.54	1.54	1.54	1.54	1.54
	-13.7	-14	1.63	1.63	1.63	1.63	1.63
	-11.7	-12	1.71	1.71	1.71	1.71	1.71
Me	-9.6	-10	1.80	1.80	1.80	1.80	1.80
	-7.5	-8	1.91	1.91	1.91	1.91	1.91
9	-5.5	-6	2.02	2.02	2.02	2.02	2.02
(m³/min)	-3.4	-4	2.09	2.09	2.09	2.07	2.04
	-1.3	-2	2.16	2.16	2.15	2.11	2.07
	0.8	0	2.28	2.25	2.21	2.14	2.06
	3.9	3	2.47	2.39	2.30	2.17	2.04
	7.0	6	2.70	2.53	2.35	2.19	2.02
	10.1	9	2.68	2.51	2.34	2.17	2.00
	13.2	12	2.67	2.50	2.33	2.16	1.99
	16.9	15.5	2.65	2.48	2.31	2.14	1.97

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21°CDB 14°CWB TC	21°CDB 14°CWB SHC	23°CDB 16°CWB TC	23°CDB 16°CWB SHC	26°CDB 18°CWB TC	26°CDB 18°CWB SHC	27°CDB 19°CWB TC	27°CDB 19°CWB SHC	28°CDB 20°CWB TC	28°CDB 20°CWB SHC	31°CDB 22°CWB TC	31°CDB 22°CWB SHC	33°CDB 24°CWB TC	33°CDB 24°CWB SHC
	10			1.59	1.53	1.90	1.82	2.06	1.97	2.19	1.99	2.45	2.15	2.54	2.11
	12			1.59	1.53	1.90	1.82	2.06	1.97	2.18	1.98	2.44	2.15	2.53	2.10
	14			1.59	1.53	1.90	1.82	2.06	1.97	2.18	1.98	2.43	2.14	2.52	2.10
	16			1.59	1.53	1.90	1.82	2.06	1.97	2.18	1.98	2.42	2.14	2.51	2.10
	18			1.59	1.53	1.90	1.82	2.06	1.97	2.18	1.98	2.42	2.14	2.50	2.10
Lo	20			1.59	1.53	1.90	1.82	2.06	1.97	2.17	1.98	2.41	2.14	2.49	2.09
	22			1.59	1.53	1.90	1.82	2.06	1.97	2.16	1.98	2.38	2.13	2.46	2.08
8	24			1.59	1.53	1.90	1.82	2.06	1.97	2.15	1.97	2.35	2.12	2.42	2.07
(m³/min)	26			1.58	1.52	1.89	1.81	2.04	1.96	2.13	1.97	2.31	2.11	2.38	2.06
	28	1.44	1.38	1.58	1.52	1.88	1.80	2.02	1.94	2.10	1.96	2.27	2.09	2.35	2.05
	30	1.44	1.38	1.58	1.52	1.87	1.80	2.00	1.92	2.08	1.95	2.24	2.08	2.31	2.04
	32	1.44	1.38	1.58	1.52	1.85	1.78	1.98	1.90	2.05	1.94	2.20	2.07	2.28	2.03
	34	1.44	1.38	1.57	1.51	1.85	1.78	1.95	1.87	2.02	1.93	2.16	2.06	2.23	2.01
	35	1.44	1.38	1.57	1.51	1.84	1.77	1.94	1.86	2.00	1.92	2.13	2.04	2.21	2.01
	36	1.44	1.38	1.57	1.51	1.83	1.76	1.93	1.85	1.98	1.90	2.09	2.01	2.16	1.99
	38	1.44	1.38	1.56	1.50	1.80	1.73	1.91	1.83	1.95	1.87	2.02	1.94	2.08	1.97
	39	1.44	1.38	1.56	1.50	1.79	1.72	1.90	1.82	1.93	1.85	1.98	1.90	2.04	1.96
	41	1.44	1.38	1.55	1.49	1.73	1.66	1.82	1.75	1.85	1.78	1.89	1.81	1.94	1.86
	43	1.44	1.38	1.55	1.49	1.68	1.61	1.75	1.68	1.77	1.70	1.80	1.73	1.84	1.77

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16°CDB	18°CDB	20°CDB	22°CDB	24°CDB
	-19.8	-20	1.26	1.26	1.26	1.26	1.26
	-17.8	-18	1.35	1.35	1.35	1.35	1.35
	-15.7	-16	1.43	1.43	1.43	1.43	1.43
	-13.7	-14	1.51	1.51	1.51	1.51	1.51
	-11.7	-12	1.59	1.59	1.59	1.59	1.59
Lo	-9.6	-10	1.67	1.67	1.67	1.67	1.67
	-7.5	-8	1.77	1.77	1.77	1.77	1.77
8	-5.5	-6	1.87	1.87	1.87	1.87	1.87
(m³/min)	-3.4	-4	1.94	1.94	1.93	1.92	1.90
	-1.3	-2	2.01	2.00	1.99	1.96	1.92
	0.8	0	2.11	2.08	2.05	1.98	1.91
	3.9	3	2.29	2.21	2.13	2.01	1.89
	7.0	6	2.51	2.34	2.18	2.03	1.87
	10.1	9	2.49	2.33	2.17	2.02	1.86
	13.2	12	2.47	2.32	2.16	2.00	1.84
	16.9	15.5	2.46	2.30	2.14	1.98	1.82

Notes(1) This data shows average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

PJG000Z022

Model **FDUM28KXE6F** Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature													
		21°CDB 14°CWB		23°CDB 16°CWB		26°CDB 18°CWB		27°CDB 19°CWB		28°CDB 20°CWB		31°CDB 22°CWB		33°CDB 24°CWB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	10			2.30	2.21	2.74	2.63	2.97	2.85	3.16	3.03	3.54	3.35	3.67	3.29
	12			2.30	2.21	2.74	2.63	2.97	2.85	3.15	3.02	3.52	3.34	3.66	3.28
	14			2.30	2.21	2.74	2.63	2.97	2.85	3.15	3.02	3.51	3.34	3.64	3.28
	16			2.30	2.21	2.74	2.63	2.97	2.85	3.14	3.01	3.50	3.34	3.63	3.27
	18			2.30	2.21	2.74	2.63	2.97	2.85	3.14	3.01	3.49	3.33	3.61	3.27
P-Hi	20			2.30	2.21	2.74	2.63	2.97	2.85	3.14	3.01	3.47	3.33	3.59	3.26
	22			2.29	2.20	2.74	2.63	2.97	2.85	3.12	3.00	3.43	3.29	3.54	3.25
13	24			2.29	2.20	2.74	2.63	2.97	2.85	3.11	2.99	3.39	3.25	3.50	3.24
(m³/min)	26			2.29	2.20	2.73	2.62	2.94	2.82	3.07	2.95	3.33	3.20	3.44	3.22
	28	2.07	1.99	2.28	2.19	2.72	2.61	2.91	2.79	3.03	2.91	3.28	3.15	3.39	3.20
	30	2.07	1.99	2.28	2.19	2.70	2.59	2.88	2.76	3.00	2.88	3.23	3.10	3.34	3.19
	32	2.07	1.99	2.27	2.18	2.67	2.56	2.86	2.75	2.96	2.84	3.18	3.05	3.29	3.16
	34	2.07	1.99	2.27	2.18	2.66	2.55	2.82	2.71	2.92	2.80	3.11	2.99	3.22	3.09
	35	2.07	1.99	2.26	2.17	2.66	2.55	2.80	2.69	2.89	2.77	3.08	2.96	3.18	3.05
	36	2.07	1.99	2.26	2.17	2.64	2.53	2.79	2.68	2.86	2.75	3.02	2.90	3.12	3.00
	38	2.07	1.99	2.25	2.16	2.60	2.50	2.76	2.65	2.81	2.70	2.91	2.79	3.00	2.88
	39	2.07	1.99	2.25	2.16	2.58	2.48	2.74	2.63	2.78	2.67	2.86	2.75	2.94	2.82
	41	2.07	1.99	2.24	2.15	2.50	2.40	2.63	2.52	2.66	2.55	2.73	2.62	2.80	2.69
	43	2.07	1.99	2.24	2.15	2.43	2.33	2.52	2.42	2.55	2.45	2.60	2.50	2.66	2.55

Heating mode (kW)

Air flow	Outdoor air temperature		Indoor air temperature				
	°CDB	°CWB	16°CDB	18°CDB	20°CDB	22°CDB	24°CDB
	-19.8	-20	1.86	1.86	1.86	1.86	1.86
	-17.8	-18	1.98	1.98	1.98	1.98	1.98
	-15.7	-16	2.09	2.09	2.09	2.09	2.09
	-13.7	-14	2.21	2.21	2.21	2.21	2.21
	-11.7	-12	2.33	2.33	2.33	2.33	2.33
P-Hi	-9.6	-10	2.45	2.45	2.45	2.45	2.45
	-7.5	-8	2.60	2.60	2.60	2.60	2.60
13	-5.5	-6	2.75	2.75	2.75	2.75	2.75
(m³/min)	-3.4	-4	2.85	2.84	2.84	2.81	2.78
	-1.3	-2	2.94	2.94	2.93	2.87	2.82
	0.8	0	3.10	3.06	3.02	2.91	2.80
	3.9	3	3.37	3.25	3.13	2.95	2.78
	7.0	6	3.68	3.44	3.20	2.98	2.75
	10.1	9	3.66	3.42	3.19	2.96	2.73
	13.2	12	3.63	3.40	3.17	2.94	2.70
	16.9	15.5	3.60	3.37	3.14	2.91	2.68

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature													
		21°CDB 14°CWB		23°CDB 16°CWB		26°CDB 18°CWB		27°CDB 19°CWB		28°CDB 20°CWB		31°CDB 22°CWB		33°CDB 24°CWB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	10			2.27	2.18	2.71	2.56	2.94	2.60	3.12	2.63	3.50	2.85	3.63	2.79
	12			2.27	2.18	2.71	2.56	2.94	2.60	3.12	2.63	3.49	2.85	3.62	2.79
	14			2.27	2.18	2.71	2.56	2.94	2.60	3.12	2.63	3.47	2.84	3.60	2.78
	16			2.27	2.18	2.71	2.56	2.94	2.60	3.11	2.62	3.46	2.84	3.59	2.78
	18			2.27	2.18	2.71	2.56	2.94	2.60	3.11	2.62	3.45	2.84	3.57	2.76
Hi	20			2.27	2.18	2.71	2.56	2.94	2.60	3.10	2.62	3.44	2.83	3.55	2.75
	22			2.27	2.18	2.71	2.56	2.94	2.60	3.09	2.62	3.39	2.82	3.51	2.74
10	24			2.26	2.17	2.71	2.56	2.94	2.60	3.07	2.61	3.35	2.80	3.46	2.72
(m³/min)	26			2.26	2.17	2.70	2.56	2.91	2.59	3.04	2.60	3.30	2.79	3.40	2.70
	28	2.05	1.97	2.26	2.17	2.69	2.55	2.88	2.58	3.00	2.58	3.24	2.77	3.35	2.69
	30	2.05	1.97	2.25	2.16	2.67	2.55	2.85	2.57	2.97	2.57	3.19	2.73	3.30	2.67
	32	2.05	1.97	2.25	2.16	2.65	2.54	2.83	2.56	2.93	2.56	3.14	2.72	3.25	2.66
	34	2.05	1.97	2.24	2.15	2.64	2.53	2.79	2.55	2.89	2.54	3.08	2.69	3.18	2.64
	35	2.05	1.97	2.24	2.15	2.63	2.52	2.77	2.54	2.86	2.53	3.04	2.68	3.15	2.63
	36	2.05	1.97	2.24	2.15	2.61	2.51	2.76	2.54	2.83	2.52	2.99	2.66	3.09	2.61
	38	2.05	1.97	2.23	2.14	2.57	2.47	2.73	2.53	2.78	2.50	2.88	2.63	2.97	2.57
	39	2.05	1.97	2.23	2.14	2.55	2.45	2.71	2.52	2.75	2.49	2.83	2.61	2.91	2.55
	41	2.05	1.97	2.22	2.13	2.48	2.38	2.60	2.48	2.64	2.45	2.70	2.57	2.77	2.51
	43	2.05	1.97	2.21	2.12	2.40	2.30	2.49	2.39	2.52	2.41	2.58	2.48	2.63	2.47

Air flow	Outdoor air temperature		Indoor air temperature				
	°CDB	°CWB	16°CDB	18°CDB	20°CDB	22°CDB	24°CDB
	-19.8	-20	1.83	1.83	1.83	1.83	1.83
	-17.8	-18	1.94	1.94	1.94	1.94	1.94
	-15.7	-16	2.06	2.06	2.06	2.06	2.06
	-13.7	-14	2.18	2.18	2.18	2.18	2.18
	-11.7	-12	2.30	2.30	2.30	2.30	2.30
Hi	-9.6	-10	2.42	2.42	2.42	2.42	2.42
	-7.5	-8	2.56	2.56	2.56	2.56	2.56
10	-5.5	-6	2.71	2.71	2.71	2.71	2.71
(m³/min)	-3.4	-4	2.80	2.80	2.80	2.77	2.74
	-1.3	-2	2.90	2.89	2.88	2.83	2.77
	0.8	0	3.06	3.01	2.97	2.86	2.76
	3.9	3	3.32	3.20	3.08	2.91	2.73
	7.0	6	3.62	3.39	3.15	2.93	2.71
	10.1	9	3.60	3.37	3.14	2.91	2.69
	13.2	12	3.58	3.35	3.12	2.89	2.66
	16.9	15.5	3.55	3.32	3.09	2.86	2.63

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature													
		21°CDB 14°CWB		23°CDB 16°CWB		26°CDB 18°CWB		27°CDB 20°CWB		28°CDB 20°CWB		31°CDB 22°CWB		33°CDB 24°CWB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	10			2.21	2.11	2.64	2.38	2.85	2.43	3.03	2.45	3.40	2.65	3.53	2.60
	12			2.21	2.11	2.64	2.38	2.85	2.43	3.03	2.45	3.39	2.65	3.51	2.59
	14			2.21	2.11	2.64	2.38	2.85	2.43	3.03	2.45	3.37	2.64	3.50	2.59
	16			2.21	2.11	2.64	2.38	2.85	2.43	3.02	2.44	3.36	2.64	3.48	2.58
	18			2.21	2.11	2.64	2.38	2.85	2.43	3.02	2.44	3.35	2.64	3.47	2.58
Me	20			2.21	2.11	2.64	2.38	2.85	2.43	3.01	2.44	3.34	2.63	3.45	2.57
	22			2.20	2.11	2.63	2.38	2.85	2.43	3.00	2.44	3.29	2.62	3.41	2.56
9	24			2.20	2.11	2.63	2.38	2.85	2.43	2.99	2.43	3.25	2.60	3.36	2.54
(m³/min)	26			2.20	2.11	2.62	2.38	2.82	2.41	2.95	2.42	3.20	2.59	3.31	2.53
	28	1.99	1.91	2.20	2.11	2.61	2.37	2.80	2.41	2.91	2.40	3.15	2.57	3.25	2.51
	30	1.99	1.91	2.19	2.10	2.59	2.36	2.77	2.40	2.88	2.39	3.10	2.55	3.21	2.48
	32	1.99	1.91	2.18	2.09	2.57	2.36	2.74	2.38	2.85	2.38	3.05	2.53	3.16	2.46
	34	1.99	1.91	2.18	2.09	2.56	2.35	2.71	2.37	2.80	2.36	2.99	2.51	3.09	2.44
	35	1.99	1.91	2.17	2.08	2.56	2.35	2.69	2.36	2.78	2.36	2.96	2.50	3.06	2.43
	36	1.99	1.91	2.17	2.08	2.54	2.34	2.68	2.36	2.75	2.34	2.90	2.48	3.00	2.41
	38	1.99	1.91	2.17	2.08	2.50	2.33	2.65	2.34	2.70	2.33	2.80	2.43	2.88	2.38
	39	1.99	1.91	2.16	2.07	2.48	2.32	2.64	2.34	2.67	2.32	2.74	2.41	2.82	2.36
	41	1.99	1.91	2.16	2.07	2.40	2.29	2.53	2.30	2.56	2.27	2.62	2.38	2.69	2.32
	43	1.99	1.91	2.15	2.06	2.33	2.24	2.42	2.26	2.45	2.23	2.50	2.34	2.56	2.28

Air flow	Outdoor air temperature		Indoor air temperature				
	°CDB	°CWB	16°CDB	18°CDB	20°CDB	22°CDB	24°CDB
	-19.8	-20	1.76	1.76	1.76	1.76	1.76
	-17.8	-18	1.88	1.88	1.88	1.88	1.88
	-15.7	-16	1.99	1.99	1.99	1.99	1.99
	-13.7	-14	2.10	2.10	2.10	2.10	2.10
	-11.7	-12	2.22	2.22	2.22	2.22	2.22
Me	-9.6	-10	2.33	2.33	2.33	2.33	2.33
	-7.5	-8	2.47	2.47	2.47	2.47	2.47
9	-5.5	-6	2.61	2.61	2.61	2.61	2.61
(m³/min)	-3.4	-4	2.71	2.70	2.70	2.67	2.64
	-1.3	-2	2.80	2.79	2.78	2.73	2.68
	0.8	0	2.95	2.91	2.87	2.76	2.66
	3.9	3	3.20	3.09	2.97	2.80	2.64
	7.0	6	3.50	3.27	3.04	2.83	2.61
	10.1	9	3.47	3.25	3.03	2.81	2.59
	13.2	12	3.45	3.23	3.01	2.79	2.57
	16.9	15.5	3.42	3.20	2.98	2.76	2.54

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature													
		21°CDB 14°CWB		23°CDB 16°CWB		26°CDB 18°CWB		27°CDB 19°CWB		28°CDB 20°CWB		31°CDB 22°CWB		33°CDB 24°CWB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	10			2.08	1.93	2.49	2.18	2.69	2.22	2.86	2.24	3.21	2.43	3.33	2.37
	12			2.08	1.93	2.49	2.18	2.69	2.22	2.86	2.24	3.20	2.42	3.32	2.37
	14			2.08	1.93	2.49	2.18	2.69	2.22	2.86	2.24	3.19	2.42	3.30	2.36
	16			2.08	1.93	2.49	2.18	2.69	2.22	2.85	2.23	3.17	2.41	3.29	2.36
	18			2.08	1.93	2.49	2.18	2.69	2.22	2.85	2.23	3.16	2.41	3.27	2.35
Lo	20			2.08	1.93	2.49	2.18	2.69	2.22	2.85	2.23	3.15	2.40	3.26	2.35
	22			2.08	1.93	2.49	2.18	2.69	2.22	2.83	2.23	3.11	2.39	3.22	2.33
8	24			2.08	1.93	2.49	2.18	2.69	2.22	2.82	2.22	3.07	2.38	3.17	2.32
(m³/min)	26			2.07	1.92	2.48	2.18	2.67	2.21	2.79	2.21	3.02	2.36	3.12	2.30
	28	1.88	1.80	2.07	1.92	2.46	2.17	2.64	2.20	2.75	2.20	2.97	2.34	3.07	2.29
	30	1.88	1.80	2.07	1.92	2.44	2.16	2.62	2.19	2.72	2.19	2.93	2.33	3.03	2.27
	32	1.88	1.80	2.06	1.92	2.43	2.15	2.59	2.18	2.69	2.17	2.88	2.31	2.98	2.26
	34	1.88	1.80	2.06	1.92	2.42	2.15	2.56	2.17	2.65	2.16	2.82	2.29	2.92	2.24
	35	1.88	1.80	2.05	1.91	2.41	2.14	2.54	2.16	2.62	2.15	2.79	2.28	2.89	2.23
	36	1.88	1.80	2.05	1.91	2.39	2.14	2.53	2.15	2.60	2.14	2.74	2.26	2.83	2.20
	38	1.88	1.80	2.04	1.91	2.36	2.12	2.50	2.14	2.55	2.12	2.64	2.23	2.72	2.16
	39	1.88	1.80	2.04	1.91	2.34	2.12	2.49	2.14	2.52	2.11	2.59	2.21	2.66	2.14
	41	1.88	1.80	2.03	1.91	2.27	2.09	2.39	2.10	2.42	2.08	2.48	2.16	2.54	2.11
	43	1.88	1.80	2.03	1.91	2.20	2.06	2.29	2.06	2.31	2.03	2.36	2.12	2.41	2.07

Air flow	Outdoor air temperature		Indoor air temperature				
	°CDB	°CWB	16°CDB	18°CDB	20°CDB	22°CDB	24°CDB
	-19.8	-20	1.67	1.67	1.67	1.67	1.67
	-17.8	-18	1.78	1.78	1.78	1.78	1.78
	-15.7	-16	1.89	1.89	1.89	1.89	1.89
	-13.7	-14	1.99	1.99	1.99	1.99	1.99
	-11.7	-12	2.10	2.10	2.10	2.10	2.10
Lo	-9.6	-10	2.21	2.21	2.21	2.21	2.21
	-7.5	-8	2.34	2.34	2.34	2.34	2.34
8	-5.5	-6	2.48	2.48	2.48	2.48	2.48
(m³/min)	-3.4	-4	2.56	2.56	2.56	2.53	2.51
	-1.3	-2	2.65	2.64	2.64	2.58	2.53
	0.8	0	2.79	2.75	2.71	2.62	2.52
	3.9	3	3.03	2.92	2.82	2.66	2.50
	7.0	6	3.31	3.10	2.88	2.68	2.48
	10.1	9	3.29	3.08	2.87	2.66	2.46
	13.2	12	3.27	3.06	2.85	2.64	2.43
	16.9	15.5	3.24	3.03	2.83	2.62	2.41

Notes(1) This data shows average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

PJG000Z022

Model **FDUM36KXE6F** Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21°CDB 14°CWB TC	21°CDB 14°CWB SHC	23°CDB 16°CWB TC	23°CDB 16°CWB SHC	26°CDB 18°CWB TC	26°CDB 18°CWB SHC	27°CDB 19°CWB TC	27°CDB 19°CWB SHC	28°CDB 20°CWB TC	28°CDB 20°CWB SHC	31°CDB 22°CWB TC	31°CDB 22°CWB SHC	33°CDB 24°CWB TC	33°CDB 24°CWB SHC
	10			2.95	2.83	3.53	3.33	3.82	3.38	4.06	3.42	4.55	3.71	4.72	3.63
	12			2.95	2.83	3.53	3.33	3.82	3.38	4.05	3.41	4.53	3.70	4.70	3.63
	14			2.95	2.83	3.53	3.33	3.82	3.38	4.05	3.41	4.51	3.70	4.68	3.62
	16			2.95	2.83	3.53	3.33	3.82	3.38	4.04	3.41	4.50	3.69	4.66	3.59
	18			2.95	2.83	3.53	3.33	3.82	3.38	4.04	3.41	4.48	3.69	4.64	3.58
P-Hi	20			2.95	2.83	3.53	3.33	3.82	3.38	4.03	3.41	4.47	3.68	4.62	3.58
	22			2.95	2.83	3.53	3.33	3.82	3.38	4.01	3.40	4.41	3.66	4.56	3.56
13	24			2.94	2.82	3.52	3.33	3.82	3.38	3.99	3.39	4.35	3.64	4.49	3.54
(m³/min)	26			2.94	2.82	3.51	3.32	3.78	3.37	3.95	3.38	4.28	3.62	4.43	3.52
	28	2.66	2.55	2.94	2.82	3.49	3.32	3.74	3.35	3.90	3.36	4.22	3.60	4.36	3.50
	30	2.66	2.55	2.93	2.81	3.47	3.31	3.71	3.34	3.86	3.35	4.15	3.55	4.29	3.47
	32	2.66	2.55	2.92	2.80	3.44	3.30	3.67	3.33	3.81	3.32	4.09	3.53	4.23	3.46
	34	2.66	2.55	2.91	2.79	3.43	3.29	3.62	3.31	3.75	3.30	4.00	3.50	4.14	3.43
	35	2.66	2.55	2.91	2.79	3.42	3.28	3.60	3.30	3.72	3.29	3.96	3.49	4.09	3.41
	36	2.66	2.55	2.91	2.79	3.39	3.25	3.58	3.29	3.68	3.27	3.89	3.47	4.02	3.39
	38	2.66	2.55	2.90	2.78	3.34	3.21	3.55	3.28	3.61	3.25	3.74	3.42	3.86	3.34
	39	2.66	2.55	2.89	2.77	3.32	3.19	3.53	3.28	3.58	3.24	3.67	3.39	3.78	3.32
	41	2.66	2.55	2.88	2.76	3.22	3.09	3.38	3.22	3.43	3.18	3.51	3.34	3.60	3.27
	43	2.66	2.55	2.87	2.76	3.12	3.00	3.24	3.11	3.28	3.13	3.35	3.22	3.42	3.21

Heating mode (kW)

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16°CDB	18°CDB	20°CDB	22°CDB	24°CDB
	-19.8	-20	2.32	2.32	2.32	2.32	2.32
	-17.8	-18	2.47	2.47	2.47	2.47	2.47
	-15.7	-16	2.62	2.62	2.62	2.62	2.62
	-13.7	-14	2.77	2.77	2.77	2.77	2.77
	-11.7	-12	2.92	2.92	2.92	2.92	2.92
P-Hi	-9.6	-10	3.07	3.07	3.07	3.07	3.07
	-7.5	-8	3.25	3.25	3.25	3.25	3.25
13	-5.5	-6	3.44	3.44	3.44	3.44	3.44
(m³/min)	-3.4	-4	3.56	3.56	3.55	3.52	3.48
	-1.3	-2	3.68	3.67	3.66	3.59	3.52
	0.8	0	3.88	3.83	3.77	3.64	3.50
	3.9	3	4.21	4.06	3.91	3.69	3.47
	7.0	6	4.60	4.30	4.00	3.72	3.44
	10.1	9	4.57	4.28	3.99	3.70	3.41
	13.2	12	4.54	4.25	3.96	3.67	3.38
	16.9	15.5	4.51	4.22	3.93	3.64	3.35

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21°CDB 14°CWB TC	21°CDB 14°CWB SHC	23°CDB 16°CWB TC	23°CDB 16°CWB SHC	26°CDB 18°CWB TC	26°CDB 18°CWB SHC	27°CDB 19°CWB TC	27°CDB 19°CWB SHC	28°CDB 20°CWB TC	28°CDB 20°CWB SHC	31°CDB 22°CWB TC	31°CDB 22°CWB SHC	33°CDB 24°CWB TC	33°CDB 24°CWB SHC
	10			2.91	2.54	3.48	2.87	3.76	2.93	4.00	2.96	4.48	3.20	4.66	3.13
	12			2.91	2.54	3.48	2.87	3.76	2.93	4.00	2.96	4.47	3.20	4.64	3.12
	14			2.91	2.54	3.48	2.87	3.76	2.93	3.99	2.96	4.45	3.19	4.62	3.11
	16			2.91	2.54	3.48	2.87	3.76	2.93	3.99	2.96	4.44	3.19	4.60	3.11
	18			2.91	2.54	3.48	2.87	3.76	2.93	3.98	2.95	4.42	3.18	4.58	3.10
Hi	20			2.91	2.54	3.48	2.87	3.76	2.93	3.98	2.95	4.40	3.17	4.56	3.09
	22			2.91	2.54	3.48	2.87	3.76	2.93	3.96	2.94	4.35	3.15	4.49	3.07
10	24			2.90	2.54	3.48	2.87	3.76	2.93	3.94	2.94	4.29	3.13	4.43	3.05
(m³/min)	26			2.90	2.54	3.46	2.87	3.73	2.92	3.89	2.92	4.22	3.11	4.36	3.03
	28	2.63	2.51	2.90	2.54	3.44	2.86	3.69	2.90	3.85	2.90	4.16	3.08	4.30	3.01
	30	2.63	2.51	2.89	2.53	3.42	2.85	3.66	2.89	3.80	2.88	4.09	3.06	4.23	2.99
	32	2.63	2.51	2.88	2.53	3.39	2.84	3.62	2.87	3.76	2.87	4.03	3.04	4.17	2.97
	34	2.63	2.51	2.87	2.52	3.38	2.83	3.57	2.85	3.70	2.84	3.94	3.01	4.08	2.94
	35	2.63	2.51	2.87	2.52	3.37	2.83	3.55	2.84	3.67	2.83	3.90	2.99	4.04	2.92
	36	2.63	2.51	2.86	2.52	3.35	2.82	3.53	2.84	3.63	2.82	3.83	2.97	3.96	2.90
	38	2.63	2.51	2.86	2.52	3.30	2.80	3.50	2.82	3.56	2.79	3.69	2.92	3.80	2.85
	39	2.63	2.51	2.85	2.51	3.27	2.79	3.48	2.82	3.53	2.78	3.62	2.90	3.72	2.82
	41	2.63	2.51	2.84	2.51	3.17	2.75	3.34	2.76	3.38	2.72	3.46	2.84	3.55	2.75
	43	2.63	2.51	2.83	2.51	3.07	2.71	3.20	2.71	3.23	2.67	3.30	2.79	3.38	2.70

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16°CDB	18°CDB	20°CDB	22°CDB	24°CDB
	-19.8	-20	2.28	2.28	2.28	2.28	2.28
	-17.8	-18	2.43	2.43	2.43	2.43	2.43
	-15.7	-16	2.57	2.57	2.57	2.57	2.57
	-13.7	-14	2.72	2.72	2.72	2.72	2.72
	-11.7	-12	2.87	2.87	2.87	2.87	2.87
Hi	-9.6	-10	3.01	3.01	3.01	3.01	3.01
	-7.5	-8	3.20	3.20	3.20	3.20	3.20
10	-5.5	-6	3.38	3.38	3.38	3.38	3.38
(m³/min)	-3.4	-4	3.50	3.49	3.49	3.45	3.42
	-1.3	-2	3.62	3.61	3.60	3.53	3.46
	0.8	0	3.81	3.76	3.70	3.57	3.44
	3.9	3	4.14	3.99	3.84	3.63	3.41
	7.0	6	4.52	4.22	3.93	3.65	3.38
	10.1	9	4.49	4.20	3.92	3.63	3.35
	13.2	12	4.46	4.18	3.89	3.61	3.32
	16.9	15.5	4.43	4.14	3.86	3.57	3.29

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21°CDB 14°CWB TC	21°CDB 14°CWB SHC	23°CDB 16°CWB TC	23°CDB 16°CWB SHC	26°CDB 18°CWB TC	26°CDB 18°CWB SHC	27°CDB 19°CWB TC	27°CDB 19°CWB SHC	28°CDB 20°CWB TC	28°CDB 20°CWB SHC	31°CDB 22°CWB TC	31°CDB 22°CWB SHC	33°CDB 24°CWB TC	33°CDB 24°CWB SHC
	10			2.79	2.36	3.33	2.67	3.60	2.72	3.83	2.75	4.30	2.98	4.46	2.90
	12			2.79	2.36	3.33	2.67	3.60	2.72	3.83	2.75	4.28	2.97	4.44	2.90
	14			2.79	2.36	3.33	2.67	3.60	2.72	3.82	2.75	4.26	2.96	4.42	2.89
	16			2.79	2.36	3.33	2.67	3.60	2.72	3.82	2.75	4.25	2.96	4.40	2.88
	18			2.79	2.36	3.33	2.67	3.60	2.72	3.81	2.75	4.23	2.95	4.38	2.88
Me	20			2.79	2.36	3.33	2.67	3.60	2.72	3.81	2.75	4.22	2.95	4.36	2.87
	22			2.78	2.36	3.33	2.67	3.60	2.72	3.79	2.74	4.16	2.93	4.30	2.85
9	24			2.78	2.36	3.33	2.67	3.60	2.72	3.77	2.73	4.11	2.91	4.24	2.83
(m³/min)	26			2.78	2.36	3.31	2.66	3.57	2.71	3.73	2.71	4.05	2.89	4.18	2.81
	28	2.52	2.33	2.77	2.35	3.30	2.66	3.54	2.70	3.68	2.70	3.98	2.86	4.11	2.79
	30	2.52	2.33	2.77	2.35	3.27	2.64	3.50	2.68	3.64	2.68	3.92	2.84	4.05	2.77
	32	2.52	2.33	2.76	2.35	3.25	2.63	3.47	2.67	3.60	2.66	3.86	2.82	3.99	2.75
	34	2.52	2.33	2.75	2.34	3.24	2.63	3.42	2.65	3.54	2.64	3.78	2.79	3.91	2.72
	35	2.52	2.33	2.75	2.34	3.23	2.63	3.40	2.64	3.51	2.63	3.74	2.77	3.87	2.71
	36	2.52	2.33	2.74	2.34	3.21	2.62	3.38	2.63	3.48	2.62	3.67	2.75	3.79	2.68
	38	2.52	2.33	2.74	2.34	3.16	2.60	3.35	2.62	3.41	2.59	3.54	2.70	3.64	2.63
	39	2.52	2.33	2.73	2.33	3.13	2.59	3.33	2.61	3.38	2.58	3.47	2.68	3.57	2.61
	41	2.52	2.33	2.72	2.33	3.04	2.55	3.20	2.56	3.24	2.53	3.31	2.62	3.40	2.56
	43	2.52	2.33	2.71	2.33	2.94	2.51	3.06	2.51	3.09	2.47	3.16	2.57	3.23	2.49

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16°CDB	18°CDB	20°CDB	22°CDB	24°CDB
	-19.8	-20	2.18	2.18	2.18	2.18	2.18
	-17.8	-18	2.32	2.32	2.32	2.32	2.32
	-15.7	-16	2.46	2.46	2.46	2.46	2.46
	-13.7	-14	2.60	2.60	2.60	2.60	2.60
	-11.7	-12	2.74	2.74	2.74	2.74	2.74
Me	-9.6	-10	2.88	2.88	2.88	2.88	2.88
	-7.5	-8	3.05	3.05	3.05	3.05	3.05
9	-5.5	-6	3.23	3.23	3.23	3.23	3.23
(m³/min)	-3.4	-4	3.34	3.33	3.33	3.30	3.26
	-1.3	-2	3.45	3.44	3.43	3.37	3.30
	0.8	0	3.64	3.59	3.53	3.41	3.28
	3.9	3	3.95	3.81	3.67	3.46	3.25
	7.0	6	4.31	4.03	3.75	3.49	3.23
	10.1	9	4.28	4.01	3.74	3.47	3.20
	13.2	12	4.26	3.98	3.71	3.44	3.17
	16.9	15.5	4.22	3.95	3.68	3.41	3.14

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21°CDB 14°CWB TC	21°CDB 14°CWB SHC	23°CDB 16°CWB TC	23°CDB 16°CWB SHC	26°CDB 18°CWB TC	26°CDB 18°CWB SHC	27°CDB 19°CWB TC	27°CDB 19°CWB SHC	28°CDB 20°CWB TC	28°CDB 20°CWB SHC	31°CDB 22°CWB TC	31°CDB 22°CWB SHC	33°CDB 24°CWB TC	33°CDB 24°CWB SHC
	10			2.58	2.15	3.09	2.43	3.34	2.48	3.55	2.51	3.98	2.71	4.13	2.64
	12			2.58	2.15	3.09	2.43	3.34	2.48	3.55	2.51	3.96	2.70	4.11	2.63
	14			2.58	2.15	3.09	2.43	3.34	2.48	3.54	2.50	3.95	2.70	4.10	2.63
	16			2.58	2.15	3.09	2.43	3.34	2.48	3.54	2.50	3.94	2.69	4.08	2.62
	18			2.58	2.15	3.09	2.43	3.34	2.48	3.53	2.50	3.92	2.68	4.06	2.61
Lo	20			2.58	2.15	3.09	2.43	3.34	2.48	3.53	2.50	3.91	2.68	4.04	2.61
	22			2.58	2.15	3.09	2.43	3.34	2.48	3.51	2.49	3.86	2.66	3.99	2.59
8	24			2.57	2.14	3.08	2.42	3.34	2.48	3.50	2.49	3.81	2.64	3.93	2.57
(m³/min)	26			2.57	2.14	3.07	2.42	3.31	2.46	3.45	2.47	3.75	2.62	3.87	2.55
	28	2.33	2.11	2.57	2.14	3.06	2.41	3.28	2.45	3.41	2.45	3.69	2.60	3.81	2.53
	30	2.33	2.11	2.56	2.14	3.03	2.40	3.24	2.44	3.37	2.43	3.63	2.58	3.75	2.51
	32	2.33	2.11	2.56	2.14	3.01	2.39	3.21	2.42	3.33	2.42	3.58	2.56	3.70	2.49
	34	2.33	2.11	2.55	2.13	3.00	2.39	3.17	2.41	3.28	2.40	3.50	2.53	3.62	2.47
	35	2.33	2.11	2.55	2.13	2.99	2.38	3.15	2.40	3.25	2.39	3.46	2.51	3.58	2.45
	36	2.33	2.11	2.54	2.12	2.97	2.38	3.13	2.39	3.22	2.38	3.40	2.49	3.51	2.43
	38	2.33	2.11	2.54	2.12	2.92	2.35	3.10	2.38	3.16	2.35	3.28	2.45	3.37	2.38
	39	2.33	2.11	2.53	2.12	2.90	2.35	3.09	2.38	3.13	2.34	3.21	2.43	3.30	2.36
	41	2.33	2.11	2.52	2.12	2.82	2.31	2.96	2.32	3.00	2.29	3.07	2.38	3.15	2.31
	43	2.33	2.11	2.51	2.11	2.73	2.28	2.84	2.28	2.87	2.24	2.93	2.33	2.99	2.26

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16°CDB	18°CDB	20°CDB	22°CDB	24°CDB
	-19.8	-20	2.03	2.03	2.03	2.03	2.03
	-17.8	-18	2.16	2.16	2.16	2.16	2.16
	-15.7	-16	2.29	2.29	2.29	2.29	2.29
	-13.7	-14	2.42	2.42	2.42	2.42	2.42
	-11.7	-12	2.55	2.55	2.55	2.55	2.55
Lo	-9.6	-10	2.68	2.68	2.68	2.68	2.68
	-7.5	-8	2.85	2.85	2.85	2.85	2.85
8	-5.5	-6	3.01	3.01	3.01	3.01	3.01
(m³/min)	-3.4	-4	3.12	3.11	3.11	3.08	3.05
	-1.3	-2	3.22	3.21	3.20	3.14	3.08
	0.8	0	3.40	3.35	3.30	3.18	3.06
	3.9	3	3.68	3.55	3.42	3.23	3.04
	7.0	6	4.03	3.76	3.50	3.26	3.01
	10.1	9	4.00	3.74	3.49	3.24	2.98
	13.2	12	3.97	3.72	3.47	3.21	2.96
	16.9	15.5	3.94	3.69	3.43	3.18	2.93

Notes(1) This data shows average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

PJG000Z022

Model **FDUM45KXE6F** Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21°CDB 14°CWB TC	21°CDB 14°CWB SHC	23°CDB 16°CWB TC	23°CDB 16°CWB SHC	26°CDB 18°CWB TC	26°CDB 18°CWB SHC	27°CDB 19°CWB TC	27°CDB 19°CWB SHC	28°CDB 20°CWB TC	28°CDB 20°CWB SHC	31°CDB 22°CWB TC	31°CDB 22°CWB SHC	33°CDB 24°CWB TC	33°CDB 24°CWB SHC
	10			3.69	3.26	4.41	3.69	4.77	3.76	5.07	3.80	5.68	4.11	5.90	4.01
	12			3.69	3.26	4.41	3.69	4.77	3.76	5.07	3.80	5.66	4.10	5.88	4.00
	14			3.69	3.26	4.41	3.69	4.77	3.76	5.06	3.79	5.64	4.09	5.85	4.00
	16			3.69	3.26	4.41	3.69	4.77	3.76	5.05	3.79	5.62	4.09	5.83	3.99
	18			3.69	3.26	4.41	3.69	4.77	3.76	5.05	3.79	5.60	4.08	5.80	3.98
P-Hi	20			3.69	3.26	4.41	3.69	4.77	3.76	5.04	3.79	5.58	4.07	5.78	3.97
	22			3.68	3.26	4.41	3.69	4.77	3.76	5.02	3.78	5.51	4.05	5.70	3.95
13	24			3.68	3.26	4.41	3.69	4.77	3.76	4.99	3.77	5.44	4.02	5.62	3.92
(m³/min)	26			3.68	3.26	4.39	3.68	4.73	3.74	4.93	3.74	5.35	3.99	5.53	3.89
	28	3.33	3.20	3.67	3.25	4.37	3.67	4.68	3.72	4.88	3.72	5.27	3.96	5.44	3.86
	30	3.33	3.20	3.66	3.25	4.33	3.66	4.64	3.71	4.82	3.70	5.19	3.93	5.36	3.84
	32	3.33	3.20	3.65	3.25	4.30	3.64	4.59	3.69	4.76	3.68	5.11	3.90	5.28	3.81
	34	3.33	3.20	3.64	3.24	4.28	3.64	4.53	3.66	4.69	3.65	5.00	3.87	5.17	3.77
	35	3.33	3.20	3.64	3.24	4.28	3.64	4.50	3.65	4.65	3.64	4.95	3.85	5.12	3.76
	36	3.33	3.20	3.63	3.24	4.24	3.62	4.48	3.64	4.60	3.62	4.86	3.82	5.02	3.73
	38	3.33	3.20	3.62	3.23	4.18	3.60	4.43	3.62	4.52	3.59	4.68	3.75	4.82	3.66
	39	3.33	3.20	3.62	3.23	4.15	3.58	4.41	3.62	4.47	3.57	4.59	3.72	4.72	3.63
	41	3.33	3.20	3.61	3.23	4.02	3.53	4.23	3.55	4.28	3.50	4.39	3.66	4.50	3.54
	43	3.33	3.20	3.59	3.22	3.90	3.48	4.05	3.48	4.09	3.43	4.18	3.59	4.28	3.47

Heating mode (kW)

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16°CDB	18°CDB	20°CDB	22°CDB	24°CDB
	-19.8	-20	2.90	2.90	2.90	2.90	2.90
	-17.8	-18	3.09	3.09	3.09	3.09	3.09
	-15.7	-16	3.27	3.27	3.27	3.27	3.27
	-13.7	-14	3.46	3.46	3.46	3.46	3.46
	-11.7	-12	3.65	3.65	3.65	3.65	3.65
P-Hi	-9.6	-10	3.83	3.83	3.83	3.83	3.83
	-7.5	-8	4.07	4.07	4.07	4.07	4.07
13	-5.5	-6	4.30	4.30	4.30	4.30	4.30
(m³/min)	-3.4	-4	4.45	4.44	4.44	4.39	4.35
	-1.3	-2	4.60	4.59	4.58	4.49	4.40
	0.8	0	4.85	4.78	4.71	4.54	4.38
	3.9	3	5.26	5.08	4.89	4.61	4.34
	7.0	6	5.75	5.38	5.00	4.65	4.30
	10.1	9	5.71	5.35	4.98	4.62	4.26
	13.2	12	5.68	5.31	4.95	4.59	4.23
	16.9	15.5	5.63	5.27	4.91	4.54	4.18

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21°CDB 14°CWB TC	21°CDB 14°CWB SHC	23°CDB 16°CWB TC	23°CDB 16°CWB SHC	26°CDB 18°CWB TC	26°CDB 18°CWB SHC	27°CDB 19°CWB TC	27°CDB 19°CWB SHC	28°CDB 20°CWB TC	28°CDB 20°CWB SHC	31°CDB 22°CWB TC	31°CDB 22°CWB SHC	33°CDB 24°CWB TC	33°CDB 24°CWB SHC
	10			3.58	2.84	4.28	3.21	4.63	3.29	4.93	3.33	5.52	3.60	5.73	3.50
	12			3.58	2.84	4.28	3.21	4.63	3.29	4.92	3.33	5.50	3.59	5.71	3.50
	14			3.58	2.84	4.28	3.21	4.63	3.29	4.91	3.33	5.48	3.58	5.68	3.49
	16			3.58	2.84	4.28	3.21	4.63	3.29	4.91	3.33	5.46	3.58	5.66	3.48
	18			3.58	2.84	4.28	3.21	4.63	3.29	4.90	3.32	5.44	3.57	5.63	3.47
Hi	20			3.58	2.84	4.28	3.21	4.63	3.29	4.90	3.32	5.42	3.56	5.61	3.46
	22			3.58	2.84	4.28	3.21	4.63	3.29	4.87	3.31	5.35	3.53	5.53	3.43
10	24			3.57	2.84	4.28	3.21	4.63	3.29	4.85	3.30	5.28	3.51	5.46	3.41
(m³/min)	26			3.57	2.84	4.26	3.20	4.59	3.27	4.79	3.28	5.20	3.47	5.37	3.37
	28	3.23	2.79	3.57	2.84	4.24	3.19	4.54	3.25	4.74	3.25	5.12	3.44	5.29	3.35
	30	3.23	2.79	3.56	2.83	4.21	3.18	4.50	3.23	4.68	3.23	5.04	3.41	5.21	3.32
	32	3.23	2.79	3.55	2.83	4.17	3.16	4.46	3.21	4.63	3.21	4.96	3.38	5.13	3.29
	34	3.23	2.79	3.54	2.82	4.16	3.16	4.40	3.19	4.55	3.18	4.86	3.34	5.02	3.25
	35	3.23	2.79	3.53	2.82	4.15	3.15	4.37	3.18	4.51	3.16	4.80	3.32	4.97	3.23
	36	3.23	2.79	3.53	2.82	4.12	3.14	4.35	3.17	4.47	3.15	4.72	3.29	4.87	3.20
	38	3.23	2.79	3.52	2.81	4.06	3.12	4.30	3.15	4.38	3.11	4.54	3.22	4.68	3.13
	39	3.23	2.79	3.51	2.81	4.03	3.10	4.28	3.14	4.34	3.09	4.46	3.19	4.58	3.10
	41	3.23	2.79	3.50	2.80	3.91	3.05	4.11	3.07	4.16	3.02	4.26	3.12	4.37	3.03
	43	3.23	2.79	3.49	2.80	3.78	3.00	3.93	3.00	3.98	2.95	4.06	3.05	4.15	2.96

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16°CDB	18°CDB	20°CDB	22°CDB	24°CDB
	-19.8	-20	2.80	2.80	2.80	2.80	2.80
	-17.8	-18	2.98	2.98	2.98	2.98	2.98
	-15.7	-16	3.16	3.16	3.16	3.16	3.16
	-13.7	-14	3.34	3.34	3.34	3.34	3.34
	-11.7	-12	3.52	3.52	3.52	3.52	3.52
Hi	-9.6	-10	3.70	3.70	3.70	3.70	3.70
	-7.5	-8	3.93	3.93	3.93	3.93	3.93
10	-5.5	-6	4.15	4.15	4.15	4.15	4.15
(m³/min)	-3.4	-4	4.30	4.29	4.29	4.24	4.20
	-1.3	-2	4.44	4.43	4.42	4.33	4.25
	0.8	0	4.69	4.62	4.55	4.39	4.23
	3.9	3	5.08	4.90	4.72	4.46	4.19
	7.0	6	5.55	5.19	4.83	4.49	4.15
	10.1	9	5.52	5.17	4.81	4.46	4.12
	13.2	12	5.48	5.13	4.78	4.43	4.08
	16.9	15.5	5.44	5.09	4.74	4.39	4.04

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21°CDB 14°CWB TC	21°CDB 14°CWB SHC	23°CDB 16°CWB TC	23°CDB 16°CWB SHC	26°CDB 18°CWB TC	26°CDB 18°CWB SHC	27°CDB 19°CWB TC	27°CDB 19°CWB SHC	28°CDB 20°CWB TC	28°CDB 20°CWB SHC	31°CDB 22°CWB TC	31°CDB 22°CWB SHC	33°CDB 24°CWB TC	33°CDB 24°CWB SHC
	10			3.34	2.61	4.00	2.95	4.32	3.02	4.60	3.07	5.15	3.31	5.35	3.22
	12			3.34	2.61	4.00	2.95	4.32	3.02	4.60	3.07	5.14	3.31	5.33	3.22
	14			3.34	2.61	4.00	2.95	4.32	3.02	4.59	3.07	5.12	3.30	5.31	3.21
	16			3.34	2.61	4.00	2.95	4.32	3.02	4.58	3.06	5.10	3.29	5.28	3.20
	18			3.34	2.61	4.00	2.95	4.32	3.02	4.58	3.06	5.08	3.28	5.26	3.19
Me	20			3.34	2.61	4.00	2.95	4.32	3.02	4.57	3.06	5.06	3.28	5.24	3.18
	22			3.34	2.61	4.00	2.95	4.32	3.02	4.55	3.05	5.00	3.25	5.16	3.15
9	24			3.33	2.60	3.99	2.95	4.32	3.02	4.53	3.04	4.93	3.22	5.09	3.13
(m³/min)	26			3.33	2.60	3.98	2.95	4.28	3.01	4.47	3.02	4.86	3.20	5.02	3.10
	28	3.02	2.57	3.33	2.60	3.96	2.94	4.24	2.99	4.42	2.99	4.78	3.17	4.94	3.08
	30	3.02	2.57	3.32	2.60	3.93	2.92	4.20	2.97	4.37	2.97	4.70	3.13	4.86	3.05
	32	3.02	2.57	3.31	2.60	3.90	2.91	4.16	2.95	4.32	2.95	4.63	3.11	4.79	3.02
	34	3.02	2.57	3.30	2.59	3.88	2.90	4.11	2.93	4.25	2.92	4.53	3.07	4.69	2.99
	35	3.02	2.57	3.30	2.59	3.88	2.90	4.08	2.92	4.21	2.91	4.48	3.05	4.64	2.97
	36	3.02	2.57	3.29	2.59	3.85	2.89	4.06	2.91	4.17	2.89	4.40	3.02	4.55	2.93
	38	3.02	2.57	3.28	2.58	3.79	2.86	4.02	2.90	4.09	2.86	4.24	2.96	4.37	2.87
	39	3.02	2.57	3.28	2.58	3.76	2.85	4.00	2.89	4.05	2.84	4.16	2.93	4.28	2.84
	41	3.02	2.57	3.27	2.58	3.65	2.80	3.84	2.82	3.88	2.77	3.98	2.86	4.08	2.78
	43	3.02	2.57	3.26	2.57	3.53	2.75	3.67	2.75	3.71	2.71	3.79	2.79	3.88	2.71

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16°CDB	18°CDB	20°CDB	22°CDB	24°CDB
	-19.8	-20	2.60	2.60	2.60	2.60	2.60
	-17.8	-18	2.77	2.77	2.77	2.77	2.77
	-15.7	-16	2.94	2.94	2.94	2.94	2.94
	-13.7	-14	3.11	3.11	3.11	3.11	3.11
	-11.7	-12	3.27	3.27	3.27	3.27	3.27
Me	-9.6	-10	3.44	3.44	3.44	3.44	3.44
	-7.5	-8	3.65	3.65	3.65	3.65	3.65
9	-5.5	-6	3.86	3.86	3.86	3.86	3.86
(m³/min)	-3.4	-4	4.00	3.99	3.98	3.95	3.91
	-1.3	-2	4.13	4.12	4.11	4.03	3.95
	0.8	0	4.36	4.29	4.23	4.08	3.93
	3.9	3	4.73	4.56	4.39	4.14	3.90
	7.0	6	5.16	4.83	4.49	4.18	3.86
	10.1	9	5.13	4.80	4.47	4.15	3.83
	13.2	12	5.10	4.77	4.45	4.12	3.79
	16.9	15.5	5.06	4.73	4.41	4.08	3.75

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21°CDB 14°CWB TC	21°CDB 14°CWB SHC	23°CDB 16°CWB TC	23°CDB 16°CWB SHC	26°CDB 18°CWB TC	26°CDB 18°CWB SHC	27°CDB 19°CWB TC	27°CDB 19°CWB SHC	28°CDB 20°CWB TC	28°CDB 20°CWB SHC	31°CDB 22°CWB TC	31°CDB 22°CWB SHC	33°CDB 24°CWB TC	33°CDB 24°CWB SHC
	10			3.13	2.39	3.74	2.71	4.05	2.78	4.31	2.82	4.83	3.04	5.01	2.96
	12			3.13	2.39	3.74	2.71	4.05	2.78	4.30	2.82	4.81	3.04	4.99	2.95
	14			3.13	2.39	3.74	2.71	4.05	2.78	4.30	2.82	4.79	3.03	4.97	2.94
	16			3.13	2.39	3.74	2.71	4.05	2.78	4.29	2.82	4.77	3.02	4.95	2.94
	18			3.13	2.39	3.74	2.71	4.05	2.78	4.28	2.81	4.76	3.02	4.92	2.93
Lo	20			3.13	2.39	3.74	2.71	4.05	2.78	4.28	2.81	4.74	3.01	4.90	2.92
	22			3.13	2.39	3.74	2.71	4.05	2.78	4.26	2.80	4.68	2.98	4.84	2.90
8	24			3.12	2.39	3.74	2.71	4.05	2.78	4.24	2.79	4.62	2.96	4.77	2.87
(m³/min)	26			3.12	2.39	3.72	2.70	4.01	2.77	4.19	2.77	4.55	2.93	4.70	2.84
	28	2.83	2.36	3.12	2.39	3.71	2.69	3.97	2.75	4.14	2.75	4.47	2.90	4.62	2.82
	30	2.83	2.36	3.11	2.38	3.68	2.68	3.93	2.73	4.09	2.73	4.40	2.87	4.55	2.79
	32	2.83	2.36	3.10	2.38	3.65	2.67	3.90	2.71	4.04	2.71	4.34	2.85	4.48	2.77
	34	2.83	2.36	3.09	2.37	3.64	2.66	3.85	2.69	3.98	2.69	4.24	2.81	4.39	2.73
	35	2.83	2.36	3.09	2.37	3.63	2.66	3.82	2.68	3.95	2.67	4.20	2.79	4.34	2.72
	36	2.83	2.36	3.08	2.37	3.60	2.65	3.80	2.67	3.91	2.65	4.12	2.76	4.26	2.69
	38	2.83	2.36	3.08	2.37	3.55	2.62	3.76	2.65	3.83	2.62	3.97	2.70	4.09	2.62
	39	2.83	2.36	3.07	2.37	3.52	2.61	3.74	2.64	3.79	2.60	3.90	2.68	4.01	2.60
	41	2.83	2.36	3.06	2.36	3.41	2.56	3.59	2.58	3.64	2.54	3.72	2.61	3.82	2.53
	43	2.83	2.36	3.05	2.36	3.31	2.52	3.44	2.52	3.48	2.48	3.55	2.55	3.63	2.47

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16°CDB	18°CDB	20°CDB	22°CDB	24°CDB
	-19.8	-20	2.44	2.44	2.44	2.44	2.44
	-17.8	-18	2.60	2.60	2.60	2.60	2.60
	-15.7	-16	2.76	2.76	2.76	2.76	2.76
	-13.7	-14	2.91	2.91	2.91	2.91	2.91
	-11.7	-12	3.07	3.07	3.07	3.07	3.07
Lo	-9.6	-10	3.23	3.23	3.23	3.23	3.23
	-7.5	-8	3.42	3.42	3.42	3.42	3.42
8	-5.5	-6	3.62	3.62	3.62	3.62	3.62
(m³/min)	-3.4	-4	3.75	3.74	3.74	3.70	3.66
	-1.3	-2	3.87	3.86	3.85	3.78	3.70
	0.8	0	4.08	4.03	3.97	3.83	3.68
	3.9	3	4.43	4.27	4.12	3.88	3.65
	7.0	6	4.84	4.53	4.21	3.92	3.62
	10.1	9	4.81	4.50	4.19	3.89	3.59
	13.2	12	4.78	4.47	4.17	3.86	3.56
	16.9	15.5	4.74	4.44	4.13	3.83	3.52

Notes(1) This data shows average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

PJG000Z022

Model **FDUM56KXE6F** Cooling mode (kW)

Air flow	Outdoor air temperature (ºCDB)	Indoor air temperature 21℃CDB 14℃CWB TC	SHC	23℃CDB 16℃CWB TC	SHC	26℃CDB 18℃CWB TC	SHC	27℃CDB 19℃CWB TC	SHC	28℃CDB 20℃CWB TC	SHC	31℃CDB 22℃CWB TC	SHC	33℃CDB 24℃CWB TC	SHC
	10			4.59	3.66	5.49	4.14	5.94	4.24	6.32	4.30	7.07	4.64	7.35	4.52
	12			4.59	3.66	5.49	4.14	5.94	4.24	6.31	4.29	7.05	4.63	7.31	4.50
	14			4.59	3.66	5.49	4.14	5.94	4.24	6.30	4.29	7.02	4.62	7.28	4.49
	16			4.59	3.66	5.49	4.14	5.94	4.24	6.29	4.28	7.00	4.61	7.25	4.48
	18			4.59	3.66	5.49	4.14	5.94	4.24	6.28	4.28	6.97	4.60	7.22	4.47
P-Hi	20			4.59	3.66	5.49	4.14	5.94	4.24	6.27	4.28	6.95	4.59	7.19	4.46
	22			4.58	3.66	5.49	4.14	5.94	4.24	6.24	4.26	6.86	4.56	7.09	4.43
13	24			4.58	3.66	5.48	4.14	5.94	4.24	6.21	4.25	6.77	4.52	6.99	4.39
(m³/min)	26			4.57	3.65	5.46	4.13	5.88	4.21	6.14	4.22	6.66	4.48	6.88	4.35
	28	4.14	3.60	4.57	3.65	5.43	4.12	5.82	4.19	6.07	4.19	6.56	4.44	6.78	4.32
	30	4.14	3.60	4.56	3.65	5.39	4.10	5.77	4.17	6.00	4.17	6.46	4.40	6.67	4.27
	32	4.14	3.60	4.55	3.65	5.35	4.08	5.71	4.14	5.93	4.14	6.36	4.36	6.57	4.24
	34	4.14	3.60	4.53	3.64	5.33	4.07	5.64	4.11	5.83	4.10	6.22	4.31	6.44	4.19
	35	4.14	3.60	4.52	3.63	5.32	4.07	5.60	4.10	5.79	4.08	6.16	4.28	6.37	4.17
	36	4.14	3.60	4.52	3.63	5.28	4.05	5.57	4.08	5.73	4.06	6.05	4.24	6.25	4.13
	38	4.14	3.60	4.51	3.63	5.20	4.02	5.52	4.06	5.62	4.01	5.82	4.16	6.00	4.05
	39	4.14	3.60	4.50	3.62	5.16	4.00	5.49	4.05	5.56	3.99	5.71	4.12	5.87	4.00
	41	4.14	3.60	4.49	3.62	5.00	3.93	5.26	3.96	5.33	3.90	5.46	4.03	5.60	3.91
	43	4.14	3.60	4.47	3.61	4.85	3.87	5.04	3.87	5.10	3.81	5.21	3.94	5.32	3.82

Heating mode (kW)

Air flow	Outdoor air temperature ℃CDB	℃CWB	Indoor air temperature 16℃CDB	18℃CDB	20℃CDB	22℃CDB	24℃CDB
	-19.8	-20	3.65	3.65	3.65	3.65	3.65
	-17.8	-18	3.89	3.89	3.89	3.89	3.89
	-15.7	-16	4.12	4.12	4.12	4.12	4.12
	-13.7	-14	4.36	4.36	4.36	4.36	4.36
	-11.7	-12	4.59	4.59	4.59	4.59	4.59
P-Hi	-9.6	-10	4.83	4.83	4.83	4.83	4.83
	-7.5	-8	5.12	5.12	5.12	5.12	5.12
13	-5.5	-6	5.42	5.42	5.42	5.42	5.42
(m³/min)	-3.4	-4	5.61	5.60	5.59	5.54	5.48
	-1.3	-2	5.80	5.78	5.76	5.65	5.54
	0.8	0	6.11	6.02	5.94	5.73	5.51
	3.9	3	6.63	6.39	6.16	5.81	5.47
	7.0	6	7.25	6.77	6.30	5.86	5.42
	10.1	9	7.20	6.74	6.28	5.82	5.37
	13.2	12	7.15	6.69	6.24	5.78	5.32
	16.9	15.5	7.10	6.64	6.18	5.73	5.27

Air flow	Outdoor air temperature (ºCDB)	Indoor air temperature 21℃CDB 14℃CWB TC	SHC	23℃CDB 16℃CWB TC	SHC	26℃CDB 18℃CWB TC	SHC	27℃CDB 19℃CWB TC	SHC	28℃CDB 20℃CWB TC	SHC	31℃CDB 22℃CWB TC	SHC	33℃CDB 24℃CWB TC	SHC
	10			4.41	3.23	5.27	3.66	5.70	3.77	6.07	3.83	6.80	4.13	7.06	4.01
	12			4.41	3.23	5.27	3.66	5.70	3.77	6.06	3.83	6.77	4.12	7.03	4.00
	14			4.41	3.23	5.27	3.66	5.70	3.77	6.05	3.82	6.75	4.11	7.00	3.99
	16			4.41	3.23	5.27	3.66	5.70	3.77	6.04	3.82	6.72	4.10	6.97	3.97
	18			4.41	3.23	5.27	3.66	5.70	3.77	6.03	3.81	6.70	4.09	6.94	3.96
Hi	20			4.41	3.23	5.27	3.66	5.70	3.77	6.03	3.81	6.67	4.08	6.90	3.95
	22			4.40	3.22	5.27	3.66	5.70	3.77	6.00	3.80	6.59	4.04	6.81	3.91
10	24			4.40	3.22	5.27	3.66	5.70	3.77	5.97	3.79	6.50	4.00	6.72	3.88
(m³/min)	26			4.39	3.22	5.24	3.65	5.65	3.74	5.90	3.76	6.40	3.96	6.61	3.83
	28	3.98	3.16	4.39	3.22	5.22	3.64	5.60	3.72	5.83	3.72	6.30	3.92	6.51	3.80
	30	3.98	3.16	4.38	3.21	5.18	3.62	5.54	3.69	5.76	3.69	6.20	3.87	6.41	3.75
	32	3.98	3.16	4.37	3.21	5.14	3.60	5.49	3.67	5.69	3.66	6.11	3.84	6.31	3.72
	34	3.98	3.16	4.35	3.20	5.12	3.59	5.42	3.64	5.60	3.62	5.98	3.78	6.18	3.67
	35	3.98	3.16	4.35	3.20	5.11	3.59	5.38	3.62	5.56	3.61	5.91	3.75	6.12	3.65
	36	3.98	3.16	4.34	3.19	5.07	3.57	5.35	3.61	5.50	3.58	5.81	3.71	6.00	3.60
	38	3.98	3.16	4.33	3.19	5.00	3.54	5.30	3.58	5.40	3.54	5.60	3.63	5.76	3.51
	39	3.98	3.16	4.33	3.19	4.96	3.52	5.27	3.57	5.34	3.51	5.49	3.59	5.64	3.47
	41	3.98	3.16	4.31	3.18	4.81	3.45	5.06	3.48	5.12	3.42	5.25	3.49	5.38	3.38
	43	3.98	3.16	4.30	3.17	4.66	3.38	4.84	3.38	4.90	3.32	5.00	3.39	5.11	3.28

Air flow	Outdoor air temperature ℃CDB	℃CWB	Indoor air temperature 16℃CDB	18℃CDB	20℃CDB	22℃CDB	24℃CDB
	-19.8	-20	3.52	3.52	3.52	3.52	3.52
	-17.8	-18	3.75	3.75	3.75	3.75	3.75
	-15.7	-16	3.97	3.97	3.97	3.97	3.97
	-13.7	-14	4.20	4.20	4.20	4.20	4.20
	-11.7	-12	4.43	4.43	4.43	4.43	4.43
Hi	-9.6	-10	4.65	4.65	4.65	4.65	4.65
	-7.5	-8	4.94	4.94	4.94	4.94	4.94
10	-5.5	-6	5.22	5.22	5.22	5.22	5.22
(m³/min)	-3.4	-4	5.40	5.39	5.39	5.33	5.28
	-1.3	-2	5.58	5.57	5.55	5.45	5.34
	0.8	0	5.89	5.80	5.72	5.52	5.31
	3.9	3	6.39	6.16	5.93	5.60	5.27
	7.0	6	6.98	6.53	6.07	5.65	5.22
	10.1	9	6.93	6.49	6.05	5.61	5.17
	13.2	12	6.89	6.45	6.01	5.57	5.13
	16.9	15.5	6.84	6.40	5.96	5.52	5.08

Air flow	Outdoor air temperature (ºCDB)	Indoor air temperature 21℃CDB 14℃CWB TC	SHC	23℃CDB 16℃CWB TC	SHC	26℃CDB 18℃CWB TC	SHC	27℃CDB 19℃CWB TC	SHC	28℃CDB 20℃CWB TC	SHC	31℃CDB 22℃CWB TC	SHC	33℃CDB 24℃CWB TC	SHC
	10			4.11	2.97	4.92	3.38	5.32	3.48	5.66	3.54	6.34	3.81	6.58	3.70
	12			4.11	2.97	4.92	3.38	5.32	3.48	5.65	3.54	6.32	3.81	6.56	3.69
	14			4.11	2.97	4.92	3.38	5.32	3.48	5.65	3.54	6.30	3.80	6.53	3.68
	16			4.11	2.97	4.92	3.38	5.32	3.48	5.64	3.53	6.27	3.78	6.50	3.67
	18			4.11	2.97	4.92	3.38	5.32	3.48	5.63	3.53	6.25	3.78	6.47	3.66
Me	20			4.11	2.97	4.92	3.38	5.32	3.48	5.62	3.53	6.23	3.77	6.44	3.64
	22			4.11	2.97	4.92	3.38	5.32	3.48	5.60	3.52	6.15	3.73	6.35	3.61
9	24			4.10	2.97	4.92	3.38	5.32	3.48	5.57	3.50	6.07	3.70	6.27	3.58
(m³/min)	26			4.10	2.97	4.89	3.37	5.27	3.45	5.51	3.47	5.97	3.65	6.17	3.54
	28	3.71	2.91	4.10	2.97	4.87	3.36	5.22	3.43	5.44	3.44	5.88	3.62	6.07	3.50
	30	3.71	2.91	4.09	2.96	4.83	3.34	5.17	3.41	5.38	3.41	5.79	3.58	5.98	3.46
	32	3.71	2.91	4.08	2.96	4.79	3.32	5.12	3.39	5.31	3.38	5.70	3.54	5.89	3.43
	34	3.71	2.91	4.06	2.95	4.78	3.31	5.05	3.35	5.23	3.34	5.58	3.49	5.77	3.38
	35	3.71	2.91	4.06	2.95	4.77	3.31	5.02	3.34	5.19	3.33	5.52	3.46	5.71	3.36
	36	3.71	2.91	4.05	2.94	4.73	3.29	4.99	3.33	5.14	3.31	5.42	3.42	5.60	3.31
	38	3.71	2.91	4.04	2.94	4.66	3.26	4.94	3.30	5.04	3.26	5.22	3.34	5.38	3.23
	39	3.71	2.91	4.04	2.94	4.63	3.24	4.92	3.29	4.99	3.24	5.12	3.30	5.27	3.19
	41	3.71	2.91	4.02	2.93	4.49	3.18	4.72	3.20	4.78	3.15	4.89	3.21	5.02	3.10
	43	3.71	2.91	4.01	2.92	4.35	3.11	4.52	3.11	4.57	3.06	4.67	3.12	4.77	3.02

Air flow	Outdoor air temperature ℃CDB	℃CWB	Indoor air temperature 16℃CDB	18℃CDB	20℃CDB	22℃CDB	24℃CDB
	-19.8	-20	3.22	3.22	3.22	3.22	3.22
	-17.8	-18	3.43	3.43	3.43	3.43	3.43
	-15.7	-16	3.64	3.64	3.64	3.64	3.64
	-13.7	-14	3.85	3.85	3.85	3.85	3.85
	-11.7	-12	4.06	4.06	4.06	4.06	4.06
Me	-9.6	-10	4.26	4.26	4.26	4.26	4.26
	-7.5	-8	4.52	4.52	4.52	4.52	4.52
9	-5.5	-6	4.78	4.78	4.78	4.78	4.78
(m³/min)	-3.4	-4	4.95	4.94	4.93	4.89	4.84
	-1.3	-2	5.12	5.10	5.09	4.99	4.89
	0.8	0	5.39	5.32	5.24	5.05	4.87
	3.9	3	5.85	5.64	5.43	5.13	4.82
	7.0	6	6.39	5.98	5.56	5.17	4.78
	10.1	9	6.35	5.95	5.54	5.14	4.74
	13.2	12	6.31	5.91	5.50	5.10	4.70
	16.9	15.5	6.26	5.86	5.46	5.05	4.65

Air flow	Outdoor air temperature (ºCDB)	Indoor air temperature 21℃CDB 14℃CWB TC	SHC	23℃CDB 16℃CWB TC	SHC	26℃CDB 18℃CWB TC	SHC	27℃CDB 19℃CWB TC	SHC	28℃CDB 20℃CWB TC	SHC	31℃CDB 22℃CWB TC	SHC	33℃CDB 24℃CWB TC	SHC
	10			3.80	2.71	4.55	3.09	4.92	3.19	5.23	3.24	5.86	3.49	6.09	3.39
	12			3.80	2.71	4.55	3.09	4.92	3.19	5.23	3.24	5.84	3.49	6.06	3.38
	14			3.80	2.71	4.55	3.09	4.92	3.19	5.22	3.24	5.82	3.48	6.03	3.37
	16			3.80	2.71	4.55	3.09	4.92	3.19	5.21	3.23	5.80	3.47	6.01	3.36
	18			3.80	2.71	4.55	3.09	4.92	3.19	5.20	3.23	5.78	3.46	5.98	3.35
Lo	20			3.80	2.71	4.55	3.09	4.92	3.19	5.20	3.23	5.76	3.45	5.95	3.33
	22			3.80	2.71	4.54	3.08	4.92	3.19	5.17	3.21	5.68	3.41	5.87	3.30
8	24			3.79	2.71	4.54	3.08	4.92	3.19	5.15	3.20	5.61	3.38	5.79	3.26
(m³/min)	26			3.79	2.71	4.52	3.07	4.87	3.16	5.09	3.18	5.52	3.34	5.70	3.23
	28	3.43	2.66	3.79	2.71	4.50	3.06	4.83	3.14	5.03	3.15	5.43	3.30	5.61	3.19
	30	3.43	2.66	3.78	2.70	4.47	3.05	4.78	3.12	4.97	3.12	5.35	3.27	5.53	3.16
	32	3.43	2.66	3.77	2.70	4.43	3.03	4.73	3.09	4.91	3.09	5.27	3.23	5.45	3.13
	34	3.43	2.66	3.76	2.69	4.42	3.03	4.67	3.06	4.83	3.05	5.16	3.19	5.33	3.08
	35	3.43	2.66	3.75	2.69	4.41	3.02	4.64	3.05	4.79	3.04	5.10	3.16	5.28	3.06
	36	3.43	2.66	3.74	2.68	4.37	3.00	4.62	3.04	4.75	3.02	5.01	3.12	5.18	3.02
	38	3.43	2.66	3.74	2.68	4.31	2.97	4.57	3.02	4.66	2.98	4.83	3.04	4.97	2.94
	39	3.43	2.66	3.73	2.68	4.28	2.96	4.55	3.01	4.61	2.96	4.73	3.00	4.87	2.91
	41	3.43	2.66	3.72	2.67	4.15	2.90	4.36	2.92	4.42	2.87	4.52	2.92	4.64	2.82
	43	3.43	2.66	3.70	2.66	4.02	2.84	4.18	2.84	4.22	2.79	4.31	2.84	4.41	2.74

Air flow	Outdoor air temperature ℃CDB	℃CWB	Indoor air temperature 16℃CDB	18℃CDB	20℃CDB	22℃CDB	24℃CDB
	-19.8	-20	3.00	3.00	3.00	3.00	3.00
	-17.8	-18	3.19	3.19	3.19	3.19	3.19
	-15.7	-16	3.38	3.38	3.38	3.38	3.38
	-13.7	-14	3.58	3.58	3.58	3.58	3.58
	-11.7	-12	3.77	3.77	3.77	3.77	3.77
Lo	-9.6	-10	3.96	3.96	3.96	3.96	3.96
	-7.5	-8	4.20	4.20	4.20	4.20	4.20
8	-5.5	-6	4.45	4.45	4.45	4.45	4.45
(m³/min)	-3.4	-4	4.60	4.59	4.59	4.54	4.50
	-1.3	-2	4.76	4.74	4.73	4.64	4.55
	0.8	0	5.01	4.94	4.87	4.70	4.52
	3.9	3	5.44	5.25	5.05	4.77	4.48
	7.0	6	5.95	5.56	5.17	4.81	4.45
	10.1	9	5.91	5.53	5.15	4.78	4.41
	13.2	12	5.87	5.49	5.12	4.74	4.37
	16.9	15.5	5.82	5.45	5.07	4.70	4.32

Notes(1) This data shows average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

PJG000Z022

Model **FDUM71KXE6F** Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature													
		21°CDB 14°CWB		23°CDB 16°CWB		26°CDB 18°CWB		27°CDB 19°CWB		28°CDB 20°CWB		31°CDB 22°CWB		33°CDB 24°CWB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	10			5.82	5.32	6.96	6.01	7.53	6.12	8.01	6.19	8.97	6.70	9.31	6.54
	12			5.82	5.32	6.96	6.01	7.53	6.12	8.00	6.19	8.94	6.69	9.27	6.52
	14			5.82	5.32	6.96	6.01	7.53	6.12	7.99	6.18	8.90	6.68	9.23	6.51
	16			5.82	5.32	6.96	6.01	7.53	6.12	7.97	6.16	8.87	6.67	9.19	6.50
	18			5.82	5.32	6.96	6.01	7.53	6.12	7.96	6.16	8.84	6.66	9.15	6.49
P-Hi	20			5.82	5.32	6.96	6.01	7.53	6.12	7.95	6.15	8.81	6.63	9.11	6.48
	22			5.81	5.31	6.95	6.00	7.53	6.12	7.92	6.14	8.70	6.60	8.99	6.44
24	24			5.80	5.31	6.95	6.00	7.53	6.12	7.88	6.13	8.58	6.56	8.86	6.40
(m³/min)	26			5.80	5.31	6.92	5.99	7.46	6.10	7.79	6.10	8.45	6.51	8.73	6.35
	28	5.25	5.04	5.79	5.31	6.89	5.98	7.38	6.07	7.69	6.06	8.31	6.46	8.59	6.31
	30	5.25	5.04	5.78	5.30	6.83	5.96	7.31	6.03	7.60	6.03	8.19	6.42	8.46	6.27
	32	5.25	5.04	5.77	5.30	6.78	5.94	7.24	6.00	7.51	6.00	8.06	6.38	8.33	6.23
	34	5.25	5.04	5.75	5.29	6.76	5.93	7.15	5.97	7.39	5.94	7.89	6.32	8.16	6.17
	35	5.25	5.04	5.74	5.29	6.75	5.93	7.10	5.95	7.33	5.92	7.80	6.28	8.08	6.14
	36	5.25	5.04	5.73	5.28	6.69	5.91	7.06	5.94	7.26	5.90	7.66	6.23	7.92	6.10
	38	5.25	5.04	5.72	5.28	6.59	5.86	6.99	5.91	7.12	5.85	7.38	6.14	7.61	5.99
	39	5.25	5.04	5.71	5.27	6.54	5.84	6.96	5.90	7.05	5.83	7.24	6.08	7.45	5.95
	41	5.25	5.04	5.69	5.27	6.35	5.77	6.67	5.78	6.76	5.71	6.92	5.98	7.10	5.84
	43	5.25	5.04	5.67	5.26	6.15	5.69	6.39	5.68	6.46	5.61	6.60	5.87	6.75	5.73

Heating mode (kW)

Air flow	Outdoor air temperature		Indoor air temperature				
	°CDB	°CWB	16°CDB	18°CDB	20°CDB	22°CDB	24°CDB
	-19.8	-20	4.64	4.64	4.64	4.64	4.64
	-17.8	-18	4.94	4.94	4.94	4.94	4.94
	-15.7	-16	5.24	5.24	5.24	5.24	5.24
	-13.7	-14	5.54	5.54	5.54	5.54	5.54
	-11.7	-12	5.83	5.83	5.83	5.83	5.83
P-Hi	-9.6	-10	6.13	6.13	6.13	6.13	6.13
	-7.5	-8	6.51	6.51	6.51	6.51	6.51
24	-5.5	-6	6.88	6.88	6.88	6.88	6.88
(m³/min)	-3.4	-4	7.12	7.11	7.10	7.03	6.96
	-1.3	-2	7.36	7.34	7.32	7.18	7.04
	0.8	0	7.76	7.65	7.54	7.27	7.00
	3.9	3	8.42	8.12	7.82	7.38	6.94
	7.0	6	9.20	8.60	8.00	7.44	6.88
	10.1	9	9.14	8.56	7.97	7.40	6.82
	13.2	12	9.08	8.50	7.92	7.34	6.76
	16.9	15.5	9.01	8.43	7.85	7.27	6.69

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature													
		21°CDB 14°CWB		23°CDB 16°CWB		26°CDB 18°CWB		27°CDB 19°CWB		28°CDB 20°CWB		31°CDB 22°CWB		33°CDB 24°CWB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	10			5.65	4.71	6.75	5.33	7.30	5.44	7.77	5.50	8.70	5.95	9.04	5.81
	12			5.65	4.71	6.75	5.33	7.30	5.44	7.76	5.50	8.67	5.94	9.00	5.79
	14			5.65	4.71	6.75	5.33	7.30	5.44	7.75	5.50	8.64	5.93	8.96	5.77
	16			5.65	4.71	6.75	5.33	7.30	5.44	7.74	5.49	8.61	5.92	8.92	5.76
	18			5.65	4.71	6.75	5.33	7.30	5.44	7.73	5.49	8.58	5.91	8.88	5.75
Hi	20			5.65	4.71	6.75	5.33	7.30	5.44	7.72	5.49	8.55	5.90	8.84	5.74
	22			5.64	4.71	6.75	5.33	7.30	5.44	7.68	5.47	8.44	5.85	8.72	5.70
19	24			5.63	4.70	6.75	5.33	7.30	5.44	7.65	5.46	8.33	5.81	8.60	5.65
(m³/min)	26			5.63	4.70	6.71	5.30	7.23	5.41	7.56	5.43	8.20	5.77	8.47	5.61
	28	5.10	4.65	5.62	4.70	6.68	5.29	7.17	5.38	7.47	5.39	8.07	5.71	8.34	5.57
	30	5.10	4.65	5.61	4.69	6.63	5.27	7.10	5.36	7.38	5.35	7.94	5.67	8.21	5.51
	32	5.10	4.65	5.59	4.68	6.58	5.25	7.03	5.33	7.29	5.32	7.82	5.63	8.09	5.48
	34	5.10	4.65	5.58	4.68	6.56	5.24	6.94	5.29	7.18	5.28	7.66	5.56	7.92	5.42
	35	5.10	4.65	5.57	4.68	6.55	5.24	6.89	5.27	7.12	5.25	7.57	5.53	7.84	5.40
	36	5.10	4.65	5.56	4.67	6.50	5.22	6.86	5.25	7.05	5.22	7.44	5.49	7.68	5.34
	38	5.10	4.65	5.55	4.67	6.40	5.18	6.79	5.23	6.91	5.17	7.17	5.39	7.38	5.25
	39	5.10	4.65	5.54	4.66	6.35	5.16	6.75	5.21	6.84	5.14	7.03	5.34	7.23	5.19
	41	5.10	4.65	5.52	4.65	6.16	5.08	6.48	5.11	6.56	5.03	6.72	5.23	6.89	5.09
	43	5.10	4.65	5.50	4.65	5.97	5.00	6.20	5.00	6.27	4.92	6.41	5.11	6.55	4.98

Air flow	Outdoor air temperature		Indoor air temperature				
	°CDB	°CWB	16°CDB	18°CDB	20°CDB	22°CDB	24°CDB
	-19.8	-20	4.49	4.49	4.49	4.49	4.49
	-17.8	-18	4.78	4.78	4.78	4.78	4.78
	-15.7	-16	5.07	5.07	5.07	5.07	5.07
	-13.7	-14	5.36	5.36	5.36	5.36	5.36
	-11.7	-12	5.65	5.65	5.65	5.65	5.65
Hi	-9.6	-10	5.93	5.93	5.93	5.93	5.93
	-7.5	-8	6.30	6.30	6.30	6.30	6.30
19	-5.5	-6	6.66	6.66	6.66	6.66	6.66
(m³/min)	-3.4	-4	6.89	6.88	6.87	6.80	6.73
	-1.3	-2	7.12	7.10	7.08	6.95	6.81
	0.8	0	7.51	7.40	7.29	7.03	6.77
	3.9	3	8.15	7.86	7.57	7.14	6.71
	7.0	6	8.90	8.32	7.74	7.20	6.66
	10.1	9	8.84	8.28	7.71	7.15	6.60
	13.2	12	8.78	8.22	7.66	7.10	6.54
	16.9	15.5	8.72	8.16	7.59	7.03	6.47

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature													
		21°CDB 14°CWB		23°CDB 16°CWB		26°CDB 18°CWB		27°CDB 19°CWB		28°CDB 20°CWB		31°CDB 22°CWB		33°CDB 24°CWB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	10			5.37	4.17	6.42	4.71	6.94	4.84	7.39	4.91	8.27	5.29	8.59	5.15
	12			5.37	4.17	6.42	4.71	6.94	4.84	7.38	4.91	8.24	5.28	8.55	5.13
	14			5.37	4.17	6.42	4.71	6.94	4.84	7.37	4.90	8.21	5.27	8.52	5.12
	16			5.37	4.17	6.42	4.71	6.94	4.84	7.36	4.90	8.18	5.25	8.48	5.11
	18			5.37	4.17	6.42	4.71	6.94	4.84	7.35	4.89	8.15	5.24	8.44	5.10
Me	20			5.37	4.17	6.42	4.71	6.94	4.84	7.34	4.88	8.12	5.23	8.41	5.08
	22			5.36	4.16	6.42	4.71	6.94	4.84	7.30	4.87	8.02	5.19	8.29	5.04
15	24			5.35	4.16	6.41	4.70	6.94	4.84	7.27	4.86	7.92	5.15	8.18	5.00
(m³/min)	26			5.35	4.16	6.38	4.69	6.88	4.81	7.18	4.82	7.79	5.10	8.05	4.95
	28	4.85	4.10	5.34	4.15	6.35	4.68	6.81	4.78	7.10	4.79	7.67	5.05	7.93	4.91
	30	4.85	4.10	5.33	4.15	6.30	4.66	6.75	4.74	7.02	4.75	7.55	5.00	7.81	4.87
	32	4.85	4.10	5.32	4.14	6.26	4.64	6.68	4.71	6.93	4.70	7.44	4.96	7.69	4.82
	34	4.85	4.10	5.30	4.14	6.23	4.63	6.59	4.67	6.82	4.66	7.28	4.90	7.53	4.77
	35	4.85	4.10	5.29	4.13	6.22	4.62	6.55	4.66	6.77	4.64	7.20	4.87	7.45	4.74
	36	4.85	4.10	5.29	4.13	6.18	4.61	6.52	4.64	6.70	4.61	7.07	4.82	7.31	4.69
	38	4.85	4.10	5.27	4.12	6.08	4.57	6.45	4.62	6.57	4.56	6.81	4.72	7.02	4.58
	39	4.85	4.10	5.27	4.12	6.03	4.54	6.42	4.60	6.51	4.53	6.68	4.67	6.87	4.53
	41	4.85	4.10	5.25	4.11	5.85	4.47	6.16	4.50	6.23	4.43	6.39	4.57	6.55	4.42
	43	4.85	4.10	5.23	4.11	5.67	4.39	5.90	4.39	5.96	4.32	6.09	4.45	6.23	4.30

Air flow	Outdoor air temperature		Indoor air temperature				
	°CDB	°CWB	16°CDB	18°CDB	20°CDB	22°CDB	24°CDB
	-19.8	-20	4.22	4.22	4.22	4.22	4.22
	-17.8	-18	4.49	4.49	4.49	4.49	4.49
	-15.7	-16	4.76	4.76	4.76	4.76	4.76
	-13.7	-14	5.03	5.03	5.03	5.03	5.03
	-11.7	-12	5.30	5.30	5.30	5.30	5.30
Me	-9.6	-10	5.57	5.57	5.57	5.57	5.57
	-7.5	-8	5.91	5.91	5.91	5.91	5.91
15	-5.5	-6	6.25	6.25	6.25	6.25	6.25
(m³/min)	-3.4	-4	6.47	6.46	6.45	6.39	6.32
	-1.3	-2	6.69	6.67	6.65	6.52	6.40
	0.8	0	7.05	6.95	6.85	6.61	6.36
	3.9	3	7.65	7.38	7.11	6.71	6.31
	7.0	6	8.36	7.82	7.27	6.76	6.25
	10.1	9	8.31	7.77	7.24	6.72	6.20
	13.2	12	8.25	7.72	7.20	6.67	6.14
	16.9	15.5	8.19	7.66	7.13	6.61	6.08

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature													
		21°CDB 14°CWB		23°CDB 16°CWB		26°CDB 18°CWB		27°CDB 19°CWB		28°CDB 20°CWB		31°CDB 22°CWB		33°CDB 24°CWB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	10			4.81	3.39	5.75	3.86	6.22	3.99	6.62	4.07	7.42	4.38	7.70	4.24
	12			4.81	3.39	5.75	3.86	6.22	3.99	6.61	4.06	7.39	4.37	7.67	4.23
	14			4.81	3.39	5.75	3.86	6.22	3.99	6.60	4.06	7.36	4.35	7.63	4.21
	16			4.81	3.39	5.75	3.86	6.22	3.99	6.59	4.05	7.33	4.34	7.60	4.20
	18			4.81	3.39	5.75	3.86	6.22	3.99	6.58	4.05	7.31	4.33	7.57	4.19
Lo	20			4.81	3.39	5.75	3.86	6.22	3.99	6.58	4.05	7.28	4.31	7.53	4.17
	22			4.80	3.38	5.75	3.86	6.22	3.99	6.54	4.03	7.19	4.27	7.43	4.13
10	24			4.80	3.38	5.75	3.86	6.22	3.99	6.51	4.02	7.10	4.23	7.33	4.09
(m³/min)	26			4.79	3.38	5.72	3.85	6.16	3.95	6.44	3.98	6.99	4.19	7.22	4.04
	28	4.34	3.31	4.79	3.38	5.69	3.83	6.10	3.92	6.36	3.94	6.87	4.13	7.10	3.99
	30	4.34	3.31	4.78	3.37	5.65	3.81	6.05	3.90	6.29	3.90	6.77	4.08	7.00	3.95
	32	4.34	3.31	4.77	3.37	5.61	3.79	5.99	3.87	6.21	3.87	6.66	4.04	6.89	3.91
	34	4.34	3.31	4.75	3.36	5.59	3.78	5.91	3.83	6.11	3.82	6.52	3.97	6.75	3.85
	35	4.34	3.31	4.74	3.36	5.58	3.78	5.87	3.82	6.06	3.80	6.45	3.95	6.68	3.82
	36	4.34	3.31	4.74	3.36	5.53	3.75	5.84	3.80	6.01	3.78	6.34	3.90	6.55	3.77
	38	4.34	3.31	4.73	3.35	5.45	3.72	5.78	3.77	5.89	3.72	6.10	3.79	6.29	3.67
	39	4.34	3.31	4.72	3.35	5.41	3.69	5.75	3.76	5.83	3.69	5.99	3.75	6.16	3.62
	41	4.34	3.31	4.70	3.34	5.25	3.62	5.52	3.65	5.59	3.58	5.72	3.64	5.87	3.51
	43	4.34	3.31	4.69	3.33	5.08	3.54	5.28	3.54	5.34	3.47	5.46	3.53	5.58	3.39

Air flow	Outdoor air temperature		Indoor air temperature				
	°CDB	°CWB	16°CDB	18°CDB	20°CDB	22°CDB	24°CDB
	-19.8	-20	3.77	3.77	3.77	3.77	3.77
	-17.8	-18	4.01	4.01	4.01	4.01	4.01
	-15.7	-16	4.26	4.26	4.26	4.26	4.26
	-13.7	-14	4.50	4.50	4.50	4.50	4.50
	-11.7	-12	4.74	4.74	4.74	4.74	4.74
Lo	-9.6	-10	4.98	4.98	4.98	4.98	4.98
	-7.5	-8	5.29	5.29	5.29	5.29	5.29
10	-5.5	-6	5.59	5.59	5.59	5.59	5.59
(m³/min)	-3.4	-4	5.79	5.78	5.77	5.71	5.66
	-1.3	-2	5.98	5.96	5.95	5.83	5.72
	0.8	0	6.31	6.22	6.13	5.91	5.69
	3.9	3	6.84	6.60	6.35	6.00	5.64
	7.0	6	7.48	6.99	6.50	6.05	5.59
	10.1	9	7.43	6.95	6.48	6.01	5.54
	13.2	12	7.38	6.91	6.44	5.96	5.49
	16.9	15.5	7.32	6.85	6.38	5.91	5.44

Notes(1) This data shows average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

PJG000Z022

Model **FDUM90KXE6F** Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature													
		21°CDB 14°CWB		23°CDB 16°CWB		26°CDB 18°CWB		27°CDB 19°CWB		28°CDB 20°CWB		31°CDB 22°CWB		33°CDB 24°CWB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	10			7.38	6.01	8.82	6.77	9.54	6.94	10.15	7.03	11.37	7.59	11.80	7.40
	12			7.38	6.01	8.82	6.77	9.54	6.94	10.14	7.03	11.33	7.58	11.75	7.39
	14			7.38	6.01	8.82	6.77	9.54	6.94	10.12	7.02	11.29	7.56	11.70	7.36
	16			7.38	6.01	8.82	6.77	9.54	6.94	10.11	7.02	11.25	7.55	11.65	7.34
	18			7.38	6.01	8.82	6.77	9.54	6.94	10.09	7.01	11.20	7.53	11.60	7.33
P-Hi	20			7.38	6.01	8.82	6.77	9.54	6.94	10.08	7.01	11.16	7.52	11.55	7.31
	22			7.37	6.00	8.82	6.77	9.54	6.94	10.03	6.99	11.02	7.45	11.39	7.24
24	24			7.36	6.00	8.81	6.76	9.54	6.94	9.99	6.97	10.88	7.41	11.24	7.20
(m³/min)	26			7.35	5.99	8.77	6.75	9.45	6.91	9.87	6.91	10.71	7.33	11.06	7.14
	28	6.66	5.92	7.34	5.99	8.73	6.73	9.36	6.86	9.75	6.87	10.54	7.28	10.89	7.08
	30	6.66	5.92	7.33	5.97	8.66	6.70	9.27	6.80	9.64	6.83	10.38	7.21	10.73	7.03
	32	6.66	5.92	7.31	5.97	8.60	6.68	9.18	6.77	9.53	6.75	10.22	7.15	10.56	6.93
	34	6.66	5.92	7.28	5.95	8.57	6.67	9.06	6.72	9.37	6.69	10.00	7.04	10.35	6.87
	35	6.66	5.92	7.27	5.95	8.55	6.66	9.00	6.70	9.30	6.67	9.89	7.01	10.24	6.83
	36	6.66	5.92	7.26	5.94	8.49	6.64	8.96	6.68	9.21	6.63	9.72	6.95	10.04	6.77
	38	6.66	5.92	7.25	5.94	8.36	6.59	8.87	6.65	9.03	6.57	9.36	6.83	9.64	6.65
	39	6.66	5.92	7.24	5.94	8.29	6.56	8.82	6.63	8.94	6.54	9.18	6.77	9.44	6.59
	41	6.66	5.92	7.21	5.92	8.04	6.45	8.46	6.49	8.56	6.40	8.77	6.62	9.00	6.44
	43	6.66	5.92	7.19	5.92	7.80	6.36	8.10	6.34	8.19	6.25	8.37	6.49	8.56	6.30

Heating mode (kW)

Air flow	Outdoor air temperature		Indoor air temperature				
	°CDB	°CWB	16°CDB	18°CDB	20°CDB	22°CDB	24°CDB
	-19.8	-20	5.80	5.80	5.80	5.80	5.80
	-17.8	-18	6.17	6.17	6.17	6.17	6.17
	-15.7	-16	6.55	6.55	6.55	6.55	6.55
	-13.7	-14	6.92	6.92	6.92	6.92	6.92
	-11.7	-12	7.29	7.29	7.29	7.29	7.29
P-Hi	-9.6	-10	7.67	7.67	7.67	7.67	7.67
	-7.5	-8	8.13	8.13	8.13	8.13	8.13
24	-5.5	-6	8.60	8.60	8.60	8.60	8.60
(m³/min)	-3.4	-4	8.90	8.89	8.88	8.79	8.70
	-1.3	-2	9.20	9.18	9.15	8.98	8.80
	0.8	0	9.70	9.56	9.43	9.09	8.75
	3.9	3	10.53	10.15	9.78	9.23	8.68
	7.0	6	11.50	10.75	10.00	9.30	8.60
	10.1	9	11.43	10.69	9.96	9.24	8.53
	13.2	12	11.35	10.63	9.90	9.18	8.45
	16.9	15.5	11.26	10.54	9.81	9.09	8.36

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature													
		21°CDB 14°CWB		23°CDB 16°CWB		26°CDB 18°CWB		27°CDB 19°CWB		28°CDB 20°CWB		31°CDB 22°CWB		33°CDB 24°CWB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	10			7.25	5.45	8.67	6.17	9.38	6.35	9.98	6.44	11.18	6.94	11.61	6.75
	12			7.25	5.45	8.67	6.17	9.38	6.35	9.97	6.44	11.14	6.93	11.56	6.73
	14			7.25	5.45	8.67	6.17	9.38	6.35	9.95	6.43	11.10	6.91	11.51	6.71
	16			7.25	5.45	8.67	6.17	9.38	6.35	9.94	6.43	11.06	6.90	11.46	6.69
	18			7.25	5.45	8.67	6.17	9.38	6.35	9.93	6.42	11.02	6.87	11.41	6.68
Hi	20			7.25	5.45	8.67	6.17	9.38	6.35	9.91	6.41	10.98	6.86	11.36	6.65
	22			7.24	5.44	8.67	6.17	9.38	6.35	9.87	6.40	10.84	6.81	11.20	6.59
19	24			7.23	5.44	8.67	6.17	9.38	6.35	9.82	6.37	10.70	6.74	11.05	6.53
(m³/min)	26			7.23	5.44	8.62	6.15	9.29	6.30	9.71	6.32	10.53	6.67	10.88	6.47
	28	6.55	5.34	7.22	5.43	8.58	6.13	9.20	6.24	9.59	6.27	10.36	6.61	10.71	6.41
	30	6.55	5.34	7.20	5.42	8.52	6.10	9.12	6.21	9.48	6.21	10.20	6.54	10.55	6.35
	32	6.55	5.34	7.19	5.42	8.45	6.07	9.03	6.17	9.37	6.16	10.05	6.47	10.39	6.29
	34	6.55	5.34	7.16	5.40	8.42	6.06	8.91	6.12	9.22	6.10	9.83	6.39	10.17	6.21
	35	6.55	5.34	7.15	5.39	8.41	6.06	8.85	6.10	9.14	6.07	9.73	6.35	10.07	6.17
	36	6.55	5.34	7.14	5.39	8.34	6.02	8.81	6.08	9.05	6.04	9.55	6.28	9.87	6.08
	38	6.55	5.34	7.12	5.38	8.22	5.97	8.72	6.05	8.88	5.97	9.20	6.13	9.48	5.95
	39	6.55	5.34	7.12	5.38	8.15	5.94	8.67	6.02	8.79	5.93	9.03	6.07	9.28	5.89
	41	6.55	5.34	7.09	5.37	7.91	5.83	8.32	5.87	8.42	5.77	8.63	5.93	8.85	5.74
	43	6.55	5.34	7.07	5.36	7.67	5.72	7.97	5.72	8.05	5.62	8.23	5.78	8.41	5.59

Air flow	Outdoor air temperature		Indoor air temperature				
	°CDB	°CWB	16°CDB	18°CDB	20°CDB	22°CDB	24°CDB
	-19.8	-20	5.66	5.66	5.66	5.66	5.66
	-17.8	-18	6.02	6.02	6.02	6.02	6.02
	-15.7	-16	6.38	6.38	6.38	6.38	6.38
	-13.7	-14	6.75	6.75	6.75	6.75	6.75
	-11.7	-12	7.11	7.11	7.11	7.11	7.11
Hi	-9.6	-10	7.48	7.48	7.48	7.48	7.48
	-7.5	-8	7.93	7.93	7.93	7.93	7.93
19	-5.5	-6	8.39	8.39	8.39	8.39	8.39
(m³/min)	-3.4	-4	8.68	8.67	8.65	8.57	8.48
	-1.3	-2	8.97	8.95	8.92	8.75	8.58
	0.8	0	9.46	9.32	9.19	8.86	8.53
	3.9	3	10.26	9.90	9.53	8.99	8.46
	7.0	6	11.21	10.48	9.75	9.07	8.39
	10.1	9	11.14	10.43	9.71	9.01	8.31
	13.2	12	11.07	10.36	9.65	8.95	8.24
	16.9	15.5	10.98	10.27	9.57	8.86	8.15

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature													
		21°CDB 14°CWB		23°CDB 16°CWB		26°CDB 18°CWB		27°CDB 19°CWB		28°CDB 20°CWB		31°CDB 22°CWB		33°CDB 24°CWB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	10			6.89	4.90	8.23	5.57	8.90	5.74	9.47	5.85	10.61	6.30	11.02	6.12
	12			6.89	4.90	8.23	5.57	8.90	5.74	9.46	5.84	10.57	6.29	10.97	6.09
	14			6.89	4.90	8.23	5.57	8.90	5.74	9.45	5.84	10.53	6.27	10.92	6.07
	16			6.89	4.90	8.23	5.57	8.90	5.74	9.43	5.83	10.50	6.26	10.88	6.06
	18			6.89	4.90	8.23	5.57	8.90	5.74	9.42	5.83	10.46	6.23	10.83	6.04
Me	20			6.89	4.90	8.23	5.57	8.90	5.74	9.41	5.82	10.42	6.22	10.78	6.01
	22			6.88	4.89	8.23	5.57	8.90	5.74	9.37	5.80	10.29	6.16	10.63	5.95
15	24			6.87	4.89	8.22	5.56	8.90	5.74	9.32	5.78	10.16	6.10	10.49	5.89
(m³/min)	26			6.86	4.88	8.19	5.55	8.82	5.70	9.21	5.72	10.00	6.03	10.33	5.83
	28	6.22	4.79	6.85	4.88	8.15	5.53	8.74	5.66	9.10	5.67	9.84	5.96	10.16	5.76
	30	6.22	4.79	6.84	4.87	8.09	5.50	8.65	5.62	9.00	5.63	9.69	5.89	10.01	5.70
	32	6.22	4.79	6.82	4.86	8.02	5.46	8.57	5.58	8.89	5.58	9.54	5.83	9.86	5.64
	34	6.22	4.79	6.80	4.85	7.99	5.45	8.46	5.53	8.75	5.51	9.33	5.74	9.66	5.56
	35	6.22	4.79	6.79	4.84	7.98	5.44	8.40	5.50	8.68	5.48	9.23	5.69	9.55	5.52
	36	6.22	4.79	6.78	4.84	7.92	5.42	8.36	5.48	8.59	5.44	9.07	5.63	9.37	5.43
	38	6.22	4.79	6.76	4.83	7.80	5.35	8.27	5.44	8.43	5.37	8.74	5.48	9.00	5.30
	39	6.22	4.79	6.75	4.82	7.74	5.33	8.23	5.42	8.34	5.32	8.57	5.41	8.81	5.23
	41	6.22	4.79	6.73	4.81	7.51	5.22	7.90	5.27	7.99	5.17	8.19	5.26	8.40	5.08
	43	6.22	4.79	6.71	4.81	7.28	5.11	7.56	5.11	7.64	5.01	7.81	5.11	7.99	4.93

Air flow	Outdoor air temperature		Indoor air temperature				
	°CDB	°CWB	16°CDB	18°CDB	20°CDB	22°CDB	24°CDB
	-19.8	-20	5.34	5.34	5.34	5.34	5.34
	-17.8	-18	5.68	5.68	5.68	5.68	5.68
	-15.7	-16	6.02	6.02	6.02	6.02	6.02
	-13.7	-14	6.37	6.37	6.37	6.37	6.37
	-11.7	-12	6.71	6.71	6.71	6.71	6.71
Me	-9.6	-10	7.05	7.05	7.05	7.05	7.05
	-7.5	-8	7.48	7.48	7.48	7.48	7.48
15	-5.5	-6	7.91	7.91	7.91	7.91	7.91
(m³/min)	-3.4	-4	8.19	8.18	8.17	8.08	8.00
	-1.3	-2	8.46	8.44	8.42	8.26	8.10
	0.8	0	8.92	8.80	8.67	8.36	8.05
	3.9	3	9.68	9.34	8.99	8.49	7.98
	7.0	6	10.58	9.89	9.20	8.56	7.91
	10.1	9	10.51	9.84	9.17	8.50	7.84
	13.2	12	10.44	9.78	9.11	8.44	7.77
	16.9	15.5	10.36	9.69	9.03	8.36	7.69

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature													
		21°CDB 14°CWB		23°CDB 16°CWB		26°CDB 18°CWB		27°CDB 19°CWB		28°CDB 20°CWB		31°CDB 22°CWB		33°CDB 24°CWB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	10			5.99	4.02	7.16	4.61	7.75	4.79	8.24	4.91	9.23	5.31	9.59	5.13
	12			5.99	4.02	7.16	4.61	7.75	4.79	8.23	4.91	9.20	5.29	9.55	5.11
	14			5.99	4.02	7.16	4.61	7.75	4.79	8.22	4.90	9.17	5.27	9.51	5.09
	16			5.99	4.02	7.16	4.61	7.75	4.79	8.21	4.90	9.13	5.25	9.46	5.06
	18			5.99	4.02	7.16	4.61	7.75	4.79	8.20	4.89	9.10	5.23	9.42	5.04
Lo	20			5.99	4.02	7.16	4.61	7.75	4.79	8.19	4.89	9.07	5.22	9.38	5.02
	22			5.98	4.01	7.16	4.61	7.75	4.79	8.15	4.86	8.95	5.15	9.25	4.96
10	24			5.98	4.01	7.16	4.61	7.75	4.79	8.11	4.84	8.84	5.09	9.13	4.90
(m³/min)	26			5.97	4.01	7.12	4.59	7.68	4.75	8.02	4.79	8.70	5.02	8.99	4.83
	28	5.41	3.91	5.96	4.00	7.09	4.57	7.60	4.71	7.92	4.73	8.56	4.95	8.85	4.77
	30	5.41	3.91	5.95	4.00	7.04	4.54	7.53	4.67	7.83	4.68	8.43	4.88	8.71	4.70
	32	5.41	3.91	5.94	3.99	6.98	4.51	7.46	4.63	7.74	4.64	8.30	4.81	8.58	4.64
	34	5.41	3.91	5.92	3.98	6.96	4.50	7.36	4.58	7.61	4.57	8.12	4.72	8.40	4.56
	35	5.41	3.91	5.91	3.97	6.94	4.49	7.31	4.55	7.55	4.54	8.04	4.68	8.31	4.51
	36	5.41	3.91	5.90	3.97	6.89	4.46	7.27	4.53	7.48	4.50	7.89	4.61	8.15	4.44
	38	5.41	3.91	5.88	3.96	6.79	4.41	7.20	4.49	7.33	4.42	7.60	4.47	7.83	4.30
	39	5.41	3.91	5.88	3.96	6.73	4.37	7.16	4.47	7.26	4.39	7.46	4.40	7.67	4.23
	41	5.41	3.91	5.86	3.95	6.53	4.26	6.87	4.32	6.96	4.23	7.13	4.25	7.31	4.08
	43	5.41	3.91	5.84	3.93	6.33	4.16	6.58	4.17	6.65	4.08	6.80	4.10	6.95	3.93

Air flow	Outdoor air temperature		Indoor air temperature				
	°CDB	°CWB	16°CDB	18°CDB	20°CDB	22°CDB	24°CDB
	-19.8	-20	4.59	4.59	4.59	4.59	4.59
	-17.8	-18	4.89	4.89	4.89	4.89	4.89
	-15.7	-16	5.18	5.18	5.18	5.18	5.18
	-13.7	-14	5.48	5.48	5.48	5.48	5.48
	-11.7	-12	5.78	5.78	5.78	5.78	5.78
Lo	-9.6	-10	6.07	6.07	6.07	6.07	6.07
	-7.5	-8	6.44	6.44	6.44	6.44	6.44
10	-5.5	-6	6.81	6.81	6.81	6.81	6.81
(m³/min)	-3.4	-4	7.05	7.04	7.03	6.96	6.89
	-1.3	-2	7.29	7.27	7.25	7.11	6.97
	0.8	0	7.68	7.57	7.46	7.20	6.93
	3.9	3	8.34	8.04	7.74	7.31	6.87
	7.0	6	9.11	8.51	7.92	7.37	6.81
	10.1	9	9.05	8.47	7.89	7.32	6.75
	13.2	12	8.99	8.42	7.84	7.27	6.69
	16.9	15.5	8.92	8.35	7.77	7.20	6.62

Notes(1) This data shows average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

PJG000Z022

Model **FDUM112KXE6F** Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature													
		21°CDB 14°CWB		23°CDB 16°CWB		26°CDB 18°CWB		27°CDB 19°CWB		28°CDB 20°CWB		31°CDB 22°CWB		33°CDB 24°CWB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	10			9.18	7.72	10.97	8.72	11.87	8.91	12.63	9.01	14.15	9.75	14.69	9.51
	12			9.18	7.72	10.97	8.72	11.87	8.91	12.61	9.00	14.10	9.71	14.63	9.43
	14			9.18	7.72	10.97	8.72	11.87	8.91	12.60	9.00	14.05	9.70	14.56	9.41
	16			9.18	7.72	10.97	8.72	11.87	8.91	12.58	8.99	14.00	9.69	14.50	9.40
	18			9.18	7.72	10.97	8.72	11.87	8.91	12.56	8.98	13.94	9.67	14.44	9.38
P-Hi	20			9.18	7.72	10.97	8.72	11.87	8.91	12.55	8.98	13.89	9.65	14.37	9.36
	22			9.17	7.72	10.97	8.72	11.87	8.91	12.49	8.96	13.72	9.54	14.18	9.31
36	24			9.15	7.71	10.97	8.72	11.87	8.91	12.43	8.94	13.54	9.48	13.98	9.25
(m³/min)	26			9.15	7.71	10.92	8.70	11.76	8.87	12.28	8.87	13.33	9.42	13.77	9.19
	28	8.29	7.59	9.14	7.71	10.86	8.66	11.65	8.81	12.14	8.82	13.11	9.35	13.55	9.11
	30	8.29	7.59	9.12	7.68	10.78	8.63	11.54	8.77	12.00	8.76	12.91	9.27	13.35	9.04
	32	8.29	7.59	9.09	7.67	10.70	8.60	11.42	8.71	11.85	8.71	12.71	9.21	13.15	8.98
	34	8.29	7.59	9.06	7.66	10.66	8.59	11.27	8.66	11.66	8.62	12.45	9.11	12.87	8.88
	35	8.29	7.59	9.05	7.65	10.64	8.58	11.20	8.63	11.57	8.59	12.31	9.05	12.74	8.85
	36	8.29	7.59	9.04	7.65	10.56	8.55	11.14	8.61	11.46	8.56	12.09	8.98	12.49	8.76
	38	8.29	7.59	9.02	7.64	10.40	8.48	11.03	8.56	11.24	8.47	11.65	8.83	12.00	8.60
	39	8.29	7.59	9.00	7.60	10.32	8.45	10.98	8.54	11.13	8.43	11.43	8.75	11.75	8.52
	41	8.29	7.59	8.97	7.59	10.01	8.32	10.53	8.37	10.66	8.24	10.92	8.58	11.20	8.28
	43	8.29	7.59	8.94	7.58	9.70	8.19	10.08	8.17	10.19	8.06	10.41	8.34	10.65	8.13

Heating mode (kW)

Air flow	Outdoor air temperature		Indoor air temperature				
	°CDB	°CWB	16°CDB	18°CDB	20°CDB	22°CDB	24°CDB
	-19.8	-20	7.25	7.25	7.25	7.25	7.25
	-17.8	-18	7.72	7.72	7.72	7.72	7.72
	-15.7	-16	8.18	8.18	8.18	8.18	8.18
	-13.7	-14	8.65	8.65	8.65	8.65	8.65
	-11.7	-12	9.12	9.12	9.12	9.12	9.12
P-Hi	-9.6	-10	9.58	9.58	9.58	9.58	9.58
	-7.5	-8	10.17	10.17	10.17	10.17	10.17
36	-5.5	-6	10.75	10.75	10.75	10.75	10.75
(m³/min)	-3.4	-4	11.13	11.11	11.09	10.98	10.88
	-1.3	-2	11.50	11.47	11.44	11.22	11.00
	0.8	0	12.13	11.95	11.78	11.36	10.94
	3.9	3	13.16	12.69	12.22	11.53	10.84
	7.0	6	14.38	13.44	12.50	11.63	10.75
	10.1	9	14.28	13.37	12.45	11.55	10.66
	13.2	12	14.19	13.28	12.38	11.47	10.56
	16.9	15.5	14.08	13.17	12.27	11.36	10.45

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature													
		21°CDB 14°CWB		23°CDB 16°CWB		26°CDB 18°CWB		27°CDB 19°CWB		28°CDB 20°CWB		31°CDB 22°CWB		33°CDB 24°CWB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	10			8.94	6.86	10.69	7.79	11.56	7.99	12.30	8.12	13.78	8.76	14.31	8.50
	12			8.94	6.86	10.69	7.79	11.56	7.99	12.29	8.11	13.73	8.74	14.25	8.48
	14			8.94	6.86	10.69	7.79	11.56	7.99	12.27	8.11	13.68	8.68	14.19	8.46
	16			8.94	6.86	10.69	7.79	11.56	7.99	12.25	8.10	13.63	8.67	14.13	8.44
	18			8.94	6.86	10.69	7.79	11.56	7.99	12.24	8.10	13.58	8.65	14.06	8.42
Hi	20			8.94	6.86	10.69	7.79	11.56	7.99	12.22	8.08	13.53	8.63	14.00	8.41
	22			8.93	6.85	10.69	7.79	11.56	7.99	12.16	8.05	13.36	8.58	13.81	8.33
28	24			8.92	6.85	10.68	7.79	11.56	7.99	12.11	8.04	13.19	8.51	13.62	8.26
(m³/min)	26			8.91	6.84	10.63	7.77	11.46	7.95	11.96	7.97	12.98	8.43	13.41	8.19
	28	8.07	6.77	8.90	6.84	10.58	7.75	11.35	7.90	11.82	7.91	12.77	8.34	13.20	8.11
	30	8.07	6.77	8.88	6.83	10.50	7.71	11.24	7.83	11.68	7.86	12.58	8.27	13.00	8.04
	32	8.07	6.77	8.86	6.82	10.42	7.68	11.13	7.79	11.55	7.77	12.39	8.19	12.81	7.97
	34	8.07	6.77	8.83	6.81	10.38	7.66	10.98	7.73	11.36	7.70	12.12	8.09	12.54	7.83
	35	8.07	6.77	8.82	6.81	10.36	7.65	10.91	7.71	11.27	7.67	11.99	8.04	12.41	7.79
	36	8.07	6.77	8.80	6.80	10.29	7.61	10.86	7.69	11.16	7.63	11.78	7.92	12.17	7.72
	38	8.07	6.77	8.78	6.79	10.13	7.55	10.75	7.64	10.95	7.55	11.35	7.79	11.69	7.57
	39	8.07	6.77	8.77	6.79	10.05	7.51	10.69	7.61	10.84	7.49	11.13	7.70	11.45	7.48
	41	8.07	6.77	8.74	6.77	9.75	7.38	10.26	7.43	10.38	7.31	10.64	7.52	10.91	7.30
	43	8.07	6.77	8.71	6.76	9.45	7.24	9.82	7.24	9.93	7.14	10.14	7.33	10.37	7.12

Air flow	Outdoor air temperature		Indoor air temperature				
	°CDB	°CWB	16°CDB	18°CDB	20°CDB	22°CDB	24°CDB
	-19.8	-20	7.05	7.05	7.05	7.05	7.05
	-17.8	-18	7.51	7.51	7.51	7.51	7.51
	-15.7	-16	7.96	7.96	7.96	7.96	7.96
	-13.7	-14	8.41	8.41	8.41	8.41	8.41
	-11.7	-12	8.87	8.87	8.87	8.87	8.87
Hi	-9.6	-10	9.32	9.32	9.32	9.32	9.32
	-7.5	-8	9.89	9.89	9.89	9.89	9.89
28	-5.5	-6	10.46	10.46	10.46	10.46	10.46
(m³/min)	-3.4	-4	10.82	10.81	10.79	10.69	10.58
	-1.3	-2	11.19	11.16	11.13	10.91	10.70
	0.8	0	11.80	11.63	11.46	11.05	10.64
	3.9	3	12.80	12.34	11.89	11.22	10.55
	7.0	6	13.98	13.07	12.16	11.31	10.46
	10.1	9	13.89	13.00	12.11	11.24	10.37
	13.2	12	13.80	12.92	12.04	11.16	10.28
	16.9	15.5	13.70	12.81	11.93	11.05	10.17

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature													
		21°CDB 14°CWB		23°CDB 16°CWB		26°CDB 18°CWB		27°CDB 19°CWB		28°CDB 20°CWB		31°CDB 22°CWB		33°CDB 24°CWB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	10			8.43	6.41	10.07	7.26	10.90	7.46	11.59	7.55	12.99	8.16	13.48	7.94
	12			8.43	6.41	10.07	7.26	10.90	7.46	11.58	7.55	12.94	8.15	13.43	7.92
	14			8.43	6.41	10.07	7.26	10.90	7.46	11.56	7.54	12.89	8.13	13.37	7.89
	16			8.43	6.41	10.07	7.26	10.90	7.46	11.55	7.54	12.85	8.10	13.31	7.87
	18			8.43	6.41	10.07	7.26	10.90	7.46	11.53	7.53	12.80	8.09	13.25	7.86
Me	20			8.43	6.41	10.07	7.26	10.90	7.46	11.52	7.53	12.75	8.07	13.19	7.82
	22			8.41	6.40	10.07	7.26	10.90	7.46	11.46	7.51	12.59	8.00	13.01	7.76
25	24			8.40	6.39	10.07	7.26	10.90	7.46	11.41	7.49	12.43	7.94	12.83	7.69
(m³/min)	26			8.40	6.39	10.02	7.23	10.79	7.40	11.27	7.44	12.23	7.86	12.64	7.62
	28	7.61	6.29	8.39	6.39	9.97	7.21	10.69	7.36	11.14	7.38	12.04	7.78	12.44	7.54
	30	7.61	6.29	8.37	6.38	9.89	7.18	10.59	7.31	11.01	7.32	11.85	7.70	12.25	7.45
	32	7.61	6.29	8.35	6.37	9.82	7.14	10.49	7.28	10.88	7.26	11.67	7.63	12.07	7.39
	34	7.61	6.29	8.32	6.36	9.78	7.13	10.35	7.21	10.71	7.20	11.42	7.51	11.82	7.32
	35	7.61	6.29	8.31	6.35	9.77	7.12	10.28	7.19	10.62	7.15	11.30	7.47	11.69	7.28
	36	7.61	6.29	8.30	6.35	9.69	7.09	10.23	7.16	10.52	7.12	11.10	7.41	11.47	7.20
	38	7.61	6.29	8.28	6.34	9.55	7.03	10.13	7.12	10.31	7.02	10.69	7.25	11.01	7.04
	39	7.61	6.29	8.27	6.34	9.47	7.00	10.07	7.10	10.21	6.98	10.49	7.17	10.78	6.96
	41	7.61	6.29	8.24	6.32	9.19	6.85	9.66	6.92	9.78	6.78	10.02	6.99	10.28	6.78
	43	7.61	6.29	8.21	6.31	8.90	6.74	9.25	6.73	9.35	6.63	9.56	6.82	9.77	6.58

Air flow	Outdoor air temperature		Indoor air temperature				
	°CDB	°CWB	16°CDB	18°CDB	20°CDB	22°CDB	24°CDB
	-19.8	-20	6.59	6.59	6.59	6.59	6.59
	-17.8	-18	7.01	7.01	7.01	7.01	7.01
	-15.7	-16	7.44	7.44	7.44	7.44	7.44
	-13.7	-14	7.86	7.86	7.86	7.86	7.86
	-11.7	-12	8.29	8.29	8.29	8.29	8.29
Me	-9.6	-10	8.71	8.71	8.71	8.71	8.71
	-7.5	-8	9.24	9.24	9.24	9.24	9.24
25	-5.5	-6	9.77	9.77	9.77	9.77	9.77
(m³/min)	-3.4	-4	10.11	10.10	10.08	9.98	9.88
	-1.3	-2	10.45	10.42	10.39	10.20	10.00
	0.8	0	11.02	10.86	10.71	10.32	9.94
	3.9	3	11.96	11.53	11.10	10.48	9.85
	7.0	6	13.06	12.21	11.36	10.56	9.77
	10.1	9	12.98	12.15	11.32	10.50	9.68
	13.2	12	12.89	12.07	11.25	10.42	9.60
	16.9	15.5	12.79	11.97	11.15	10.32	9.50

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature													
		21°CDB 14°CWB		23°CDB 16°CWB		26°CDB 18°CWB		27°CDB 19°CWB		28°CDB 20°CWB		31°CDB 22°CWB		33°CDB 24°CWB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	10			7.53	5.45	9.01	6.20	9.74	6.37	10.36	6.50	11.61	7.00	12.05	6.80
	12			7.53	5.45	9.01	6.20	9.74	6.37	10.35	6.49	11.57	6.98	12.00	6.77
	14			7.53	5.45	9.01	6.20	9.74	6.37	10.34	6.49	11.53	6.97	11.95	6.75
	16			7.53	5.45	9.01	6.20	9.74	6.37	10.32	6.47	11.48	6.94	11.90	6.73
	18			7.53	5.45	9.01	6.20	9.74	6.37	10.31	6.47	11.44	6.93	11.85	6.71
Lo	20			7.53	5.45	9.01	6.20	9.74	6.37	10.29	6.46	11.40	6.91	11.79	6.68
	22			7.52	5.44	9.00	6.19	9.74	6.37	10.25	6.45	11.26	6.85	11.63	6.60
19	24			7.51	5.44	9.00	6.19	9.74	6.37	10.20	6.42	11.11	6.78	11.47	6.55
(m³/min)	26			7.51	5.44	8.96	6.17	9.65	6.33	10.08	6.36	10.94	6.69	11.30	6.49
	28	6.80	5.34	7.50	5.44	8.91	6.15	9.56	6.30	9.96	6.30	10.76	6.63	11.12	6.42
	30	6.80	5.34	7.48	5.43	8.85	6.12	9.47	6.25	9.84	6.25	10.60	6.56	10.95	6.35
	32	6.80	5.34	7.46	5.42	8.78	6.09	9.37	6.21	9.73	6.21	10.43	6.48	10.79	6.29
	34	6.80	5.34	7.44	5.41	8.75	6.08	9.25	6.15	9.57	6.13	10.21	6.40	10.56	6.20
	35	6.80	5.34	7.43	5.40	8.73	6.06	9.19	6.12	9.49	6.10	10.10	6.35	10.45	6.15
	36	6.80	5.34	7.42	5.40	8.66	6.03	9.14	6.10	9.40	6.06	9.92	6.28	10.25	6.06
	38	6.80	5.34	7.40	5.39	8.53	5.97	9.05	6.06	9.22	5.98	9.56	6.12	9.84	5.93
	39	6.80	5.34	7.39	5.39	8.47	5.95	9.01	6.04	9.13	5.94	9.38	6.05	9.64	5.85
	41	6.80	5.34	7.36	5.37	8.21	5.81	8.64	5.87	8.75	5.78	8.96	5.88	9.19	5.69
	43	6.80	5.34	7.34	5.36	7.96	5.70	8.27	5.70	8.36	5.60	8.54	5.72	8.74	5.53

Air flow	Outdoor air temperature		Indoor air temperature				
	°CDB	°CWB	16°CDB	18°CDB	20°CDB	22°CDB	24°CDB
	-19.8	-20	5.90	5.90	5.90	5.90	5.90
	-17.8	-18	6.28	6.28	6.28	6.28	6.28
	-15.7	-16	6.66	6.66	6.66	6.66	6.66
	-13.7	-14	7.04	7.04	7.04	7.04	7.04
	-11.7	-12	7.42	7.42	7.42	7.42	7.42
Lo	-9.6	-10	7.80	7.80	7.80	7.80	7.80
	-7.5	-8	8.27	8.27	8.27	8.27	8.27
19	-5.5	-6	8.75	8.75	8.75	8.75	8.75
(m³/min)	-3.4	-4	9.05	9.04	9.03	8.94	8.85
	-1.3	-2	9.36	9.33	9.31	9.13	8.95
	0.8	0	9.86	9.73	9.59	9.24	8.90
	3.9	3	10.70	10.32	9.94	9.38	8.82
	7.0	6	11.70	10.93	10.17	9.46	8.75
	10.1	9	11.62	10.88	10.13	9.40	8.67
	13.2	12	11.54	10.81	10.07	9.33	8.59
	16.9	15.5	11.45	10.72	9.98	9.24	8.50

Notes(1) This data shows average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

PJG000Z022

Model **FDUM140KXE6F** Cooling mode (kW)

Air flow	Outdoor air temperature (ºCDB)	Indoor air temperature													
		21℃CDB 14℃CWB		23℃CDB 16℃CWB		26℃CDB 18℃CWB		27℃CDB 19℃CWB		28℃CDB 20℃CWB		31℃CDB 22℃CWB		33℃CDB 24℃CWB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	10			11.48	9.96	13.72	11.27	14.84	11.49	15.79	11.62	17.69	12.56	18.36	12.26
	12			11.48	9.96	13.72	11.27	14.84	11.49	15.77	11.61	17.62	12.53	18.28	12.23
	14			11.48	9.96	13.72	11.27	14.84	11.49	15.75	11.60	17.56	12.51	18.20	12.20
	16			11.48	9.96	13.72	11.27	14.84	11.49	15.72	11.59	17.49	12.49	18.13	12.18
	18			11.48	9.96	13.72	11.27	14.84	11.49	15.70	11.58	17.43	12.46	18.05	12.15
P-Hi	20			11.48	9.96	13.72	11.27	14.84	11.49	15.68	11.57	17.37	12.44	17.97	12.13
	22			11.46	9.96	13.71	11.26	14.84	11.49	15.61	11.55	17.15	12.36	17.72	12.04
39	24			11.44	9.95	13.71	11.26	14.84	11.49	15.54	11.52	16.93	12.28	17.48	11.96
(m³/min)	26			11.43	9.94	13.64	11.23	14.70	11.43	15.35	11.45	16.66	12.18	17.21	11.87
	28	10.36	9.84	11.42	9.94	13.58	11.21	14.56	11.38	15.17	11.38	16.39	12.09	16.94	11.79
	30	10.36	9.84	11.40	9.93	13.48	11.17	14.42	11.32	14.99	11.31	16.14	12.00	16.69	11.70
	32	10.36	9.84	11.37	9.92	13.37	11.12	14.28	11.26	14.82	11.24	15.89	11.91	16.43	11.62
	34	10.36	9.84	11.33	9.90	13.32	11.10	14.09	11.19	14.58	11.15	15.56	11.79	16.09	11.51
	35	10.36	9.84	11.31	9.89	13.30	11.09	14.00	11.15	14.46	11.10	15.39	11.73	15.92	11.45
	36	10.36	9.84	11.30	9.89	13.20	11.05	13.93	11.12	14.32	11.05	15.11	11.64	15.61	11.35
	38	10.36	9.84	11.27	9.87	13.00	10.97	13.79	11.07	14.05	10.95	14.56	11.44	15.00	11.16
	39	10.36	9.84	11.26	9.87	12.90	10.93	13.72	11.04	13.91	10.90	14.28	11.35	14.69	11.06
	41	10.36	9.84	11.22	9.85	12.51	10.78	13.16	10.82	13.32	10.68	13.65	11.13	14.00	10.84
	43	10.36	9.84	11.18	9.84	12.13	10.62	12.60	10.61	12.74	10.46	13.02	10.92	13.31	10.56

Heating mode (kW)

Air flow	Outdoor air temperature		Indoor air temperature				
	℃DB	℃WB	16℃CDB	18℃CDB	20℃CDB	22℃CDB	24℃CDB
	-19.8	-20	9.28	9.28	9.28	9.28	9.28
	-17.8	-18	9.88	9.88	9.88	9.88	9.88
	-15.7	-16	10.47	10.47	10.47	10.47	10.47
	-13.7	-14	11.07	11.07	11.07	11.07	11.07
	-11.7	-12	11.67	11.67	11.67	11.67	11.67
P-Hi	-9.6	-10	12.27	12.27	12.27	12.27	12.27
	-7.5	-8	13.01	13.01	13.01	13.01	13.01
39	-5.5	-6	13.76	13.76	13.76	13.76	13.76
(m³/min)	-3.4	-4	14.24	14.22	14.20	14.06	13.92
	-1.3	-2	14.72	14.68	14.64	14.36	14.08
	0.8	0	15.52	15.30	15.08	14.54	14.00
	3.9	3	16.84	16.24	15.64	14.76	13.88
	7.0	6	18.40	17.20	16.00	14.88	13.76
	10.1	9	18.28	17.11	15.94	14.79	13.64
	13.2	12	18.16	17.00	15.84	14.68	13.52
	16.9	15.5	18.02	16.86	15.70	14.54	13.38

Air flow	Outdoor air temperature (ºCDB)	Indoor air temperature													
		21℃CDB 14℃CWB		23℃CDB 16℃CWB		26℃CDB 18℃CWB		27℃CDB 19℃CWB		28℃CDB 20℃CWB		31℃CDB 22℃CWB		33℃CDB 24℃CWB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	10			11.29	9.01	13.49	10.19	14.60	10.42	15.53	10.56	17.40	11.41	18.06	11.11
	12			11.29	9.01	13.49	10.19	14.60	10.42	15.51	10.56	17.33	11.38	17.98	11.08
	14			11.29	9.01	13.49	10.19	14.60	10.42	15.49	10.55	17.27	11.36	17.91	11.06
	16			11.29	9.01	13.49	10.19	14.60	10.42	15.47	10.54	17.21	11.34	17.83	11.03
	18			11.29	9.01	13.49	10.19	14.60	10.42	15.45	10.53	17.14	11.31	17.75	11.00
Hi	20			11.29	9.01	13.49	10.19	14.60	10.42	15.42	10.52	17.08	11.29	17.67	10.97
	22			11.27	9.00	13.49	10.19	14.60	10.42	15.35	10.49	16.86	11.20	17.43	10.89
32	24			11.26	9.00	13.48	10.18	14.60	10.42	15.28	10.46	16.65	11.12	17.19	10.80
(m³/min)	26			11.25	8.99	13.42	10.16	14.46	10.37	15.10	10.39	16.39	11.02	16.93	10.71
	28	10.19	8.86	11.24	8.99	13.36	10.13	14.32	10.31	14.92	10.31	16.12	10.92	16.66	10.62
	30	10.19	8.86	11.21	8.98	13.25	10.08	14.18	10.25	14.75	10.24	15.88	10.81	16.41	10.51
	32	10.19	8.86	11.18	8.96	13.15	10.04	14.05	10.19	14.57	10.17	15.63	10.72	16.16	10.43
	34	10.19	8.86	11.14	8.95	13.10	10.02	13.86	10.11	14.34	10.08	15.30	10.59	15.83	10.32
	35	10.19	8.86	11.13	8.94	13.08	10.01	13.77	10.08	14.23	10.04	15.14	10.54	15.66	10.26
	36	10.19	8.86	11.11	8.93	12.98	9.97	13.70	10.05	14.09	9.98	14.86	10.43	15.36	10.16
	38	10.19	8.86	11.08	8.92	12.79	9.88	13.56	9.99	13.82	9.87	14.32	10.23	14.75	9.95
	39	10.19	8.86	11.07	8.91	12.69	9.84	13.49	9.96	13.68	9.82	14.05	10.14	14.45	9.85
	41	10.19	8.86	11.03	8.90	12.31	9.68	12.94	9.73	13.10	9.59	13.43	9.91	13.77	9.63
	43	10.19	8.86	10.99	8.88	11.93	9.52	12.39	9.51	12.53	9.37	12.80	9.69	13.09	9.41

Air flow	Outdoor air temperature		Indoor air temperature				
	℃DB	℃WB	16℃CDB	18℃CDB	20℃CDB	22℃CDB	24℃CDB
	-19.8	-20	9.09	9.09	9.09	9.09	9.09
	-17.8	-18	9.68	9.68	9.68	9.68	9.68
	-15.7	-16	10.27	10.27	10.27	10.27	10.27
	-13.7	-14	10.85	10.85	10.85	10.85	10.85
	-11.7	-12	11.44	11.44	11.44	11.44	11.44
Hi	-9.6	-10	12.02	12.02	12.02	12.02	12.02
	-7.5	-8	12.75	12.75	12.75	12.75	12.75
32	-5.5	-6	13.48	13.48	13.48	13.48	13.48
(m³/min)	-3.4	-4	13.96	13.94	13.92	13.78	13.64
	-1.3	-2	14.43	14.39	14.35	14.07	13.80
	0.8	0	15.21	14.99	14.78	14.25	13.72
	3.9	3	16.50	15.92	15.33	14.46	13.60
	7.0	6	18.03	16.86	15.68	14.58	13.48
	10.1	9	17.91	16.77	15.62	14.49	13.37
	13.2	12	17.80	16.66	15.52	14.39	13.25
	16.9	15.5	17.66	16.52	15.39	14.25	13.11

Air flow	Outdoor air temperature (ºCDB)	Indoor air temperature													
		21℃CDB 14℃CWB		23℃CDB 16℃CWB		26℃CDB 18℃CWB		27℃CDB 19℃CWB		28℃CDB 20℃CWB		31℃CDB 22℃CWB		33℃CDB 24℃CWB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	10			10.75	8.05	12.86	9.13	13.91	9.38	14.80	9.53	16.57	10.27	17.21	9.98
	12			10.75	8.05	12.86	9.13	13.91	9.38	14.78	9.52	16.51	10.24	17.13	9.95
	14			10.75	8.05	12.86	9.13	13.91	9.38	14.76	9.51	16.45	10.22	17.06	9.92
	16			10.75	8.05	12.86	9.13	13.91	9.38	14.74	9.50	16.39	10.19	16.99	9.89
	18			10.75	8.05	12.86	9.13	13.91	9.38	14.72	9.49	16.33	10.17	16.91	9.86
Me	20			10.75	8.05	12.86	9.13	13.91	9.38	14.70	9.48	16.27	10.13	16.84	9.82
	22			10.74	8.04	12.85	9.13	13.91	9.38	14.63	9.45	16.07	10.05	16.61	9.74
26	24			10.72	8.03	12.85	9.13	13.91	9.38	14.56	9.42	15.86	9.96	16.38	9.65
(m³/min)	26			10.72	8.03	12.79	9.10	13.78	9.32	14.39	9.35	15.61	9.86	16.13	9.56
	28	9.71	7.91	10.71	8.03	12.73	9.07	13.64	9.26	14.22	9.27	15.36	9.76	15.88	9.47
	30	9.71	7.91	10.68	8.01	12.63	9.03	13.51	9.20	14.05	9.20	15.13	9.67	15.64	9.38
	32	9.71	7.91	10.65	8.00	12.53	8.97	13.38	9.14	13.89	9.13	14.89	9.57	15.40	9.29
	34	9.71	7.91	10.62	7.98	12.49	8.95	13.21	9.06	13.66	9.03	14.58	9.45	15.08	9.17
	35	9.71	7.91	10.60	7.98	12.46	8.94	13.12	9.02	13.55	8.99	14.42	9.38	14.92	9.11
	36	9.71	7.91	10.59	7.97	12.37	8.90	13.05	8.99	13.42	8.93	14.16	9.28	14.63	9.01
	38	9.71	7.91	10.56	7.96	12.18	8.81	12.92	8.94	13.16	8.82	13.64	9.08	14.05	8.81
	39	9.71	7.91	10.55	7.95	12.09	8.77	12.86	8.91	13.03	8.77	13.39	8.98	13.76	8.70
	41	9.71	7.91	10.51	7.93	11.73	8.61	12.33	8.67	12.49	8.53	12.79	8.74	13.12	8.47
	43	9.71	7.91	10.47	7.91	11.36	8.45	11.81	8.45	11.94	8.31	12.20	8.52	12.47	8.25

Air flow	Outdoor air temperature		Indoor air temperature				
	℃DB	℃WB	16℃CDB	18℃CDB	20℃CDB	22℃CDB	24℃CDB
	-19.8	-20	8.61	8.61	8.61	8.61	8.61
	-17.8	-18	9.17	9.17	9.17	9.17	9.17
	-15.7	-16	9.72	9.72	9.72	9.72	9.72
	-13.7	-14	10.28	10.28	10.28	10.28	10.28
	-11.7	-12	10.83	10.83	10.83	10.83	10.83
Me	-9.6	-10	11.39	11.39	11.39	11.39	11.39
	-7.5	-8	12.08	12.08	12.08	12.08	12.08
26	-5.5	-6	12.77	12.77	12.77	12.77	12.77
(m³/min)	-3.4	-4	13.22	13.20	13.18	13.05	12.92
	-1.3	-2	13.66	13.62	13.59	13.33	13.07
	0.8	0	14.40	14.20	14.00	13.49	12.99
	3.9	3	15.63	15.07	14.52	13.70	12.88
	7.0	6	17.08	15.96	14.85	13.81	12.77
	10.1	9	16.97	15.88	14.79	13.73	12.66
	13.2	12	16.85	15.78	14.70	13.62	12.55
	16.9	15.5	16.72	15.65	14.57	13.49	12.42

Air flow	Outdoor air temperature (ºCDB)	Indoor air temperature													
		21℃CDB 14℃CWB		23℃CDB 16℃CWB		26℃CDB 18℃CWB		27℃CDB 19℃CWB		28℃CDB 20℃CWB		31℃CDB 22℃CWB		33℃CDB 24℃CWB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	10			9.62	6.84	11.49	7.78	12.43	8.03	13.23	8.18	14.82	8.81	15.39	8.54
	12			9.62	6.84	11.49	7.78	12.43	8.03	13.21	8.17	14.76	8.79	15.32	8.52
	14			9.62	6.84	11.49	7.78	12.43	8.03	13.19	8.16	14.71	8.76	15.25	8.49
	16			9.62	6.84	11.49	7.78	12.43	8.03	13.17	8.15	14.66	8.74	15.19	8.46
	18			9.62	6.84	11.49	7.78	12.43	8.03	13.16	8.15	14.60	8.71	15.12	8.43
Lo	20			9.62	6.84	11.49	7.78	12.43	8.03	13.14	8.14	14.55	8.69	15.05	8.40
	22			9.60	6.83	11.49	7.78	12.43	8.03	13.08	8.11	14.37	8.61	14.85	8.31
20	24			9.59	6.83	11.49	7.78	12.43	8.03	13.02	8.08	14.18	8.52	14.64	8.23
(m³/min)	26			9.58	6.82	11.43	7.75	12.32	7.97	12.86	8.01	13.96	8.42	14.42	8.14
	28	8.68	6.70	9.57	6.82	11.38	7.73	12.20	7.92	12.71	7.94	13.73	8.32	14.19	8.05
	30	8.68	6.70	9.55	6.81	11.29	7.68	12.08	7.86	12.56	7.87	13.53	8.23	13.98	7.96
	32	8.68	6.70	9.52	6.79	11.20	7.64	11.96	7.79	12.42	7.80	13.32	8.14	13.77	7.88
	34	8.68	6.70	9.49	6.78	11.16	7.62	11.81	7.72	12.22	7.71	13.03	8.02	13.48	7.77
	35	8.68	6.70	9.48	6.77	11.14	7.61	11.73	7.69	12.12	7.66	12.89	7.96	13.34	7.72
	36	8.68	6.70	9.47	6.77	11.06	7.57	11.67	7.66	12.00	7.60	12.66	7.86	13.08	7.62
	38	8.68	6.70	9.44	6.75	10.89	7.49	11.55	7.60	11.77	7.50	12.20	7.66	12.56	7.41
	39	8.68	6.70	9.43	6.75	10.81	7.45	11.50	7.58	11.65	7.45	11.97	7.57	12.31	7.32
	41	8.68	6.70	9.40	6.73	10.48	7.30	11.03	7.36	11.16	7.23	11.44	7.36	11.73	7.10
	43	8.68	6.70	9.36	6.71	10.16	7.15	10.56	7.15	10.67	7.02	10.90	7.14	11.15	6.89

Air flow	Outdoor air temperature		Indoor air temperature				
	℃DB	℃WB	16℃CDB	18℃CDB	20℃CDB	22℃CDB	24℃CDB
	-19.8	-20	7.68	7.68	7.68	7.68	7.68
	-17.8	-18	8.17	8.17	8.17	8.17	8.17
	-15.7	-16	8.67	8.67	8.67	8.67	8.67
	-13.7	-14	9.16	9.16	9.16	9.16	9.16
	-11.7	-12	9.66	9.66	9.66	9.66	9.66
Lo	-9.6	-10	10.15	10.15	10.15	10.15	10.15
	-7.5	-8	10.77	10.77	10.77	10.77	10.77
20	-5.5	-6	11.39	11.39	11.39	11.39	11.39
(m³/min)	-3.4	-4	11.78	11.77	11.75	11.63	11.52
	-1.3	-2	12.18	12.15	12.11	11.88	11.65
	0.8	0	12.84	12.66	12.48	12.03	11.59
	3.9	3	13.94	13.44	12.94	12.21	11.49
	7.0	6	15.23	14.23	13.24	12.31	11.39
	10.1	9	15.13	14.16	13.19	12.24	11.29
	13.2	12	15.03	14.07	13.11	12.15	11.19
	16.9	15.5	14.91	13.95	12.99	12.03	11.07

Notes(1) This data shows average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

PJG000Z022

Model **FDUM160KXE6F** Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature													
		21°CDB 14°CWB		23°CDB 16°CWB		26°CDB 18°CWB		27°CDB 19°CWB		28°CDB 20°CWB		31°CDB 22°CWB		33°CDB 24°CWB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	10			13.12	11.09	15.68	12.51	16.96	12.79	18.04	12.94	20.21	13.99	20.99	13.66
	12			13.12	11.09	15.68	12.51	16.96	12.79	18.02	12.93	20.14	13.96	20.90	13.61
	14			13.12	11.09	15.68	12.51	16.96	12.79	18.00	12.93	20.07	13.94	20.81	13.58
	16			13.12	11.09	15.68	12.51	16.96	12.79	17.97	12.92	19.99	13.91	20.72	13.56
	18			13.12	11.09	15.68	12.51	16.96	12.79	17.95	12.91	19.92	13.89	20.62	13.53
P-Hi	20			13.12	11.09	15.68	12.51	16.96	12.79	17.92	12.90	19.85	13.84	20.53	13.50
	22			13.10	11.08	15.67	12.51	16.96	12.79	17.84	12.87	19.60	13.76	20.25	13.39
48	24			13.08	11.08	15.67	12.51	16.96	12.79	17.75	12.84	19.34	13.67	19.97	13.30
(m³/min)	26			13.07	11.07	15.59	12.48	16.80	12.73	17.55	12.74	19.04	13.55	19.67	13.19
	28	11.84	10.95	13.06	11.07	15.52	12.45	16.64	12.65	17.34	12.67	18.73	13.45	19.36	13.09
	30	11.84	10.95	13.02	11.05	15.40	12.41	16.48	12.59	17.14	12.59	18.45	13.33	19.07	12.98
	32	11.84	10.95	12.99	11.04	15.28	12.36	16.32	12.53	16.93	12.50	18.16	13.24	18.78	12.90
	34	11.84	10.95	12.95	11.00	15.23	12.34	16.11	12.45	16.66	12.40	17.78	13.09	18.39	12.76
	35	11.84	10.95	12.93	10.99	15.20	12.33	16.00	12.39	16.53	12.36	17.59	13.03	18.20	12.70
	36	11.84	10.95	12.91	10.98	15.09	12.29	15.92	12.36	16.37	12.27	17.27	12.90	17.85	12.60
	38	11.84	10.95	12.88	10.97	14.86	12.18	15.76	12.30	16.05	12.16	16.64	12.62	17.14	12.30
	39	11.84	10.95	12.86	10.96	14.74	12.13	15.68	12.27	15.89	12.11	16.32	12.52	16.79	12.20
	41	11.84	10.95	12.82	10.95	14.30	11.94	15.04	12.01	15.23	11.85	15.60	12.29	16.00	11.98
	43	11.84	10.95	12.77	10.93	13.86	11.78	14.40	11.76	14.56	11.60	14.87	12.06	15.21	11.75

Heating mode (kW)

Air flow	Outdoor air temperature		Indoor air temperature				
	°CDB	°CWB	16°CDB	18°CDB	20°CDB	22°CDB	24°CDB
	-19.8	-20	10.44	10.44	10.44	10.44	10.44
	-17.8	-18	11.11	11.11	11.11	11.11	11.11
	-15.7	-16	11.78	11.78	11.78	11.78	11.78
	-13.7	-14	12.46	12.46	12.46	12.46	12.46
	-11.7	-12	13.13	13.13	13.13	13.13	13.13
P-Hi	-9.6	-10	13.80	13.80	13.80	13.80	13.80
	-7.5	-8	14.64	14.64	14.64	14.64	14.64
48	-5.5	-6	15.48	15.48	15.48	15.48	15.48
(m³/min)	-3.4	-4	16.02	16.00	15.98	15.82	15.66
	-1.3	-2	16.56	16.52	16.47	16.16	15.84
	0.8	0	17.46	17.21	16.97	16.36	15.75
	3.9	3	18.95	18.27	17.60	16.61	15.62
	7.0	6	20.70	19.35	18.00	16.74	15.48
	10.1	9	20.57	19.25	17.93	16.64	15.35
	13.2	12	20.43	19.13	17.82	16.52	15.21
	16.9	15.5	20.27	18.97	17.66	16.36	15.05

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature													
		21°CDB 14°CWB		23°CDB 16°CWB		26°CDB 18°CWB		27°CDB 19°CWB		28°CDB 20°CWB		31°CDB 22°CWB		33°CDB 24°CWB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	10			12.90	9.64	15.42	10.94	16.68	11.24	17.75	11.43	19.88	12.29	20.65	11.97
	12			12.90	9.64	15.42	10.94	16.68	11.24	17.73	11.42	19.81	12.27	20.56	11.94
	14			12.90	9.64	15.42	10.94	16.68	11.24	17.70	11.41	19.74	12.24	20.47	11.89
	16			12.90	9.64	15.42	10.94	16.68	11.24	17.68	11.40	19.67	12.22	20.38	11.86
	18			12.90	9.64	15.42	10.94	16.68	11.24	17.65	11.37	19.60	12.19	20.29	11.83
Hi	20			12.90	9.64	15.42	10.94	16.68	11.24	17.63	11.36	19.52	12.16	20.20	11.78
	22			12.88	9.63	15.42	10.94	16.68	11.24	17.55	11.33	19.28	12.06	19.92	11.68
35	24			12.87	9.63	15.41	10.94	16.68	11.24	17.47	11.30	19.03	11.95	19.65	11.59
(m³/min)	26			12.85	9.62	15.34	10.89	16.53	11.17	17.26	11.20	18.73	11.83	19.35	11.47
	28	11.65	9.47	12.84	9.62	15.27	10.86	16.37	11.10	17.06	11.11	18.43	11.70	19.05	11.36
	30	11.65	9.47	12.81	9.60	15.15	10.82	16.21	11.02	16.86	11.03	18.15	11.59	18.76	11.25
	32	11.65	9.47	12.78	9.59	15.03	10.75	16.05	10.96	16.66	10.94	17.87	11.47	18.48	11.14
	34	11.65	9.47	12.74	9.57	14.98	10.73	15.84	10.86	16.39	10.82	17.49	11.32	18.09	10.96
	35	11.65	9.47	12.72	9.56	14.95	10.72	15.74	10.82	16.26	10.77	17.30	11.24	17.90	10.90
	36	11.65	9.47	12.70	9.55	14.84	10.64	15.66	10.77	16.10	10.69	16.99	11.09	17.56	10.79
	38	11.65	9.47	12.67	9.54	14.61	10.55	15.50	10.71	15.79	10.58	16.37	10.88	16.86	10.56
	39	11.65	9.47	12.65	9.53	14.50	10.50	15.43	10.68	15.64	10.47	16.06	10.76	16.51	10.43
	41	11.65	9.47	12.61	9.50	14.07	10.33	14.80	10.39	14.98	10.22	15.35	10.48	15.74	10.15
	43	11.65	9.47	12.57	9.48	13.63	10.14	14.17	10.12	14.32	9.96	14.63	10.20	14.96	9.88

Air flow	Outdoor air temperature		Indoor air temperature				
	°CDB	°CWB	16°CDB	18°CDB	20°CDB	22°CDB	24°CDB
	-19.8	-20	10.23	10.23	10.23	10.23	10.23
	-17.8	-18	10.89	10.89	10.89	10.89	10.89
	-15.7	-16	11.55	11.55	11.55	11.55	11.55
	-13.7	-14	12.21	12.21	12.21	12.21	12.21
	-11.7	-12	12.87	12.87	12.87	12.87	12.87
Hi	-9.6	-10	13.52	13.52	13.52	13.52	13.52
	-7.5	-8	14.35	14.35	14.35	14.35	14.35
35	-5.5	-6	15.17	15.17	15.17	15.17	15.17
(m³/min)	-3.4	-4	15.70	15.68	15.66	15.50	15.35
	-1.3	-2	16.23	16.18	16.14	15.83	15.52
	0.8	0	17.11	16.87	16.63	16.03	15.44
	3.9	3	18.57	17.90	17.24	16.27	15.30
	7.0	6	20.29	18.96	17.64	16.41	15.17
	10.1	9	20.15	18.86	17.57	16.31	15.04
	13.2	12	20.02	18.74	17.46	16.18	14.91
	16.9	15.5	19.87	18.59	17.31	16.03	14.75

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature													
		21°CDB 14°CWB		23°CDB 16°CWB		26°CDB 18°CWB		27°CDB 19°CWB		28°CDB 20°CWB		31°CDB 22°CWB		33°CDB 24°CWB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	10			12.07	8.60	14.42	9.77	15.60	10.08	16.60	10.27	18.60	11.07	19.31	10.74
	12			12.07	8.60	14.42	9.77	15.60	10.08	16.58	10.27	18.53	11.04	19.22	10.70
	14			12.07	8.60	14.42	9.77	15.60	10.08	16.56	10.26	18.46	11.02	19.14	10.67
	16			12.07	8.60	14.42	9.77	15.60	10.08	16.53	10.25	18.39	10.98	19.06	10.64
	18			12.07	8.60	14.42	9.77	15.60	10.08	16.51	10.24	18.33	10.95	18.97	10.59
Me	20			12.07	8.60	14.42	9.77	15.60	10.08	16.49	10.23	18.26	10.93	18.89	10.56
	22			12.05	8.57	14.42	9.77	15.60	10.08	16.41	10.18	18.03	10.81	18.63	10.45
28	24			12.03	8.56	14.41	9.77	15.60	10.08	16.33	10.15	17.80	10.71	18.38	10.35
(m³/min)	26			12.02	8.55	14.35	9.74	15.46	10.00	16.14	10.06	17.52	10.59	18.09	10.23
	28	10.89	8.41	12.01	8.55	14.28	9.70	15.31	9.93	15.95	9.97	17.24	10.46	17.81	10.10
	30	10.89	8.41	11.98	8.54	14.17	9.65	15.16	9.87	15.77	9.87	16.97	10.32	17.54	10.00
	32	10.89	8.41	11.95	8.52	14.06	9.59	15.01	9.79	15.58	9.79	16.71	10.22	17.28	9.90
	34	10.89	8.41	11.91	8.50	14.01	9.57	14.82	9.70	15.33	9.68	16.36	10.08	16.92	9.77
	35	10.89	8.41	11.89	8.50	13.98	9.56	14.72	9.66	15.21	9.63	16.18	10.00	16.74	9.69
	36	10.89	8.41	11.88	8.49	13.88	9.52	14.65	9.63	15.06	9.56	15.89	9.87	16.42	9.57
	38	10.89	8.41	11.85	8.48	13.67	9.41	14.50	9.56	14.77	9.43	15.31	9.64	15.77	9.31
	39	10.89	8.41	11.83	8.47	13.56	9.35	14.43	9.53	14.62	9.36	15.02	9.52	15.44	9.16
	41	10.89	8.41	11.79	8.45	13.16	9.17	13.84	9.25	14.01	9.09	14.35	9.22	14.72	8.93
	43	10.89	8.41	11.75	8.43	12.75	8.96	13.25	8.95	13.39	8.80	13.68	8.97	13.99	8.67

Air flow	Outdoor air temperature		Indoor air temperature				
	°CDB	°CWB	16°CDB	18°CDB	20°CDB	22°CDB	24°CDB
	-19.8	-20	9.60	9.60	9.60	9.60	9.60
	-17.8	-18	10.22	10.22	10.22	10.22	10.22
	-15.7	-16	10.84	10.84	10.84	10.84	10.84
	-13.7	-14	11.46	11.46	11.46	11.46	11.46
	-11.7	-12	12.08	12.08	12.08	12.08	12.08
Me	-9.6	-10	12.70	12.70	12.70	12.70	12.70
	-7.5	-8	13.47	13.47	13.47	13.47	13.47
28	-5.5	-6	14.24	14.24	14.24	14.24	14.24
(m³/min)	-3.4	-4	14.74	14.72	14.70	14.55	14.41
	-1.3	-2	15.24	15.19	15.15	14.86	14.57
	0.8	0	16.06	15.84	15.61	15.05	14.49
	3.9	3	17.43	16.81	16.19	15.28	14.37
	7.0	6	19.04	17.80	16.56	15.40	14.24
	10.1	9	18.92	17.71	16.50	15.31	14.12
	13.2	12	18.80	17.60	16.39	15.19	13.99
	16.9	15.5	18.65	17.45	16.25	15.05	13.85

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature													
		21°CDB 14°CWB		23°CDB 16°CWB		26°CDB 18°CWB		27°CDB 19°CWB		28°CDB 20°CWB		31°CDB 22°CWB		33°CDB 24°CWB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	10			10.99	7.53	13.14	8.60	14.21	8.91	15.12	9.11	16.94	9.83	17.59	9.51
	12			10.99	7.53	13.14	8.60	14.21	8.91	15.10	9.10	16.88	9.80	17.51	9.47
	14			10.99	7.53	13.14	8.60	14.21	8.91	15.08	9.09	16.82	9.77	17.44	9.45
	16			10.99	7.53	13.14	8.60	14.21	8.91	15.06	9.08	16.76	9.74	17.36	9.41
	18			10.99	7.53	13.14	8.60	14.21	8.91	15.04	9.07	16.70	9.71	17.29	9.37
Lo	20			10.99	7.53	13.14	8.60	14.21	8.91	15.02	9.06	16.63	9.68	17.21	9.34
	22			10.98	7.52	13.14	8.60	14.21	8.91	14.95	9.03	16.42	9.57	16.98	9.23
22	24			10.96	7.51	13.13	8.60	14.21	8.91	14.88	8.99	16.21	9.47	16.74	9.11
(m³/min)	26			10.95	7.51	13.07	8.57	14.08	8.84	14.71	8.91	15.96	9.33	16.48	9.01
	28	9.92	7.35	10.94	7.50	13.01	8.54	13.95	8.78	14.53	8.82	15.70	9.22	16.23	8.90
	30	9.92	7.35	10.92	7.49	12.91	8.49	13.81	8.70	14.36	8.73	15.46	9.11	15.98	8.79
	32	9.92	7.35	10.89	7.48	12.81	8.43	13.68	8.64	14.19	8.64	15.22	8.99	15.74	8.69
	34	9.92	7.35	10.85	7.46	12.76	8.41	13.50	8.54	13.97	8.53	14.90	8.84	15.42	8.53
	35	9.92	7.35	10.84	7.46	12.74	8.40	13.41	8.50	13.85	8.46	14.74	8.76	15.25	8.47
	36	9.92	7.35	10.82	7.45	12.64	8.35	13.34	8.47	13.72	8.40	14.48	8.64	14.96	8.36
	38	9.92	7.35	10.80	7.43	12.45	8.25	13.21	8.40	13.45	8.28	13.95	8.41	14.36	8.10
	39	9.92	7.35	10.78	7.42	12.36	8.20	13.14	8.37	13.32	8.21	13.68	8.28	14.07	7.98
	41	9.92	7.35	10.74	7.40	11.98	8.01	12.61	8.10	12.76	7.94	13.07	8.00	13.41	7.73
	43	9.92	7.35	10.71	7.39	11.61	7.82	12.07	7.84	12.20	7.67	12.47	7.76	12.75	7.46

Air flow	Outdoor air temperature		Indoor air temperature				
	°CDB	°CWB	16°CDB	18°CDB	20°CDB	22°CDB	24°CDB
	-19.8	-20	8.39	8.39	8.39	8.39	8.39
	-17.8	-18	8.93	8.93	8.93	8.93	8.93
	-15.7	-16	9.47	9.47	9.47	9.47	9.47
	-13.7	-14	10.01	10.01	10.01	10.01	10.01
	-11.7	-12	10.55	10.55	10.55	10.55	10.55
Lo	-9.6	-10	11.09	11.09	11.09	11.09	11.09
	-7.5	-8	11.77	11.77	11.77	11.77	11.77
22	-5.5	-6	12.44	12.44	12.44	12.44	12.44
(m³/min)	-3.4	-4	12.88	12.86	12.84	12.72	12.59
	-1.3	-2	13.31	13.28	13.24	12.99	12.73
	0.8	0	14.04	13.84	13.64	13.15	12.66
	3.9	3	15.23	14.69	14.14	13.35	12.55
	7.0	6	16.64	15.56	14.47	13.46	12.44
	10.1	9	16.53	15.47	14.42	13.38	12.34
	13.2	12	16.42	15.37	14.33	13.28	12.23
	16.9	15.5	16.30	15.25	14.20	13.15	12.10

Notes(1) This data shows average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

PJG000Z022

(7) Duct connected (thin)-Low static pressure type (FDUT)

Model **FDUT71KXE6F-E** Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature													
		21 °CDB 14 °CWB		23 °CDB 16 °CWB		26 °CDB 18 °CWB		27 °CDB 19 °CWB		28 °CDB 20 °CWB		31 °CDB 22 °CWB		33 °CDB 24 °CWB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	10			5.82	4.40	6.96	4.98	7.53	5.12	8.01	5.20	8.97	5.60	9.31	5.45
	12			5.82	4.40	6.96	4.98	7.53	5.12	8.00	5.19	8.94	5.59	9.27	5.43
	14			5.82	4.40	6.96	4.98	7.53	5.12	7.99	5.19	8.90	5.57	9.23	5.41
	16			5.82	4.40	6.96	4.98	7.53	5.12	7.97	5.18	8.87	5.56	9.19	5.40
	18			5.82	4.40	6.96	4.98	7.53	5.12	7.96	5.18	8.84	5.55	9.15	5.39
Hi	20			5.82	4.40	6.96	4.98	7.53	5.12	7.95	5.17	8.81	5.54	9.11	5.36
	22			5.81	4.39	6.95	4.97	7.53	5.12	7.92	5.16	8.70	5.49	8.99	5.32
16	24			5.80	4.39	6.95	4.97	7.53	5.12	7.88	5.14	8.58	5.44	8.86	5.27
(m³/min)	26			5.80	4.39	6.92	4.96	7.46	5.09	7.79	5.11	8.45	5.38	8.73	5.22
	28	5.25	4.31	5.79	4.38	6.89	4.95	7.38	5.05	7.69	5.06	8.31	5.33	8.59	5.15
	30	5.25	4.31	5.78	4.37	6.83	4.92	7.31	5.01	7.60	5.02	8.19	5.28	8.46	5.11
	32	5.25	4.31	5.77	4.37	6.78	4.90	7.24	4.98	7.51	4.97	8.06	5.21	8.33	5.07
	34	5.25	4.31	5.75	4.36	6.76	4.89	7.15	4.94	7.39	4.92	7.89	5.15	8.16	5.01
	35	5.25	4.31	5.74	4.35	6.75	4.89	7.10	4.92	7.33	4.90	7.80	5.12	8.08	4.99
	36	5.25	4.31	5.73	4.35	6.69	4.86	7.06	4.91	7.26	4.87	7.66	5.07	7.92	4.93
	38	5.25	4.31	5.72	4.35	6.59	4.81	6.99	4.88	7.12	4.82	7.38	4.96	7.61	4.81
	39	5.25	4.31	5.71	4.34	6.54	4.79	6.96	4.87	7.05	4.78	7.24	4.90	7.45	4.77
	41	5.25	4.31	5.69	4.33	6.35	4.71	6.67	4.74	6.76	4.67	6.92	4.79	7.10	4.64
	43	5.25	4.31	5.67	4.32	6.15	4.62	6.39	4.62	6.46	4.54	6.60	4.66	6.75	4.52

Heating mode (kW)

Air flow	Outdoor air temperature		Indoor air temperature				
	°CDB	°CWB	16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	4.64	4.64	4.64	4.64	4.64
	-17.8	-18	4.94	4.94	4.94	4.94	4.94
	-15.7	-16	5.24	5.24	5.24	5.24	5.24
	-13.7	-14	5.54	5.54	5.54	5.54	5.54
	-11.7	-12	5.83	5.83	5.83	5.83	5.83
Hi	-9.6	-10	6.13	6.13	6.13	6.13	6.13
	-7.5	-8	6.51	6.51	6.51	6.51	6.51
16	-5.5	-6	6.88	6.88	6.88	6.88	6.88
(m³/min)	-3.4	-4	7.12	7.11	7.10	7.03	6.96
	-1.3	-2	7.36	7.34	7.32	7.18	7.04
	0.8	0	7.76	7.65	7.54	7.27	7.00
	3.9	3	8.42	8.12	7.82	7.38	6.94
	7.0	6	9.20	8.60	8.00	7.44	6.88
	10.1	9	9.14	8.56	7.97	7.40	6.82
	13.2	12	9.08	8.50	7.92	7.34	6.76
	16.9	15.5	9.01	8.43	7.85	7.27	6.69

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature													
		21 °CDB 14 °CWB		23 °CDB 16 °CWB		26 °CDB 18 °CWB		27 °CDB 19 °CWB		28 °CDB 20 °CWB		31 °CDB 22 °CWB		33 °CDB 24 °CWB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	10			4.94	3.69	5.91	4.18	6.39	4.29	6.80	4.37	7.62	4.71	7.91	4.57
	12			4.94	3.69	5.91	4.18	6.39	4.29	6.79	4.36	7.59	4.70	7.88	4.56
	14			4.94	3.69	5.91	4.18	6.39	4.29	6.78	4.36	7.56	4.69	7.84	4.55
	16			4.94	3.69	5.91	4.18	6.39	4.29	6.77	4.35	7.54	4.68	7.81	4.54
	18			4.94	3.69	5.91	4.18	6.39	4.29	6.77	4.35	7.51	4.66	7.77	4.52
Me	20			4.94	3.69	5.91	4.18	6.39	4.29	6.76	4.35	7.48	4.65	7.74	4.51
	22			4.94	3.69	5.91	4.18	6.39	4.29	6.72	4.33	7.39	4.61	7.63	4.47
13	24			4.93	3.68	5.91	4.18	6.39	4.29	6.69	4.32	7.29	4.57	7.53	4.43
(m³/min)	26			4.93	3.68	5.88	4.17	6.33	4.26	6.61	4.27	7.18	4.53	7.41	4.39
	28	4.46	3.62	4.92	3.68	5.85	4.15	6.27	4.24	6.54	4.25	7.06	4.48	7.30	4.33
	30	4.46	3.62	4.91	3.67	5.81	4.14	6.21	4.21	6.46	4.21	6.95	4.42	7.19	4.29
	32	4.46	3.62	4.90	3.67	5.76	4.11	6.15	4.19	6.38	4.18	6.85	4.38	7.08	4.26
	34	4.46	3.62	4.88	3.66	5.74	4.11	6.07	4.15	6.28	4.14	6.70	4.33	6.93	4.20
	35	4.46	3.62	4.87	3.66	5.73	4.10	6.03	4.14	6.23	4.12	6.63	4.30	6.86	4.18
	36	4.46	3.62	4.87	3.66	5.69	4.08	6.00	4.12	6.17	4.09	6.51	4.25	6.73	4.13
	38	4.46	3.62	4.86	3.65	5.60	4.04	5.94	4.09	6.05	4.04	6.27	4.16	6.46	4.03
	39	4.46	3.62	4.85	3.64	5.56	4.03	5.91	4.08	5.99	4.02	6.15	4.11	6.33	3.99
	41	4.46	3.62	4.83	3.63	5.39	3.95	5.67	3.97	5.74	3.91	5.88	4.00	6.03	3.88
	43	4.46	3.62	4.82	3.63	5.22	3.87	5.43	3.87	5.49	3.81	5.61	3.90	5.73	3.78

Air flow	Outdoor air temperature		Indoor air temperature				
	°CDB	°CWB	16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	3.87	3.87	3.87	3.87	3.87
	-17.8	-18	4.11	4.11	4.11	4.11	4.11
	-15.7	-16	4.36	4.36	4.36	4.36	4.36
	-13.7	-14	4.61	4.61	4.61	4.61	4.61
	-11.7	-12	4.86	4.86	4.86	4.86	4.86
Me	-9.6	-10	5.11	5.11	5.11	5.11	5.11
	-7.5	-8	5.42	5.42	5.42	5.42	5.42
13	-5.5	-6	5.73	5.73	5.73	5.73	5.73
(m³/min)	-3.4	-4	5.93	5.92	5.91	5.86	5.80
	-1.3	-2	6.13	6.11	6.10	5.98	5.86
	0.8	0	6.46	6.37	6.28	6.06	5.83
	3.9	3	7.01	6.76	6.51	6.15	5.78
	7.0	6	7.66	7.16	6.66	6.20	5.73
	10.1	9	7.61	7.13	6.64	6.16	5.68
	13.2	12	7.56	7.08	6.60	6.11	5.63
	16.9	15.5	7.51	7.02	6.54	6.06	5.57

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature													
		21 °CDB 14 °CWB		23 °CDB 16 °CWB		26 °CDB 18 °CWB		27 °CDB 19 °CWB		28 °CDB 20 °CWB		31 °CDB 22 °CWB		33 °CDB 24 °CWB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	10			3.80	2.79	4.54	3.17	4.91	3.26	5.23	3.32	5.85	3.57	6.08	3.47
	12			3.80	2.79	4.54	3.17	4.91	3.26	5.22	3.31	5.83	3.56	6.05	3.46
	14			3.80	2.79	4.54	3.17	4.91	3.26	5.21	3.31	5.81	3.55	6.03	3.45
	16			3.80	2.79	4.54	3.17	4.91	3.26	5.20	3.30	5.79	3.55	6.00	3.44
	18			3.80	2.79	4.54	3.17	4.91	3.26	5.20	3.30	5.77	3.54	5.97	3.41
Lo	20			3.80	2.79	4.54	3.17	4.91	3.26	5.19	3.30	5.75	3.53	5.95	3.41
	22			3.79	2.79	4.54	3.17	4.91	3.26	5.17	3.29	5.68	3.50	5.87	3.38
9.5	24			3.79	2.79	4.54	3.17	4.91	3.26	5.14	3.28	5.60	3.46	5.78	3.35
(m³/min)	26			3.78	2.78	4.52	3.16	4.87	3.24	5.08	3.25	5.51	3.42	5.70	3.32
	28	3.43	2.74	3.78	2.78	4.49	3.14	4.82	3.22	5.02	3.22	5.43	3.39	5.61	3.29
	30	3.43	2.74	3.77	2.78	4.46	3.13	4.77	3.19	4.96	3.20	5.34	3.35	5.52	3.25
	32	3.43	2.74	3.76	2.77	4.43	3.12	4.73	3.18	4.90	3.17	5.26	3.32	5.44	3.22
	34	3.43	2.74	3.75	2.77	4.41	3.11	4.66	3.14	4.83	3.14	5.15	3.27	5.33	3.18
	35	3.43	2.74	3.74	2.76	4.40	3.10	4.63	3.13	4.79	3.12	5.09	3.25	5.27	3.16
	36	3.43	2.74	3.74	2.76	4.37	3.09	4.61	3.12	4.74	3.10	5.00	3.21	5.17	3.12
	38	3.43	2.74	3.73	2.76	4.30	3.06	4.56	3.10	4.65	3.06	4.82	3.14	4.96	3.04
	39	3.43	2.74	3.73	2.76	4.27	3.04	4.54	3.09	4.60	3.04	4.73	3.11	4.86	3.01
	41	3.43	2.74	3.71	2.75	4.14	2.98	4.36	3.01	4.41	2.95	4.52	3.01	4.63	2.92
	43	3.43	2.74	3.70	2.74	4.01	2.92	4.17	2.92	4.22	2.87	4.31	2.94	4.41	2.85

Air flow	Outdoor air temperature		Indoor air temperature				
	°CDB	°CWB	16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	2.90	2.90	2.90	2.90	2.90
	-17.8	-18	3.09	3.09	3.09	3.09	3.09
	-15.7	-16	3.28	3.28	3.28	3.28	3.28
	-13.7	-14	3.46	3.46	3.46	3.46	3.46
	-11.7	-12	3.65	3.65	3.65	3.65	3.65
Lo	-9.6	-10	3.84	3.84	3.84	3.84	3.84
	-7.5	-8	4.07	4.07	4.07	4.07	4.07
9.5	-5.5	-6	4.30	4.30	4.30	4.30	4.30
(m³/min)	-3.4	-4	4.45	4.45	4.44	4.40	4.35
	-1.3	-2	4.60	4.59	4.58	4.49	4.40
	0.8	0	4.85	4.78	4.72	4.55	4.38
	3.9	3	5.27	5.08	4.89	4.62	4.34
	7.0	6	5.75	5.38	5.00	4.65	4.30
	10.1	9	5.72	5.35	4.99	4.63	4.27
	13.2	12	5.68	5.32	4.95	4.59	4.23
	16.9	15.5	5.64	5.27	4.91	4.55	4.18

Notes(1) Thi data shows average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

PJH000Z019

(8) Wall mounted type (FDK)

Model **FDK15KXZE1** Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature: 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			1.23	1.08	1.47	1.22	1.59	1.24	1.69	1.26	1.89	1.36	1.97	1.33
	12			1.23	1.08	1.47	1.22	1.59	1.24	1.69	1.26	1.89	1.36	1.96	1.33
	14			1.23	1.08	1.47	1.22	1.59	1.24	1.69	1.26	1.88	1.36	1.95	1.33
	16			1.23	1.08	1.47	1.22	1.59	1.24	1.68	1.26	1.87	1.35	1.94	1.32
	18			1.23	1.08	1.47	1.22	1.59	1.24	1.68	1.26	1.87	1.35	1.93	1.32
P-Hi	20			1.23	1.08	1.47	1.22	1.59	1.24	1.68	1.26	1.86	1.35	1.93	1.32
	22			1.23	1.08	1.47	1.22	1.59	1.24	1.67	1.25	1.84	1.35	1.90	1.31
5.7	24			1.23	1.08	1.47	1.22	1.59	1.24	1.66	1.25	1.81	1.33	1.87	1.30
(m³/min)	26			1.23	1.08	1.46	1.22	1.58	1.24	1.64	1.24	1.78	1.32	1.84	1.29
	28	1.11	1.07	1.22	1.07	1.46	1.22	1.56	1.23	1.63	1.23	1.76	1.32	1.81	1.28
	30	1.11	1.07	1.22	1.07	1.44	1.21	1.55	1.23	1.61	1.22	1.73	1.30	1.79	1.27
	32	1.11	1.07	1.22	1.07	1.43	1.20	1.53	1.22	1.59	1.22	1.70	1.29	1.76	1.26
	34	1.11	1.07	1.21	1.07	1.43	1.20	1.51	1.21	1.56	1.21	1.67	1.28	1.72	1.25
	35	1.11	1.07	1.21	1.07	1.43	1.20	1.50	1.21	1.55	1.20	1.65	1.27	1.71	1.25
	36	1.11	1.07	1.21	1.07	1.41	1.20	1.49	1.21	1.53	1.20	1.62	1.27	1.67	1.23
	38	1.11	1.07	1.21	1.07	1.39	1.19	1.48	1.20	1.51	1.19	1.56	1.24	1.61	1.21
	39	1.11	1.07	1.21	1.07	1.38	1.18	1.47	1.20	1.49	1.18	1.53	1.23	1.57	1.19
	41	1.11	1.07	1.20	1.07	1.34	1.17	1.41	1.17	1.43	1.16	1.46	1.20	1.50	1.18
	43	1.11	1.07	1.20	1.07	1.30	1.15	1.35	1.15	1.36	1.14	1.39	1.18	1.43	1.16

Heating mode (kW)

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	0.99	0.99	0.99	0.99	0.99
	-17.8	-18	1.05	1.05	1.05	1.05	1.05
	-15.7	-16	1.11	1.11	1.11	1.11	1.11
	-13.7	-14	1.18	1.18	1.18	1.18	1.18
	-11.7	-12	1.24	1.24	1.24	1.24	1.24
P-Hi	-9.6	-10	1.30	1.30	1.30	1.30	1.30
	-7.5	-8	1.38	1.38	1.38	1.38	1.38
5.7	-5.5	-6	1.46	1.46	1.46	1.46	1.46
(m³/min)	-3.4	-4	1.51	1.51	1.51	1.49	1.48
	-1.3	-2	1.56	1.56	1.56	1.53	1.50
	0.8	0	1.65	1.63	1.60	1.54	1.49
	3.9	3	1.79	1.73	1.66	1.57	1.47
	7.0	6	1.96	1.83	1.70	1.58	1.46
	10.1	9	1.94	1.82	1.69	1.57	1.45
	13.2	12	1.93	1.81	1.68	1.56	1.44
	16.9	15.5	1.91	1.79	1.67	1.54	1.42

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature: 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			1.12	0.97	1.33	1.09	1.44	1.12	1.54	1.13	1.72	1.22	1.79	1.20
	12			1.12	0.97	1.33	1.09	1.44	1.12	1.53	1.13	1.71	1.22	1.78	1.19
	14			1.12	0.97	1.33	1.09	1.44	1.12	1.53	1.13	1.71	1.22	1.77	1.19
	16			1.12	0.97	1.33	1.09	1.44	1.12	1.53	1.13	1.70	1.21	1.76	1.18
	18			1.12	0.97	1.33	1.09	1.44	1.12	1.53	1.13	1.70	1.21	1.76	1.18
Hi	20			1.12	0.97	1.33	1.09	1.44	1.12	1.53	1.13	1.69	1.21	1.75	1.18
	22			1.11	0.97	1.33	1.09	1.44	1.12	1.52	1.12	1.67	1.20	1.72	1.17
5.0	24			1.11	0.97	1.33	1.09	1.44	1.12	1.51	1.12	1.65	1.20	1.70	1.17
(m³/min)	26			1.11	0.97	1.33	1.09	1.43	1.11	1.49	1.11	1.62	1.19	1.67	1.16
	28	1.01	0.96	1.11	0.97	1.32	1.09	1.42	1.11	1.48	1.11	1.59	1.17	1.65	1.15
	30	1.01	0.96	1.11	0.97	1.31	1.09	1.40	1.10	1.46	1.10	1.57	1.17	1.62	1.13
	32	1.01	0.96	1.11	0.97	1.30	1.08	1.39	1.10	1.44	1.09	1.55	1.16	1.60	1.13
	34	1.01	0.96	1.10	0.96	1.30	1.08	1.37	1.09	1.42	1.09	1.51	1.14	1.57	1.12
	35	1.01	0.96	1.10	0.96	1.29	1.08	1.36	1.08	1.41	1.08	1.50	1.14	1.55	1.11
	36	1.01	0.96	1.10	0.96	1.28	1.07	1.35	1.08	1.39	1.07	1.47	1.13	1.52	1.10
	38	1.01	0.96	1.10	0.96	1.26	1.06	1.34	1.08	1.37	1.06	1.42	1.11	1.46	1.09
	39	1.01	0.96	1.09	0.96	1.25	1.06	1.33	1.07	1.35	1.06	1.39	1.10	1.43	1.08
	41	1.01	0.96	1.09	0.96	1.22	1.05	1.28	1.05	1.30	1.04	1.33	1.08	1.36	1.05
	43	1.01	0.96	1.09	0.96	1.18	1.03	1.23	1.03	1.24	1.01	1.27	1.06	1.29	1.03

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	0.89	0.89	0.89	0.89	0.89
	-17.8	-18	0.95	0.95	0.95	0.95	0.95
	-15.7	-16	1.01	1.01	1.01	1.01	1.01
	-13.7	-14	1.06	1.06	1.06	1.06	1.06
	-11.7	-12	1.12	1.12	1.12	1.12	1.12
Hi	-9.6	-10	1.18	1.18	1.18	1.18	1.18
	-7.5	-8	1.25	1.25	1.25	1.25	1.25
5.0	-5.5	-6	1.32	1.32	1.32	1.32	1.32
(m³/min)	-3.4	-4	1.37	1.37	1.37	1.35	1.34
	-1.3	-2	1.42	1.41	1.41	1.38	1.35
	0.8	0	1.49	1.47	1.45	1.40	1.35
	3.9	3	1.62	1.56	1.50	1.42	1.34
	7.0	6	1.77	1.65	1.54	1.43	1.32
	10.1	9	1.76	1.65	1.53	1.42	1.31
	13.2	12	1.75	1.64	1.52	1.41	1.30
	16.9	15.5	1.73	1.62	1.51	1.40	1.29

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature: 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			1.03	0.88	1.23	1.00	1.33	1.02	1.42	1.03	1.59	1.12	1.65	1.09
	12			1.03	0.88	1.23	1.00	1.33	1.02	1.41	1.03	1.58	1.11	1.64	1.08
	14			1.03	0.88	1.23	1.00	1.33	1.02	1.41	1.03	1.57	1.11	1.63	1.08
	16			1.03	0.88	1.23	1.00	1.33	1.02	1.41	1.03	1.57	1.11	1.63	1.08
	18			1.03	0.88	1.23	1.00	1.33	1.02	1.41	1.03	1.56	1.10	1.62	1.08
Me	20			1.03	0.88	1.23	1.00	1.33	1.02	1.41	1.03	1.56	1.10	1.61	1.08
	22			1.03	0.88	1.23	1.00	1.33	1.02	1.40	1.03	1.54	1.10	1.59	1.07
4.5	24			1.03	0.88	1.23	1.00	1.33	1.02	1.39	1.02	1.52	1.09	1.57	1.06
(m³/min)	26			1.03	0.88	1.22	1.00	1.32	1.01	1.38	1.02	1.49	1.08	1.54	1.06
	28	0.93	0.87	1.02	0.88	1.22	1.00	1.31	1.01	1.36	1.01	1.47	1.07	1.52	1.05
	30	0.93	0.87	1.02	0.88	1.21	0.99	1.29	1.00	1.34	1.00	1.45	1.07	1.50	1.04
	32	0.93	0.87	1.02	0.88	1.20	0.99	1.28	1.00	1.33	1.00	1.43	1.06	1.47	1.03
	34	0.93	0.87	1.02	0.88	1.19	0.98	1.26	0.99	1.31	0.99	1.40	1.05	1.44	1.02
	35	0.93	0.87	1.01	0.88	1.19	0.98	1.26	0.99	1.30	0.99	1.38	1.04	1.43	1.02
	36	0.93	0.87	1.01	0.88	1.18	0.98	1.25	0.99	1.28	0.98	1.36	1.04	1.40	1.01
	38	0.93	0.87	1.01	0.88	1.17	0.98	1.24	0.99	1.26	0.97	1.31	1.02	1.34	0.99
	39	0.93	0.87	1.01	0.88	1.16	0.97	1.23	0.98	1.25	0.97	1.28	1.01	1.32	0.98
	41	0.93	0.87	1.01	0.88	1.12	0.95	1.18	0.96	1.19	0.95	1.22	0.98	1.26	0.96
	43	0.93	0.87	1.00	0.87	1.09	0.94	1.13	0.94	1.14	0.93	1.17	0.97	1.19	0.94

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	0.82	0.82	0.82	0.82	0.82
	-17.8	-18	0.87	0.87	0.87	0.87	0.87
	-15.7	-16	0.93	0.93	0.93	0.93	0.93
	-13.7	-14	0.98	0.98	0.98	0.98	0.98
	-11.7	-12	1.03	1.03	1.03	1.03	1.03
Me	-9.6	-10	1.09	1.09	1.09	1.09	1.09
	-7.5	-8	1.15	1.15	1.15	1.15	1.15
4.5	-5.5	-6	1.22	1.22	1.22	1.22	1.22
(m³/min)	-3.4	-4	1.26	1.26	1.26	1.24	1.23
	-1.3	-2	1.30	1.30	1.30	1.27	1.25
	0.8	0	1.37	1.35	1.34	1.29	1.24
	3.9	3	1.49	1.44	1.38	1.31	1.23
	7.0	6	1.63	1.52	1.42	1.32	1.22
	10.1	9	1.62	1.52	1.41	1.31	1.21
	13.2	12	1.61	1.51	1.40	1.30	1.20
	16.9	15.5	1.60	1.49	1.39	1.29	1.18

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature: 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			0.86	0.73	1.03	0.82	1.11	0.84	1.18	0.85	1.32	0.92	1.38	0.90
	12			0.86	0.73	1.03	0.82	1.11	0.84	1.18	0.85	1.32	0.92	1.37	0.89
	14			0.86	0.73	1.03	0.82	1.11	0.84	1.18	0.85	1.32	0.92	1.36	0.89
	16			0.86	0.73	1.03	0.82	1.11	0.84	1.18	0.85	1.31	0.91	1.36	0.89
	18			0.86	0.73	1.03	0.82	1.11	0.84	1.18	0.85	1.31	0.91	1.35	0.89
Lo	20			0.86	0.73	1.03	0.82	1.11	0.84	1.17	0.84	1.30	0.91	1.35	0.89
	22			0.86	0.73	1.03	0.82	1.11	0.84	1.17	0.84	1.28	0.90	1.33	0.88
3.6	24			0.86	0.73	1.03	0.82	1.11	0.84	1.16	0.84	1.27	0.90	1.31	0.87
(m³/min)	26			0.86	0.73	1.02	0.82	1.10	0.84	1.15	0.84	1.25	0.89	1.29	0.87
	28	0.78	0.72	0.86	0.73	1.02	0.82	1.09	0.83	1.14	0.83	1.23	0.88	1.27	0.86
	30	0.78	0.72	0.85	0.72	1.01	0.82	1.08	0.83	1.12	0.83	1.21	0.88	1.25	0.85
	32	0.78	0.72	0.85	0.72	1.00	0.81	1.07	0.82	1.11	0.82	1.19	0.87	1.23	0.85
	34	0.78	0.72	0.85	0.72	1.00	0.81	1.06	0.82	1.09	0.82	1.17	0.86	1.21	0.84
	35	0.78	0.72	0.85	0.72	1.00	0.81	1.05	0.81	1.08	0.81	1.15	0.86	1.19	0.83
	36	0.78	0.72	0.85	0.72	0.99	0.81	1.04	0.81	1.07	0.81	1.13	0.85	1.17	0.83
	38	0.78	0.72	0.84	0.72	0.97	0.80	1.03	0.81	1.05	0.80	1.09	0.83	1.12	0.81
	39	0.78	0.72	0.84	0.72	0.97	0.80	1.03	0.81	1.04	0.80	1.07	0.82	1.10	0.80
	41	0.78	0.72	0.84	0.72	0.94	0.79	0.99	0.79	1.00	0.78	1.02	0.81	1.05	0.79
	43	0.78	0.72	0.84	0.72	0.91	0.77	0.94	0.77	0.95	0.76	0.97	0.79	1.00	0.77

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	0.76	0.76	0.76	0.76	0.76
	-17.8	-18	0.81	0.81	0.81	0.81	0.81
	-15.7	-16	0.85	0.85	0.85	0.85	0.85
	-13.7	-14	0.90	0.90	0.90	0.90	0.90
	-11.7	-12	0.95	0.95	0.95	0.95	0.95
Lo	-9.6	-10	1.00	1.00	1.00	1.00	1.00
	-7.5	-8	1.06	1.06	1.06	1.06	1.06
3.6	-5.5	-6	1.12	1.12	1.12	1.12	1.12
(m³/min)	-3.4	-4	1.16	1.16	1.16	1.15	1.14
	-1.3	-2	1.20	1.20	1.19	1.17	1.15
	0.8	0	1.27	1.25	1.23	1.19	1.14
	3.9	3	1.37	1.33	1.28	1.20	1.13
	7.0	6	1.50	1.40	1.31	1.21	1.12
	10.1	9	1.49	1.40	1.30	1.21	1.11
	13.2	12	1.48	1.39	1.29	1.20	1.10
	16.9	15.5	1.47	1.38	1.28	1.19	1.09

Notes(1) This data show average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)

(2) Symbols are as follows

TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

PHA001Z125

Model **FDK22KXZE1** Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
P-Hi	10			1.80	1.62	2.16	1.83	2.33	1.87	2.48	1.89	2.78	2.04	2.89	2.00
	12			1.80	1.62	2.16	1.83	2.33	1.87	2.48	1.89	2.77	2.04	2.87	1.99
	14			1.80	1.62	2.16	1.83	2.33	1.87	2.47	1.88	2.76	2.04	2.86	1.99
	16			1.80	1.62	2.16	1.83	2.33	1.87	2.47	1.88	2.75	2.03	2.85	1.99
	18			1.80	1.62	2.16	1.83	2.33	1.87	2.47	1.88	2.74	2.03	2.84	1.98
	20			1.80	1.62	2.16	1.83	2.33	1.87	2.46	1.88	2.73	2.02	2.82	1.97
	22			1.80	1.62	2.15	1.83	2.33	1.87	2.45	1.88	2.69	2.01	2.78	1.96
8.5 (m³/min)	24			1.80	1.62	2.15	1.83	2.33	1.87	2.44	1.87	2.66	2.00	2.75	1.95
	26			1.80	1.62	2.14	1.83	2.31	1.86	2.41	1.86	2.62	1.99	2.70	1.92
	28	1.63	1.56	1.80	1.62	2.13	1.82	2.29	1.85	2.38	1.85	2.58	1.97	2.66	1.91
	30	1.63	1.56	1.79	1.62	2.12	1.82	2.27	1.84	2.36	1.84	2.54	1.94	2.62	1.90
	32	1.63	1.56	1.79	1.62	2.10	1.81	2.24	1.83	2.33	1.83	2.50	1.93	2.58	1.89
	34	1.63	1.56	1.78	1.61	2.09	1.80	2.21	1.82	2.29	1.82	2.44	1.92	2.53	1.88
	35	1.63	1.56	1.78	1.61	2.09	1.80	2.20	1.81	2.27	1.80	2.42	1.91	2.50	1.87
	36	1.63	1.56	1.78	1.61	2.07	1.80	2.19	1.81	2.25	1.80	2.37	1.90	2.45	1.86
	38	1.63	1.56	1.77	1.61	2.04	1.79	2.17	1.80	2.21	1.79	2.29	1.87	2.36	1.83
	39	1.63	1.56	1.77	1.61	2.03	1.78	2.16	1.80	2.19	1.78	2.24	1.85	2.31	1.81
	41	1.63	1.56	1.76	1.60	1.97	1.75	2.07	1.76	2.09	1.73	2.14	1.82	2.20	1.77
	43	1.63	1.56	1.76	1.60	1.91	1.73	1.98	1.72	2.00	1.70	2.05	1.79	2.09	1.74

Heating mode (kW)

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
P-Hi	-19.8	-20	1.45	1.45	1.45	1.45	1.45
	-17.8	-18	1.54	1.54	1.54	1.54	1.54
	-15.7	-16	1.64	1.64	1.64	1.64	1.64
	-13.7	-14	1.73	1.73	1.73	1.73	1.73
	-11.7	-12	1.82	1.82	1.82	1.82	1.82
	-9.6	-10	1.92	1.92	1.92	1.92	1.92
	-7.5	-8	2.03	2.03	2.03	2.03	2.03
8.5 (m³/min)	-5.5	-6	2.15	2.15	2.15	2.15	2.15
	-3.4	-4	2.23	2.22	2.22	2.20	2.18
	-1.3	-2	2.30	2.29	2.29	2.24	2.20
	0.8	0	2.43	2.39	2.36	2.27	2.19
	3.9	3	2.63	2.54	2.44	2.31	2.17
	7.0	6	2.88	2.69	2.50	2.33	2.15
	10.1	9	2.86	2.67	2.49	2.31	2.13
	13.2	12	2.84	2.66	2.48	2.29	2.11
	16.9	15.5	2.82	2.63	2.45	2.27	2.09

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
Hi	10			1.73	1.55	2.07	1.75	2.24	1.78	2.38	1.79	2.67	1.95	2.77	1.90
	12			1.73	1.55	2.07	1.75	2.24	1.78	2.38	1.79	2.66	1.94	2.76	1.90
	14			1.73	1.55	2.07	1.75	2.24	1.78	2.38	1.79	2.65	1.94	2.75	1.90
	16			1.73	1.55	2.07	1.75	2.24	1.78	2.37	1.79	2.64	1.94	2.74	1.89
	18			1.73	1.55	2.07	1.75	2.24	1.78	2.37	1.79	2.63	1.93	2.73	1.89
	20			1.73	1.55	2.07	1.75	2.24	1.78	2.37	1.79	2.62	1.93	2.71	1.88
	22			1.73	1.55	2.07	1.75	2.24	1.78	2.36	1.79	2.59	1.92	2.68	1.87
8 (m³/min)	24			1.73	1.55	2.07	1.75	2.24	1.78	2.35	1.79	2.56	1.91	2.64	1.86
	26			1.73	1.55	2.06	1.74	2.22	1.77	2.32	1.78	2.52	1.90	2.60	1.85
	28	1.56	1.50	1.73	1.55	2.05	1.74	2.20	1.76	2.29	1.76	2.48	1.88	2.56	1.83
	30	1.56	1.50	1.72	1.54	2.04	1.73	2.18	1.76	2.26	1.75	2.44	1.87	2.52	1.82
	32	1.56	1.50	1.72	1.54	2.02	1.73	2.16	1.75	2.24	1.75	2.40	1.85	2.48	1.81
	34	1.56	1.50	1.71	1.54	2.01	1.72	2.13	1.74	2.20	1.73	2.35	1.83	2.43	1.79
	35	1.56	1.50	1.71	1.54	2.01	1.72	2.11	1.73	2.18	1.72	2.32	1.82	2.40	1.78
	36	1.56	1.50	1.71	1.54	1.99	1.71	2.10	1.72	2.16	1.72	2.28	1.81	2.36	1.77
	38	1.56	1.50	1.70	1.53	1.96	1.70	2.08	1.72	2.12	1.70	2.20	1.78	2.26	1.72
	39	1.56	1.50	1.70	1.53	1.95	1.70	2.07	1.71	2.10	1.69	2.16	1.77	2.22	1.71
	41	1.56	1.50	1.69	1.53	1.89	1.67	1.99	1.68	2.01	1.66	2.06	1.72	2.11	1.68
	43	1.56	1.50	1.69	1.53	1.83	1.65	1.90	1.65	1.92	1.63	1.97	1.70	2.01	1.66

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
Hi	-19.8	-20	1.38	1.38	1.38	1.38	1.38
	-17.8	-18	1.47	1.47	1.47	1.47	1.47
	-15.7	-16	1.56	1.56	1.56	1.56	1.56
	-13.7	-14	1.65	1.65	1.65	1.65	1.65
	-11.7	-12	1.74	1.74	1.74	1.74	1.74
	-9.6	-10	1.83	1.83	1.83	1.83	1.83
	-7.5	-8	1.94	1.94	1.94	1.94	1.94
8 (m³/min)	-5.5	-6	2.05	2.05	2.05	2.05	2.05
	-3.4	-4	2.12	2.12	2.11	2.09	2.07
	-1.3	-2	2.19	2.18	2.18	2.14	2.10
	0.8	0	2.31	2.28	2.24	2.16	2.08
	3.9	3	2.51	2.42	2.33	2.20	2.07
	7.0	6	2.74	2.56	2.38	2.21	2.05
	10.1	9	2.72	2.55	2.37	2.20	2.03
	13.2	12	2.70	2.53	2.36	2.18	2.01
	16.9	15.5	2.68	2.51	2.34	2.16	1.99

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
Me	10			1.41	1.22	1.69	1.38	1.83	1.41	1.95	1.43	2.18	1.54	2.26	1.51
	12			1.41	1.22	1.69	1.38	1.83	1.41	1.94	1.42	2.17	1.54	2.25	1.50
	14			1.41	1.22	1.69	1.38	1.83	1.41	1.94	1.42	2.16	1.53	2.24	1.50
	16			1.41	1.22	1.69	1.38	1.83	1.41	1.94	1.42	2.16	1.53	2.23	1.49
	18			1.41	1.22	1.69	1.38	1.83	1.41	1.94	1.42	2.15	1.53	2.22	1.49
	20			1.41	1.22	1.69	1.38	1.83	1.41	1.93	1.42	2.14	1.53	2.21	1.49
	22			1.41	1.22	1.69	1.38	1.83	1.41	1.92	1.42	2.11	1.52	2.18	1.48
6 (m³/min)	24			1.41	1.22	1.69	1.38	1.83	1.41	1.91	1.41	2.09	1.51	2.15	1.47
	26			1.41	1.22	1.68	1.38	1.81	1.40	1.89	1.40	2.05	1.49	2.12	1.46
	28	1.28	1.21	1.41	1.22	1.67	1.37	1.79	1.39	1.87	1.40	2.02	1.48	2.09	1.45
	30	1.28	1.21	1.40	1.22	1.66	1.37	1.78	1.39	1.85	1.39	1.99	1.47	2.06	1.44
	32	1.28	1.21	1.40	1.22	1.65	1.36	1.76	1.38	1.83	1.38	1.96	1.46	2.02	1.42
	34	1.28	1.21	1.40	1.22	1.64	1.35	1.74	1.37	1.80	1.37	1.92	1.44	1.98	1.41
	35	1.28	1.21	1.39	1.21	1.64	1.35	1.73	1.37	1.78	1.36	1.90	1.43	1.96	1.40
	36	1.28	1.21	1.39	1.21	1.63	1.35	1.72	1.37	1.77	1.36	1.86	1.42	1.92	1.39
	38	1.28	1.21	1.39	1.21	1.60	1.34	1.70	1.36	1.73	1.33	1.79	1.40	1.85	1.37
	39	1.28	1.21	1.39	1.21	1.59	1.34	1.69	1.35	1.71	1.33	1.76	1.39	1.81	1.36
	41	1.28	1.21	1.38	1.21	1.54	1.32	1.62	1.32	1.64	1.31	1.68	1.36	1.73	1.33
	43	1.28	1.21	1.38	1.21	1.49	1.30	1.55	1.30	1.57	1.28	1.60	1.33	1.64	1.30

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
Me	-19.8	-20	1.08	1.08	1.08	1.08	1.08
	-17.8	-18	1.15	1.15	1.15	1.15	1.15
	-15.7	-16	1.22	1.22	1.22	1.22	1.22
	-13.7	-14	1.29	1.29	1.29	1.29	1.29
	-11.7	-12	1.36	1.36	1.36	1.36	1.36
	-9.6	-10	1.43	1.43	1.43	1.43	1.43
	-7.5	-8	1.52	1.52	1.52	1.52	1.52
6 (m³/min)	-5.5	-6	1.61	1.61	1.61	1.61	1.61
	-3.4	-4	1.66	1.66	1.66	1.64	1.63
	-1.3	-2	1.72	1.72	1.71	1.68	1.65
	0.8	0	1.81	1.79	1.76	1.70	1.64
	3.9	3	1.97	1.90	1.83	1.73	1.62
	7.0	6	2.15	2.01	1.87	1.74	1.61
	10.1	9	2.14	2.00	1.86	1.73	1.59
	13.2	12	2.12	1.99	1.85	1.72	1.58
	16.9	15.5	2.11	1.97	1.84	1.70	1.56

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
Lo	10			1.23	1.05	1.47	1.18	1.59	1.21	1.69	1.22	1.89	1.32	1.97	1.29
	12			1.23	1.05	1.47	1.18	1.59	1.21	1.69	1.22	1.89	1.32	1.96	1.29
	14			1.23	1.05	1.47	1.18	1.59	1.21	1.69	1.22	1.88	1.32	1.95	1.28
	16			1.23	1.05	1.47	1.18	1.59	1.21	1.68	1.22	1.87	1.31	1.94	1.28
	18			1.23	1.05	1.47	1.18	1.59	1.21	1.68	1.22	1.87	1.31	1.93	1.28
	20			1.23	1.05	1.47	1.18	1.59	1.21	1.68	1.22	1.86	1.31	1.92	1.27
	22			1.23	1.05	1.47	1.18	1.59	1.21	1.67	1.21	1.84	1.30	1.90	1.27
5 (m³/min)	24			1.23	1.05	1.47	1.18	1.59	1.21	1.66	1.21	1.81	1.29	1.87	1.26
	26			1.22	1.04	1.46	1.18	1.57	1.19	1.64	1.20	1.78	1.28	1.84	1.24
	28	1.11	1.03	1.22	1.04	1.45	1.17	1.56	1.19	1.62	1.19	1.76	1.27	1.81	1.23
	30	1.11	1.03	1.22	1.04	1.44	1.17	1.54	1.18	1.61	1.18	1.73	1.25	1.79	1.23
	32	1.11	1.03	1.22	1.04	1.43	1.17	1.53	1.18	1.59	1.18	1.70	1.24	1.76	1.22
	34	1.11	1.03	1.21	1.04	1.43	1.17	1.51	1.17	1.56	1.17	1.67	1.24	1.72	1.21
	35	1.11	1.03	1.21	1.04	1.42	1.16	1.50	1.17	1.55	1.16	1.65	1.23	1.71	1.20
	36	1.11	1.03	1.21	1.04	1.41	1.16	1.49	1.17	1.53	1.16	1.62	1.22	1.67	1.19
	38	1.11	1.03	1.21	1.04	1.39	1.15	1.48	1.16	1.50	1.15	1.56	1.20	1.61	1.17
	39	1.11	1.03	1.21	1.04	1.38	1.14	1.47	1.16	1.49	1.14	1.53	1.19	1.57	1.16
	41	1.11	1.03	1.20	1.03	1.34	1.13	1.41	1.13	1.43	1.12	1.46	1.17	1.50	1.13
	43	1.11	1.03	1.20	1.03	1.30	1.11	1.35	1.11	1.36	1.09	1.39	1.14	1.43	1.11

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
Lo	-19.8	-20	0.92	0.92	0.92	0.92	0.92
	-17.8	-18	0.98	0.98	0.98	0.98	0.98
	-15.7	-16	1.04	1.04	1.04	1.04	1.04
	-13.7	-14	1.10	1.10	1.10	1.10	1.10
	-11.7	-12	1.16	1.16	1.16	1.16	1.16
	-9.6	-10	1.22	1.22	1.22	1.22	1.22
	-7.5	-8	1.30	1.30	1.30	1.30	1.30
5 (m³/min)	-5.5	-6	1.37	1.37	1.37	1.37	1.37
	-3.4	-4	1.42	1.42	1.41	1.40	1.39
	-1.3	-2	1.47	1.46	1.46	1.43	1.40
	0.8	0	1.55	1.52	1.50	1.45	1.39
	3.9	3	1.68	1.62	1.56	1.47	1.38
	7.0	6	1.83	1.71	1.59	1.48	1.37
	10.1	9	1.82	1.70	1.59	1.47	1.36
	13.2	12	1.81	1.69	1.58	1.46	1.35
	16.9	15.5	1.79	1.68	1.56	1.45	1.33

Notes(1) This data show average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)

(2) Symbols are as follows

TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

PHA001Z125

Model **FDK28KXZE1** Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature: 21 °CDB 14 °CWB		23 °CDB 16 °CWB		26 °CDB 18 °CWB		27 °CDB 19 °CWB		28 °CDB 20 °CWB		31 °CDB 22 °CWB		33 °CDB 24 °CWB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	10			2.30	1.92	2.74	2.17	2.97	2.22	3.16	2.24	3.54	2.43	3.67	2.37
	12			2.30	1.92	2.74	2.17	2.97	2.22	3.15	2.24	3.52	2.42	3.66	2.36
	14			2.30	1.92	2.74	2.17	2.97	2.22	3.15	2.24	3.51	2.42	3.64	2.36
	16			2.30	1.92	2.74	2.17	2.97	2.22	3.14	2.24	3.50	2.42	3.63	2.36
	18			2.30	1.92	2.74	2.17	2.97	2.22	3.14	2.24	3.49	2.41	3.61	2.34
P-Hi	20			2.30	1.92	2.74	2.17	2.97	2.22	3.14	2.24	3.47	2.40	3.59	2.34
	22			2.29	1.92	2.74	2.17	2.97	2.22	3.12	2.23	3.43	2.39	3.54	2.32
8.5	24			2.29	1.92	2.74	2.17	2.97	2.22	3.11	2.23	3.39	2.37	3.50	2.31
(m³/min)	26			2.29	1.92	2.73	2.17	2.94	2.21	3.07	2.21	3.33	2.35	3.44	2.29
	28	2.07	1.90	2.28	1.92	2.72	2.16	2.91	2.20	3.03	2.20	3.28	2.33	3.39	2.27
	30	2.07	1.90	2.28	1.92	2.70	2.15	2.88	2.18	3.00	2.18	3.23	2.31	3.34	2.26
	32	2.07	1.90	2.27	1.91	2.67	2.14	2.86	2.17	2.96	2.17	3.18	2.30	3.29	2.24
	34	2.07	1.90	2.27	1.91	2.66	2.14	2.82	2.16	2.92	2.15	3.11	2.27	3.22	2.20
	35	2.07	1.90	2.26	1.91	2.66	2.14	2.80	2.15	2.89	2.14	3.08	2.26	3.18	2.19
	36	2.07	1.90	2.26	1.91	2.64	2.13	2.79	2.15	2.86	2.13	3.02	2.23	3.12	2.17
	38	2.07	1.90	2.25	1.90	2.60	2.11	2.76	2.13	2.81	2.11	2.91	2.19	3.00	2.14
	39	2.07	1.90	2.25	1.90	2.58	2.10	2.74	2.13	2.78	2.10	2.86	2.18	2.94	2.12
	41	2.07	1.90	2.24	1.90	2.50	2.07	2.63	2.08	2.66	2.05	2.73	2.13	2.80	2.08
	43	2.07	1.90	2.24	1.90	2.43	2.04	2.52	2.04	2.55	2.01	2.60	2.09	2.66	2.03

Heating mode (kW)

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	1.86	1.86	1.86	1.86	1.86
	-17.8	-18	1.98	1.98	1.98	1.98	1.98
	-15.7	-16	2.09	2.09	2.09	2.09	2.09
	-13.7	-14	2.21	2.21	2.21	2.21	2.21
	-11.7	-12	2.33	2.33	2.33	2.33	2.33
P-Hi	-9.6	-10	2.45	2.45	2.45	2.45	2.45
	-7.5	-8	2.60	2.60	2.60	2.60	2.60
8.5	-5.5	-6	2.75	2.75	2.75	2.75	2.75
(m³/min)	-3.4	-4	2.85	2.84	2.84	2.81	2.78
	-1.3	-2	2.94	2.94	2.93	2.87	2.82
	0.8	0	3.10	3.06	3.02	2.91	2.80
	3.9	3	3.37	3.25	3.13	2.95	2.78
	7.0	6	3.68	3.44	3.20	2.98	2.75
	10.1	9	3.66	3.42	3.19	2.96	2.73
	13.2	12	3.63	3.40	3.17	2.94	2.70
	16.9	15.5	3.60	3.37	3.14	2.91	2.68

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature: 21 °CDB 14 °CWB		23 °CDB 16 °CWB		26 °CDB 18 °CWB		27 °CDB 19 °CWB		28 °CDB 20 °CWB		31 °CDB 22 °CWB		33 °CDB 24 °CWB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	10			2.21	1.84	2.64	2.07	2.85	2.12	3.03	2.14	3.40	2.31	3.53	2.26
	12			2.21	1.84	2.64	2.07	2.85	2.12	3.03	2.14	3.39	2.31	3.51	2.25
	14			2.21	1.84	2.64	2.07	2.85	2.12	3.03	2.14	3.37	2.30	3.50	2.25
	16			2.21	1.84	2.64	2.07	2.85	2.12	3.02	2.14	3.36	2.30	3.48	2.24
	18			2.21	1.84	2.64	2.07	2.85	2.12	3.02	2.14	3.35	2.29	3.47	2.24
Hi	20			2.21	1.84	2.64	2.07	2.85	2.12	3.01	2.13	3.34	2.29	3.45	2.23
	22			2.20	1.83	2.64	2.07	2.85	2.12	3.00	2.13	3.30	2.28	3.41	2.22
8	24			2.20	1.83	2.63	2.07	2.85	2.12	2.99	2.13	3.25	2.26	3.36	2.20
(m³/min)	26			2.20	1.83	2.62	2.06	2.83	2.11	2.95	2.11	3.20	2.24	3.31	2.18
	28	1.99	1.80	2.20	1.83	2.61	2.06	2.80	2.09	2.92	2.10	3.15	2.22	3.26	2.16
	30	1.99	1.80	2.19	1.83	2.59	2.05	2.77	2.08	2.88	2.07	3.10	2.21	3.21	2.15
	32	1.99	1.80	2.19	1.83	2.57	2.04	2.74	2.07	2.85	2.06	3.05	2.18	3.16	2.13
	34	1.99	1.80	2.18	1.82	2.56	2.04	2.71	2.05	2.80	2.04	2.99	2.16	3.09	2.11
	35	1.99	1.80	2.17	1.82	2.56	2.04	2.69	2.05	2.78	2.04	2.96	2.15	3.06	2.10
	36	1.99	1.80	2.17	1.82	2.54	2.03	2.68	2.04	2.75	2.03	2.90	2.13	3.00	2.08
	38	1.99	1.80	2.17	1.82	2.50	2.01	2.65	2.03	2.70	2.01	2.80	2.09	2.88	2.04
	39	1.99	1.80	2.16	1.81	2.48	2.01	2.64	2.03	2.67	2.00	2.75	2.08	2.82	2.02
	41	1.99	1.80	2.16	1.81	2.41	1.98	2.53	1.98	2.56	1.96	2.62	2.02	2.69	1.97
	43	1.99	1.80	2.15	1.81	2.33	1.95	2.42	1.94	2.45	1.92	2.50	1.98	2.56	1.93

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	1.77	1.77	1.77	1.77	1.77
	-17.8	-18	1.88	1.88	1.88	1.88	1.88
	-15.7	-16	1.99	1.99	1.99	1.99	1.99
	-13.7	-14	2.11	2.11	2.11	2.11	2.11
	-11.7	-12	2.22	2.22	2.22	2.22	2.22
Hi	-9.6	-10	2.34	2.34	2.34	2.34	2.34
	-7.5	-8	2.48	2.48	2.48	2.48	2.48
8	-5.5	-6	2.62	2.62	2.62	2.62	2.62
(m³/min)	-3.4	-4	2.71	2.71	2.70	2.68	2.65
	-1.3	-2	2.80	2.80	2.79	2.73	2.68
	0.8	0	2.96	2.91	2.87	2.77	2.67
	3.9	3	3.21	3.09	2.98	2.81	2.64
	7.0	6	3.50	3.28	3.05	2.83	2.62
	10.1	9	3.48	3.26	3.04	2.82	2.60
	13.2	12	3.46	3.24	3.02	2.80	2.57
	16.9	15.5	3.43	3.21	2.99	2.77	2.55

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature: 21 °CDB 14 °CWB		23 °CDB 16 °CWB		26 °CDB 18 °CWB		27 °CDB 19 °CWB		28 °CDB 20 °CWB		31 °CDB 22 °CWB		33 °CDB 24 °CWB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	10			1.80	1.45	2.15	1.64	2.33	1.68	2.48	1.70	2.77	1.84	2.88	1.79
	12			1.80	1.45	2.15	1.64	2.33	1.68	2.47	1.70	2.76	1.83	2.87	1.79
	14			1.80	1.45	2.15	1.64	2.33	1.68	2.47	1.70	2.75	1.83	2.86	1.78
	16			1.80	1.45	2.15	1.64	2.33	1.68	2.47	1.70	2.74	1.82	2.84	1.78
	18			1.80	1.45	2.15	1.64	2.33	1.68	2.46	1.69	2.73	1.82	2.83	1.77
Me	20			1.80	1.45	2.15	1.64	2.33	1.68	2.46	1.69	2.72	1.82	2.82	1.77
	22			1.80	1.45	2.15	1.64	2.33	1.68	2.45	1.69	2.69	1.80	2.78	1.75
6	24			1.79	1.45	2.15	1.64	2.33	1.68	2.44	1.69	2.65	1.79	2.74	1.74
(m³/min)	26			1.79	1.45	2.14	1.64	2.31	1.67	2.41	1.67	2.61	1.77	2.70	1.73
	28	1.62	1.43	1.79	1.45	2.13	1.63	2.28	1.66	2.38	1.66	2.57	1.76	2.66	1.70
	30	1.62	1.43	1.79	1.45	2.11	1.62	2.26	1.65	2.35	1.65	2.53	1.74	2.62	1.69
	32	1.62	1.43	1.78	1.44	2.10	1.62	2.24	1.64	2.32	1.64	2.49	1.72	2.58	1.68
	34	1.62	1.43	1.78	1.44	2.09	1.61	2.21	1.63	2.29	1.62	2.44	1.71	2.52	1.66
	35	1.62	1.43	1.77	1.44	2.09	1.61	2.20	1.62	2.27	1.62	2.41	1.70	2.50	1.66
	36	1.62	1.43	1.77	1.44	2.07	1.61	2.18	1.62	2.25	1.61	2.37	1.68	2.45	1.64
	38	1.62	1.43	1.77	1.44	2.04	1.59	2.16	1.61	2.20	1.59	2.28	1.65	2.35	1.61
	39	1.62	1.43	1.77	1.44	2.02	1.58	2.15	1.60	2.18	1.58	2.24	1.63	2.30	1.59
	41	1.62	1.43	1.76	1.43	1.96	1.56	2.06	1.56	2.09	1.54	2.14	1.60	2.20	1.56
	43	1.62	1.43	1.75	1.43	1.90	1.53	1.98	1.53	2.00	1.51	2.04	1.56	2.09	1.52

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	1.39	1.39	1.39	1.39	1.39
	-17.8	-18	1.48	1.48	1.48	1.48	1.48
	-15.7	-16	1.57	1.57	1.57	1.57	1.57
	-13.7	-14	1.66	1.66	1.66	1.66	1.66
	-11.7	-12	1.75	1.75	1.75	1.75	1.75
Me	-9.6	-10	1.84	1.84	1.84	1.84	1.84
	-7.5	-8	1.95	1.95	1.95	1.95	1.95
6	-5.5	-6	2.06	2.06	2.06	2.06	2.06
(m³/min)	-3.4	-4	2.13	2.13	2.12	2.10	2.08
	-1.3	-2	2.20	2.20	2.19	2.15	2.11
	0.8	0	2.32	2.29	2.26	2.18	2.09
	3.9	3	2.52	2.43	2.34	2.21	2.08
	7.0	6	2.75	2.57	2.39	2.23	2.06
	10.1	9	2.74	2.56	2.39	2.21	2.04
	13.2	12	2.72	2.54	2.37	2.20	2.02
	16.9	15.5	2.70	2.52	2.35	2.18	2.00

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature: 21 °CDB 14 °CWB		23 °CDB 16 °CWB		26 °CDB 18 °CWB		27 °CDB 19 °CWB		28 °CDB 20 °CWB		31 °CDB 22 °CWB		33 °CDB 24 °CWB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	10			1.56	1.24	1.87	1.41	2.02	1.43	2.15	1.46	2.41	1.58	2.50	1.53
	12			1.56	1.24	1.87	1.41	2.02	1.43	2.15	1.46	2.40	1.57	2.49	1.52
	14			1.56	1.24	1.87	1.41	2.02	1.43	2.15	1.46	2.39	1.57	2.48	1.52
	16			1.56	1.24	1.87	1.41	2.02	1.43	2.14	1.45	2.38	1.56	2.47	1.52
	18			1.56	1.24	1.87	1.41	2.02	1.43	2.14	1.45	2.38	1.56	2.46	1.51
Lo	20			1.56	1.24	1.87	1.41	2.02	1.43	2.14	1.45	2.37	1.56	2.45	1.51
	22			1.56	1.24	1.87	1.41	2.02	1.43	2.13	1.45	2.34	1.54	2.42	1.50
5	24			1.56	1.24	1.87	1.41	2.02	1.43	2.12	1.45	2.31	1.53	2.38	1.49
(m³/min)	26			1.56	1.24	1.86	1.40	2.00	1.43	2.09	1.43	2.27	1.52	2.35	1.48
	28	1.41	1.22	1.56	1.24	1.85	1.40	1.98	1.42	2.07	1.42	2.23	1.50	2.31	1.46
	30	1.41	1.22	1.55	1.24	1.84	1.39	1.97	1.41	2.04	1.41	2.20	1.49	2.27	1.45
	32	1.41	1.22	1.55	1.24	1.82	1.38	1.95	1.41	2.02	1.40	2.17	1.48	2.24	1.44
	34	1.41	1.22	1.54	1.23	1.82	1.38	1.92	1.40	1.99	1.39	2.12	1.46	2.19	1.42
	35	1.41	1.22	1.54	1.23	1.81	1.38	1.91	1.39	1.97	1.38	2.10	1.45	2.17	1.42
	36	1.41	1.22	1.54	1.23	1.80	1.38	1.90	1.39	1.95	1.38	2.06	1.44	2.13	1.40
	38	1.41	1.22	1.54	1.23	1.77	1.36	1.88	1.38	1.91	1.36	1.98	1.41	2.04	1.37
	39	1.41	1.22	1.53	1.23	1.76	1.36	1.87	1.37	1.90	1.36	1.95	1.40	2.00	1.36
	41	1.41	1.22	1.53	1.23	1.71	1.34	1.79	1.34	1.82	1.33	1.86	1.36	1.91	1.33
	43	1.41	1.22	1.52	1.22	1.65	1.31	1.72	1.31	1.74	1.29	1.77	1.33	1.81	1.29

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	1.18	1.18	1.18	1.18	1.18
	-17.8	-18	1.26	1.26	1.26	1.26	1.26
	-15.7	-16	1.33	1.33	1.33	1.33	1.33
	-13.7	-14	1.41	1.41	1.41	1.41	1.41
	-11.7	-12	1.49	1.49	1.49	1.49	1.49
Lo	-9.6	-10	1.56	1.56	1.56	1.56	1.56
	-7.5	-8	1.66	1.66	1.66	1.66	1.66
5	-5.5	-6	1.75	1.75	1.75	1.75	1.75
(m³/min)	-3.4	-4	1.81	1.81	1.81	1.79	1.77
	-1.3	-2	1.88	1.87	1.87	1.83	1.79
	0.8	0	1.98	1.95	1.92	1.85	1.78
	3.9	3	2.15	2.07	1.99	1.88	1.77
	7.0	6	2.34	2.19	2.04	1.90	1.75
	10.1	9	2.33	2.18	2.03	1.88	1.74
	13.2	12	2.31	2.17	2.02	1.87	1.72
	16.9	15.5	2.30	2.15	2.00	1.85	1.70

Notes(1) This data show average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)

(2) Symbols are as follows

TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

PHA001Z125 C

Model **FDK36KXZE1** Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			2.95	2.46	3.53	2.77	3.82	2.84	4.06	2.87	4.55	3.10	4.72	3.02
	12			2.95	2.46	3.53	2.77	3.82	2.84	4.05	2.87	4.53	3.10	4.70	3.02
	14			2.95	2.46	3.53	2.77	3.82	2.84	4.05	2.87	4.51	3.09	4.68	3.01
	16			2.95	2.46	3.53	2.77	3.82	2.84	4.04	2.86	4.50	3.09	4.66	2.99
	18			2.95	2.46	3.53	2.77	3.82	2.84	4.04	2.86	4.48	3.07	4.64	2.98
P-Hi	20			2.95	2.46	3.53	2.77	3.82	2.84	4.03	2.86	4.47	3.07	4.62	2.98
	22			2.95	2.46	3.53	2.77	3.82	2.84	4.01	2.85	4.41	3.05	4.56	2.96
11	24			2.94	2.45	3.52	2.77	3.82	2.84	3.99	2.84	4.35	3.02	4.49	2.94
(m^3/min)	26			2.94	2.45	3.51	2.77	3.78	2.82	3.95	2.83	4.28	2.99	4.43	2.92
	28	2.66	2.42	2.94	2.45	3.49	2.76	3.74	2.80	3.90	2.81	4.22	2.97	4.36	2.90
	30	2.66	2.42	2.93	2.45	3.47	2.75	3.71	2.79	3.86	2.79	4.15	2.95	4.29	2.88
	32	2.66	2.42	2.92	2.44	3.44	2.74	3.67	2.78	3.81	2.77	4.09	2.93	4.23	2.85
	34	2.66	2.42	2.91	2.43	3.43	2.73	3.62	2.75	3.75	2.75	4.00	2.89	4.14	2.83
	35	2.66	2.42	2.91	2.43	3.42	2.73	3.60	2.75	3.72	2.73	3.96	2.88	4.09	2.81
	36	2.66	2.42	2.91	2.43	3.39	2.72	3.58	2.74	3.68	2.72	3.89	2.85	4.02	2.79
	38	2.66	2.42	2.90	2.43	3.34	2.69	3.55	2.73	3.61	2.69	3.74	2.80	3.86	2.73
	39	2.66	2.42	2.89	2.43	3.32	2.69	3.53	2.72	3.58	2.68	3.67	2.78	3.78	2.71
	41	2.66	2.42	2.88	2.42	3.22	2.63	3.38	2.66	3.43	2.62	3.51	2.72	3.60	2.65
	43	2.66	2.42	2.87	2.42	3.12	2.60	3.24	2.59	3.28	2.56	3.35	2.66	3.42	2.57

Heating mode (kW)

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	2.32	2.32	2.32	2.32	2.32
	-17.8	-18	2.47	2.47	2.47	2.47	2.47
	-15.7	-16	2.62	2.62	2.62	2.62	2.62
	-13.7	-14	2.77	2.77	2.77	2.77	2.77
	-11.7	-12	2.92	2.92	2.92	2.92	2.92
P-Hi	-9.6	-10	3.07	3.07	3.07	3.07	3.07
	-7.5	-8	3.25	3.25	3.25	3.25	3.25
11	-5.5	-6	3.44	3.44	3.44	3.44	3.44
(m^3/min)	-3.4	-4	3.56	3.56	3.55	3.52	3.48
	-1.3	-2	3.68	3.67	3.66	3.59	3.52
	0.8	0	3.88	3.83	3.77	3.64	3.50
	3.9	3	4.21	4.06	3.91	3.69	3.47
	7.0	6	4.60	4.30	4.00	3.72	3.44
	10.1	9	4.57	4.28	3.99	3.70	3.41
	13.2	12	4.54	4.25	3.96	3.67	3.38
	16.9	15.5	4.51	4.22	3.93	3.64	3.35

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			2.74	2.25	3.28	2.56	3.55	2.61	3.77	2.64	4.23	2.86	4.39	2.79
	12			2.74	2.25	3.28	2.56	3.55	2.61	3.77	2.64	4.21	2.85	4.37	2.78
	14			2.74	2.25	3.28	2.56	3.55	2.61	3.76	2.63	4.20	2.85	4.35	2.78
	16			2.74	2.25	3.28	2.56	3.55	2.61	3.76	2.63	4.18	2.84	4.33	2.77
	18			2.74	2.25	3.28	2.56	3.55	2.61	3.75	2.63	4.17	2.84	4.31	2.76
Hi	20			2.74	2.25	3.28	2.56	3.55	2.61	3.75	2.63	4.15	2.83	4.29	2.75
	22			2.74	2.25	3.28	2.56	3.55	2.61	3.73	2.62	4.10	2.81	4.24	2.74
10	24			2.74	2.25	3.28	2.56	3.55	2.61	3.71	2.61	4.05	2.79	4.18	2.72
(m^3/min)	26			2.73	2.25	3.26	2.55	3.51	2.60	3.67	2.60	3.98	2.77	4.11	2.69
	28	2.48	2.23	2.73	2.25	3.25	2.54	3.48	2.59	3.63	2.59	3.92	2.75	4.05	2.67
	30	2.48	2.23	2.72	2.25	3.22	2.53	3.45	2.58	3.58	2.57	3.86	2.72	3.99	2.65
	32	2.48	2.23	2.72	2.25	3.20	2.53	3.41	2.56	3.54	2.56	3.80	2.70	3.93	2.62
	34	2.48	2.23	2.71	2.24	3.18	2.52	3.37	2.54	3.49	2.53	3.72	2.66	3.85	2.59
	35	2.48	2.23	2.70	2.24	3.18	2.52	3.35	2.53	3.46	2.52	3.68	2.64	3.81	2.58
	36	2.48	2.23	2.70	2.24	3.16	2.51	3.33	2.52	3.42	2.50	3.61	2.62	3.73	2.56
	38	2.48	2.23	2.69	2.23	3.11	2.49	3.30	2.51	3.36	2.48	3.48	2.58	3.58	2.51
	39	2.48	2.23	2.69	2.23	3.08	2.48	3.28	2.51	3.32	2.47	3.41	2.56	3.51	2.49
	41	2.48	2.23	2.68	2.23	2.99	2.44	3.15	2.45	3.18	2.41	3.26	2.50	3.35	2.44
	43	2.48	2.23	2.67	2.23	2.90	2.40	3.01	2.39	3.04	2.36	3.11	2.45	3.18	2.38

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	2.14	2.14	2.14	2.14	2.14
	-17.8	-18	2.28	2.28	2.28	2.28	2.28
	-15.7	-16	2.42	2.42	2.42	2.42	2.42
	-13.7	-14	2.56	2.56	2.56	2.56	2.56
	-11.7	-12	2.69	2.69	2.69	2.69	2.69
Hi	-9.6	-10	2.83	2.83	2.83	2.83	2.83
	-7.5	-8	3.00	3.00	3.00	3.00	3.00
10	-5.5	-6	3.18	3.18	3.18	3.18	3.18
(m^3/min)	-3.4	-4	3.29	3.28	3.28	3.24	3.21
	-1.3	-2	3.40	3.39	3.38	3.31	3.25
	0.8	0	3.58	3.53	3.48	3.36	3.23
	3.9	3	3.89	3.75	3.61	3.41	3.20
	7.0	6	4.25	3.97	3.69	3.43	3.18
	10.1	9	4.22	3.95	3.68	3.41	3.15
	13.2	12	4.19	3.92	3.66	3.39	3.12
	16.9	15.5	4.16	3.89	3.62	3.36	3.09

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			2.29	1.86	2.74	2.11	2.96	2.15	3.15	2.18	3.53	2.36	3.67	2.30
	12			2.29	1.86	2.74	2.11	2.96	2.15	3.15	2.18	3.52	2.35	3.65	2.29
	14			2.29	1.86	2.74	2.11	2.96	2.15	3.14	2.18	3.51	2.35	3.63	2.28
	16			2.29	1.86	2.74	2.11	2.96	2.15	3.14	2.18	3.49	2.34	3.62	2.28
	18			2.29	1.86	2.74	2.11	2.96	2.15	3.14	2.18	3.48	2.34	3.60	2.27
Me	20			2.29	1.86	2.74	2.11	2.96	2.15	3.13	2.17	3.47	2.33	3.59	2.27
	22			2.29	1.86	2.74	2.11	2.96	2.15	3.12	2.17	3.42	2.31	3.54	2.25
8	24			2.28	1.86	2.74	2.11	2.96	2.15	3.10	2.16	3.38	2.30	3.49	2.23
(m^3/min)	26			2.28	1.86	2.72	2.10	2.93	2.14	3.07	2.15	3.33	2.28	3.44	2.20
	28	2.07	1.83	2.28	1.86	2.71	2.09	2.91	2.13	3.03	2.13	3.27	2.26	3.38	2.19
	30	2.07	1.83	2.28	1.86	2.69	2.08	2.88	2.12	2.99	2.11	3.22	2.23	3.33	2.17
	32	2.07	1.83	2.27	1.85	2.67	2.08	2.85	2.10	2.96	2.10	3.17	2.21	3.28	2.16
	34	2.07	1.83	2.26	1.85	2.66	2.07	2.81	2.09	2.91	2.08	3.11	2.19	3.21	2.14
	35	2.07	1.83	2.26	1.85	2.66	2.07	2.80	2.08	2.89	2.08	3.07	2.18	3.18	2.13
	36	2.07	1.83	2.26	1.85	2.64	2.06	2.78	2.08	2.86	2.07	3.02	2.16	3.12	2.11
	38	2.07	1.83	2.25	1.84	2.60	2.05	2.75	2.06	2.80	2.04	2.91	2.12	2.99	2.06
	39	2.07	1.83	2.25	1.84	2.58	2.04	2.74	2.06	2.78	2.03	2.85	2.10	2.93	2.04
	41	2.07	1.83	2.24	1.84	2.50	2.00	2.63	2.02	2.66	1.98	2.73	2.06	2.79	2.00
	43	2.07	1.83	2.23	1.83	2.42	1.96	2.52	1.97	2.54	1.93	2.60	2.01	2.66	1.95

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	1.76	1.76	1.76	1.76	1.76
	-17.8	-18	1.88	1.88	1.88	1.88	1.88
	-15.7	-16	1.99	1.99	1.99	1.99	1.99
	-13.7	-14	2.11	2.11	2.11	2.11	2.11
	-11.7	-12	2.22	2.22	2.22	2.22	2.22
Me	-9.6	-10	2.33	2.33	2.33	2.33	2.33
	-7.5	-8	2.47	2.47	2.47	2.47	2.47
8	-5.5	-6	2.62	2.62	2.62	2.62	2.62
(m^3/min)	-3.4	-4	2.71	2.70	2.70	2.67	2.65
	-1.3	-2	2.80	2.79	2.78	2.73	2.68
	0.8	0	2.95	2.91	2.87	2.76	2.66
	3.9	3	3.20	3.09	2.97	2.81	2.64
	7.0	6	3.50	3.27	3.04	2.83	2.62
	10.1	9	3.48	3.25	3.03	2.81	2.59
	13.2	12	3.45	3.23	3.01	2.79	2.57
	16.9	15.5	3.43	3.21	2.99	2.76	2.54

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			2.05	1.65	2.45	1.87	2.65	1.91	2.82	1.94	3.16	2.09	3.28	2.04
	12			2.05	1.65	2.45	1.87	2.65	1.91	2.81	1.93	3.14	2.08	3.26	2.03
	14			2.05	1.65	2.45	1.87	2.65	1.91	2.81	1.93	3.13	2.08	3.25	2.03
	16			2.05	1.65	2.45	1.87	2.65	1.91	2.81	1.93	3.12	2.08	3.23	2.02
	18			2.05	1.65	2.45	1.87	2.65	1.91	2.80	1.93	3.11	2.07	3.22	2.02
Lo	20			2.05	1.65	2.45	1.87	2.65	1.91	2.80	1.93	3.10	2.07	3.21	2.02
	22			2.05	1.65	2.45	1.87	2.65	1.91	2.79	1.93	3.06	2.05	3.16	2.00
7	24			2.04	1.65	2.45	1.87	2.65	1.91	2.77	1.92	3.02	2.04	3.12	1.98
(m^3/min)	26			2.04	1.65	2.43	1.86	2.62	1.90	2.74	1.90	2.97	2.02	3.07	1.97
	28	1.85	1.63	2.04	1.65	2.42	1.86	2.60	1.89	2.71	1.89	2.93	2.00	3.02	1.95
	30	1.85	1.63	2.03	1.64	2.40	1.85	2.57	1.88	2.68	1.88	2.88	1.98	2.98	1.93
	32	1.85	1.63	2.03	1.64	2.39	1.84	2.55	1.87	2.64	1.86	2.84	1.97	2.93	1.92
	34	1.85	1.63	2.02	1.64	2.38	1.84	2.52	1.86	2.60	1.85	2.78	1.95	2.87	1.90
	35	1.85	1.63	2.02	1.64	2.37	1.83	2.50	1.85	2.58	1.84	2.75	1.94	2.84	1.88
	36	1.85	1.63	2.02	1.64	2.36	1.83	2.49	1.84	2.56	1.83	2.70	1.92	2.79	1.87
	38	1.85	1.63	2.01	1.63	2.32	1.81	2.46	1.83	2.51	1.81	2.60	1.87	2.68	1.83
	39	1.85	1.63	2.01	1.63	2.30	1.80	2.45	1.83	2.48	1.80	2.55	1.86	2.62	1.81
	41	1.85	1.63	2.00	1.63	2.23	1.77	2.35	1.79	2.38	1.76	2.44	1.82	2.50	1.77
	43	1.85	1.63	1.99	1.62	2.16	1.74	2.25	1.75	2.27	1.72	2.32	1.78	2.38	1.73

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	1.56	1.56	1.56	1.56	1.56
	-17.8	-18	1.67	1.67	1.67	1.67	1.67
	-15.7	-16	1.77	1.77	1.77	1.77	1.77
	-13.7	-14	1.87	1.87	1.87	1.87	1.87
	-11.7	-12	1.97	1.97	1.97	1.97	1.97
Lo	-9.6	-10	2.07	2.07	2.07	2.07	2.07
	-7.5	-8	2.19	2.19	2.19	2.19	2.19
7	-5.5	-6	2.32	2.32	2.32	2.32	2.32
(m^3/min)	-3.4	-4	2.40	2.40	2.39	2.37	2.35
	-1.3	-2	2.48	2.48	2.47	2.42	2.37
	0.8	0	2.62	2.58	2.54	2.45	2.36
	3.9	3	2.84	2.74	2.64	2.49	2.34
	7.0	6	3.10	2.90	2.70	2.51	2.32
	10.1	9	3.08	2.89	2.69	2.49	2.30
	13.2	12	3.06	2.87	2.67	2.48	2.28
	16.9	15.5	3.04	2.84	2.65	2.45	2.26

Notes(1) This data show average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)

(2) Symbols are as follows

TC :Total cooling capacity(kW)

SHC :Sensible heat capacity(kW)

PHA001Z125

Model **FDK45KXZE1** Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature: 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			3.69	2.95	4.41	3.35	4.77	3.43	5.07	3.47	5.68	3.75	5.90	3.65
	12			3.69	2.95	4.41	3.35	4.77	3.43	5.07	3.47	5.66	3.74	5.88	3.64
	14			3.69	2.95	4.41	3.35	4.77	3.43	5.06	3.47	5.64	3.73	5.85	3.63
	16			3.69	2.95	4.41	3.35	4.77	3.43	5.05	3.46	5.62	3.73	5.83	3.63
	18			3.69	2.95	4.41	3.35	4.77	3.43	5.05	3.46	5.60	3.71	5.80	3.61
P-Hi	20			3.69	2.95	4.41	3.35	4.77	3.43	5.04	3.46	5.58	3.71	5.78	3.60
	22			3.68	2.95	4.41	3.35	4.77	3.43	5.02	3.45	5.51	3.68	5.70	3.58
12	24			3.68	2.95	4.41	3.35	4.77	3.43	4.99	3.44	5.44	3.65	5.62	3.55
(m^3/min)	26			3.68	2.95	4.39	3.34	4.73	3.41	4.93	3.41	5.35	3.62	5.53	3.50
	28	3.33	2.91	3.67	2.94	4.37	3.33	4.68	3.39	4.88	3.39	5.27	3.59	5.44	3.47
	30	3.33	2.91	3.66	2.94	4.33	3.30	4.64	3.37	4.82	3.37	5.19	3.54	5.36	3.45
	32	3.33	2.91	3.65	2.93	4.30	3.29	4.59	3.35	4.76	3.35	5.11	3.52	5.28	3.43
	34	3.33	2.91	3.64	2.93	4.28	3.28	4.53	3.33	4.69	3.31	5.00	3.48	5.17	3.39
	35	3.33	2.91	3.64	2.93	4.28	3.28	4.50	3.31	4.65	3.30	4.95	3.46	5.12	3.38
	36	3.33	2.91	3.63	2.93	4.24	3.27	4.48	3.30	4.60	3.28	4.86	3.43	5.02	3.34
	38	3.33	2.91	3.62	2.92	4.18	3.24	4.43	3.27	4.52	3.23	4.68	3.37	4.82	3.27
	39	3.33	2.91	3.62	2.92	4.15	3.23	4.41	3.26	4.47	3.22	4.59	3.33	4.72	3.24
	41	3.33	2.91	3.61	2.92	4.02	3.18	4.23	3.20	4.28	3.15	4.39	3.26	4.50	3.17
	43	3.33	2.91	3.59	2.91	3.90	3.13	4.05	3.12	4.09	3.08	4.18	3.19	4.28	3.10

Heating mode (kW)

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	2.90	2.90	2.90	2.90	2.90
	-17.8	-18	3.09	3.09	3.09	3.09	3.09
	-15.7	-16	3.27	3.27	3.27	3.27	3.27
	-13.7	-14	3.46	3.46	3.46	3.46	3.46
	-11.7	-12	3.65	3.65	3.65	3.65	3.65
P-Hi	-9.6	-10	3.83	3.83	3.83	3.83	3.83
	-7.5	-8	4.07	4.07	4.07	4.07	4.07
12	-5.5	-6	4.30	4.30	4.30	4.30	4.30
(m^3/min)	-3.4	-4	4.45	4.44	4.44	4.39	4.35
	-1.3	-2	4.60	4.59	4.58	4.49	4.40
	0.8	0	4.85	4.78	4.71	4.54	4.38
	3.9	3	5.26	5.08	4.89	4.61	4.34
	7.0	6	5.75	5.38	5.00	4.65	4.30
	10.1	9	5.71	5.35	4.98	4.62	4.26
	13.2	12	5.68	5.31	4.95	4.59	4.23
	16.9	15.5	5.63	5.27	4.91	4.54	4.18

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature: 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			3.46	2.75	4.13	3.11	4.47	3.19	4.76	3.23	5.33	3.49	5.53	3.40
	12			3.46	2.75	4.13	3.11	4.47	3.19	4.75	3.23	5.31	3.48	5.51	3.39
	14			3.46	2.75	4.13	3.11	4.47	3.19	4.74	3.22	5.29	3.47	5.48	3.37
	16			3.46	2.75	4.13	3.11	4.47	3.19	4.74	3.22	5.27	3.46	5.46	3.37
	18			3.46	2.75	4.13	3.11	4.47	3.19	4.73	3.22	5.25	3.46	5.44	3.36
Hi	20			3.46	2.75	4.13	3.11	4.47	3.19	4.72	3.22	5.23	3.45	5.41	3.35
	22			3.45	2.75	4.13	3.11	4.47	3.19	4.70	3.21	5.16	3.42	5.34	3.33
11	24			3.45	2.75	4.13	3.11	4.47	3.19	4.68	3.20	5.10	3.40	5.26	3.30
(m^3/min)	26			3.44	2.74	4.11	3.11	4.43	3.17	4.62	3.17	5.02	3.37	5.18	3.27
	28	3.12	2.71	3.44	2.74	4.09	3.09	4.39	3.15	4.57	3.16	4.94	3.33	5.10	3.24
	30	3.12	2.71	3.43	2.74	4.06	3.08	4.34	3.13	4.52	3.13	4.86	3.31	5.03	3.22
	32	3.12	2.71	3.42	2.73	4.03	3.07	4.30	3.11	4.46	3.11	4.79	3.28	4.95	3.19
	34	3.12	2.71	3.41	2.73	4.01	3.06	4.24	3.09	4.39	3.08	4.69	3.24	4.85	3.16
	35	3.12	2.71	3.41	2.73	4.01	3.06	4.22	3.08	4.36	3.07	4.63	3.22	4.80	3.14
	36	3.12	2.71	3.40	2.73	3.98	3.04	4.20	3.07	4.31	3.05	4.55	3.19	4.70	3.09
	38	3.12	2.71	3.39	2.72	3.91	3.02	4.15	3.05	4.23	3.02	4.39	3.12	4.52	3.03
	39	3.12	2.71	3.39	2.72	3.88	3.00	4.13	3.04	4.19	3.00	4.30	3.09	4.42	3.00
	41	3.12	2.71	3.38	2.72	3.77	2.96	3.96	2.97	4.01	2.93	4.11	3.02	4.22	2.94
	43	3.12	2.71	3.37	2.71	3.65	2.89	3.79	2.91	3.84	2.85	3.92	2.96	4.01	2.87

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	2.70	2.70	2.70	2.70	2.70
	-17.8	-18	2.87	2.87	2.87	2.87	2.87
	-15.7	-16	3.05	3.05	3.05	3.05	3.05
	-13.7	-14	3.22	3.22	3.22	3.22	3.22
	-11.7	-12	3.40	3.40	3.40	3.40	3.40
Hi	-9.6	-10	3.57	3.57	3.57	3.57	3.57
	-7.5	-8	3.79	3.79	3.79	3.79	3.79
11	-5.5	-6	4.00	4.00	4.00	4.00	4.00
(m^3/min)	-3.4	-4	4.14	4.14	4.13	4.09	4.05
	-1.3	-2	4.28	4.27	4.26	4.18	4.10
	0.8	0	4.52	4.45	4.39	4.23	4.07
	3.9	3	4.90	4.73	4.55	4.29	4.04
	7.0	6	5.35	5.00	4.66	4.33	4.00
	10.1	9	5.32	4.98	4.64	4.30	3.97
	13.2	12	5.28	4.95	4.61	4.27	3.93
	16.9	15.5	5.24	4.91	4.57	4.23	3.89

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature: 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			2.95	2.31	3.53	2.61	3.82	2.69	4.06	2.72	4.55	2.94	4.72	2.86
	12			2.95	2.31	3.53	2.61	3.82	2.69	4.06	2.72	4.53	2.93	4.70	2.85
	14			2.95	2.31	3.53	2.61	3.82	2.69	4.05	2.72	4.52	2.92	4.68	2.84
	16			2.95	2.31	3.53	2.61	3.82	2.69	4.05	2.72	4.50	2.92	4.66	2.84
	18			2.95	2.31	3.53	2.61	3.82	2.69	4.04	2.71	4.48	2.91	4.64	2.83
Me	20			2.95	2.31	3.53	2.61	3.82	2.69	4.03	2.71	4.47	2.91	4.62	2.82
	22			2.95	2.31	3.53	2.61	3.82	2.69	4.02	2.71	4.41	2.88	4.56	2.80
9	24			2.94	2.31	3.53	2.61	3.82	2.69	4.00	2.70	4.35	2.86	4.50	2.78
(m^3/min)	26			2.94	2.31	3.51	2.61	3.78	2.67	3.95	2.68	4.29	2.84	4.43	2.75
	28	2.67	2.28	2.94	2.31	3.49	2.60	3.75	2.66	3.90	2.66	4.22	2.81	4.36	2.72
	30	2.67	2.28	2.93	2.30	3.47	2.59	3.71	2.64	3.86	2.64	4.15	2.78	4.29	2.69
	32	2.67	2.28	2.92	2.30	3.44	2.58	3.67	2.62	3.81	2.62	4.09	2.75	4.23	2.68
	34	2.67	2.28	2.92	2.30	3.43	2.57	3.63	2.60	3.75	2.58	4.00	2.72	4.14	2.65
	35	2.67	2.28	2.91	2.30	3.42	2.57	3.60	2.58	3.72	2.57	3.96	2.70	4.10	2.64
	36	2.67	2.28	2.91	2.30	3.40	2.56	3.58	2.58	3.69	2.56	3.89	2.68	4.02	2.61
	38	2.67	2.28	2.90	2.29	3.34	2.54	3.55	2.57	3.61	2.53	3.75	2.63	3.86	2.55
	39	2.67	2.28	2.90	2.29	3.32	2.53	3.53	2.56	3.58	2.52	3.67	2.60	3.78	2.52
	41	2.67	2.28	2.89	2.29	3.22	2.49	3.39	2.50	3.43	2.46	3.51	2.54	3.60	2.46
	43	2.67	2.28	2.88	2.28	3.12	2.44	3.24	2.44	3.28	2.40	3.35	2.48	3.42	2.41

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	2.28	2.28	2.28	2.28	2.28
	-17.8	-18	2.42	2.42	2.42	2.42	2.42
	-15.7	-16	2.57	2.57	2.57	2.57	2.57
	-13.7	-14	2.72	2.72	2.72	2.72	2.72
	-11.7	-12	2.86	2.86	2.86	2.86	2.86
Me	-9.6	-10	3.01	3.01	3.01	3.01	3.01
	-7.5	-8	3.19	3.19	3.19	3.19	3.19
9	-5.5	-6	3.38	3.38	3.38	3.38	3.38
(m^3/min)	-3.4	-4	3.49	3.49	3.49	3.45	3.42
	-1.3	-2	3.61	3.60	3.59	3.52	3.46
	0.8	0	3.81	3.76	3.70	3.57	3.44
	3.9	3	4.13	3.99	3.84	3.62	3.41
	7.0	6	4.52	4.22	3.93	3.65	3.38
	10.1	9	4.49	4.20	3.91	3.63	3.35
	13.2	12	4.46	4.17	3.89	3.60	3.32
	16.9	15.5	4.42	4.14	3.85	3.57	3.28

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature: 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			2.68	2.09	3.21	2.37	3.47	2.42	3.69	2.46	4.13	2.65	4.29	2.58
	12			2.68	2.09	3.21	2.37	3.47	2.42	3.69	2.46	4.12	2.65	4.27	2.57
	14			2.68	2.09	3.21	2.37	3.47	2.42	3.68	2.45	4.10	2.64	4.25	2.56
	16			2.68	2.09	3.21	2.37	3.47	2.42	3.68	2.45	4.09	2.64	4.24	2.56
	18			2.68	2.09	3.21	2.37	3.47	2.42	3.67	2.45	4.07	2.63	4.22	2.56
Lo	20			2.68	2.09	3.21	2.37	3.47	2.42	3.67	2.45	4.06	2.62	4.20	2.54
	22			2.68	2.09	3.21	2.37	3.47	2.42	3.65	2.44	4.01	2.60	4.14	2.53
8	24			2.67	2.08	3.20	2.36	3.47	2.42	3.63	2.43	3.96	2.58	4.08	2.50
(m^3/min)	26			2.67	2.08	3.19	2.36	3.44	2.41	3.59	2.41	3.89	2.55	4.02	2.48
	28	2.42	2.05	2.67	2.08	3.17	2.35	3.40	2.39	3.55	2.40	3.83	2.53	3.96	2.46
	30	2.42	2.05	2.66	2.07	3.15	2.34	3.37	2.38	3.50	2.38	3.77	2.51	3.90	2.44
	32	2.42	2.05	2.66	2.07	3.12	2.33	3.34	2.37	3.46	2.36	3.71	2.48	3.84	2.42
	34	2.42	2.05	2.65	2.07	3.11	2.32	3.29	2.35	3.41	2.34	3.64	2.46	3.76	2.39
	35	2.42	2.05	2.64	2.06	3.11	2.32	3.27	2.34	3.38	2.33	3.60	2.44	3.72	2.37
	36	2.42	2.05	2.64	2.06	3.09	2.31	3.26	2.33	3.35	2.32	3.53	2.41	3.65	2.35
	38	2.42	2.05	2.63	2.06	3.04	2.29	3.22	2.31	3.28	2.29	3.40	2.36	3.50	2.29
	39	2.42	2.05	2.63	2.06	3.01	2.28	3.21	2.31	3.25	2.28	3.34	2.34	3.43	2.27
	41	2.42	2.05	2.62	2.05	2.92	2.23	3.08	2.26	3.11	2.22	3.19	2.29	3.27	2.22
	43	2.42	2.05	2.61	2.05	2.83	2.20	2.94	2.19	2.98	2.16	3.04	2.23	3.11	2.16

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	2.05	2.05	2.05	2.05	2.05
	-17.8	-18	2.19	2.19	2.19	2.19	2.19
	-15.7	-16	2.32	2.32	2.32	2.32	2.32
	-13.7	-14	2.45	2.45	2.45	2.45	2.45
	-11.7	-12	2.58	2.58	2.58	2.58	2.58
Lo	-9.6	-10	2.71	2.71	2.71	2.71	2.71
	-7.5	-8	2.88	2.88	2.88	2.88	2.88
8	-5.5	-6	3.05	3.05	3.05	3.05	3.05
(m^3/min)	-3.4	-4	3.15	3.15	3.14	3.11	3.08
	-1.3	-2	3.26	3.25	3.24	3.18	3.12
	0.8	0	3.43	3.39	3.34	3.22	3.10
	3.9	3	3.73	3.59	3.46	3.27	3.07
	7.0	6	4.07	3.81	3.54	3.29	3.05
	10.1	9	4.05	3.79	3.53	3.27	3.02
	13.2	12	4.02	3.76	3.51	3.25	2.99
	16.9	15.5	3.99	3.73	3.47	3.22	2.96

Notes(1) This data show average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)

(2) Symbols are as follows

TC :Total cooling capacity(kW)

SHC :Sensible heat capacity(kW)

PHA001Z125

Model **FDK56KXZE1** Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature: 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			4.59	3.50	5.49	3.96	5.94	4.07	6.32	4.13	7.07	4.45	7.35	4.33
	12			4.59	3.50	5.49	3.96	5.94	4.07	6.31	4.13	7.05	4.45	7.31	4.31
	14			4.59	3.50	5.49	3.96	5.94	4.07	6.30	4.12	7.02	4.43	7.28	4.30
	16			4.59	3.50	5.49	3.96	5.94	4.07	6.29	4.12	7.00	4.42	7.25	4.29
	18			4.59	3.50	5.49	3.96	5.94	4.07	6.28	4.11	6.97	4.41	7.22	4.28
P-Hi	20			4.59	3.50	5.49	3.96	5.94	4.07	6.27	4.11	6.95	4.40	7.19	4.27
	22			4.58	3.50	5.49	3.96	5.94	4.07	6.24	4.10	6.86	4.36	7.09	4.24
12	24			4.58	3.50	5.48	3.96	5.94	4.07	6.21	4.09	6.77	4.33	6.99	4.19
(m³/min)	26			4.57	3.49	5.46	3.95	5.88	4.04	6.14	4.06	6.66	4.28	6.88	4.16
	28	4.14	3.44	4.57	3.49	5.43	3.94	5.82	4.02	6.07	4.02	6.56	4.24	6.78	4.12
	30	4.14	3.44	4.56	3.48	5.39	3.92	5.77	3.99	6.00	3.99	6.46	4.20	6.67	4.06
	32	4.14	3.44	4.55	3.48	5.35	3.90	5.71	3.97	5.93	3.96	6.36	4.16	6.57	4.03
	34	4.14	3.44	4.53	3.47	5.33	3.89	5.64	3.94	5.83	3.92	6.22	4.10	6.44	3.98
	35	4.14	3.44	4.52	3.46	5.32	3.89	5.60	3.92	5.79	3.91	6.16	4.07	6.37	3.96
	36	4.14	3.44	4.52	3.46	5.28	3.87	5.57	3.90	5.73	3.88	6.05	4.03	6.25	3.92
	38	4.14	3.44	4.51	3.46	5.20	3.84	5.52	3.88	5.62	3.83	5.82	3.95	6.00	3.83
	39	4.14	3.44	4.50	3.45	5.16	3.82	5.49	3.87	5.56	3.81	5.71	3.91	5.87	3.79
	41	4.14	3.44	4.49	3.45	5.00	3.75	5.26	3.77	5.33	3.71	5.46	3.82	5.60	3.70
	43	4.14	3.44	4.47	3.44	4.85	3.68	5.04	3.68	5.10	3.62	5.21	3.73	5.32	3.60

Heating mode (kW)

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	3.65	3.65	3.65	3.65	3.65
	-17.8	-18	3.89	3.89	3.89	3.89	3.89
	-15.7	-16	4.12	4.12	4.12	4.12	4.12
	-13.7	-14	4.36	4.36	4.36	4.36	4.36
	-11.7	-12	4.59	4.59	4.59	4.59	4.59
P-Hi	-9.6	-10	4.83	4.83	4.83	4.83	4.83
	-7.5	-8	5.12	5.12	5.12	5.12	5.12
13	-5.5	-6	5.42	5.42	5.42	5.42	5.42
(m³/min)	-3.4	-4	5.61	5.60	5.59	5.54	5.48
	-1.3	-2	5.80	5.78	5.76	5.65	5.54
	0.8	0	6.11	6.02	5.94	5.73	5.51
	3.9	3	6.63	6.39	6.16	5.81	5.47
	7.0	6	7.25	6.77	6.30	5.86	5.42
	10.1	9	7.20	6.74	6.28	5.82	5.37
	13.2	12	7.15	6.69	6.24	5.78	5.32
	16.9	15.5	7.10	6.64	6.18	5.73	5.27

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature: 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			4.30	3.25	5.14	3.69	5.56	3.78	5.92	3.84	6.63	4.14	6.88	4.03
	12			4.30	3.25	5.14	3.69	5.56	3.78	5.91	3.84	6.60	4.13	6.85	4.02
	14			4.30	3.25	5.14	3.69	5.56	3.78	5.90	3.83	6.58	4.12	6.82	4.01
	16			4.30	3.25	5.14	3.69	5.56	3.78	5.89	3.83	6.56	4.12	6.79	3.99
	18			4.30	3.25	5.14	3.69	5.56	3.78	5.89	3.83	6.53	4.10	6.76	3.98
Hi	20			4.30	3.25	5.14	3.69	5.56	3.78	5.88	3.83	6.51	4.10	6.73	3.97
	22			4.29	3.25	5.14	3.69	5.56	3.78	5.85	3.81	6.43	4.06	6.64	3.94
11	24			4.29	3.25	5.14	3.69	5.56	3.78	5.82	3.80	6.34	4.02	6.55	3.90
(m³/min)	26			4.29	3.25	5.11	3.67	5.51	3.76	5.75	3.77	6.24	3.98	6.45	3.86
	28	3.88	3.19	4.28	3.24	5.09	3.66	5.46	3.74	5.69	3.75	6.14	3.94	6.35	3.83
	30	3.88	3.19	4.27	3.24	5.05	3.64	5.40	3.71	5.62	3.71	6.05	3.91	6.25	3.79
	32	3.88	3.19	4.26	3.24	5.01	3.62	5.35	3.69	5.55	3.68	5.96	3.87	6.16	3.76
	34	3.88	3.19	4.25	3.23	4.99	3.62	5.28	3.66	5.46	3.65	5.83	3.82	6.03	3.71
	35	3.88	3.19	4.24	3.23	4.98	3.61	5.25	3.65	5.42	3.63	5.77	3.79	5.97	3.69
	36	3.88	3.19	4.23	3.22	4.95	3.60	5.22	3.63	5.37	3.61	5.66	3.75	5.85	3.65
	38	3.88	3.19	4.22	3.21	4.87	3.56	5.17	3.61	5.26	3.56	5.46	3.68	5.62	3.55
	39	3.88	3.19	4.22	3.21	4.83	3.55	5.14	3.60	5.21	3.54	5.35	3.62	5.50	3.51
	41	3.88	3.19	4.20	3.20	4.69	3.48	4.93	3.51	4.99	3.45	5.12	3.54	5.25	3.43
	43	3.88	3.19	4.19	3.20	4.54	3.42	4.72	3.42	4.77	3.36	4.88	3.45	4.99	3.34

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	3.43	3.43	3.43	3.43	3.43
	-17.8	-18	3.65	3.65	3.65	3.65	3.65
	-15.7	-16	3.87	3.87	3.87	3.87	3.87
	-13.7	-14	4.09	4.09	4.09	4.09	4.09
	-11.7	-12	4.31	4.31	4.31	4.31	4.31
Hi	-9.6	-10	4.53	4.53	4.53	4.53	4.53
	-7.5	-8	4.80	4.80	4.80	4.80	4.80
12	-5.5	-6	5.08	5.08	5.08	5.08	5.08
(m³/min)	-3.4	-4	5.26	5.25	5.24	5.19	5.14
	-1.3	-2	5.44	5.42	5.41	5.30	5.20
	0.8	0	5.73	5.65	5.57	5.37	5.17
	3.9	3	6.22	6.00	5.77	5.45	5.12
	7.0	6	6.79	6.35	5.91	5.49	5.08
	10.1	9	6.75	6.32	5.89	5.46	5.04
	13.2	12	6.71	6.28	5.85	5.42	4.99
	16.9	15.5	6.65	6.23	5.80	5.37	4.94

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature: 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			3.67	2.73	4.39	3.10	4.75	3.19	5.05	3.24	5.66	3.49	5.88	3.40
	12			3.67	2.73	4.39	3.10	4.75	3.19	5.05	3.24	5.64	3.49	5.85	3.39
	14			3.67	2.73	4.39	3.10	4.75	3.19	5.04	3.23	5.62	3.48	5.83	3.37
	16			3.67	2.73	4.39	3.10	4.75	3.19	5.03	3.23	5.60	3.47	5.80	3.36
	18			3.67	2.73	4.39	3.10	4.75	3.19	5.03	3.23	5.58	3.46	5.78	3.35
Me	20			3.67	2.73	4.39	3.10	4.75	3.19	5.02	3.22	5.56	3.45	5.75	3.34
	22			3.67	2.73	4.39	3.10	4.75	3.19	5.00	3.22	5.49	3.42	5.67	3.31
9	24			3.66	2.73	4.39	3.10	4.75	3.19	4.97	3.20	5.42	3.39	5.60	3.29
(m³/min)	26			3.66	2.73	4.37	3.09	4.71	3.17	4.92	3.18	5.33	3.36	5.51	3.25
	28	3.32	2.69	3.66	2.73	4.35	3.08	4.66	3.15	4.86	3.16	5.25	3.32	5.42	3.22
	30	3.32	2.69	3.65	2.72	4.31	3.07	4.62	3.13	4.80	3.13	5.17	3.29	5.34	3.19
	32	3.32	2.69	3.64	2.72	4.28	3.05	4.57	3.11	4.74	3.10	5.09	3.26	5.26	3.16
	34	3.32	2.69	3.63	2.71	4.27	3.05	4.51	3.08	4.67	3.07	4.98	3.21	5.15	3.12
	35	3.32	2.69	3.62	2.71	4.26	3.04	4.48	3.07	4.63	3.05	4.93	3.19	5.10	3.10
	36	3.32	2.69	3.62	2.71	4.23	3.03	4.46	3.06	4.59	3.04	4.84	3.16	5.00	3.07
	38	3.32	2.69	3.61	2.70	4.16	3.00	4.41	3.04	4.50	3.00	4.66	3.08	4.80	2.99
	39	3.32	2.69	3.60	2.70	4.13	2.98	4.39	3.03	4.45	2.98	4.57	3.05	4.70	2.96
	41	3.32	2.69	3.59	2.70	4.01	2.93	4.21	2.95	4.27	2.90	4.37	2.97	4.48	2.88
	43	3.32	2.69	3.58	2.69	3.88	2.87	4.03	2.87	4.08	2.83	4.17	2.90	4.26	2.80

Air flow	Outdoor temp DB	Outdoor temp WB	Indoor temp 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	2.95	2.95	2.95	2.95	2.95
	-17.8	-18	3.14	3.14	3.14	3.14	3.14
	-15.7	-16	3.33	3.33	3.33	3.33	3.33
	-13.7	-14	3.51	3.51	3.51	3.51	3.51
	-11.7	-12	3.70	3.70	3.70	3.70	3.70
Me	-9.6	-10	3.89	3.89	3.89	3.89	3.89
	-7.5	-8	4.13	4.13	4.13	4.13	4.13
10	-5.5	-6	4.37	4.37	4.37	4.37	4.37
(m³/min)	-3.4	-4	4.52	4.51	4.51	4.46	4.42
	-1.3	-2	4.67	4.66	4.65	4.56	4.47
	0.8	0	4.93	4.86	4.79	4.62	4.44
	3.9	3	5.35	5.16	4.96	4.69	4.41
	7.0	6	5.84	5.46	5.08	4.72	4.37
	10.1	9	5.80	5.43	5.06	4.69	4.33
	13.2	12	5.76	5.40	5.03	4.66	4.29
	16.9	15.5	5.72	5.35	4.98	4.62	4.25

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature: 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			3.34	2.47	3.99	2.80	4.32	2.88	4.59	2.93	5.14	3.15	5.34	3.06
	12			3.34	2.47	3.99	2.80	4.32	2.88	4.59	2.93	5.13	3.15	5.32	3.06
	14			3.34	2.47	3.99	2.80	4.32	2.88	4.58	2.92	5.11	3.14	5.29	3.04
	16			3.34	2.47	3.99	2.80	4.32	2.88	4.57	2.92	5.09	3.13	5.27	3.04
	18			3.34	2.47	3.99	2.80	4.32	2.88	4.57	2.92	5.07	3.12	5.25	3.03
Lo	20			3.34	2.47	3.99	2.80	4.32	2.88	4.56	2.91	5.05	3.12	5.23	3.02
	22			3.33	2.47	3.99	2.80	4.32	2.88	4.54	2.90	4.99	3.09	5.15	2.99
8	24			3.33	2.47	3.99	2.80	4.32	2.88	4.52	2.89	4.92	3.06	5.08	2.96
(m³/min)	26			3.33	2.47	3.97	2.79	4.28	2.86	4.47	2.87	4.85	3.03	5.01	2.94
	28	3.01	2.42	3.32	2.46	3.95	2.78	4.23	2.84	4.41	2.84	4.77	3.00	4.93	2.90
	30	3.01	2.42	3.31	2.46	3.92	2.77	4.19	2.82	4.36	2.82	4.70	2.97	4.85	2.87
	32	3.01	2.42	3.31	2.46	3.89	2.75	4.15	2.80	4.31	2.80	4.62	2.93	4.78	2.85
	34	3.01	2.42	3.30	2.45	3.88	2.75	4.10	2.78	4.24	2.77	4.52	2.89	4.68	2.81
	35	3.01	2.42	3.29	2.45	3.87	2.75	4.07	2.77	4.21	2.76	4.48	2.88	4.63	2.79
	36	3.01	2.42	3.29	2.45	3.84	2.73	4.05	2.76	4.17	2.74	4.40	2.84	4.54	2.76
	38	3.01	2.42	3.28	2.44	3.78	2.71	4.01	2.74	4.09	2.71	4.23	2.78	4.36	2.69
	39	3.01	2.42	3.27	2.43	3.75	2.69	3.99	2.73	4.05	2.69	4.15	2.75	4.27	2.66
	41	3.01	2.42	3.26	2.43	3.64	2.64	3.83	2.66	3.88	2.62	3.97	2.68	4.07	2.59
	43	3.01	2.42	3.25	2.42	3.53	2.59	3.66	2.59	3.71	2.55	3.79	2.61	3.87	2.52

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	2.43	2.43	2.43	2.43	2.43
	-17.8	-18	2.58	2.58	2.58	2.58	2.58
	-15.7	-16	2.74	2.74	2.74	2.74	2.74
	-13.7	-14	2.90	2.90	2.90	2.90	2.90
	-11.7	-12	3.05	3.05	3.05	3.05	3.05
Lo	-9.6	-10	3.21	3.21	3.21	3.21	3.21
	-7.5	-8	3.40	3.40	3.40	3.40	3.40
8	-5.5	-6	3.60	3.60	3.60	3.60	3.60
(m³/min)	-3.4	-4	3.72	3.72	3.71	3.68	3.64
	-1.3	-2	3.85	3.84	3.83	3.76	3.68
	0.8	0	4.06	4.00	3.94	3.80	3.66
	3.9	3	4.40	4.25	4.09	3.86	3.63
	7.0	6	4.81	4.50	4.18	3.89	3.60
	10.1	9	4.78	4.47	4.17	3.87	3.57
	13.2	12	4.75	4.45	4.14	3.84	3.54
	16.9	15.5	4.71	4.41	4.11	3.80	3.50

Notes(1) This data show average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)

(2) Symbols are as follows

TC :Total cooling capacity(kW)

SHC :Sensible heat capacity(kW)

PHA001Z125

Model **FDK71KXZE1** Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB		23 °CDB 16 °CWB		26 °CDB 18 °CWB		27 °CDB 19 °CWB		28 °CDB 20 °CWB		31 °CDB 22 °CWB		33 °CDB 24 °CWB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	10			5.82	4.81	6.96	5.43	7.53	5.55	8.01	5.62	8.97	6.07	9.31	5.92
	12			5.82	4.81	6.96	5.43	7.53	5.55	8.00	5.62	8.94	6.06	9.27	5.90
	14			5.82	4.81	6.96	5.43	7.53	5.55	7.99	5.62	8.90	6.04	9.23	5.89
	16			5.82	4.81	6.96	5.43	7.53	5.55	7.97	5.61	8.87	6.04	9.19	5.88
	18			5.82	4.81	6.96	5.43	7.53	5.55	7.96	5.61	8.84	6.03	9.15	5.87
P-Hi	20			5.82	4.81	6.96	5.43	7.53	5.55	7.95	5.60	8.81	6.02	9.11	5.85
	22			5.81	4.80	6.95	5.42	7.53	5.55	7.92	5.58	8.70	5.97	8.99	5.81
21	24			5.80	4.80	6.95	5.42	7.53	5.55	7.88	5.57	8.58	5.92	8.86	5.73
(m³/min)	26			5.80	4.80	6.92	5.41	7.46	5.52	7.79	5.54	8.45	5.88	8.73	5.70
	28	5.25	4.73	5.79	4.79	6.89	5.40	7.38	5.49	7.69	5.49	8.31	5.80	8.59	5.65
	30	5.25	4.73	5.78	4.78	6.83	5.38	7.31	5.46	7.60	5.46	8.19	5.76	8.46	5.62
	32	5.25	4.73	5.77	4.78	6.78	5.35	7.24	5.43	7.51	5.42	8.06	5.72	8.33	5.58
	34	5.25	4.73	5.75	4.77	6.76	5.34	7.15	5.39	7.39	5.38	7.89	5.67	8.16	5.52
	35	5.25	4.73	5.74	4.76	6.75	5.34	7.10	5.37	7.33	5.34	7.80	5.64	8.08	5.50
	36	5.25	4.73	5.73	4.76	6.69	5.32	7.06	5.36	7.26	5.32	7.66	5.58	7.92	5.44
	38	5.25	4.73	5.72	4.76	6.59	5.28	6.99	5.33	7.12	5.26	7.38	5.48	7.61	5.34
	39	5.25	4.73	5.71	4.75	6.54	5.25	6.96	5.32	7.05	5.24	7.24	5.43	7.45	5.28
	41	5.25	4.73	5.69	4.74	6.35	5.18	6.67	5.20	6.76	5.13	6.92	5.32	7.10	5.17
	43	5.25	4.73	5.67	4.74	6.15	5.07	6.39	5.06	6.46	4.99	6.60	5.21	6.75	5.06

Heating mode (kW)

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	4.64	4.64	4.64	4.64	4.64
	-17.8	-18	4.94	4.94	4.94	4.94	4.94
	-15.7	-16	5.24	5.24	5.24	5.24	5.24
	-13.7	-14	5.54	5.54	5.54	5.54	5.54
	-11.7	-12	5.83	5.83	5.83	5.83	5.83
P-Hi	-9.6	-10	6.13	6.13	6.13	6.13	6.13
	-7.5	-8	6.51	6.51	6.51	6.51	6.51
21	-5.5	-6	6.88	6.88	6.88	6.88	6.88
(m³/min)	-3.4	-4	7.12	7.11	7.10	7.03	6.96
	-1.3	-2	7.36	7.34	7.32	7.18	7.04
	0.8	0	7.76	7.65	7.54	7.27	7.00
	3.9	3	8.42	8.12	7.82	7.38	6.94
	7.0	6	9.20	8.60	8.00	7.44	6.88
	10.1	9	9.14	8.56	7.97	7.40	6.82
	13.2	12	9.08	8.50	7.92	7.34	6.76
	16.9	15.5	9.01	8.43	7.85	7.27	6.69

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB		23 °CDB 16 °CWB		26 °CDB 18 °CWB		27 °CDB 19 °CWB		28 °CDB 20 °CWB		31 °CDB 22 °CWB		33 °CDB 24 °CWB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	10			5.39	4.40	6.44	4.98	6.97	5.09	7.42	5.17	8.31	5.58	8.63	5.44
	12			5.39	4.40	6.44	4.98	6.97	5.09	7.41	5.17	8.28	5.57	8.59	5.43
	14			5.39	4.40	6.44	4.98	6.97	5.09	7.40	5.16	8.25	5.56	8.55	5.42
	16			5.39	4.40	6.44	4.98	6.97	5.09	7.39	5.16	8.22	5.55	8.51	5.40
	18			5.39	4.40	6.44	4.98	6.97	5.09	7.38	5.16	8.19	5.53	8.48	5.38
Hi	20			5.39	4.40	6.44	4.98	6.97	5.09	7.37	5.15	8.16	5.52	8.44	5.37
	22			5.38	4.40	6.44	4.98	6.97	5.09	7.33	5.13	8.05	5.49	8.33	5.34
19	24			5.38	4.40	6.44	4.98	6.97	5.09	7.30	5.10	7.95	5.44	8.21	5.29
(m³/min)	26			5.37	4.39	6.41	4.97	6.91	5.07	7.21	5.07	7.83	5.40	8.08	5.25
	28	4.87	4.35	5.37	4.39	6.38	4.96	6.84	5.04	7.13	5.04	7.70	5.35	7.96	5.21
	30	4.87	4.35	5.35	4.39	6.33	4.94	6.77	5.01	7.04	5.01	7.58	5.31	7.84	5.17
	32	4.87	4.35	5.34	4.38	6.28	4.91	6.71	4.99	6.96	4.98	7.47	5.26	7.72	5.12
	34	4.87	4.35	5.32	4.37	6.26	4.91	6.62	4.95	6.85	4.94	7.31	5.20	7.56	5.07
	35	4.87	4.35	5.31	4.37	6.25	4.90	6.58	4.94	6.79	4.91	7.23	5.17	7.48	5.04
	36	4.87	4.35	5.31	4.37	6.20	4.88	6.54	4.92	6.73	4.89	7.10	5.12	7.34	4.97
	38	4.87	4.35	5.29	4.36	6.11	4.85	6.48	4.90	6.60	4.84	6.84	5.01	7.04	4.88
	39	4.87	4.35	5.29	4.36	6.06	4.82	6.45	4.89	6.53	4.81	6.71	4.97	6.90	4.84
	41	4.87	4.35	5.27	4.35	5.88	4.75	6.18	4.77	6.26	4.71	6.41	4.87	6.58	4.75
	43	4.87	4.35	5.25	4.35	5.70	4.68	5.92	4.67	5.98	4.60	6.11	4.77	6.25	4.63

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	4.28	4.28	4.28	4.28	4.28
	-17.8	-18	4.55	4.55	4.55	4.55	4.55
	-15.7	-16	4.83	4.83	4.83	4.83	4.83
	-13.7	-14	5.10	5.10	5.10	5.10	5.10
	-11.7	-12	5.38	5.38	5.38	5.38	5.38
Hi	-9.6	-10	5.66	5.66	5.66	5.66	5.66
	-7.5	-8	6.00	6.00	6.00	6.00	6.00
19	-5.5	-6	6.34	6.34	6.34	6.34	6.34
(m³/min)	-3.4	-4	6.56	6.56	6.55	6.48	6.42
	-1.3	-2	6.79	6.77	6.75	6.62	6.49
	0.8	0	7.15	7.05	6.95	6.70	6.45
	3.9	3	7.76	7.49	7.21	6.80	6.40
	7.0	6	8.48	7.93	7.38	6.86	6.34
	10.1	9	8.43	7.89	7.35	6.82	6.29
	13.2	12	8.37	7.84	7.30	6.77	6.23
	16.9	15.5	8.31	7.77	7.24	6.70	6.17

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB		23 °CDB 16 °CWB		26 °CDB 18 °CWB		27 °CDB 19 °CWB		28 °CDB 20 °CWB		31 °CDB 22 °CWB		33 °CDB 24 °CWB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	10			4.70	3.80	5.62	4.30	6.08	4.40	6.47	4.46	7.24	4.81	7.52	4.69
	12			4.70	3.80	5.62	4.30	6.08	4.40	6.46	4.46	7.22	4.80	7.49	4.67
	14			4.70	3.80	5.62	4.30	6.08	4.40	6.45	4.45	7.19	4.79	7.46	4.66
	16			4.70	3.80	5.62	4.30	6.08	4.40	6.44	4.44	7.17	4.78	7.42	4.65
	18			4.70	3.80	5.62	4.30	6.08	4.40	6.43	4.44	7.14	4.77	7.39	4.64
Me	20			4.70	3.80	5.62	4.30	6.08	4.40	6.42	4.43	7.11	4.76	7.36	4.63
	22			4.69	3.80	5.62	4.30	6.08	4.40	6.39	4.42	7.02	4.73	7.26	4.60
16	24			4.69	3.80	5.61	4.30	6.08	4.40	6.36	4.41	6.93	4.69	7.16	4.56
(m³/min)	26			4.68	3.79	5.59	4.29	6.02	4.38	6.29	4.38	6.82	4.65	7.05	4.50
	28	4.24	3.74	4.68	3.79	5.56	4.27	5.96	4.35	6.21	4.35	6.71	4.61	6.94	4.46
	30	4.24	3.74	4.67	3.79	5.52	4.25	5.91	4.33	6.14	4.32	6.61	4.55	6.83	4.43
	32	4.24	3.74	4.66	3.78	5.48	4.24	5.85	4.30	6.07	4.29	6.51	4.52	6.73	4.40
	34	4.24	3.74	4.64	3.78	5.46	4.23	5.77	4.27	5.97	4.25	6.37	4.47	6.59	4.36
	35	4.24	3.74	4.63	3.76	5.45	4.23	5.73	4.25	5.92	4.23	6.30	4.45	6.52	4.33
	36	4.24	3.74	4.63	3.76	5.41	4.21	5.71	4.25	5.87	4.22	6.19	4.41	6.40	4.30
	38	4.24	3.74	4.62	3.76	5.32	4.17	5.65	4.22	5.75	4.17	5.96	4.32	6.14	4.21
	39	4.24	3.74	4.61	3.76	5.28	4.15	5.62	4.20	5.70	4.15	5.85	4.29	6.02	4.17
	41	4.24	3.74	4.59	3.75	5.13	4.07	5.39	4.11	5.46	4.03	5.59	4.19	5.73	4.08
	43	4.24	3.74	4.58	3.74	4.97	4.01	5.16	4.01	5.22	3.95	5.33	4.10	5.45	3.98

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	3.70	3.70	3.70	3.70	3.70
	-17.8	-18	3.94	3.94	3.94	3.94	3.94
	-15.7	-16	4.18	4.18	4.18	4.18	4.18
	-13.7	-14	4.42	4.42	4.42	4.42	4.42
	-11.7	-12	4.66	4.66	4.66	4.66	4.66
Me	-9.6	-10	4.90	4.90	4.90	4.90	4.90
	-7.5	-8	5.20	5.20	5.20	5.20	5.20
16	-5.5	-6	5.49	5.49	5.49	5.49	5.49
(m³/min)	-3.4	-4	5.69	5.68	5.67	5.61	5.56
	-1.3	-2	5.88	5.86	5.84	5.73	5.62
	0.8	0	6.20	6.11	6.02	5.81	5.59
	3.9	3	6.72	6.48	6.24	5.89	5.54
	7.0	6	7.35	6.87	6.39	5.94	5.49
	10.1	9	7.30	6.83	6.36	5.90	5.45
	13.2	12	7.25	6.79	6.32	5.86	5.40
	16.9	15.5	7.19	6.73	6.27	5.81	5.34

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB		23 °CDB 16 °CWB		26 °CDB 18 °CWB		27 °CDB 19 °CWB		28 °CDB 20 °CWB		31 °CDB 22 °CWB		33 °CDB 24 °CWB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	10			4.21	3.38	5.03	3.82	5.44	3.90	5.79	3.96	6.49	4.27	6.73	4.16
	12			4.21	3.38	5.03	3.82	5.44	3.90	5.78	3.96	6.46	4.26	6.70	4.16
	14			4.21	3.38	5.03	3.82	5.44	3.90	5.77	3.94	6.44	4.25	6.68	4.14
	16			4.21	3.38	5.03	3.82	5.44	3.90	5.77	3.94	6.42	4.25	6.65	4.13
	18			4.21	3.38	5.03	3.82	5.44	3.90	5.76	3.93	6.39	4.24	6.62	4.12
Lo	20			4.21	3.38	5.03	3.82	5.44	3.90	5.75	3.93	6.37	4.23	6.59	4.12
	22			4.20	3.37	5.03	3.82	5.44	3.90	5.72	3.92	6.29	4.20	6.50	4.08
14	24			4.20	3.37	5.03	3.82	5.44	3.90	5.70	3.91	6.21	4.17	6.41	4.05
(m³/min)	26			4.19	3.37	5.00	3.80	5.39	3.88	5.63	3.89	6.11	4.13	6.31	4.02
	28	3.80	3.32	4.19	3.37	4.98	3.79	5.34	3.86	5.56	3.86	6.01	4.09	6.21	3.98
	30	3.80	3.32	4.18	3.36	4.94	3.78	5.29	3.85	5.50	3.84	5.92	4.05	6.12	3.94
	32	3.80	3.32	4.17	3.36	4.90	3.76	5.24	3.82	5.43	3.82	5.83	4.02	6.03	3.92
	34	3.80	3.32	4.16	3.36	4.89	3.76	5.17	3.79	5.35	3.78	5.70	3.97	5.90	3.87
	35	3.80	3.32	4.15	3.35	4.88	3.75	5.13	3.77	5.30	3.76	5.64	3.95	5.84	3.85
	36	3.80	3.32	4.14	3.35	4.84	3.73	5.11	3.77	5.25	3.74	5.54	3.92	5.73	3.81
	38	3.80	3.32	4.13	3.34	4.77	3.71	5.06	3.75	5.15	3.70	5.34	3.82	5.50	3.72
	39	3.80	3.32	4.13	3.34	4.73	3.69	5.03	3.74	5.10	3.68	5.24	3.79	5.39	3.69
	41	3.80	3.32	4.11	3.33	4.59	3.63	4.83	3.65	4.89	3.60	5.01	3.72	5.13	3.61
	43	3.80	3.32	4.10	3.32	4.45	3.57	4.62	3.56	4.67	3.51	4.77	3.63	4.88	3.53

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	3.30	3.30	3.30	3.30	3.30
	-17.8	-18	3.51	3.51	3.51	3.51	3.51
	-15.7	-16	3.73	3.73	3.73	3.73	3.73
	-13.7	-14	3.94	3.94	3.94	3.94	3.94
	-11.7	-12	4.15	4.15	4.15	4.15	4.15
Lo	-9.6	-10	4.36	4.36	4.36	4.36	4.36
	-7.5	-8	4.63	4.63	4.63	4.63	4.63
14	-5.5	-6	4.90	4.90	4.90	4.90	4.90
(m³/min)	-3.4	-4	5.07	5.06	5.05	5.00	4.95
	-1.3	-2	5.24	5.22	5.21	5.11	5.01
	0.8	0	5.52	5.44	5.37	5.17	4.98
	3.9	3	5.99	5.78	5.56	5.25	4.94
	7.0	6	6.55	6.12	5.69	5.29	4.90
	10.1	9	6.50	6.09	5.67	5.26	4.85
	13.2	12	6.46	6.05	5.64	5.22	4.81
	16.9	15.5	6.41	6.00	5.59	5.17	4.76

Notes(1) This data show average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)

(2) Symbols are as follows

TC :Total cooling capacity(kW)

SHC :Sensible heat capacity(kW)

PHA001Z125

Model **FDK90KXZE1** Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature: 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			7.38	5.84	8.82	6.60	9.54	6.77	10.15	6.87	11.37	7.41	11.80	7.21
	12			7.38	5.84	8.82	6.60	9.54	6.77	10.14	6.86	11.33	7.39	11.75	7.19
	14			7.38	5.84	8.82	6.60	9.54	6.77	10.12	6.86	11.29	7.38	11.70	7.18
	16			7.38	5.84	8.82	6.60	9.54	6.77	10.11	6.85	11.25	7.35	11.65	7.16
	18			7.38	5.84	8.82	6.60	9.54	6.77	10.09	6.84	11.20	7.34	11.60	7.13
P-Hi	20			7.38	5.84	8.82	6.60	9.54	6.77	10.08	6.83	11.16	7.32	11.55	7.12
	22			7.37	5.84	8.82	6.60	9.54	6.77	10.03	6.81	11.02	7.27	11.39	7.07
23	24			7.36	5.83	8.81	6.59	9.54	6.77	9.99	6.80	10.88	7.21	11.24	7.01
(m³/min)	26			7.35	5.83	8.77	6.58	9.45	6.73	9.87	6.75	10.71	7.14	11.06	6.91
	28	6.66	5.75	7.34	5.82	8.73	6.56	9.36	6.70	9.75	6.70	10.54	7.09	10.89	6.86
	30	6.66	5.75	7.33	5.82	8.66	6.53	9.27	6.65	9.64	6.65	10.38	7.00	10.73	6.81
	32	6.66	5.75	7.31	5.81	8.60	6.51	9.18	6.59	9.53	6.60	10.22	6.94	10.56	6.76
	34	6.66	5.75	7.28	5.80	8.57	6.50	9.06	6.55	9.37	6.52	10.00	6.87	10.35	6.69
	35	6.66	5.75	7.27	5.79	8.55	6.49	9.00	6.52	9.30	6.49	9.89	6.83	10.24	6.66
	36	6.66	5.75	7.26	5.79	8.49	6.46	8.96	6.51	9.21	6.46	9.72	6.77	10.04	6.59
	38	6.66	5.75	7.25	5.79	8.36	6.41	8.87	6.47	9.03	6.40	9.36	6.64	9.64	6.45
	39	6.66	5.75	7.24	5.78	8.29	6.37	8.82	6.46	8.94	6.36	9.18	6.57	9.44	6.38
	41	6.66	5.75	7.21	5.77	8.04	6.28	8.46	6.31	8.56	6.21	8.77	6.42	9.00	6.23
	43	6.66	5.75	7.19	5.76	7.80	6.17	8.10	6.16	8.19	6.07	8.37	6.28	8.56	6.09

Heating mode (kW)

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	5.80	5.80	5.80	5.80	5.80
	-17.8	-18	6.17	6.17	6.17	6.17	6.17
	-15.7	-16	6.55	6.55	6.55	6.55	6.55
	-13.7	-14	6.92	6.92	6.92	6.92	6.92
P-Hi	-11.7	-12	7.29	7.29	7.29	7.29	7.29
	-9.6	-10	7.67	7.67	7.67	7.67	7.67
	-7.5	-8	8.13	8.13	8.13	8.13	8.13
23	-5.5	-6	8.60	8.60	8.60	8.60	8.60
(m³/min)	-3.4	-4	8.90	8.89	8.88	8.79	8.70
	-1.3	-2	9.20	9.18	9.15	8.98	8.80
	0.8	0	9.70	9.56	9.43	9.09	8.75
	3.9	3	10.53	10.15	9.78	9.23	8.68
	7.0	6	11.50	10.75	10.00	9.30	8.60
	10.1	9	11.43	10.69	9.96	9.24	8.53
	13.2	12	11.35	10.63	9.90	9.18	8.45
	16.9	15.5	11.26	10.54	9.81	9.09	8.36

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature: 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			6.90	5.42	8.25	6.13	8.92	6.28	9.49	6.37	10.63	6.87	11.04	6.69
	12			6.90	5.42	8.25	6.13	8.92	6.28	9.48	6.36	10.59	6.86	10.99	6.67
	14			6.90	5.42	8.25	6.13	8.92	6.28	9.46	6.36	10.55	6.85	10.94	6.66
	16			6.90	5.42	8.25	6.13	8.92	6.28	9.45	6.35	10.51	6.83	10.89	6.64
	18			6.90	5.42	8.25	6.13	8.92	6.28	9.44	6.35	10.48	6.81	10.85	6.63
Hi	20			6.90	5.42	8.25	6.13	8.92	6.28	9.43	6.35	10.44	6.80	10.80	6.60
	22			6.89	5.41	8.24	6.13	8.92	6.28	9.38	6.33	10.31	6.75	10.65	6.55
21	24			6.88	5.41	8.24	6.13	8.92	6.28	9.34	6.31	10.17	6.69	10.50	6.50
(m³/min)	26			6.87	5.40	8.20	6.11	8.83	6.24	9.23	6.26	10.01	6.63	10.34	6.43
	28	6.23	5.32	6.87	5.40	8.16	6.10	8.75	6.21	9.12	6.22	9.85	6.57	10.18	6.38
	30	6.23	5.32	6.85	5.39	8.10	6.06	8.67	6.18	9.01	6.17	9.70	6.51	10.03	6.33
	32	6.23	5.32	6.83	5.39	8.04	6.04	8.58	6.13	8.91	6.13	9.55	6.44	9.88	6.28
	34	6.23	5.32	6.81	5.38	8.01	6.03	8.47	6.09	8.76	6.06	9.35	6.38	9.67	6.20
	35	6.23	5.32	6.80	5.37	7.99	6.02	8.41	6.07	8.69	6.04	9.25	6.33	9.57	6.17
	36	6.23	5.32	6.79	5.35	7.93	6.00	8.37	6.05	8.61	6.01	9.08	6.28	9.38	6.10
	38	6.23	5.32	6.77	5.34	7.81	5.94	8.29	6.01	8.44	5.94	8.75	6.15	9.01	5.95
	39	6.23	5.32	6.77	5.34	7.75	5.92	8.25	5.99	8.36	5.91	8.58	6.06	8.83	5.90
	41	6.23	5.32	6.74	5.33	7.52	5.81	7.91	5.85	8.01	5.77	8.20	5.94	8.41	5.77
	43	6.23	5.32	6.72	5.32	7.29	5.70	7.57	5.69	7.66	5.61	7.82	5.81	8.00	5.64

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	5.40	5.40	5.40	5.40	5.40
	-17.8	-18	5.75	5.75	5.75	5.75	5.75
	-15.7	-16	6.09	6.09	6.09	6.09	6.09
	-13.7	-14	6.44	6.44	6.44	6.44	6.44
	-11.7	-12	6.79	6.79	6.79	6.79	6.79
Hi	-9.6	-10	7.13	7.13	7.13	7.13	7.13
	-7.5	-8	7.57	7.57	7.57	7.57	7.57
21	-5.5	-6	8.00	8.00	8.00	8.00	8.00
(m³/min)	-3.4	-4	8.28	8.27	8.26	8.18	8.10
	-1.3	-2	8.56	8.54	8.52	8.35	8.19
	0.8	0	9.03	8.90	8.77	8.46	8.14
	3.9	3	9.79	9.45	9.10	8.58	8.07
	7.0	6	10.70	10.00	9.31	8.65	8.00
	10.1	9	10.63	9.95	9.27	8.60	7.93
	13.2	12	10.56	9.89	9.21	8.54	7.86
	16.9	15.5	10.48	9.81	9.13	8.46	7.78

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature: 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			6.39	4.98	7.64	5.64	8.26	5.78	8.79	5.85	9.85	6.33	10.23	6.15
	12			6.39	4.98	7.64	5.64	8.26	5.78	8.78	5.84	9.81	6.31	10.18	6.14
	14			6.39	4.98	7.64	5.64	8.26	5.78	8.77	5.84	9.78	6.29	10.14	6.13
	16			6.39	4.98	7.64	5.64	8.26	5.78	8.76	5.84	9.74	6.28	10.09	6.08
	18			6.39	4.98	7.64	5.64	8.26	5.78	8.74	5.83	9.71	6.27	10.05	6.07
Me	20			6.39	4.98	7.64	5.64	8.26	5.78	8.73	5.82	9.67	6.25	10.01	6.05
	22			6.38	4.97	7.64	5.64	8.26	5.78	8.69	5.81	9.55	6.18	9.87	6.01
19	24			6.37	4.97	7.63	5.63	8.26	5.78	8.65	5.79	9.43	6.14	9.73	5.96
(m³/min)	26			6.37	4.97	7.60	5.62	8.19	5.75	8.55	5.75	9.28	6.09	9.58	5.92
	28	5.77	4.90	6.36	4.97	7.56	5.60	8.11	5.71	8.45	5.72	9.13	6.03	9.43	5.86
	30	5.77	4.90	6.35	4.96	7.50	5.57	8.03	5.68	8.35	5.68	8.99	5.99	9.29	5.82
	32	5.77	4.90	6.33	4.95	7.45	5.55	7.95	5.64	8.25	5.63	8.85	5.93	9.15	5.76
	34	5.77	4.90	6.31	4.94	7.42	5.54	7.85	5.60	8.12	5.58	8.66	5.85	8.96	5.69
	35	5.77	4.90	6.30	4.94	7.41	5.53	7.80	5.57	8.05	5.55	8.57	5.82	8.87	5.66
	36	5.77	4.90	6.29	4.94	7.35	5.51	7.76	5.56	7.98	5.52	8.42	5.76	8.70	5.60
	38	5.77	4.90	6.28	4.93	7.24	5.46	7.68	5.52	7.82	5.45	8.11	5.64	8.35	5.48
	39	5.77	4.90	6.27	4.93	7.18	5.43	7.64	5.51	7.75	5.43	7.95	5.58	8.18	5.43
	41	5.77	4.90	6.25	4.91	6.97	5.34	7.33	5.38	7.42	5.30	7.60	5.45	7.80	5.29
	43	5.77	4.90	6.22	4.90	6.75	5.24	7.02	5.25	7.09	5.17	7.25	5.33	7.41	5.14

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	4.98	4.98	4.98	4.98	4.98
	-17.8	-18	5.30	5.30	5.30	5.30	5.30
	-15.7	-16	5.62	5.62	5.62	5.62	5.62
	-13.7	-14	5.94	5.94	5.94	5.94	5.94
	-11.7	-12	6.26	6.26	6.26	6.26	6.26
Me	-9.6	-10	6.58	6.58	6.58	6.58	6.58
	-7.5	-8	6.98	6.98	6.98	6.98	6.98
19	-5.5	-6	7.38	7.38	7.38	7.38	7.38
(m³/min)	-3.4	-4	7.64	7.63	7.62	7.54	7.47
	-1.3	-2	7.90	7.87	7.85	7.70	7.55
	0.8	0	8.32	8.21	8.09	7.80	7.51
	3.9	3	9.03	8.71	8.39	7.92	7.44
	7.0	6	9.87	9.23	8.58	7.98	7.38
	10.1	9	9.80	9.18	8.55	7.93	7.32
	13.2	12	9.74	9.12	8.50	7.87	7.25
	16.9	15.5	9.67	9.04	8.42	7.80	7.18

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature: 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			5.57	4.29	6.66	4.86	7.21	4.99	7.67	5.06	8.59	5.45	8.92	5.31
	12			5.57	4.29	6.66	4.86	7.21	4.99	7.66	5.05	8.56	5.44	8.88	5.29
	14			5.57	4.29	6.66	4.86	7.21	4.99	7.65	5.05	8.53	5.43	8.84	5.28
	16			5.57	4.29	6.66	4.86	7.21	4.99	7.64	5.05	8.50	5.42	8.80	5.27
	18			5.57	4.29	6.66	4.86	7.21	4.99	7.63	5.04	8.47	5.41	8.77	5.26
Lo	20			5.57	4.29	6.66	4.86	7.21	4.99	7.62	5.04	8.44	5.39	8.73	5.23
	22			5.57	4.29	6.66	4.86	7.21	4.99	7.58	5.02	8.33	5.35	8.61	5.20
16	24			5.56	4.29	6.66	4.86	7.21	4.99	7.55	5.01	8.22	5.31	8.49	5.15
(m³/min)	26			5.55	4.28	6.63	4.85	7.14	4.95	7.46	4.97	8.09	5.25	8.36	5.10
	28	5.03	4.22	5.55	4.28	6.60	4.83	7.07	4.92	7.37	4.93	7.96	5.21	8.23	5.06
	30	5.03	4.22	5.54	4.28	6.55	4.81	7.00	4.90	7.28	4.89	7.84	5.16	8.11	5.01
	32	5.03	4.22	5.52	4.27	6.49	4.77	6.94	4.86	7.20	4.86	7.72	5.11	7.98	4.97
	34	5.03	4.22	5.50	4.26	6.47	4.76	6.85	4.83	7.08	4.81	7.56	5.05	7.82	4.91
	35	5.03	4.22	5.50	4.26	6.46	4.76	6.80	4.81	7.03	4.79	7.48	5.01	7.74	4.86
	36	5.03	4.22	5.49	4.25	6.41	4.74	6.77	4.80	6.96	4.76	7.34	4.96	7.59	4.81
	38	5.03	4.22	5.47	4.25	6.31	4.70	6.70	4.76	6.82	4.69	7.07	4.85	7.28	4.71
	39	5.03	4.22	5.47	4.25	6.27	4.68	6.66	4.73	6.76	4.66	6.94	4.80	7.13	4.67
	41	5.03	4.22	5.45	4.23	6.08	4.60	6.39	4.63	6.47	4.56	6.63	4.69	6.80	4.55
	43	5.03	4.22	5.43	4.22	5.89	4.52	6.12	4.51	6.19	4.44	6.32	4.58	6.47	4.44

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	4.31	4.31	4.31	4.31	4.31
	-17.8	-18	4.59	4.59	4.59	4.59	4.59
	-15.7	-16	4.87	4.87	4.87	4.87	4.87
	-13.7	-14	5.14	5.14	5.14	5.14	5.14
	-11.7	-12	5.42	5.42	5.42	5.42	5.42
Lo	-9.6	-10	5.70	5.70	5.70	5.70	5.70
	-7.5	-8	6.04	6.04	6.04	6.04	6.04
16	-5.5	-6	6.39	6.39	6.39	6.39	6.39
(m³/min)	-3.4	-4	6.61	6.61	6.60	6.53	6.47
	-1.3	-2	6.84	6.82	6.80	6.67	6.54
	0.8	0	7.21	7.11	7.00	6.75	6.50
	3.9	3	7.82	7.54	7.26	6.86	6.45
	7.0	6	8.55	7.99	7.43	6.91	6.39
	10.1	9	8.49	7.95	7.40	6.87	6.34
	13.2	12	8.44	7.90	7.36	6.82	6.28
	16.9	15.5	8.37	7.83	7.29	6.75	6.21

Notes(1) This data show average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)

(2) Symbols are as follows

TC :Total cooling capacity(kW)

SHC :Sensible heat capacity(kW)

PHA001Z125 C

(9) Ceiling suspended type (FDE)

Model **FDE36KXZE1** Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			2.95	2.46	3.53	2.77	3.82	2.84	4.06	2.88	4.55	3.10	4.72	3.04
	12			2.95	2.46	3.53	2.77	3.82	2.84	4.05	2.87	4.53	3.10	4.70	3.03
	14			2.95	2.46	3.53	2.77	3.82	2.84	4.05	2.87	4.51	3.09	4.68	3.02
	16			2.95	2.46	3.53	2.77	3.82	2.84	4.04	2.87	4.50	3.09	4.66	3.01
	18			2.95	2.46	3.53	2.77	3.82	2.84	4.04	2.87	4.48	3.08	4.64	3.01
P-Hi	20			2.95	2.46	3.53	2.77	3.82	2.84	4.03	2.87	4.47	3.08	4.62	3.00
	22			2.95	2.46	3.53	2.77	3.82	2.84	4.01	2.86	4.41	3.06	4.56	2.98
13	24			2.94	2.45	3.52	2.76	3.82	2.84	3.99	2.85	4.35	3.03	4.49	2.96
(m³/min)	26			2.94	2.45	3.51	2.76	3.78	2.82	3.95	2.83	4.28	3.01	4.43	2.93
	28	2.66	2.42	2.94	2.45	3.49	2.75	3.74	2.81	3.90	2.82	4.22	2.98	4.36	2.91
	30	2.66	2.42	2.93	2.45	3.47	2.75	3.71	2.80	3.86	2.80	4.15	2.96	4.29	2.88
	32	2.66	2.42	2.92	2.45	3.44	2.74	3.67	2.78	3.81	2.78	4.09	2.94	4.23	2.86
	34	2.66	2.42	2.91	2.44	3.43	2.73	3.62	2.75	3.75	2.76	4.00	2.90	4.14	2.82
	35	2.66	2.42	2.91	2.44	3.42	2.73	3.60	2.74	3.72	2.73	3.96	2.89	4.09	2.80
	36	2.66	2.42	2.91	2.44	3.39	2.72	3.58	2.73	3.68	2.71	3.89	2.85	4.02	2.79
	38	2.66	2.42	2.90	2.44	3.34	2.70	3.55	2.72	3.61	2.69	3.74	2.81	3.86	2.74
	39	2.66	2.42	2.89	2.43	3.32	2.69	3.53	2.72	3.58	2.68	3.67	2.78	3.78	2.71
	41	2.66	2.42	2.88	2.43	3.22	2.65	3.38	2.66	3.43	2.63	3.51	2.73	3.60	2.65
	43	2.66	2.42	2.87	2.43	3.12	2.61	3.24	2.61	3.28	2.57	3.35	2.67	3.42	2.60

Heating mode (kW)

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	2.32	2.32	2.32	2.32	2.32
	-17.8	-18	2.47	2.47	2.47	2.47	2.47
	-15.7	-16	2.62	2.62	2.62	2.62	2.62
	-13.7	-14	2.77	2.77	2.77	2.77	2.77
	-11.7	-12	2.92	2.92	2.92	2.92	2.92
P-Hi	-9.6	-10	3.07	3.07	3.07	3.07	3.07
	-7.5	-8	3.25	3.25	3.25	3.25	3.25
13	-5.5	-6	3.44	3.44	3.44	3.44	3.44
(m³/min)	-3.4	-4	3.56	3.56	3.55	3.52	3.48
	-1.3	-2	3.68	3.67	3.66	3.59	3.52
	0.8	0	3.88	3.83	3.77	3.64	3.50
	3.9	3	4.21	4.06	3.91	3.69	3.47
	7.0	6	4.60	4.30	4.00	3.72	3.44
	10.1	9	4.57	4.28	3.99	3.70	3.41
	13.2	12	4.54	4.25	3.96	3.67	3.38
	16.9	15.5	4.51	4.22	3.93	3.64	3.35

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			2.42	1.98	2.90	2.25	3.13	2.28	3.33	2.32	3.73	2.51	3.88	2.45
	12			2.42	1.98	2.90	2.25	3.13	2.28	3.33	2.32	3.72	2.51	3.86	2.44
	14			2.42	1.98	2.90	2.25	3.13	2.28	3.32	2.32	3.71	2.50	3.84	2.44
	16			2.42	1.98	2.90	2.25	3.13	2.28	3.32	2.32	3.69	2.50	3.83	2.44
	18			2.42	1.98	2.90	2.25	3.13	2.28	3.32	2.32	3.68	2.49	3.81	2.43
Hi	20			2.42	1.98	2.90	2.25	3.13	2.28	3.31	2.32	3.67	2.49	3.79	2.42
	22			2.42	1.98	2.90	2.25	3.13	2.28	3.30	2.31	3.62	2.47	3.74	2.40
10	24			2.42	1.98	2.89	2.24	3.13	2.28	3.28	2.30	3.57	2.45	3.69	2.38
(m³/min)	26			2.41	1.97	2.88	2.24	3.10	2.27	3.24	2.29	3.52	2.43	3.63	2.36
	28	2.19	1.96	2.41	1.97	2.87	2.24	3.07	2.26	3.20	2.26	3.46	2.41	3.58	2.34
	30	2.19	1.96	2.41	1.97	2.84	2.22	3.04	2.25	3.17	2.25	3.41	2.39	3.52	2.32
	32	2.19	1.96	2.40	1.97	2.82	2.21	3.01	2.24	3.13	2.24	3.36	2.37	3.47	2.29
	34	2.19	1.96	2.39	1.97	2.81	2.21	2.98	2.23	3.08	2.22	3.28	2.33	3.40	2.28
	35	2.19	1.96	2.39	1.97	2.81	2.21	2.96	2.22	3.05	2.21	3.25	2.32	3.36	2.27
	36	2.19	1.96	2.39	1.97	2.79	2.20	2.94	2.22	3.02	2.20	3.19	2.30	3.30	2.25
	38	2.19	1.96	2.38	1.96	2.74	2.18	2.91	2.20	2.97	2.18	3.07	2.26	3.17	2.21
	39	2.19	1.96	2.38	1.96	2.72	2.17	2.90	2.20	2.94	2.17	3.02	2.24	3.10	2.18
	41	2.19	1.96	2.37	1.96	2.64	2.14	2.78	2.15	2.81	2.12	2.88	2.19	2.96	2.14
	43	2.19	1.96	2.36	1.96	2.56	2.10	2.66	2.10	2.69	2.07	2.75	2.15	2.81	2.09

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	1.88	1.88	1.88	1.88	1.88
	-17.8	-18	2.00	2.00	2.00	2.00	2.00
	-15.7	-16	2.12	2.12	2.12	2.12	2.12
	-13.7	-14	2.24	2.24	2.24	2.24	2.24
	-11.7	-12	2.36	2.36	2.36	2.36	2.36
Hi	-9.6	-10	2.48	2.48	2.48	2.48	2.48
	-7.5	-8	2.64	2.64	2.64	2.64	2.64
10	-5.5	-6	2.79	2.79	2.79	2.79	2.79
(m³/min)	-3.4	-4	2.88	2.88	2.88	2.85	2.82
	-1.3	-2	2.98	2.97	2.97	2.91	2.85
	0.8	0	3.14	3.10	3.05	2.95	2.84
	3.9	3	3.41	3.29	3.17	2.99	2.81
	7.0	6	3.73	3.48	3.24	3.01	2.79
	10.1	9	3.70	3.47	3.23	3.00	2.76
	13.2	12	3.68	3.44	3.21	2.97	2.74
	16.9	15.5	3.65	3.42	3.18	2.95	2.71

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			1.81	1.46	2.17	1.65	2.35	1.69	2.50	1.71	2.80	1.85	2.90	1.80
	12			1.81	1.46	2.17	1.65	2.35	1.69	2.49	1.71	2.79	1.85	2.89	1.80
	14			1.81	1.46	2.17	1.65	2.35	1.69	2.49	1.71	2.78	1.84	2.88	1.80
	16			1.81	1.46	2.17	1.65	2.35	1.69	2.49	1.71	2.76	1.84	2.86	1.79
	18			1.81	1.46	2.17	1.65	2.35	1.69	2.48	1.70	2.75	1.83	2.85	1.78
Me	20			1.81	1.46	2.17	1.65	2.35	1.69	2.48	1.70	2.74	1.83	2.84	1.78
	22			1.81	1.46	2.17	1.65	2.35	1.69	2.47	1.70	2.71	1.82	2.80	1.77
7	24			1.81	1.46	2.17	1.65	2.35	1.69	2.46	1.70	2.68	1.80	2.76	1.75
(m³/min)	26			1.81	1.46	2.16	1.65	2.32	1.68	2.43	1.69	2.63	1.79	2.72	1.74
	28	1.64	1.44	1.81	1.46	2.15	1.64	2.30	1.67	2.40	1.67	2.59	1.77	2.68	1.73
	30	1.64	1.44	1.80	1.45	2.13	1.63	2.28	1.66	2.37	1.66	2.55	1.76	2.64	1.70
	32	1.64	1.44	1.80	1.45	2.11	1.63	2.26	1.65	2.34	1.65	2.51	1.74	2.60	1.69
	34	1.64	1.44	1.79	1.45	2.11	1.63	2.23	1.64	2.30	1.63	2.46	1.71	2.54	1.67
	35	1.64	1.44	1.79	1.45	2.10	1.62	2.21	1.63	2.29	1.63	2.43	1.71	2.52	1.67
	36	1.64	1.44	1.79	1.45	2.09	1.62	2.20	1.63	2.26	1.62	2.39	1.69	2.47	1.65
	38	1.64	1.44	1.78	1.44	2.05	1.60	2.18	1.62	2.22	1.60	2.30	1.66	2.37	1.62
	39	1.64	1.44	1.78	1.44	2.04	1.60	2.17	1.62	2.20	1.60	2.26	1.65	2.32	1.60
	41	1.64	1.44	1.77	1.44	1.98	1.56	2.08	1.58	2.11	1.56	2.16	1.61	2.21	1.56
	43	1.64	1.44	1.77	1.44	1.92	1.54	1.99	1.54	2.01	1.52	2.06	1.58	2.10	1.52

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	1.39	1.39	1.39	1.39	1.39
	-17.8	-18	1.48	1.48	1.48	1.48	1.48
	-15.7	-16	1.57	1.57	1.57	1.57	1.57
	-13.7	-14	1.66	1.66	1.66	1.66	1.66
	-11.7	-12	1.75	1.75	1.75	1.75	1.75
Me	-9.6	-10	1.84	1.84	1.84	1.84	1.84
	-7.5	-8	1.95	1.95	1.95	1.95	1.95
7	-5.5	-6	2.06	2.06	2.06	2.06	2.06
(m³/min)	-3.4	-4	2.13	2.13	2.13	2.10	2.08
	-1.3	-2	2.20	2.20	2.19	2.15	2.11
	0.8	0	2.32	2.29	2.26	2.18	2.10
	3.9	3	2.52	2.43	2.34	2.21	2.08
	7.0	6	2.75	2.58	2.40	2.23	2.06
	10.1	9	2.74	2.56	2.39	2.21	2.04
	13.2	12	2.72	2.55	2.37	2.20	2.02
	16.9	15.5	2.70	2.52	2.35	2.18	2.00

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			1.47	1.17	1.76	1.33	1.91	1.36	2.03	1.38	2.27	1.49	2.36	1.45
	12			1.47	1.17	1.76	1.33	1.91	1.36	2.03	1.38	2.26	1.49	2.35	1.45
	14			1.47	1.17	1.76	1.33	1.91	1.36	2.02	1.38	2.26	1.49	2.34	1.45
	16			1.47	1.17	1.76	1.33	1.91	1.36	2.02	1.38	2.25	1.48	2.33	1.44
	18			1.47	1.17	1.76	1.33	1.91	1.36	2.02	1.38	2.24	1.48	2.32	1.44
Lo	20			1.47	1.17	1.76	1.33	1.91	1.36	2.01	1.37	2.23	1.48	2.31	1.43
	22			1.47	1.17	1.76	1.33	1.91	1.36	2.00	1.37	2.20	1.46	2.28	1.42
5.5	24			1.47	1.17	1.76	1.33	1.91	1.36	2.00	1.37	2.17	1.45	2.25	1.41
(m³/min)	26			1.47	1.17	1.75	1.32	1.89	1.35	1.97	1.36	2.14	1.44	2.21	1.40
	28	1.33	1.15	1.47	1.17	1.74	1.32	1.87	1.35	1.95	1.35	2.11	1.43	2.18	1.39
	30	1.33	1.15	1.46	1.17	1.73	1.32	1.85	1.34	1.93	1.34	2.07	1.41	2.14	1.37
	32	1.33	1.15	1.46	1.17	1.72	1.31	1.83	1.33	1.90	1.33	2.04	1.39	2.11	1.36
	34	1.33	1.15	1.46	1.17	1.71	1.31	1.81	1.32	1.87	1.32	2.00	1.38	2.07	1.35
	35	1.33	1.15	1.45	1.17	1.71	1.31	1.80	1.32	1.86	1.31	1.98	1.38	2.05	1.34
	36	1.33	1.15	1.45	1.17	1.70	1.30	1.79	1.31	1.84	1.30	1.94	1.36	2.01	1.33
	38	1.33	1.15	1.45	1.17	1.67	1.29	1.77	1.31	1.80	1.29	1.87	1.34	1.93	1.30
	39	1.33	1.15	1.45	1.17	1.66	1.28	1.76	1.30	1.79	1.28	1.83	1.32	1.89	1.29
	41	1.33	1.15	1.44	1.16	1.61	1.26	1.69	1.27	1.71	1.25	1.75	1.29	1.80	1.26
	43	1.33	1.15	1.44	1.16	1.56	1.24	1.62	1.24	1.64	1.22	1.67	1.26	1.71	1.22

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	1.12	1.12	1.12	1.12	1.12
	-17.8	-18	1.19	1.19	1.19	1.19	1.19
	-15.7	-16	1.27	1.27	1.27	1.27	1.27
	-13.7	-14	1.34	1.34	1.34	1.34	1.34
	-11.7	-12	1.41	1.41	1.41	1.41	1.41
Lo	-9.6	-10	1.48	1.48	1.48	1.48	1.48
	-7.5	-8	1.57	1.57	1.57	1.57	1.57
5.5	-5.5	-6	1.66	1.66	1.66	1.66	1.66
(m³/min)	-3.4	-4	1.72	1.72	1.72	1.70	1.68
	-1.3	-2	1.78	1.77	1.77	1.74	1.70
	0.8	0	1.88	1.85	1.82	1.76	1.69
	3.9	3	2.04	1.96	1.89	1.78	1.68
	7.0	6	2.22	2.08	1.93	1.80	1.66
	10.1	9	2.21	2.07	1.93	1.79	1.65
	13.2	12	2.19	2.05	1.91	1.77	1.63
	16.9	15.5	2.18	2.04	1.90	1.76	1.62

Notes(1) This data shows average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

PFA004Z045

Model FDE45KXZE1 Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			3.69	2.92	4.41	3.31	4.77	3.39	5.07	3.44	5.68	3.71	5.90	3.61
	12			3.69	2.92	4.41	3.31	4.77	3.39	5.07	3.44	5.66	3.70	5.88	3.60
	14			3.69	2.92	4.41	3.31	4.77	3.39	5.06	3.43	5.64	3.69	5.85	3.59
	16			3.69	2.92	4.41	3.31	4.77	3.39	5.05	3.43	5.62	3.68	5.83	3.59
	18			3.69	2.92	4.41	3.31	4.77	3.39	5.05	3.43	5.60	3.68	5.80	3.57
P-Hi	20			3.69	2.92	4.41	3.31	4.77	3.39	5.04	3.43	5.58	3.67	5.78	3.57
	22			3.68	2.92	4.41	3.31	4.77	3.39	5.02	3.41	5.51	3.64	5.70	3.54
13	24			3.68	2.92	4.41	3.31	4.77	3.39	4.99	3.40	5.44	3.62	5.62	3.51
(m³/min)	26			3.68	2.92	4.39	3.30	4.73	3.36	4.93	3.38	5.35	3.57	5.53	3.46
	28	3.33	2.88	3.67	2.92	4.37	3.29	4.68	3.34	4.88	3.36	5.27	3.53	5.44	3.44
	30	3.33	2.88	3.66	2.91	4.33	3.28	4.64	3.33	4.82	3.32	5.19	3.50	5.36	3.42
	32	3.33	2.88	3.65	2.91	4.30	3.26	4.59	3.31	4.76	3.30	5.11	3.48	5.28	3.39
	34	3.33	2.88	3.64	2.90	4.28	3.25	4.53	3.29	4.69	3.28	5.00	3.44	5.17	3.35
	35	3.33	2.88	3.64	2.90	4.28	3.25	4.50	3.27	4.65	3.26	4.95	3.43	5.12	3.34
	36	3.33	2.88	3.63	2.90	4.24	3.24	4.48	3.26	4.60	3.24	4.86	3.39	5.02	3.30
	38	3.33	2.88	3.62	2.90	4.18	3.21	4.43	3.25	4.52	3.21	4.68	3.32	4.82	3.23
	39	3.33	2.88	3.62	2.90	4.15	3.20	4.41	3.23	4.47	3.19	4.59	3.29	4.72	3.20
	41	3.33	2.88	3.61	2.89	4.02	3.14	4.23	3.16	4.28	3.11	4.39	3.22	4.50	3.11
	43	3.33	2.88	3.59	2.88	3.90	3.09	4.05	3.09	4.09	3.04	4.18	3.13	4.28	3.05

Heating mode (kW)

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	2.90	2.90	2.90	2.90	2.90
	-17.8	-18	3.09	3.09	3.09	3.09	3.09
	-15.7	-16	3.27	3.27	3.27	3.27	3.27
	-13.7	-14	3.46	3.46	3.46	3.46	3.46
P-Hi	-11.7	-12	3.65	3.65	3.65	3.65	3.65
	-9.6	-10	3.83	3.83	3.83	3.83	3.83
	-7.5	-8	4.07	4.07	4.07	4.07	4.07
13	-5.5	-6	4.30	4.30	4.30	4.30	4.30
(m³/min)	-3.4	-4	4.45	4.44	4.44	4.39	4.35
	-1.3	-2	4.60	4.59	4.58	4.49	4.40
	0.8	0	4.85	4.78	4.71	4.54	4.38
	3.9	3	5.26	5.08	4.89	4.61	4.34
	7.0	6	5.75	5.38	5.00	4.65	4.30
	10.1	9	5.71	5.35	4.98	4.62	4.26
	13.2	12	5.68	5.31	4.95	4.59	4.23
	16.9	15.5	5.63	5.27	4.91	4.54	4.18

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			2.97	2.32	3.55	2.63	3.84	2.70	4.08	2.73	4.57	2.95	4.75	2.87
	12			2.97	2.32	3.55	2.63	3.84	2.70	4.08	2.73	4.56	2.94	4.73	2.87
	14			2.97	2.32	3.55	2.63	3.84	2.70	4.07	2.73	4.54	2.94	4.71	2.86
	16			2.97	2.32	3.55	2.63	3.84	2.70	4.07	2.73	4.52	2.93	4.69	2.85
	18			2.97	2.32	3.55	2.63	3.84	2.70	4.06	2.73	4.51	2.92	4.67	2.84
Hi	20			2.97	2.32	3.55	2.63	3.84	2.70	4.05	2.72	4.49	2.92	4.65	2.83
	22			2.96	2.32	3.55	2.63	3.84	2.70	4.04	2.71	4.43	2.89	4.58	2.81
10	24			2.96	2.32	3.54	2.62	3.84	2.70	4.02	2.71	4.38	2.87	4.52	2.79
(m³/min)	26			2.96	2.32	3.53	2.62	3.80	2.67	3.97	2.69	4.31	2.85	4.45	2.76
	28	2.68	2.28	2.95	2.32	3.51	2.61	3.76	2.65	3.92	2.66	4.24	2.82	4.38	2.72
	30	2.68	2.28	2.95	2.32	3.48	2.60	3.73	2.64	3.88	2.64	4.17	2.79	4.31	2.70
	32	2.68	2.28	2.94	2.31	3.46	2.59	3.69	2.63	3.83	2.62	4.11	2.76	4.25	2.69
	34	2.68	2.28	2.93	2.30	3.44	2.58	3.64	2.61	3.77	2.60	4.02	2.73	4.16	2.66
	35	2.68	2.28	2.92	2.30	3.44	2.58	3.62	2.60	3.74	2.59	3.98	2.72	4.12	2.65
	36	2.68	2.28	2.92	2.30	3.41	2.57	3.60	2.59	3.70	2.57	3.91	2.69	4.04	2.62
	38	2.68	2.28	2.91	2.30	3.36	2.55	3.57	2.58	3.63	2.54	3.76	2.63	3.88	2.56
	39	2.68	2.28	2.91	2.30	3.33	2.53	3.55	2.57	3.60	2.53	3.69	2.61	3.80	2.54
	41	2.68	2.28	2.90	2.29	3.23	2.49	3.40	2.51	3.44	2.47	3.53	2.55	3.62	2.46
	43	2.68	2.28	2.89	2.29	3.13	2.45	3.26	2.45	3.29	2.41	3.36	2.47	3.44	2.41

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	2.29	2.29	2.29	2.29	2.29
	-17.8	-18	2.44	2.44	2.44	2.44	2.44
	-15.7	-16	2.59	2.59	2.59	2.59	2.59
	-13.7	-14	2.74	2.74	2.74	2.74	2.74
	-11.7	-12	2.88	2.88	2.88	2.88	2.88
Hi	-9.6	-10	3.03	3.03	3.03	3.03	3.03
	-7.5	-8	3.22	3.22	3.22	3.22	3.22
10	-5.5	-6	3.40	3.40	3.40	3.40	3.40
(m³/min)	-3.4	-4	3.52	3.51	3.51	3.47	3.44
	-1.3	-2	3.64	3.63	3.62	3.55	3.48
	0.8	0	3.84	3.78	3.73	3.59	3.46
	3.9	3	4.16	4.01	3.87	3.65	3.43
	7.0	6	4.55	4.25	3.95	3.68	3.40
	10.1	9	4.52	4.23	3.94	3.66	3.37
	13.2	12	4.49	4.20	3.91	3.63	3.34
	16.9	15.5	4.45	4.17	3.88	3.59	3.31

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			2.71	2.11	3.24	2.39	3.50	2.45	3.73	2.49	4.18	2.69	4.34	2.61
	12			2.71	2.11	3.24	2.39	3.50	2.45	3.72	2.48	4.16	2.67	4.32	2.60
	14			2.71	2.11	3.24	2.39	3.50	2.45	3.72	2.48	4.15	2.66	4.30	2.59
	16			2.71	2.11	3.24	2.39	3.50	2.45	3.71	2.48	4.13	2.66	4.28	2.59
	18			2.71	2.11	3.24	2.39	3.50	2.45	3.71	2.48	4.12	2.65	4.26	2.58
Me	20			2.71	2.11	3.24	2.39	3.50	2.45	3.70	2.48	4.10	2.65	4.24	2.58
	22			2.71	2.11	3.24	2.39	3.50	2.45	3.69	2.47	4.05	2.63	4.18	2.56
9	24			2.70	2.11	3.24	2.39	3.50	2.45	3.67	2.46	4.00	2.61	4.13	2.54
(m³/min)	26			2.70	2.11	3.22	2.37	3.47	2.44	3.63	2.44	3.93	2.58	4.06	2.51
	28	2.45	2.08	2.70	2.11	3.21	2.37	3.44	2.43	3.58	2.42	3.87	2.56	4.00	2.49
	30	2.45	2.08	2.69	2.10	3.18	2.36	3.40	2.41	3.54	2.41	3.81	2.54	3.94	2.47
	32	2.45	2.08	2.68	2.10	3.16	2.35	3.37	2.39	3.50	2.39	3.75	2.51	3.88	2.45
	34	2.45	2.08	2.68	2.10	3.15	2.35	3.33	2.38	3.44	2.37	3.67	2.48	3.80	2.40
	35	2.45	2.08	2.67	2.09	3.14	2.34	3.31	2.36	3.42	2.36	3.63	2.47	3.76	2.39
	36	2.45	2.08	2.67	2.09	3.12	2.34	3.29	2.35	3.38	2.33	3.57	2.43	3.69	2.37
	38	2.45	2.08	2.66	2.09	3.07	2.32	3.26	2.34	3.32	2.31	3.44	2.39	3.54	2.33
	39	2.45	2.08	2.66	2.09	3.05	2.31	3.24	2.33	3.28	2.30	3.37	2.37	3.47	2.30
	41	2.45	2.08	2.65	2.08	2.95	2.27	3.11	2.28	3.15	2.25	3.22	2.31	3.31	2.25
	43	2.45	2.08	2.64	2.08	2.86	2.23	2.98	2.23	3.01	2.19	3.07	2.26	3.14	2.19

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	2.08	2.08	2.08	2.08	2.08
	-17.8	-18	2.22	2.22	2.22	2.22	2.22
	-15.7	-16	2.35	2.35	2.35	2.35	2.35
	-13.7	-14	2.48	2.48	2.48	2.48	2.48
	-11.7	-12	2.62	2.62	2.62	2.62	2.62
Me	-9.6	-10	2.75	2.75	2.75	2.75	2.75
	-7.5	-8	2.92	2.92	2.92	2.92	2.92
9	-5.5	-6	3.09	3.09	3.09	3.09	3.09
(m³/min)	-3.4	-4	3.19	3.19	3.19	3.15	3.12
	-1.3	-2	3.30	3.29	3.28	3.22	3.16
	0.8	0	3.48	3.43	3.38	3.26	3.14
	3.9	3	3.78	3.64	3.51	3.31	3.11
	7.0	6	4.13	3.86	3.59	3.34	3.09
	10.1	9	4.10	3.84	3.58	3.32	3.06
	13.2	12	4.07	3.81	3.55	3.29	3.03
	16.9	15.5	4.04	3.78	3.52	3.26	3.00

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			2.17	1.67	2.59	1.90	2.81	1.95	2.99	1.98	3.34	2.13	3.47	2.08
	12			2.17	1.67	2.59	1.90	2.81	1.95	2.98	1.98	3.33	2.13	3.46	2.07
	14			2.17	1.67	2.59	1.90	2.81	1.95	2.98	1.98	3.32	2.13	3.44	2.06
	16			2.17	1.67	2.59	1.90	2.81	1.95	2.97	1.97	3.31	2.12	3.43	2.06
	18			2.17	1.67	2.59	1.90	2.81	1.95	2.97	1.97	3.30	2.12	3.41	2.05
Lo	20			2.17	1.67	2.59	1.90	2.81	1.95	2.97	1.97	3.28	2.11	3.40	2.05
	22			2.17	1.67	2.59	1.90	2.81	1.95	2.95	1.96	3.24	2.09	3.35	2.03
7	24			2.16	1.67	2.59	1.90	2.81	1.95	2.94	1.96	3.20	2.08	3.30	2.01
(m³/min)	26			2.16	1.67	2.58	1.89	2.78	1.93	2.90	1.94	3.15	2.05	3.25	1.99
	28	1.96	1.65	2.16	1.67	2.57	1.89	2.75	1.92	2.87	1.92	3.10	2.03	3.20	1.98
	30	1.96	1.65	2.15	1.66	2.55	1.88	2.73	1.91	2.83	1.91	3.05	2.01	3.15	1.95
	32	1.96	1.65	2.15	1.66	2.53	1.87	2.70	1.90	2.80	1.90	3.00	1.99	3.11	1.94
	34	1.96	1.65	2.14	1.66	2.52	1.87	2.66	1.88	2.76	1.88	2.94	1.97	3.04	1.92
	35	1.96	1.65	2.14	1.66	2.51	1.86	2.65	1.88	2.73	1.87	2.91	1.96	3.01	1.91
	36	1.96	1.65	2.14	1.66	2.50	1.86	2.63	1.87	2.71	1.86	2.86	1.94	2.95	1.89
	38	1.96	1.65	2.13	1.66	2.46	1.84	2.61	1.86	2.66	1.84	2.75	1.90	2.84	1.85
	39	1.96	1.65	2.13	1.66	2.44	1.83	2.59	1.85	2.63	1.83	2.70	1.88	2.78	1.83
	41	1.96	1.65	2.12	1.65	2.37	1.80	2.49	1.81	2.52	1.78	2.58	1.84	2.65	1.78
	43	1.96	1.65	2.11	1.65	2.29	1.77	2.38	1.76	2.41	1.74	2.46	1.78	2.52	1.73

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	1.65	1.65	1.65	1.65	1.65
	-17.8	-18	1.75	1.75	1.75	1.75	1.75
	-15.7	-16	1.86	1.86	1.86	1.86	1.86
	-13.7	-14	1.96	1.96	1.96	1.96	1.96
	-11.7	-12	2.07	2.07	2.07	2.07	2.07
Lo	-9.6	-10	2.18	2.18	2.18	2.18	2.18
	-7.5	-8	2.31	2.31	2.31	2.31	2.31
7	-5.5	-6	2.44	2.44	2.44	2.44	2.44
(m³/min)	-3.4	-4	2.53	2.52	2.52	2.49	2.47
	-1.3	-2	2.61	2.60	2.60	2.55	2.50
	0.8	0	2.75	2.71	2.67	2.58	2.48
	3.9	3	2.99	2.88	2.77	2.62	2.46
	7.0	6	3.26	3.05	2.84	2.64	2.44
	10.1	9	3.24	3.03	2.83	2.62	2.42
	13.2	12	3.22	3.01	2.81	2.60	2.40
	16.9	15.5	3.20	2.99	2.78	2.58	2.37

Notes(1) This data shows average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

PFA004Z045

Model FDE56KXZE1 Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			4.59	3.48	5.49	3.94	5.94	4.05	6.32	4.11	7.07	4.43	7.35	4.31
	12			4.59	3.48	5.49	3.94	5.94	4.05	6.31	4.11	7.05	4.42	7.31	4.28
	14			4.59	3.48	5.49	3.94	5.94	4.05	6.30	4.10	7.02	4.41	7.28	4.27
	16			4.59	3.48	5.49	3.94	5.94	4.05	6.29	4.09	7.00	4.40	7.25	4.26
	18			4.59	3.48	5.49	3.94	5.94	4.05	6.28	4.08	6.97	4.39	7.22	4.25
P-Hi	20			4.59	3.48	5.49	3.94	5.94	4.05	6.27	4.08	6.95	4.38	7.19	4.24
	22			4.58	3.47	5.49	3.94	5.94	4.05	6.24	4.07	6.86	4.33	7.09	4.21
13	24			4.58	3.47	5.48	3.94	5.94	4.05	6.21	4.06	6.77	4.30	6.99	4.17
(m³/min)	26			4.57	3.47	5.46	3.93	5.88	4.02	6.14	4.03	6.66	4.26	6.88	4.13
	28	4.14	3.41	4.57	3.47	5.43	3.91	5.82	3.99	6.07	4.00	6.56	4.22	6.78	4.10
	30	4.14	3.41	4.56	3.46	5.39	3.90	5.77	3.97	6.00	3.98	6.46	4.18	6.67	4.06
	32	4.14	3.41	4.55	3.46	5.35	3.88	5.71	3.94	5.93	3.94	6.36	4.14	6.57	4.02
	34	4.14	3.41	4.53	3.45	5.33	3.87	5.64	3.92	5.83	3.90	6.22	4.08	6.44	3.97
	35	4.14	3.41	4.52	3.44	5.32	3.86	5.60	3.89	5.79	3.88	6.16	4.06	6.37	3.94
	36	4.14	3.41	4.52	3.44	5.28	3.85	5.57	3.88	5.73	3.86	6.05	4.02	6.25	3.90
	38	4.14	3.41	4.51	3.44	5.20	3.81	5.52	3.86	5.62	3.81	5.82	3.93	6.00	3.80
	39	4.14	3.41	4.50	3.43	5.16	3.79	5.49	3.85	5.56	3.79	5.71	3.87	5.87	3.76
	41	4.14	3.41	4.49	3.43	5.00	3.72	5.26	3.75	5.33	3.69	5.46	3.79	5.60	3.67
	43	4.14	3.41	4.47	3.42	4.85	3.66	5.04	3.65	5.10	3.60	5.21	3.70	5.32	3.58

Heating mode (kW)

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	3.65	3.65	3.65	3.65	3.65
	-17.8	-18	3.89	3.89	3.89	3.89	3.89
	-15.7	-16	4.12	4.12	4.12	4.12	4.12
	-13.7	-14	4.36	4.36	4.36	4.36	4.36
	-11.7	-12	4.59	4.59	4.59	4.59	4.59
P-Hi	-9.6	-10	4.83	4.83	4.83	4.83	4.83
	-7.5	-8	5.12	5.12	5.12	5.12	5.12
13	-5.5	-6	5.42	5.42	5.42	5.42	5.42
(m³/min)	-3.4	-4	5.61	5.60	5.59	5.54	5.48
	-1.3	-2	5.80	5.78	5.76	5.65	5.54
	0.8	0	6.11	6.02	5.94	5.73	5.51
	3.9	3	6.63	6.39	6.16	5.81	5.47
	7.0	6	7.25	6.77	6.30	5.86	5.42
	10.1	9	7.20	6.74	6.28	5.82	5.37
	13.2	12	7.15	6.69	6.24	5.78	5.32
	16.9	15.5	7.10	6.64	6.18	5.73	5.27

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			3.69	2.75	4.41	3.13	4.77	3.22	5.08	3.27	5.69	3.52	5.91	3.42
	12			3.69	2.75	4.41	3.13	4.77	3.22	5.07	3.27	5.67	3.51	5.88	3.41
	14			3.69	2.75	4.41	3.13	4.77	3.22	5.07	3.27	5.65	3.50	5.86	3.40
	16			3.69	2.75	4.41	3.13	4.77	3.22	5.06	3.26	5.63	3.49	5.83	3.39
	18			3.69	2.75	4.41	3.13	4.77	3.22	5.05	3.26	5.61	3.48	5.81	3.39
Hi	20			3.69	2.75	4.41	3.13	4.77	3.22	5.05	3.26	5.59	3.48	5.78	3.38
	22			3.69	2.75	4.41	3.13	4.77	3.22	5.02	3.24	5.52	3.45	5.70	3.34
10	24			3.68	2.75	4.41	3.13	4.77	3.22	5.00	3.23	5.45	3.43	5.62	3.31
(m³/min)	26			3.68	2.75	4.39	3.12	4.73	3.20	4.94	3.21	5.36	3.38	5.54	3.28
	28	3.33	2.71	3.68	2.75	4.37	3.11	4.68	3.17	4.88	3.18	5.27	3.35	5.45	3.25
	30	3.33	2.71	3.67	2.74	4.34	3.10	4.64	3.15	4.82	3.16	5.19	3.32	5.37	3.22
	32	3.33	2.71	3.66	2.74	4.30	3.08	4.59	3.13	4.77	3.14	5.11	3.29	5.29	3.19
	34	3.33	2.71	3.65	2.74	4.29	3.08	4.53	3.11	4.69	3.10	5.01	3.25	5.18	3.15
	35	3.33	2.71	3.64	2.73	4.28	3.07	4.50	3.10	4.65	3.08	4.95	3.22	5.12	3.13
	36	3.33	2.71	3.63	2.73	4.25	3.05	4.48	3.09	4.61	3.07	4.86	3.18	5.02	3.08
	38	3.33	2.71	3.63	2.73	4.18	3.03	4.44	3.07	4.52	3.03	4.68	3.11	4.82	3.02
	39	3.33	2.71	3.62	2.72	4.15	3.01	4.41	3.05	4.47	3.00	4.60	3.08	4.73	2.99
	41	3.33	2.71	3.61	2.72	4.03	2.95	4.23	2.97	4.29	2.92	4.39	3.00	4.50	2.91
	43	3.33	2.71	3.60	2.71	3.90	2.90	4.05	2.89	4.10	2.85	4.19	2.92	4.28	2.83

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	2.89	2.89	2.89	2.89	2.89
	-17.8	-18	3.08	3.08	3.08	3.08	3.08
	-15.7	-16	3.26	3.26	3.26	3.26	3.26
	-13.7	-14	3.45	3.45	3.45	3.45	3.45
	-11.7	-12	3.63	3.63	3.63	3.63	3.63
Hi	-9.6	-10	3.82	3.82	3.82	3.82	3.82
	-7.5	-8	4.05	4.05	4.05	4.05	4.05
10	-5.5	-6	4.28	4.28	4.28	4.28	4.28
(m³/min)	-3.4	-4	4.43	4.43	4.42	4.38	4.33
	-1.3	-2	4.58	4.57	4.56	4.47	4.38
	0.8	0	4.83	4.76	4.70	4.53	4.36
	3.9	3	5.24	5.06	4.87	4.60	4.32
	7.0	6	5.73	5.36	4.98	4.63	4.28
	10.1	9	5.69	5.33	4.96	4.61	4.25
	13.2	12	5.65	5.29	4.93	4.57	4.21
	16.9	15.5	5.61	5.25	4.89	4.53	4.17

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			3.37	2.51	4.03	2.85	4.36	2.93	4.64	2.98	5.20	3.21	5.40	3.12
	12			3.37	2.51	4.03	2.85	4.36	2.93	4.63	2.97	5.18	3.20	5.37	3.10
	14			3.37	2.51	4.03	2.85	4.36	2.93	4.63	2.97	5.16	3.19	5.35	3.10
	16			3.37	2.51	4.03	2.85	4.36	2.93	4.62	2.96	5.14	3.18	5.33	3.09
	18			3.37	2.51	4.03	2.85	4.36	2.93	4.61	2.95	5.12	3.17	5.30	3.08
Me	20			3.37	2.51	4.03	2.85	4.36	2.93	4.61	2.95	5.10	3.17	5.28	3.06
	22			3.37	2.51	4.03	2.85	4.36	2.93	4.59	2.95	5.04	3.14	5.21	3.04
9	24			3.36	2.50	4.03	2.85	4.36	2.93	4.57	2.94	4.97	3.10	5.14	3.01
(m³/min)	26			3.36	2.50	4.01	2.84	4.32	2.91	4.51	2.92	4.90	3.08	5.06	2.99
	28	3.04	2.46	3.36	2.50	3.99	2.83	4.28	2.89	4.46	2.90	4.82	3.05	4.98	2.96
	30	3.04	2.46	3.35	2.50	3.96	2.81	4.24	2.87	4.41	2.87	4.74	3.02	4.90	2.93
	32	3.04	2.46	3.34	2.50	3.93	2.80	4.20	2.85	4.35	2.85	4.67	2.99	4.83	2.90
	34	3.04	2.46	3.33	2.49	3.92	2.80	4.14	2.83	4.28	2.82	4.57	2.95	4.73	2.86
	35	3.04	2.46	3.32	2.49	3.91	2.79	4.11	2.82	4.25	2.80	4.52	2.92	4.68	2.84
	36	3.04	2.46	3.32	2.49	3.88	2.78	4.09	2.81	4.21	2.79	4.44	2.89	4.59	2.81
	38	3.04	2.46	3.31	2.48	3.82	2.75	4.05	2.79	4.13	2.75	4.28	2.83	4.41	2.75
	39	3.04	2.46	3.31	2.48	3.79	2.74	4.03	2.78	4.09	2.74	4.20	2.80	4.32	2.70
	41	3.04	2.46	3.30	2.47	3.68	2.69	3.87	2.71	3.91	2.66	4.01	2.72	4.11	2.64
	43	3.04	2.46	3.28	2.47	3.56	2.63	3.70	2.63	3.74	2.58	3.82	2.65	3.91	2.57

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	2.62	2.62	2.62	2.62	2.62
	-17.8	-18	2.79	2.79	2.79	2.79	2.79
	-15.7	-16	2.96	2.96	2.96	2.96	2.96
	-13.7	-14	3.13	3.13	3.13	3.13	3.13
	-11.7	-12	3.30	3.30	3.30	3.30	3.30
Me	-9.6	-10	3.47	3.47	3.47	3.47	3.47
	-7.5	-8	3.68	3.68	3.68	3.68	3.68
9	-5.5	-6	3.89	3.89	3.89	3.89	3.89
(m³/min)	-3.4	-4	4.03	4.02	4.01	3.97	3.93
	-1.3	-2	4.16	4.15	4.14	4.06	3.98
	0.8	0	4.39	4.32	4.26	4.11	3.96
	3.9	3	4.76	4.59	4.42	4.17	3.92
	7.0	6	5.20	4.86	4.52	4.21	3.89
	10.1	9	5.17	4.84	4.51	4.18	3.86
	13.2	12	5.13	4.81	4.48	4.15	3.82
	16.9	15.5	5.09	4.77	4.44	4.11	3.78

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			2.70	1.99	3.23	2.26	3.49	2.33	3.71	2.36	4.16	2.55	4.32	2.48
	12			2.70	1.99	3.23	2.26	3.49	2.33	3.71	2.36	4.15	2.54	4.30	2.47
	14			2.70	1.99	3.23	2.26	3.49	2.33	3.70	2.36	4.13	2.54	4.28	2.46
	16			2.70	1.99	3.23	2.26	3.49	2.33	3.70	2.36	4.12	2.53	4.26	2.45
	18			2.70	1.99	3.23	2.26	3.49	2.33	3.69	2.36	4.10	2.52	4.25	2.45
Lo	20			2.70	1.99	3.23	2.26	3.49	2.33	3.69	2.36	4.09	2.52	4.23	2.44
	22			2.70	1.99	3.23	2.26	3.49	2.33	3.67	2.35	4.03	2.49	4.17	2.42
7	24			2.69	1.99	3.23	2.26	3.49	2.33	3.66	2.34	3.98	2.47	4.11	2.39
(m³/min)	26			2.69	1.99	3.21	2.25	3.46	2.31	3.61	2.32	3.92	2.45	4.05	2.37
	28	2.44	1.96	2.69	1.99	3.20	2.25	3.43	2.30	3.57	2.30	3.86	2.42	3.99	2.35
	30	2.44	1.96	2.68	1.98	3.17	2.23	3.39	2.28	3.53	2.28	3.80	2.40	3.93	2.32
	32	2.44	1.96	2.67	1.98	3.15	2.22	3.36	2.27	3.49	2.26	3.74	2.37	3.87	2.29
	34	2.44	1.96	2.67	1.98	3.13	2.22	3.32	2.25	3.43	2.24	3.66	2.33	3.79	2.27
	35	2.44	1.96	2.66	1.98	3.13	2.22	3.29	2.23	3.40	2.22	3.62	2.32	3.75	2.25
	36	2.44	1.96	2.66	1.98	3.11	2.21	3.28	2.23	3.37	2.21	3.56	2.30	3.67	2.23
	38	2.44	1.96	2.65	1.97	3.06	2.18	3.24	2.21	3.31	2.18	3.43	2.25	3.53	2.18
	39	2.44	1.96	2.65	1.97	3.03	2.17	3.23	2.21	3.27	2.17	3.36	2.22	3.46	2.15
	41	2.44	1.96	2.64	1.96	2.94	2.13	3.10	2.15	3.13	2.11	3.21	2.16	3.29	2.09
	43	2.44	1.96	2.63	1.96	2.85	2.09	2.96	2.09	3.00	2.06	3.06	2.10	3.13	2.03

Air flow	Outdoor air temperature °CDB	Outdoor air temperature °CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	2.07	2.07	2.07	2.07	2.07
	-17.8	-18	2.21	2.21	2.21	2.21	2.21
	-15.7	-16	2.34	2.34	2.34	2.34	2.34
	-13.7	-14	2.47	2.47	2.47	2.47	2.47
	-11.7	-12	2.61	2.61	2.61	2.61	2.61
Lo	-9.6	-10	2.74	2.74	2.74	2.74	2.74
	-7.5	-8	2.91	2.91	2.91	2.91	2.91
7	-5.5	-6	3.07	3.07	3.07	3.07	3.07
(m³/min)	-3.4	-4	3.18	3.18	3.17	3.14	3.11
	-1.3	-2	3.29	3.28	3.27	3.21	3.15
	0.8	0	3.47	3.42	3.37	3.25	3.13
	3.9	3	3.76	3.63	3.49	3.30	3.10
	7.0	6	4.11	3.84	3.58	3.32	3.07
	10.1	9	4.08	3.82	3.56	3.30	3.05
	13.2	12	4.06	3.80	3.54	3.28	3.02
	16.9	15.5	4.03	3.77	3.51	3.25	2.99

Notes(1) This data shows average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

PFA004Z045

Model FDE71KXZE1 Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			5.82	4.62	6.96	5.23	7.53	5.36	8.01	5.42	8.97	5.86	9.31	5.71
	12			5.82	4.62	6.96	5.23	7.53	5.36	8.00	5.42	8.94	5.85	9.27	5.69
	14			5.82	4.62	6.96	5.23	7.53	5.36	7.99	5.41	8.90	5.83	9.23	5.68
	16			5.82	4.62	6.96	5.23	7.53	5.36	7.97	5.41	8.87	5.82	9.19	5.67
	18			5.82	4.62	6.96	5.23	7.53	5.36	7.96	5.40	8.84	5.81	9.15	5.64
P-Hi	20			5.82	4.62	6.96	5.23	7.53	5.36	7.95	5.40	8.81	5.80	9.11	5.63
	22			5.81	4.62	6.95	5.22	7.53	5.36	7.92	5.39	8.70	5.76	8.99	5.56
20	24			5.80	4.61	6.95	5.22	7.53	5.36	7.88	5.38	8.58	5.71	8.86	5.53
(m³/min)	26			5.80	4.61	6.92	5.21	7.46	5.32	7.79	5.34	8.45	5.64	8.73	5.49
	28	5.25	4.55	5.79	4.61	6.89	5.20	7.38	5.29	7.69	5.30	8.31	5.59	8.59	5.45
	30	5.25	4.55	5.78	4.60	6.83	5.17	7.31	5.26	7.60	5.26	8.19	5.55	8.46	5.40
	32	5.25	4.55	5.77	4.60	6.78	5.15	7.24	5.23	7.51	5.23	8.06	5.50	8.33	5.36
	34	5.25	4.55	5.75	4.59	6.76	5.15	7.15	5.19	7.39	5.18	7.89	5.44	8.16	5.30
	35	5.25	4.55	5.74	4.59	6.75	5.14	7.10	5.17	7.33	5.15	7.80	5.40	8.08	5.26
	36	5.25	4.55	5.73	4.58	6.69	5.11	7.06	5.16	7.26	5.12	7.66	5.36	7.92	5.22
	38	5.25	4.55	5.72	4.57	6.59	5.07	6.99	5.12	7.12	5.07	7.38	5.25	7.61	5.11
	39	5.25	4.55	5.71	4.57	6.54	5.04	6.96	5.11	7.05	5.04	7.24	5.20	7.45	5.05
	41	5.25	4.55	5.69	4.56	6.35	4.96	6.67	4.99	6.76	4.92	6.92	5.05	7.10	4.92
	43	5.25	4.55	5.67	4.55	6.15	4.87	6.39	4.86	6.46	4.79	6.60	4.96	6.75	4.83

Heating mode (kW)

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	4.64	4.64	4.64	4.64	4.64
	-17.8	-18	4.94	4.94	4.94	4.94	4.94
	-15.7	-16	5.24	5.24	5.24	5.24	5.24
	-13.7	-14	5.54	5.54	5.54	5.54	5.54
	-11.7	-12	5.83	5.83	5.83	5.83	5.83
P-Hi	-9.6	-10	6.13	6.13	6.13	6.13	6.13
	-7.5	-8	6.51	6.51	6.51	6.51	6.51
20	-5.5	-6	6.88	6.88	6.88	6.88	6.88
(m³/min)	-3.4	-4	7.12	7.11	7.10	7.03	6.96
	-1.3	-2	7.36	7.34	7.32	7.18	7.04
	0.8	0	7.76	7.65	7.54	7.27	7.00
	3.9	3	8.42	8.12	7.82	7.38	6.94
	7.0	6	9.20	8.60	8.00	7.44	6.88
	10.1	9	9.14	8.56	7.97	7.40	6.82
	13.2	12	9.08	8.50	7.92	7.34	6.76
	16.9	15.5	9.01	8.43	7.85	7.27	6.69

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			4.68	3.63	5.60	4.12	6.06	4.23	6.44	4.29	7.22	4.61	7.49	4.50
	12			4.68	3.63	5.60	4.12	6.06	4.23	6.43	4.28	7.19	4.60	7.46	4.49
	14			4.68	3.63	5.60	4.12	6.06	4.23	6.43	4.28	7.16	4.59	7.43	4.48
	16			4.68	3.63	5.60	4.12	6.06	4.23	6.42	4.28	7.14	4.59	7.40	4.47
	18			4.68	3.63	5.60	4.12	6.06	4.23	6.41	4.27	7.11	4.58	7.36	4.45
Hi	20			4.68	3.63	5.60	4.12	6.06	4.23	6.40	4.27	7.09	4.57	7.33	4.44
	22			4.68	3.63	5.60	4.12	6.06	4.23	6.37	4.25	7.00	4.53	7.23	4.40
15	24			4.67	3.62	5.59	4.12	6.06	4.23	6.34	4.24	6.91	4.50	7.13	4.37
(m³/min)	26			4.67	3.62	5.57	4.10	6.00	4.20	6.26	4.21	6.80	4.46	7.02	4.33
	28	4.23	3.58	4.66	3.62	5.54	4.09	5.94	4.16	6.19	4.18	6.69	4.41	6.91	4.29
	30	4.23	3.58	4.65	3.61	5.50	4.08	5.88	4.14	6.12	4.14	6.59	4.38	6.81	4.25
	32	4.23	3.58	4.64	3.61	5.46	4.06	5.83	4.12	6.05	4.11	6.49	4.34	6.71	4.21
	34	4.23	3.58	4.62	3.60	5.44	4.05	5.75	4.09	5.95	4.08	6.35	4.28	6.57	4.15
	35	4.23	3.58	4.62	3.60	5.43	4.04	5.71	4.08	5.90	4.06	6.28	4.26	6.50	4.13
	36	4.23	3.58	4.61	3.60	5.39	4.03	5.68	4.06	5.84	4.03	6.17	4.20	6.37	4.09
	38	4.23	3.58	4.60	3.59	5.30	3.99	5.63	4.04	5.73	3.99	5.94	4.12	6.12	4.01
	39	4.23	3.58	4.59	3.59	5.26	3.97	5.60	4.03	5.68	3.97	5.83	4.08	5.99	3.96
	41	4.23	3.58	4.58	3.59	5.11	3.91	5.37	3.93	5.44	3.87	5.57	3.98	5.71	3.87
	43	4.23	3.58	4.56	3.58	4.95	3.83	5.14	3.84	5.20	3.77	5.31	3.89	5.43	3.77

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	3.60	3.60	3.60	3.60	3.60
	-17.8	-18	3.83	3.83	3.83	3.83	3.83
	-15.7	-16	4.06	4.06	4.06	4.06	4.06
	-13.7	-14	4.29	4.29	4.29	4.29	4.29
	-11.7	-12	4.52	4.52	4.52	4.52	4.52
Hi	-9.6	-10	4.75	4.75	4.75	4.75	4.75
	-7.5	-8	5.04	5.04	5.04	5.04	5.04
15	-5.5	-6	5.33	5.33	5.33	5.33	5.33
(m³/min)	-3.4	-4	5.52	5.51	5.50	5.45	5.39
	-1.3	-2	5.70	5.69	5.67	5.57	5.46
	0.8	0	6.01	5.93	5.84	5.64	5.43
	3.9	3	6.53	6.29	6.06	5.72	5.38
	7.0	6	7.13	6.67	6.20	5.77	5.33
	10.1	9	7.08	6.63	6.18	5.73	5.29
	13.2	12	7.04	6.59	6.14	5.69	5.24
	16.9	15.5	6.98	6.53	6.08	5.64	5.19

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			4.17	3.21	4.99	3.64	5.40	3.74	5.74	3.79	6.43	4.09	6.68	3.98
	12			4.17	3.21	4.99	3.64	5.40	3.74	5.73	3.79	6.41	4.08	6.65	3.97
	14			4.17	3.21	4.99	3.64	5.40	3.74	5.72	3.78	6.38	4.07	6.62	3.96
	16			4.17	3.21	4.99	3.64	5.40	3.74	5.72	3.78	6.36	4.06	6.59	3.95
	18			4.17	3.21	4.99	3.64	5.40	3.74	5.71	3.78	6.34	4.05	6.56	3.94
Me	20			4.17	3.21	4.99	3.64	5.40	3.74	5.70	3.77	6.31	4.04	6.53	3.92
	22			4.17	3.21	4.99	3.64	5.40	3.74	5.67	3.76	6.23	4.01	6.44	3.89
13	24			4.16	3.21	4.98	3.64	5.40	3.74	5.65	3.76	6.15	3.98	6.35	3.86
(m³/min)	26			4.16	3.21	4.96	3.63	5.34	3.71	5.58	3.72	6.06	3.94	6.26	3.81
	28	3.77	3.16	4.15	3.20	4.94	3.62	5.29	3.69	5.52	3.70	5.96	3.90	6.16	3.78
	30	3.77	3.16	4.14	3.20	4.90	3.60	5.24	3.67	5.45	3.67	5.87	3.85	6.07	3.75
	32	3.77	3.16	4.13	3.20	4.86	3.59	5.19	3.65	5.39	3.64	5.78	3.82	5.97	3.72
	34	3.77	3.16	4.12	3.19	4.84	3.58	5.12	3.61	5.30	3.61	5.66	3.79	5.85	3.67
	35	3.77	3.16	4.11	3.19	4.84	3.58	5.09	3.60	5.26	3.59	5.59	3.76	5.79	3.66
	36	3.77	3.16	4.11	3.19	4.80	3.56	5.06	3.59	5.21	3.57	5.49	3.72	5.68	3.62
	38	3.77	3.16	4.10	3.18	4.73	3.53	5.01	3.57	5.11	3.53	5.29	3.64	5.45	3.54
	39	3.77	3.16	4.09	3.18	4.69	3.51	4.99	3.56	5.06	3.51	5.19	3.60	5.34	3.50
	41	3.77	3.16	4.08	3.18	4.55	3.44	4.78	3.46	4.84	3.41	4.96	3.52	5.09	3.40
	43	3.77	3.16	4.06	3.16	4.41	3.39	4.58	3.38	4.63	3.33	4.73	3.42	4.84	3.33

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	3.16	3.16	3.16	3.16	3.16
	-17.8	-18	3.36	3.36	3.36	3.36	3.36
	-15.7	-16	3.56	3.56	3.56	3.56	3.56
	-13.7	-14	3.77	3.77	3.77	3.77	3.77
	-11.7	-12	3.97	3.97	3.97	3.97	3.97
Me	-9.6	-10	4.17	4.17	4.17	4.17	4.17
	-7.5	-8	4.43	4.43	4.43	4.43	4.43
13	-5.5	-6	4.68	4.68	4.68	4.68	4.68
(m³/min)	-3.4	-4	4.84	4.84	4.83	4.78	4.74
	-1.3	-2	5.01	4.99	4.98	4.89	4.79
	0.8	0	5.28	5.20	5.13	4.95	4.76
	3.9	3	5.73	5.52	5.32	5.02	4.72
	7.0	6	6.26	5.85	5.44	5.06	4.68
	10.1	9	6.22	5.82	5.42	5.03	4.64
	13.2	12	6.18	5.78	5.39	4.99	4.60
	16.9	15.5	6.13	5.74	5.34	4.95	4.55

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			3.34	2.54	3.99	2.88	4.32	2.96	4.60	3.01	5.15	3.24	5.34	3.15
	12			3.34	2.54	3.99	2.88	4.32	2.96	4.59	3.01	5.13	3.24	5.32	3.14
	14			3.34	2.54	3.99	2.88	4.32	2.96	4.58	3.00	5.11	3.23	5.30	3.13
	16			3.34	2.54	3.99	2.88	4.32	2.96	4.58	3.00	5.09	3.22	5.28	3.13
	18			3.34	2.54	3.99	2.88	4.32	2.96	4.57	2.99	5.07	3.21	5.25	3.11
Lo	20			3.34	2.54	3.99	2.88	4.32	2.96	4.56	2.99	5.05	3.20	5.23	3.11
	22			3.34	2.54	3.99	2.88	4.32	2.96	4.54	2.98	4.99	3.18	5.16	3.08
10	24			3.33	2.54	3.99	2.88	4.32	2.96	4.52	2.98	4.93	3.15	5.09	3.04
(m³/min)	26			3.33	2.54	3.97	2.88	4.28	2.94	4.47	2.95	4.85	3.12	5.01	3.02
	28	3.02	2.50	3.32	2.54	3.95	2.86	4.24	2.92	4.42	2.93	4.77	3.08	4.93	3.00
	30	3.02	2.50	3.32	2.54	3.92	2.84	4.20	2.90	4.36	2.90	4.70	3.06	4.86	2.97
	32	3.02	2.50	3.31	2.53	3.89	2.83	4.16	2.89	4.31	2.89	4.63	3.03	4.78	2.94
	34	3.02	2.50	3.30	2.53	3.88	2.83	4.10	2.86	4.24	2.86	4.53	2.99	4.68	2.91
	35	3.02	2.50	3.29	2.52	3.87	2.82	4.07	2.85	4.21	2.84	4.48	2.97	4.63	2.89
	36	3.02	2.50	3.29	2.52	3.84	2.81	4.05	2.84	4.17	2.83	4.40	2.94	4.54	2.85
	38	3.02	2.50	3.28	2.52	3.78	2.79	4.01	2.81	4.09	2.78	4.24	2.88	4.36	2.79
	39	3.02	2.50	3.28	2.52	3.75	2.78	3.99	2.81	4.05	2.77	4.16	2.85	4.27	2.75
	41	3.02	2.50	3.26	2.51	3.64	2.72	3.83	2.75	3.88	2.70	3.97	2.77	4.07	2.69
	43	3.02	2.50	3.25	2.50	3.53	2.68	3.67	2.68	3.71	2.63	3.79	2.71	3.87	2.63

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	2.47	2.47	2.47	2.47	2.47
	-17.8	-18	2.63	2.63	2.63	2.63	2.63
	-15.7	-16	2.79	2.79	2.79	2.79	2.79
	-13.7	-14	2.95	2.95	2.95	2.95	2.95
	-11.7	-12	3.11	3.11	3.11	3.11	3.11
Lo	-9.6	-10	3.27	3.27	3.27	3.27	3.27
	-7.5	-8	3.47	3.47	3.47	3.47	3.47
10	-5.5	-6	3.66	3.66	3.66	3.66	3.66
(m³/min)	-3.4	-4	3.79	3.79	3.78	3.74	3.71
	-1.3	-2	3.92	3.91	3.90	3.82	3.75
	0.8	0	4.13	4.07	4.02	3.87	3.73
	3.9	3	4.48	4.32	4.16	3.93	3.70
	7.0	6	4.90	4.58	4.26	3.96	3.66
	10.1	9	4.87	4.56	4.24	3.94	3.63
	13.2	12	4.84	4.53	4.22	3.91	3.60
	16.9	15.5	4.80	4.49	4.18	3.87	3.56

Notes(1) This data shows average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

PFA004Z045

Model FDE112KXZE1 Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			9.18	7.09	10.97	8.02	11.87	8.23	12.63	8.37	14.15	9.02	14.69	8.78
	12			9.18	7.09	10.97	8.02	11.87	8.23	12.61	8.36	14.10	9.00	14.63	8.75
	14			9.18	7.09	10.97	8.02	11.87	8.23	12.60	8.34	14.05	8.97	14.56	8.72
	16			9.18	7.09	10.97	8.02	11.87	8.23	12.58	8.33	14.00	8.96	14.50	8.71
	18			9.18	7.09	10.97	8.02	11.87	8.23	12.56	8.33	13.94	8.94	14.44	8.64
P-Hi	20			9.18	7.09	10.97	8.02	11.87	8.23	12.55	8.32	13.89	8.92	14.37	8.62
	22			9.17	7.08	10.97	8.02	11.87	8.23	12.49	8.30	13.72	8.85	14.18	8.56
28	24			9.15	7.07	10.97	8.02	11.87	8.23	12.43	8.28	13.54	8.74	13.98	8.50
(m³/min)	26			9.15	7.07	10.92	8.00	11.76	8.19	12.28	8.21	13.33	8.67	13.77	8.44
	28	8.29	6.97	9.14	7.07	10.86	7.98	11.65	8.15	12.14	8.15	13.11	8.60	13.55	8.36
	30	8.29	6.97	9.12	7.06	10.78	7.94	11.54	8.06	12.00	8.09	12.91	8.52	13.35	8.28
	32	8.29	6.97	9.09	7.05	10.70	7.91	11.42	8.02	11.85	8.00	12.71	8.44	13.15	8.20
	34	8.29	6.97	9.06	7.04	10.66	7.89	11.27	7.96	11.66	7.93	12.45	8.34	12.87	8.11
	35	8.29	6.97	9.05	7.03	10.64	7.88	11.20	7.93	11.57	7.90	12.31	8.29	12.74	8.07
	36	8.29	6.97	9.04	7.03	10.56	7.85	11.14	7.91	11.46	7.86	12.09	8.20	12.49	7.98
	38	8.29	6.97	9.02	7.02	10.40	7.77	11.03	7.87	11.24	7.78	11.65	8.03	12.00	7.80
	39	8.29	6.97	9.00	7.01	10.32	7.74	10.98	7.85	11.13	7.73	11.43	7.94	11.75	7.68
	41	8.29	6.97	8.97	7.00	10.01	7.61	10.53	7.66	10.66	7.54	10.92	7.73	11.20	7.52
	43	8.29	6.97	8.94	6.99	9.70	7.47	10.08	7.46	10.19	7.35	10.41	7.57	10.65	7.34

Heating mode (kW)

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	7.25	7.25	7.25	7.25	7.25
	-17.8	-18	7.72	7.72	7.72	7.72	7.72
	-15.7	-16	8.18	8.18	8.18	8.18	8.18
	-13.7	-14	8.65	8.65	8.65	8.65	8.65
	-11.7	-12	9.12	9.12	9.12	9.12	9.12
P-Hi	-9.6	-10	9.58	9.58	9.58	9.58	9.58
	-7.5	-8	10.17	10.17	10.17	10.17	10.17
28	-5.5	-6	10.75	10.75	10.75	10.75	10.75
(m³/min)	-3.4	-4	11.13	11.11	11.09	10.98	10.88
	-1.3	-2	11.50	11.47	11.44	11.22	11.00
	0.8	0	12.13	11.95	11.78	11.36	10.94
	3.9	3	13.16	12.69	12.22	11.53	10.84
	7.0	6	14.38	13.44	12.50	11.63	10.75
	10.1	9	14.28	13.37	12.45	11.55	10.66
	13.2	12	14.19	13.28	12.38	11.47	10.56
	16.9	15.5	14.08	13.17	12.27	11.36	10.45

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			8.43	6.45	10.07	7.31	10.90	7.50	11.59	7.61	12.99	8.21	13.48	7.99
	12			8.43	6.45	10.07	7.31	10.90	7.50	11.58	7.61	12.94	8.20	13.43	7.97
	14			8.43	6.45	10.07	7.31	10.90	7.50	11.56	7.60	12.89	8.18	13.37	7.94
	16			8.43	6.45	10.07	7.31	10.90	7.50	11.55	7.60	12.85	8.15	13.31	7.92
	18			8.43	6.45	10.07	7.31	10.90	7.50	11.53	7.59	12.80	8.14	13.25	7.90
Hi	20			8.43	6.45	10.07	7.31	10.90	7.50	11.52	7.59	12.75	8.12	13.19	7.87
	22			8.41	6.44	10.07	7.31	10.90	7.50	11.46	7.56	12.59	8.05	13.01	7.82
25	24			8.40	6.44	10.07	7.31	10.90	7.50	11.41	7.53	12.43	7.98	12.83	7.75
(m³/min)	26			8.40	6.44	10.02	7.29	10.79	7.46	11.27	7.48	12.23	7.90	12.64	7.68
	28	7.61	6.34	8.39	6.43	9.97	7.27	10.69	7.41	11.14	7.42	12.04	7.83	12.44	7.60
	30	7.61	6.34	8.37	6.43	9.89	7.22	10.59	7.37	11.01	7.36	11.85	7.75	12.25	7.53
	32	7.61	6.34	8.35	6.42	9.82	7.20	10.49	7.32	10.88	7.31	11.67	7.68	12.07	7.43
	34	7.61	6.34	8.32	6.40	9.78	7.18	10.35	7.27	10.71	7.24	11.42	7.55	11.82	7.36
	35	7.61	6.34	8.31	6.40	9.77	7.18	10.28	7.23	10.62	7.21	11.30	7.51	11.69	7.32
	36	7.61	6.34	8.30	6.40	9.69	7.14	10.23	7.21	10.52	7.16	11.10	7.45	11.47	7.25
	38	7.61	6.34	8.28	6.39	9.55	7.08	10.13	7.17	10.31	7.07	10.69	7.30	11.01	7.09
	39	7.61	6.34	8.27	6.38	9.47	7.05	10.07	7.14	10.21	7.03	10.49	7.22	10.78	7.01
	41	7.61	6.34	8.24	6.37	9.19	6.90	9.66	6.96	9.78	6.83	10.02	7.05	10.28	6.84
	43	7.61	6.34	8.21	6.35	8.90	6.79	9.25	6.78	9.35	6.68	9.56	6.88	9.77	6.66

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	6.55	6.55	6.55	6.55	6.55
	-17.8	-18	6.97	6.97	6.97	6.97	6.97
	-15.7	-16	7.39	7.39	7.39	7.39	7.39
	-13.7	-14	7.81	7.81	7.81	7.81	7.81
	-11.7	-12	8.23	8.23	8.23	8.23	8.23
Hi	-9.6	-10	8.65	8.65	8.65	8.65	8.65
	-7.5	-8	9.18	9.18	9.18	9.18	9.18
25	-5.5	-6	9.71	9.71	9.71	9.71	9.71
(m³/min)	-3.4	-4	10.05	10.03	10.02	9.92	9.82
	-1.3	-2	10.38	10.36	10.33	10.13	9.93
	0.8	0	10.95	10.79	10.64	10.26	9.88
	3.9	3	11.88	11.46	11.03	10.41	9.79
	7.0	6	12.98	12.13	11.29	10.50	9.71
	10.1	9	12.89	12.07	11.24	10.43	9.62
	13.2	12	12.81	11.99	11.17	10.36	9.54
	16.9	15.5	12.71	11.89	11.07	10.26	9.44

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			7.34	5.56	8.77	6.29	9.49	6.47	10.09	6.57	11.31	7.08	11.74	6.89
	12			7.34	5.56	8.77	6.29	9.49	6.47	10.08	6.56	11.27	7.07	11.69	6.87
	14			7.34	5.56	8.77	6.29	9.49	6.47	10.07	6.56	11.23	7.05	11.64	6.84
	16			7.34	5.56	8.77	6.29	9.49	6.47	10.05	6.55	11.18	7.03	11.59	6.83
	18			7.34	5.56	8.77	6.29	9.49	6.47	10.04	6.54	11.14	7.01	11.54	6.81
Me	20			7.34	5.56	8.77	6.29	9.49	6.47	10.03	6.54	11.10	7.00	11.49	6.80
	22			7.33	5.55	8.77	6.29	9.49	6.47	9.98	6.52	10.96	6.94	11.33	6.73
21	24			7.32	5.55	8.76	6.28	9.49	6.47	9.93	6.50	10.82	6.88	11.17	6.67
(m³/min)	26			7.31	5.54	8.72	6.27	9.40	6.43	9.82	6.45	10.65	6.81	11.00	6.59
	28	6.62	5.45	7.30	5.54	8.68	6.25	9.31	6.39	9.70	6.40	10.48	6.72	10.83	6.53
	30	6.62	5.45	7.29	5.53	8.62	6.23	9.22	6.35	9.59	6.36	10.32	6.67	10.67	6.48
	32	6.62	5.45	7.27	5.53	8.55	6.20	9.13	6.31	9.47	6.30	10.16	6.61	10.51	6.42
	34	6.62	5.45	7.24	5.51	8.52	6.19	9.01	6.24	9.32	6.21	9.95	6.53	10.29	6.35
	35	6.62	5.45	7.23	5.51	8.50	6.18	8.95	6.22	9.25	6.19	9.84	6.49	10.18	6.31
	36	6.62	5.45	7.22	5.50	8.44	6.15	8.91	6.20	9.16	6.16	9.66	6.42	9.98	6.24
	38	6.62	5.45	7.21	5.50	8.31	6.09	8.82	6.17	8.98	6.09	9.31	6.28	9.59	6.10
	39	6.62	5.45	7.20	5.50	8.25	6.07	8.77	6.15	8.89	6.06	9.13	6.21	9.39	6.03
	41	6.62	5.45	7.17	5.48	8.00	5.95	8.41	5.99	8.52	5.90	8.73	6.06	8.95	5.85
	43	6.62	5.45	7.15	5.47	7.75	5.84	8.06	5.85	8.14	5.74	8.32	5.89	8.51	5.72

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	5.58	5.58	5.58	5.58	5.58
	-17.8	-18	5.93	5.93	5.93	5.93	5.93
	-15.7	-16	6.29	6.29	6.29	6.29	6.29
	-13.7	-14	6.65	6.65	6.65	6.65	6.65
	-11.7	-12	7.01	7.01	7.01	7.01	7.01
Me	-9.6	-10	7.37	7.37	7.37	7.37	7.37
	-7.5	-8	7.82	7.82	7.82	7.82	7.82
21	-5.5	-6	8.27	8.27	8.27	8.27	8.27
(m³/min)	-3.4	-4	8.56	8.54	8.53	8.45	8.36
	-1.3	-2	8.84	8.82	8.80	8.63	8.46
	0.8	0	9.32	9.19	9.06	8.74	8.41
	3.9	3	10.12	9.76	9.40	8.87	8.34
	7.0	6	11.05	10.33	9.61	8.94	8.27
	10.1	9	10.98	10.28	9.58	8.89	8.20
	13.2	12	10.91	10.21	9.52	8.82	8.12
	16.9	15.5	10.83	10.13	9.43	8.74	8.04

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	21 °CDB 14 °CWB SHC	23 °CDB 16 °CWB TC	23 °CDB 16 °CWB SHC	26 °CDB 18 °CWB TC	26 °CDB 18 °CWB SHC	27 °CDB 19 °CWB TC	27 °CDB 19 °CWB SHC	28 °CDB 20 °CWB TC	28 °CDB 20 °CWB SHC	31 °CDB 22 °CWB TC	31 °CDB 22 °CWB SHC	33 °CDB 24 °CWB TC	33 °CDB 24 °CWB SHC
	10			6.00	4.49	7.17	5.09	7.76	5.23	8.25	5.32	9.25	5.74	9.60	5.57
	12			6.00	4.49	7.17	5.09	7.76	5.23	8.24	5.31	9.21	5.72	9.56	5.55
	14			6.00	4.49	7.17	5.09	7.76	5.23	8.23	5.31	9.18	5.70	9.52	5.54
	16			6.00	4.49	7.17	5.09	7.76	5.23	8.22	5.30	9.15	5.69	9.48	5.53
	18			6.00	4.49	7.17	5.09	7.76	5.23	8.21	5.30	9.11	5.68	9.43	5.48
Lo	20			6.00	4.49	7.17	5.09	7.76	5.23	8.20	5.30	9.08	5.67	9.39	5.47
	22			5.99	4.49	7.17	5.09	7.76	5.23	8.16	5.28	8.96	5.62	9.27	5.43
16.5	24			5.98	4.48	7.17	5.09	7.76	5.23	8.12	5.26	8.85	5.55	9.14	5.39
(m³/min)	26			5.98	4.48	7.13	5.08	7.68	5.20	8.03	5.21	8.71	5.50	9.00	5.34
	28	5.42	4.41	5.97	4.48	7.10	5.06	7.61	5.17	7.93	5.17	8.57	5.46	8.86	5.29
	30	5.42	4.41	5.96	4.47	7.04	5.03	7.54	5.13	7.84	5.14	8.44	5.40	8.72	5.23
	32	5.42	4.41	5.94	4.47	6.99	5.01	7.47	5.10	7.75	5.09	8.31	5.35	8.59	5.18
	34	5.42	4.41	5.92	4.46	6.97	5.00	7.37	5.06	7.62	5.04	8.13	5.27	8.41	5.12
	35	5.42	4.41	5.91	4.45	6.95	4.99	7.32	5.04	7.56	5.01	8.05	5.24	8.32	5.09
	36	5.42	4.41	5.91	4.45	6.90	4.97	7.28	5.02	7.49	4.99	7.90	5.18	8.16	5.03
	38	5.42	4.41	5.89	4.44	6.80	4.92	7.21	4.99	7.34	4.92	7.61	5.07	7.84	4.90
	39	5.42	4.41	5.88	4.43	6.74	4.90	7.17	4.97	7.27	4.89	7.47	4.99	7.68	4.85
	41	5.42	4.41	5.86	4.42	6.54	4.81	6.88	4.84	6.97	4.76	7.14	4.88	7.32	4.73
	43	5.42	4.41	5.84	4.42	6.34	4.71	6.59	4.72	6.66	4.64	6.80	4.76	6.96	4.60

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	4.45	4.45	4.45	4.45	4.45
	-17.8	-18	4.73	4.73	4.73	4.73	4.73
	-15.7	-16	5.02	5.02	5.02	5.02	5.02
	-13.7	-14	5.30	5.30	5.30	5.30	5.30
	-11.7	-12	5.59	5.59	5.59	5.59	5.59
Lo	-9.6	-10	5.88	5.88	5.88	5.88	5.88
	-7.5	-8	6.23	6.23	6.23	6.23	6.23
16.5	-5.5	-6	6.59	6.59	6.59	6.59	6.59
(m³/min)	-3.4	-4	6.82	6.81	6.80	6.74	6.67
	-1.3	-2	7.05	7.03	7.01	6.88	6.75
	0.8	0	7.44	7.33	7.22	6.97	6.71
	3.9	3	8.07	7.78	7.49	7.07	6.65
	7.0	6	8.82	8.24	7.67	7.13	6.59
	10.1	9	8.76	8.20	7.64	7.09	6.54
	13.2	12	8.70	8.14	7.59	7.03	6.48
	16.9	15.5	8.63	8.08	7.52	6.97	6.41

Notes(1) This data shows average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

PFA004Z045

Model **FDE140KXZE1** Cooling mode (kW)

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	SHC	23 °CDB 16 °CWB TC	SHC	26 °CDB 18 °CWB TC	SHC	27 °CDB 19 °CWB TC	SHC	28 °CDB 20 °CWB TC	SHC	31 °CDB 22 °CWB TC	SHC	33 °CDB 24 °CWB TC	SHC
	10			11.48	8.74	13.72	9.90	14.84	10.16	15.79	10.32	17.69	11.11	18.36	10.82
	12			11.48	8.74	13.72	9.90	14.84	10.16	15.77	10.31	17.62	11.09	18.28	10.79
	14			11.48	8.74	13.72	9.90	14.84	10.16	15.75	10.31	17.56	11.07	18.20	10.75
	16			11.48	8.74	13.72	9.90	14.84	10.16	15.72	10.28	17.49	11.04	18.13	10.72
	18			11.48	8.74	13.72	9.90	14.84	10.16	15.70	10.27	17.43	11.02	18.05	10.70
P-Hi	20			11.48	8.74	13.72	9.90	14.84	10.16	15.68	10.26	17.37	11.00	17.97	10.67
	22			11.46	8.73	13.71	9.90	14.84	10.16	15.61	10.24	17.15	10.90	17.72	10.57
32	24			11.44	8.72	13.71	9.90	14.84	10.16	15.54	10.21	16.93	10.81	17.48	10.48
(m³/min)	26			11.43	8.72	13.64	9.85	14.70	10.10	15.35	10.12	16.66	10.71	17.21	10.39
	28	10.36	8.58	11.42	8.72	13.58	9.83	14.56	10.03	15.17	10.05	16.39	10.60	16.94	10.29
	30	10.36	8.58	11.40	8.71	13.48	9.79	14.42	9.97	14.99	9.97	16.14	10.49	16.69	10.19
	32	10.36	8.58	11.37	8.68	13.37	9.74	14.28	9.90	14.82	9.90	15.89	10.39	16.43	10.10
	34	10.36	8.58	11.33	8.66	13.32	9.72	14.09	9.83	14.58	9.79	15.56	10.27	16.09	9.98
	35	10.36	8.58	11.31	8.65	13.30	9.71	14.00	9.79	14.46	9.75	15.39	10.19	15.92	9.90
	36	10.36	8.58	11.30	8.65	13.20	9.66	13.93	9.75	14.32	9.69	15.11	10.08	15.61	9.81
	38	10.36	8.58	11.27	8.64	13.00	9.55	13.79	9.69	14.05	9.58	14.56	9.84	15.00	9.56
	39	10.36	8.58	11.26	8.63	12.90	9.51	13.72	9.67	13.91	9.52	14.28	9.74	14.69	9.47
	41	10.36	8.58	11.22	8.61	12.51	9.35	13.16	9.40	13.32	9.25	13.65	9.53	14.00	9.24
	43	10.36	8.58	11.18	8.60	12.13	9.19	12.60	9.18	12.74	9.04	13.02	9.30	13.31	9.00

Heating mode (kW)

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	9.28	9.28	9.28	9.28	9.28
	-17.8	-18	9.88	9.88	9.88	9.88	9.88
	-15.7	-16	10.47	10.47	10.47	10.47	10.47
	-13.7	-14	11.07	11.07	11.07	11.07	11.07
	-11.7	-12	11.67	11.67	11.67	11.67	11.67
P-Hi	-9.6	-10	12.27	12.27	12.27	12.27	12.27
	-7.5	-8	13.01	13.01	13.01	13.01	13.01
32	-5.5	-6	13.76	13.76	13.76	13.76	13.76
(m³/min)	-3.4	-4	14.24	14.22	14.20	14.06	13.92
	-1.3	-2	14.72	14.68	14.64	14.36	14.08
	0.8	0	15.52	15.30	15.08	14.54	14.00
	3.9	3	16.84	16.24	15.64	14.76	13.88
	7.0	6	18.40	17.20	16.00	14.88	13.76
	10.1	9	18.28	17.11	15.94	14.79	13.64
	13.2	12	18.16	17.00	15.84	14.68	13.52
	16.9	15.5	18.02	16.86	15.70	14.54	13.38

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	SHC	23 °CDB 16 °CWB TC	SHC	26 °CDB 18 °CWB TC	SHC	27 °CDB 19 °CWB TC	SHC	28 °CDB 20 °CWB TC	SHC	31 °CDB 22 °CWB TC	SHC	33 °CDB 24 °CWB TC	SHC
	10			9.86	7.37	11.78	8.35	12.75	8.59	13.56	8.73	15.19	9.41	15.77	9.14
	12			9.86	7.37	11.78	8.35	12.75	8.59	13.54	8.72	15.14	9.39	15.70	9.11
	14			9.86	7.37	11.78	8.35	12.75	8.59	13.52	8.71	15.08	9.37	15.64	9.09
	16			9.86	7.37	11.78	8.35	12.75	8.59	13.51	8.71	15.03	9.35	15.57	9.07
	18			9.86	7.37	11.78	8.35	12.75	8.59	13.49	8.70	14.97	9.31	15.50	9.03
Hi	20			9.86	7.37	11.78	8.35	12.75	8.59	13.47	8.69	14.92	9.29	15.43	9.01
	22			9.84	7.37	11.78	8.35	12.75	8.59	13.41	8.67	14.73	9.21	15.22	8.93
26	24			9.83	7.36	11.77	8.34	12.75	8.59	13.34	8.63	14.54	9.14	15.01	8.85
(m³/min)	26			9.82	7.36	11.72	8.32	12.63	8.54	13.19	8.57	14.31	9.04	14.78	8.76
	28	8.90	7.24	9.81	7.35	11.66	8.30	12.51	8.48	13.03	8.49	14.08	8.94	14.55	8.67
	30	8.90	7.24	9.79	7.34	11.57	8.26	12.39	8.43	12.88	8.43	13.87	8.85	14.33	8.59
	32	8.90	7.24	9.76	7.33	11.48	8.22	12.27	8.35	12.73	8.36	13.65	8.78	14.11	8.52
	34	8.90	7.24	9.73	7.32	11.44	8.21	12.11	8.29	12.52	8.26	13.36	8.66	13.82	8.38
	35	8.90	7.24	9.72	7.31	11.42	8.20	12.03	8.25	12.42	8.22	13.22	8.57	13.68	8.33
	36	8.90	7.24	9.70	7.29	11.34	8.15	11.96	8.23	12.30	8.17	12.98	8.48	13.41	8.25
	38	8.90	7.24	9.68	7.28	11.17	8.08	11.84	8.18	12.07	8.08	12.51	8.32	12.88	8.06
	39	8.90	7.24	9.67	7.28	11.08	8.04	11.78	8.16	11.95	8.03	12.27	8.22	12.62	7.98
	41	8.90	7.24	9.63	7.26	10.75	7.89	11.30	7.95	11.44	7.81	11.72	8.01	12.02	7.76
	43	8.90	7.24	9.60	7.25	10.42	7.75	10.82	7.74	10.94	7.61	11.18	7.81	11.43	7.56

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	7.71	7.71	7.71	7.71	7.71
	-17.8	-18	8.21	8.21	8.21	8.21	8.21
	-15.7	-16	8.71	8.71	8.71	8.71	8.71
	-13.7	-14	9.20	9.20	9.20	9.20	9.20
	-11.7	-12	9.70	9.70	9.70	9.70	9.70
Hi	-9.6	-10	10.20	10.20	10.20	10.20	10.20
	-7.5	-8	10.82	10.82	10.82	10.82	10.82
26	-5.5	-6	11.44	11.44	11.44	11.44	11.44
(m³/min)	-3.4	-4	11.84	11.82	11.80	11.69	11.57
	-1.3	-2	12.24	12.20	12.17	11.94	11.70
	0.8	0	12.90	12.72	12.54	12.09	11.64
	3.9	3	14.00	13.50	13.00	12.27	11.54
	7.0	6	15.30	14.30	13.30	12.37	11.44
	10.1	9	15.20	14.22	13.25	12.29	11.34
	13.2	12	15.10	14.13	13.17	12.20	11.24
	16.9	15.5	14.98	14.02	13.05	12.09	11.12

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	SHC	23 °CDB 16 °CWB TC	SHC	26 °CDB 18 °CWB TC	SHC	27 °CDB 19 °CWB TC	SHC	28 °CDB 20 °CWB TC	SHC	31 °CDB 22 °CWB TC	SHC	33 °CDB 24 °CWB TC	SHC
	10			8.96	6.65	10.71	7.54	11.59	7.75	12.33	7.89	13.81	8.49	14.34	8.22
	12			8.96	6.65	10.71	7.54	11.59	7.75	12.31	7.87	13.76	8.47	14.28	8.20
	14			8.96	6.65	10.71	7.54	11.59	7.75	12.30	7.86	13.71	8.45	14.22	8.18
	16			8.96	6.65	10.71	7.54	11.59	7.75	12.28	7.85	13.66	8.44	14.16	8.16
	18			8.96	6.65	10.71	7.54	11.59	7.75	12.26	7.85	13.61	8.40	14.09	8.14
Me	20			8.96	6.65	10.71	7.54	11.59	7.75	12.25	7.84	13.56	8.36	14.03	8.12
	22			8.95	6.64	10.71	7.54	11.59	7.75	12.19	7.82	13.39	8.30	13.84	8.05
23	24			8.94	6.64	10.71	7.54	11.59	7.75	12.13	7.80	13.22	8.24	13.65	7.97
(m³/min)	26			8.93	6.63	10.66	7.52	11.48	7.70	11.99	7.73	13.01	8.16	13.44	7.90
	28	8.09	6.52	8.92	6.63	10.61	7.49	11.37	7.65	11.85	7.67	12.80	8.07	13.23	7.82
	30	8.09	6.52	8.90	6.62	10.52	7.46	11.26	7.60	11.71	7.60	12.61	7.99	13.03	7.74
	32	8.09	6.52	8.88	6.60	10.44	7.41	11.15	7.55	11.57	7.55	12.41	7.90	12.83	7.68
	34	8.09	6.52	8.85	6.59	10.41	7.40	11.01	7.48	11.39	7.47	12.15	7.80	12.57	7.58
	35	8.09	6.52	8.83	6.58	10.39	7.39	10.93	7.45	11.30	7.43	12.02	7.75	12.44	7.52
	36	8.09	6.52	8.82	6.58	10.31	7.36	10.88	7.43	11.19	7.38	11.80	7.66	12.19	7.43
	38	8.09	6.52	8.80	6.57	10.15	7.28	10.77	7.38	10.97	7.28	11.37	7.49	11.71	7.26
	39	8.09	6.52	8.79	6.56	10.07	7.24	10.72	7.35	10.86	7.24	11.16	7.40	11.47	7.15
	41	8.09	6.52	8.76	6.55	9.77	7.10	10.28	7.14	10.41	7.03	10.66	7.19	10.93	6.97
	43	8.09	6.52	8.73	6.54	9.47	6.97	9.84	6.97	9.95	6.85	10.16	7.02	10.39	6.79

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	6.90	6.90	6.90	6.90	6.90
	-17.8	-18	7.34	7.34	7.34	7.34	7.34
	-15.7	-16	7.79	7.79	7.79	7.79	7.79
	-13.7	-14	8.23	8.23	8.23	8.23	8.23
	-11.7	-12	8.67	8.67	8.67	8.67	8.67
Me	-9.6	-10	9.12	9.12	9.12	9.12	9.12
	-7.5	-8	9.67	9.67	9.67	9.67	9.67
23	-5.5	-6	10.23	10.23	10.23	10.23	10.23
(m³/min)	-3.4	-4	10.58	10.57	10.55	10.45	10.35
	-1.3	-2	10.94	10.91	10.88	10.67	10.47
	0.8	0	11.54	11.37	11.21	10.81	10.41
	3.9	3	12.52	12.07	11.62	10.97	10.32
	7.0	6	13.68	12.78	11.89	11.06	10.23
	10.1	9	13.59	12.72	11.85	10.99	10.14
	13.2	12	13.50	12.64	11.77	10.91	10.05
	16.9	15.5	13.39	12.53	11.67	10.81	9.94

Air flow	Outdoor air temperature (°CDB)	Indoor air temperature 21 °CDB 14 °CWB TC	SHC	23 °CDB 16 °CWB TC	SHC	26 °CDB 18 °CWB TC	SHC	27 °CDB 19 °CWB TC	SHC	28 °CDB 20 °CWB TC	SHC	31 °CDB 22 °CWB TC	SHC	33 °CDB 24 °CWB TC	SHC
	10			6.99	5.10	8.35	5.79	9.03	5.96	9.61	6.06	10.77	6.53	11.18	6.35
	12			6.99	5.10	8.35	5.79	9.03	5.96	9.60	6.06	10.73	6.51	11.13	6.33
	14			6.99	5.10	8.35	5.79	9.03	5.96	9.59	6.05	10.69	6.50	11.08	6.30
	16			6.99	5.10	8.35	5.79	9.03	5.96	9.57	6.05	10.65	6.48	11.03	6.28
	18			6.99	5.10	8.35	5.79	9.03	5.96	9.56	6.04	10.61	6.47	10.99	6.27
Lo	20			6.99	5.10	8.35	5.79	9.03	5.96	9.55	6.04	10.57	6.45	10.94	6.25
	22			6.98	5.10	8.35	5.79	9.03	5.96	9.50	6.02	10.44	6.39	10.79	6.19
17	24			6.97	5.09	8.34	5.78	9.03	5.96	9.46	5.99	10.30	6.33	10.64	6.13
(m³/min)	26			6.96	5.09	8.31	5.77	8.95	5.92	9.35	5.95	10.14	6.26	10.48	6.06
	28	6.31	5.01	6.95	5.08	8.27	5.75	8.86	5.88	9.24	5.89	9.98	6.19	10.31	6.00
	30	6.31	5.01	6.94	5.08	8.20	5.72	8.78	5.84	9.13	5.85	9.83	6.14	10.16	5.95
	32	6.31	5.01	6.92	5.07	8.14	5.69	8.69	5.79	9.02	5.80	9.67	6.07	10.00	5.88
	34	6.31	5.01	6.90	5.06	8.11	5.68	8.58	5.74	8.88	5.72	9.47	5.98	9.80	5.81
	35	6.31	5.01	6.89	5.05	8.10	5.68	8.52	5.72	8.80	5.69	9.37	5.94	9.69	5.76
	36	6.31	5.01	6.88	5.05	8.04	5.64	8.48	5.70	8.72	5.66	9.20	5.88	9.51	5.68
	38	6.31	5.01	6.86	5.04	7.91	5.59	8.39	5.66	8.55	5.59	8.86	5.73	9.13	5.55
	39	6.31	5.01	6.85	5.04	7.85	5.55	8.35	5.65	8.47	5.56	8.70	5.67	8.94	5.48
	41	6.31	5.01	6.83	5.03	7.62	5.45	8.01	5.49	8.11	5.40	8.31	5.52	8.52	5.34
	43	6.31	5.01	6.80	5.01	7.38	5.34	7.67	5.34	7.75	5.24	7.92	5.36	8.10	5.18

Air flow	Outdoor air temperature °CDB	°CWB	Indoor air temperature 16 °CDB	18 °CDB	20 °CDB	22 °CDB	24 °CDB
	-19.8	-20	5.20	5.20	5.20	5.20	5.20
	-17.8	-18	5.54	5.54	5.54	5.54	5.54
	-15.7	-16	5.87	5.87	5.87	5.87	5.87
	-13.7	-14	6.21	6.21	6.21	6.21	6.21
	-11.7	-12	6.54	6.54	6.54	6.54	6.54
Lo	-9.6	-10	6.88	6.88	6.88	6.88	6.88
	-7.5	-8	7.29	7.29	7.29	7.29	7.29
17	-5.5	-6	7.71	7.71	7.71	7.71	7.71
(m³/min)	-3.4	-4	7.98	7.97	7.96	7.88	7.80
	-1.3	-2	8.25	8.23	8.21	8.05	7.89
	0.8	0	8.70	8.58	8.45	8.15	7.85
	3.9	3	9.44	9.10	8.77	8.27	7.78
	7.0	6	10.31	9.64	8.97	8.34	7.71
	10.1	9	10.25	9.59	8.94	8.29	7.65
	13.2	12	10.18	9.53	8.88	8.23	7.58
	16.9	15.5	10.10	9.45	8.80	8.15	7.50

Notes(1) This data shows average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity(kW)
SHC :Sensible heat capacity(kW)

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(10) Outdoor air processing unit (FDU-F)

Model **FDU650FKXZE1** Cooling mode (kW)

Air flow (m^3/min)	Outdoor air temperature	15℃WB		20℃WB		25℃WB		28℃WB		30℃WB		32℃WB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
11	20℃CDB	2.70	2.70										
	25℃CDB	2.70	2.70	3.91	2.32								
	30℃CDB	3.67	3.67	3.90	3.38	6.94	2.96	9.07	2.67				
	35℃CDB	4.59	4.59	4.60	4.60	6.83	3.97	8.94	3.68	10.48	3.47	12.13	3.24
	40℃CDB	5.49	5.49	5.50	5.50	6.75	4.97	8.81	4.67	10.34	4.45	11.97	4.22
13	20℃CDB	2.88	2.88										
	25℃CDB	2.88	2.88	4.15	2.48								
	30℃CDB	3.92	3.92	4.13	3.61	7.35	3.13	9.61	2.81				
	35℃CDB	4.92	4.92	4.92	4.92	7.24	4.23	9.48	3.90	11.11	3.67	12.80	3.41
	40℃CDB	5.88	5.88	5.89	5.89	7.16	5.29	9.34	4.97	10.96	4.72	12.69	4.47
15	20℃CDB	3.10	3.10										
	25℃CDB	3.10	3.10	4.40	2.65								
	30℃CDB	4.20	4.20	4.39	3.87	7.80	3.34	10.16	2.99				
	35℃CDB	5.26	5.26	5.27	5.27	7.68	4.52	10.01	4.16	11.74	3.90	13.59	3.61
	40℃CDB	6.29	6.29	6.30	6.30	7.60	5.69	9.92	5.30	11.58	5.03	13.41	4.75

Heating mode (kW)

Air flow (m^3/min)	Outdoor air temperature	-10℃WB	-5℃WB	0℃WB	4℃WB	8℃WB	12℃WB
11	-10℃CDB	8.10					
	-5℃CDB	7.30	7.30				
	0℃CDB	6.49	6.50	6.50			
	4℃CDB	5.50	5.50	5.51	5.51		
	8℃CDB	4.53	4.53	4.53	4.54	4.54	
	12℃CDB	3.58	3.58	3.58	3.59	3.59	3.59
	16℃CDB	2.50	2.50	2.50	2.50	2.50	2.50
	20℃CDB	1.54	1.54	1.54	1.54	1.54	1.54
13	-10℃CDB	8.62					
	-5℃CDB	7.77	7.77				
	0℃CDB	6.91	6.91	6.92			
	4℃CDB	5.85	5.85	5.86	5.86		
	8℃CDB	4.82	4.82	4.82	4.83	4.83	
	12℃CDB	3.81	3.81	3.81	3.82	3.82	3.82
	16℃CDB	2.66	2.66	2.66	2.66	2.66	2.66
	20℃CDB	1.70	1.71	1.71	1.71	1.71	1.71
15	-10℃CDB	9.10					
	-5℃CDB	8.21	8.21				
	0℃CDB	7.30	7.30	7.31			
	4℃CDB	6.18	6.18	6.19	6.19		
	8℃CDB	5.09	5.09	5.10	5.10	5.10	
	12℃CDB	4.02	4.03	4.03	3.06	4.03	4.04
	16℃CDB	2.81	2.81	2.81	2.81	2.81	2.81
	20℃CDB	1.83	1.82	1.83	1.83	1.83	1.83

Notes(1) These data show average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)
(2) Symbols are as follows
TC :Total cooling capacity (kW)
SHC :Sensible heat capacity (kW)
(3) When outdoor air temperature is -5℃CDB－-10℃CDB in heating, the supply air temperature become 10℃ or lower for 5－10minutes after the defrost operation.

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Model **FDU1100FKXZE1** Cooling mode (kW)

Air flow (m^3/min)	Outdoor air temperature	15℃WB		20℃WB		25℃WB		28℃WB		30℃WB		32℃WB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
18	20℃CDB	3.84	3.84										
	25℃CDB	3.84	3.84	5.31	3.13								
	30℃CDB	4.95	4.95	5.30	4.97	10.16	3.73	13.63	2.87				
	35℃CDB	6.85	6.85	6.86	6.86	10.00	5.53	13.42	4.67	15.92	4.04	18.62	3.36
	40℃CDB	8.27	8.27	8.28	8.28	9.90	7.30	13.20	6.42	15.65	5.79	18.30	5.10
20.5	20℃CDB	3.94	3.94										
	25℃CDB	3.94	3.94	5.42	3.21								
	30℃CDB	5.07	5.07	5.41	5.10	10.37	3.82	13.90	2.93				
	35℃CDB	7.02	7.02	7.03	7.03	10.20	5.67	13.68	4.78	16.24	4.12	18.99	3.43
	40℃CDB	8.48	8.48	8.49	8.49	10.10	7.48	13.46	6.58	15.97	5.93	18.67	5.21
23	20℃CDB	4.15	4.15										
	25℃CDB	4.15	4.15	5.71	3.38								
	30℃CDB	5.37	5.37	5.70	5.40	10.93	4.03	14.58	3.07				
	35℃CDB	7.43	7.43	7.44	7.44	10.75	5.97	14.42	5.04	17.03	4.34	19.92	3.60
	40℃CDB	8.97	8.97	8.99	8.99	10.64	7.92	14.12	6.93	16.75	6.25	19.58	5.49

Heating mode (kW)

Air flow (m^3/min)	Outdoor air temperature	-10℃WB	-5℃WB	0℃WB	4℃WB	8℃WB	12℃WB
18	-10℃CDB	12.90					
	-5℃CDB	11.70	11.70				
	0℃CDB	10.49	10.49	10.50			
	4℃CDB	8.88	8.89	8.89	8.90		
	8℃CDB	7.31	7.32	7.32	7.32	7.33	
	12℃CDB	5.60	5.60	5.60	5.60	5.60	5.60
	16℃CDB	3.70	3.70	3.70	3.70	3.70	3.70
	20℃CDB	2.56	2.56	2.55	2.55	2.55	2.55
20.5	-10℃CDB	13.57					
	-5℃CDB	12.31	12.31				
	0℃CDB	11.03	11.04	11.05			
	4℃CDB	9.34	9.35	9.35	9.36		
	8℃CDB	7.69	7.70	7.70	7.71	7.71	
	12℃CDB	5.89	5.89	5.89	5.89	5.89	5.89
	16℃CDB	3.89	3.89	3.89	3.89	3.89	3.89
	20℃CDB	2.67	2.67	2.67	2.67	2.66	2.66
23	-10℃CDB	14.19					
	-5℃CDB	12.87	12.87				
	0℃CDB	11.54	11.54	11.55			
	4℃CDB	9.77	9.77	9.78	9.79		
	8℃CDB	8.04	8.05	8.05	8.06	8.06	
	12℃CDB	6.16	6.16	6.16	6.16	6.16	6.16
	16℃CDB	4.07	4.07	4.07	4.07	4.07	4.07
	20℃CDB	2.77	2.77	2.77	2.77	2.77	2.77

Notes(1) These data show average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)

(2) Symbols are as follows
TC :Total cooling capacity (kW)
SHC :Sensible heat capacity (kW)

(3) At heating operation outdoor temperature -5℃CDB－-10℃CDB,a wind of 10℃ or lower in temperature is blown out for 5－10minutes when starting a outdoor air processing unit after ending a defrost operation.

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Model **FDU1800FKXZE1** Cooling mode (kW)

Air flow (m^3/min)	Outdoor air temperature	15℃WB		20℃WB		25℃WB		28℃WB		30℃WB		32℃WB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
30	20℃CDB	6.39	6.39										
	25℃CDB	6.39	6.39	9.04	5.41								
	30℃CDB	8.84	8.84	8.98	8.29	16.72	6.65	22.00	5.49				
	35℃CDB	11.19	11.19	11.21	11.21	16.46	9.44	21.69	8.28	25.44	7.42	29.42	6.48
	40℃CDB	13.36	13.36	13.38	13.38	16.00	12.11	20.99	10.90	24.56	10.01	28.35	9.05
33	20℃CDB	6.68	6.68										
	25℃CDB	6.68	6.68	9.41	5.66								
	30℃CDB	9.24	9.24	9.34	8.66	17.39	6.92	22.88	5.68				
	35℃CDB	11.70	11.70	11.71	11.71	17.12	9.87	22.56	8.61	26.33	7.72	30.44	6.71
	40℃CDB	13.97	13.97	13.98	13.98	16.64	12.65	21.72	11.39	25.42	10.41	29.34	9.41
36	20℃CDB	7.00	7.00										
	25℃CDB	7.00	7.00	9.77	5.90								
	30℃CDB	9.68	9.68	9.70	9.08	17.98	7.22	23.65	5.87				
	35℃CDB	12.26	12.26	12.27	12.27	17.69	10.29	23.32	8.94	27.22	7.97	31.47	6.93
	40℃CDB	14.57	14.57	14.59	14.59	17.20	13.20	22.45	11.82	26.28	10.81	30.19	9.72

Heating mode (kW)

Air flow (m^3/min)	Outdoor air temperature	-10℃WB	-5℃WB	0℃WB	4℃WB	8℃WB	12℃WB
30	-10℃CDB	19.90					
	-5℃CDB	17.74	17.75				
	0℃CDB	15.98	15.99	16.00			
	4℃CDB	13.53	13.54	13.55	13.56		
	8℃CDB	11.15	11.16	11.16	11.17	11.18	
	12℃CDB	8.52	8.53	8.53	8.54	8.54	8.55
	16℃CDB	6.14	6.15	6.15	6.16	6.16	6.17
	20℃CDB	4.06	4.06	4.07	4.07	4.07	4.07
33	-10℃CDB	20.70					
	-5℃CDB	18.45	18.46				
	0℃CDB	16.62	16.63	16.64			
	4℃CDB	14.07	14.08	14.09	14.10		
	8℃CDB	11.59	11.60	11.61	11.62	11.62	
	12℃CDB	8.86	8.87	8.87	8.88	8.88	8.89
	16℃CDB	6.41	6.42	6.42	6.43	6.44	6.44
	20℃CDB	4.21	4.21	4.21	4.21	4.22	4.22
36	-10℃CDB	21.42					
	-5℃CDB	19.09	19.10				
	0℃CDB	17.19	17.21	17.22			
	4℃CDB	14.56	14.57	14.58	14.59		
	8℃CDB	12.00	12.00	12.01	12.02	12.03	
	12℃CDB	9.17	9.18	9.18	9.19	9.19	9.20
	16℃CDB	6.66	6.66	6.67	6.68	6.68	6.69
	20℃CDB	4.35	4.36	4.36	4.36	4.36	4.37

Notes(1) These data show average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)

(2) Symbols are as follows
TC :Total cooling capacity (kW)
SHC :Sensible heat capacity (kW)

(3) At heating operation outdoor temperature -5℃CDB－-10℃CDB,a wind of 10℃ or lower in temperature is blown out for 5－10minutes when starting a outdoor air processing unit after ending a defrost operation.

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Model **FDU2400FKXZE1** Cooling mode (kW)

Air flow (m^3/min)	Outdoor air temperature	15℃WB		20℃WB		25℃WB		28℃WB		30℃WB		32℃WB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
40	20℃DB	8.49	8.49										
	25℃DB	8.49	8.49	11.57	7.11								
	30℃DB	11.00	11.00	11.62	11.12	21.12	8.58	27.58	6.85				
	35℃DB	14.83	14.83	14.85	14.85	20.81	12.36	27.22	10.64	31.75	9.37	36.52	8.00
	40℃DB	17.64	17.64	17.66	17.66	20.09	15.94	26.14	14.16	30.41	12.85	34.90	11.46
43.5	20℃DB	8.83	8.83										
	25℃DB	8.83	8.83	11.98	7.40								
	30℃DB	11.44	11.44	12.09	11.62	21.76	8.88	28.41	7.06				
	35℃DB	15.43	15.43	15.45	15.45	21.44	12.85	28.03	11.02	32.70	9.65	37.62	8.24
	40℃DB	18.34	18.34	18.36	18.36	20.70	16.58	26.92	14.65	31.17	13.30	35.77	11.80
47	20℃DB	9.17	9.17										
	25℃DB	9.17	9.17	12.32	7.65								
	30℃DB	11.88	11.88	12.55	12.12	22.39	9.18	29.10	7.23				
	35℃DB	16.02	16.02	16.04	16.04	22.06	13.28	28.71	11.39	33.50	9.94	38.53	8.44
	40℃DB	18.96	18.96	18.98	18.98	21.30	17.13	27.57	15.22	32.08	13.75	36.64	12.20

Heating mode (kW)

Air flow (m^3/min)	Outdoor air temperature	-10℃WB	-5℃WB	0℃WB	4℃WB	8℃WB	12℃WB
40	-10℃DB	26.26					
	-5℃DB	23.70	23.71				
	0℃DB	21.48	21.49	21.50			
	4℃DB	18.19	18.20	18.21	18.22		
	8℃DB	14.99	15.00	15.01	15.02	15.02	
	12℃DB	11.55	11.56	11.57	11.58	11.59	11.59
	16℃DB	7.79	7.80	7.81	7.81	7.82	7.82
	20℃DB	5.33	5.33	5.33	5.34	5.34	5.34
43.5	-10℃DB	27.10					
	-5℃DB	24.46	24.47				
	0℃DB	22.17	22.18	22.19			
	4℃DB	18.77	18.79	18.80	18.81		
	8℃DB	15.47	15.48	15.49	15.50	15.51	
	12℃DB	11.92	11.93	11.94	11.95	11.96	11.97
	16℃DB	8.04	8.05	8.06	8.06	8.07	8.07
	20℃DB	5.50	5.50	5.51	5.51	5.51	5.52
47	-10℃DB	27.94					
	-5℃DB	25.22	25.23				
	0℃DB	22.85	22.87	22.88			
	4℃DB	19.36	19.37	19.38	19.39		
	8℃DB	15.95	15.96	15.97	15.98	15.99	
	12℃DB	12.29	12.30	12.31	12.32	12.33	12.34
	16℃DB	8.32	8.30	8.31	8.31	8.32	8.32
	20℃DB	5.77	5.78	5.78	5.79	5.79	5.79

Notes(1) These data show average statuses out of those possible to occur in the system control.
(Depending on controls, there may be ranges where the operation is not conducted continuously.)

(2) Symbols are as follows
TC :Total cooling capacity (kW)
SHC :Sensible heat capacity (kW)

(3) At heating operation outdoor temperature -5℃CDB－-10℃CDB,a wind of 10℃ or lower in temperature is blown out for 5－10minutes when starting a outdoor air processing unit after ending a defrost operation.

PJG000Z312

9. APPLICATION DATA

9.1 Installation of indoor unit

(1) Ceiling cassette-4 way type (FDT)

PJF012D051 A

This manual is for the installation of the indoor unit.
For electrical wiring work (Indoor unit), refer to page 238. For wired remote control installation, refer to page 242. For wireless kit installation, refer to page 326. For electrical wiring work (Outdoor unit) and refrigerant pipe work installation for outdoor unit, refer to the installation manual attached to an outdoor unit. For motion sensor kit installation, refer to page 382. This unit must always be used with the panel.

SAFETY PRECAUTIONS

- Read the "SAFETY PRECAUTIONS" carefully first of all and then strictly follow it during the installation work in order to protect yourself.
- The precautionary items mentioned below are distinguished into two levels, ⚠WARNING and ⚠CAUTION .
  ⚠WARNING : Wrong installation would cause serious consequences such as injuries or death.
  ⚠CAUTION : Wrong installation might cause serious consequences depending on circumstances.
  Both mentions the important items to protect your health and safety so strictly follow them by any means.
- The meanings of "Marks" used here are as shown on the right:
  ⃠ Never do it under any circumstances. | ❗ Always do it according to the instruction.
- After completing the installation, do commissioning to confirm there are no abnormalities, and explain to the customers about "SAFETY PRECAUTIONS", correct operation method and maintenance method (air filter cleaning, operation method and temperature setting method) with user's manual of this unit.
  Ask your customers to keep this installation manual together with the user's manual. Also, ask them to hand over the user's manual to the new user when the owner is changed.

⚠WARNING

- **Installation should be performed by the specialist.**
  If you install the unit by yourself, it may lead to serious trouble such as water leakage, electric shock, fire, and injury due to overturn of the unit.
- **Install the system correctly according to these installation manuals.**
  Improper installation may cause explosion, injury, water leakage, electric shock, and fire.
- **Check the density refered by the foumula (accordance with ISO5149).**
  If the density exceeds the limit density, please consult the dealer and installate the ventilation system.
- **Use the genuine accessories and the specified parts for installation.**
  If parts unspecified by our company are used it could cause water leakage, electric shock, fire, and injury due to overturn of the unit.
- **Ventilate the working area well in case the refrigerant leaks during installation.**
  If the refrigerant contacts the fire, toxic gas is produced.
  In case of R32, the refrigerant could be ignited because of its flammability.
- **Install the unit in a location that can hold heavy weight.**
  Improper installation may cause the unit to fall leading to accidents.
- **Install the unit properly in order to be able to withstand strong winds such as typhoons, and earthquakes.**
  Improper installation may cause the unit to fall leading to accidents.
- **Do not mix air in to the cooling cycle on installation or removal of the air-conditioner.**
  If air is mixed in, the pressure in the cooling cycle will rise abnormally and may cause explosion and injuries.
- **Be sure to have the electrical wiring work done by qualified electrical installer, and use exclusive circuit.**
  Power source with insufficient capacity and improper work can cause electric shock and fire.
- **Use specified wire for electrical wiring, fasten the wiring to the terminal securely, and hold the cable securely in order not to apply unexpected stress on the terminal.**
  Loose connections or hold could result in abnormal heat generation or fire.
- **Arrange the electrical wires in the control box properly to prevent them from rising. Fit the lid of the services panel property.**
  Improper fitting may cause abnormal heat and fire.
- **Check for refrigerant gas leakage after installation is completed.**
  If the refrigerant gas leaks into the house and comes in contact with a fan heater, a stove, or an oven, toxic gas is produced.
- **Use the specified pipe, flare nut, and tools for R32 or R410A.**
  Using existing parts (R22) could cause the unit failure and serious accident due to explosion of the cooling cycle.
- **Tighten the flare nut according to the specified method by with torque wrench.**
  If the flare nut were tightened with excess torque, it could cause burst and refrigerant leakage after a long period.
- **Do not put the drainage pipe directly into drainage channels where poisonous gases such as sulfide gas can occur.**
  Poisonous gases will flow into the room through drainage pipe and seriously affect the user's health and safety. This can also cause the corrosion of the indoor unit and a resultant unit failure or refrigerant leak.
- **Connect the pipes for refrigeration circuit securely in installation work before compressor is operated.**
  If the compressor is operated when the service valve is open without connecting the pipe, it could cause explosion and injuries due to abnormal high pressure in the system.
- **Stop the compressor before removing the pipe after shutting the service valve on pump down work.**
  If the pipe is removed when the compressor is in operation with the service valve open, air would be mixed in the refrigeration circuit and it could cause explosion and injuries due to abnormal high pressure in the cooling cycle.
- **Only use prescribed option parts. The installation must be carried out by the qualified installer.**
  If you install the system by yourself, it can cause serious trouble such as water leaks, electric shocks, fire.
- **Do not repair by yourself. And consult with the dealer about repair.**
  Improper repair may cause water leakage, electric shock or fire.
- **Consult the dealer or a specialist about removal of the air-conditioner.**
  Improper installation may cause water leakage, electric shock or fire.
- **Turn off the power source during servicing or inspection work.**
  If the power is supplied during servicing or inspection work, it could cause electric shock and injury by the operating fan.
- **Do not run the unit when the panel or protection guard are taken off.**
  Touching the rotating equipment, hot surface, or high voltage section could cause an injury to be caught in the machine, to get burned, or electric shock.
- **Shut off the power before electrical wiring work.**
  It could cause electric shock, unit failure and improper running.

⚠ CAUTION

- **Perform earth wiring surely.**
  Do not connect the earth wiring to the gas pipe, water pipe, lightning rod and telephone earth wiring. Improper earth could cause unit failure and electric shock due to a short-circuit.
- **Earth leakage breaker must be installed.**
  If the earth leakage breaker is not installed, it can cause electric shocks.
- **Use the circuit breaker of correct capacity. Circuit breaker should be the one that disconnect all poles under over current.**
  Using the incorrect one could cause the system failure and fire.
- **Do not use any materials other than a fuse of correct capacity where a fuse should be used.**
  Connecting the circuit by wire or copper wire could cause unit failure and fire.
- **Do not install the indoor unit near the location where there is possibility of flammable gas leakages.**
  If the gas leaks and gathers around the unit, it could cause fire.
- **Do not install and use the unit where corrosive gas (such as sulfurous acid gas etc.) or flammable gas (such as thinner, petroleum etc.) may be generated or accumulated, or volatile flammable substances are handled.**
  It could cause the corrosion of heat exchanger, breakage of plastic parts etc. And inflammable gas could cause fire.
- **Secure a space for installation, inspection and maintenance specified in the manual.**
  Insufficient space can result in accident such as personal injury due to falling from the installation place.
- **Do not use the indoor unit at the place where water splashes such as laundry.**
  Indoor unit is not waterproof. It could cause electric shock and fire.
- **Do not use the indoor unit for a special purpose such as food storage, cooling for precision instrument, preservation of animals, plants, and a work of art.**
  It could cause the damage of the items.
- **Do not install nor use the system near equipments which generate electromagnetic wave or high harmonics.**
  Equipments like inverter equipment, private power generator, high-frequency medical equipment, or telecommunication equipment might influence the air-conditioner and cause a malfunction and breakdown. Or the air conditioner might influence medical equipments or telecommunication equipments, and obstruct their medical activity or cause jamming.
- **Do not install the remote control at the direct sunlight.**
  It could cause breakdown or deformation of the remote control.
- **Do not install the indoor unit at the place listed below.**
  · Places where flammable gas could leak.
  · Places where carbon fiber, metal powder or any powder is floated.
  · Place where the substances which affect the air conditioner are generated such as sulfide gas, chloride gas, acid, alkali or ammonic atmospheres.
  · Places exposed to oil mist or steam directly.
  · On vehicles and ships
  · Places where machinery which generates high harmonics is used.
  · Places where cosmetics or special sprays are frequently used.
  · Highly salted area such as beach.
  · Heavy snow area
  · Places where the system is affected by smoke from a chimney.
  · Altitude over 1000m
- **Do not install the indoor unit in the locations listed below (Be sure to install the indoor unit according to the installation manual for each model because each indoor unit has each limitation)**
  · Locations with any obstacles which can prevent inlet and outlet air of the unit
  · Locations where vibration can be amplified due to insufficient strength of structure.
  · Locations where the infrared receiver is exposed to the direct sunlight or the strong light beam. (in case of the infrared specification unit)
  · Locations where an equipment affected by high harmonics is placed. (TV set or radio receiver is placed within 5m)
  · Locations where drainage cannot run off safely.
  It can affect performance or function and etc..
  Do not install the motion sensor mounting panel at following places. It could cause detection error, incapacity of detection, or characteristic degradation.
  • Place where vibration is applied to it for a long period of time.
  • Place where static electricity or electromagnetic wave generates.
  • Place where it is exposed to high temperature or humidity for a long period of time.
  • Dusty place or where the lens face could be fouled or damaged.
- **Do not put any valuables which will break down by getting wet under the air-conditioner.**
  Condensation could drop when the relative humidity is higher than 80% or drain pipe is clogged, and it damages user's belongings.
- **Do not use the base frame for the outdoor unit which is corroded or damaged after a long period of use.**
  It could cause the unit falling down and injury.
- **Pay attention not to damage the drain pan by weld sputter when brazing work is done near the unit.**
  If sputter entered into the unit during brazing work, it could cause damage (pinhole) of drain pan and leakage of water. To avoid damaging, keep the indoor unit packed or cover the indoor unit.
- **Install the drain pipe to drain the water surely according to the installation manual.**
  Improper connection of the drain pipe may cause dropping water into room and damaging user's belongings.
- **Be sure to perform air tightness test by pressurizing with nitrogen gas after completed refrigerant piping work.**
  If the density of refrigerant exceeds the limit in the event of refrigerant leakage in the small room, lack of oxygen can occur, which can cause serious accidents.
- **For drain pipe installation, be sure to make descending slope of greater than 1/100, not to make traps, and not to make air-bleeding.**
  Check if the drainage is correctly done during commissioning and ensure the space for inspection and maintenance.
- **Ensure the insulation on the pipes for refrigeration circuit so as not to condense water.**
  Incomplete insulation could cause condensation and it would wet ceiling, floor, and any other valuables.
- **Do not install the outdoor unit where is likely to be a nest for insects and small animals.**
  Insects and small animals could come into the electronic components and cause breakdown and fire. Instruct the user to keep the surroundings clean.
- **Pay extra attention, carrying the unit by hand.**
  Carry the unit with 2 people if it is heavier than 20kg. Do not use the plastic straps but the grabbing place, moving the unit by hand. Use protective gloves in order to avoid injury by the aluminum fin.
- **Make sure to dispose of the packaging material.**
  Leaving the materials may cause injury as metals like nail and woods are used in the package.
- **Do not operate the system without the air filter.**
  It may cause the breakdown of the system due to clogging of the heat exchanger.
- **Do not touch any button with wet hands.**
  It could cause electric shock.
- **Do not touch the refrigerant piping with bare hands when in operation.**
  The pipe during operation would become very hot or cold according to the operating condition, and it could cause a burn or frostbite.
- **Do not clean up the air-conditioner with water.**
  It could cause electric shock.
- **Do not turn off the power source immediately after stopping the operation.**
  Be sure to wait for more than 5 minutes. Otherwise it could cause water leakage or breakdown.
- **Do not control the operation with the circuit breaker.**
  It could cause fire or water leakage. In addition, the fan may start operation unexpectedly and it may cause injury.

①Before installation

●Install correctly according to the installation manual.

●Confirm the following points:

○Unit type/Power source specification

○Pipes/Wires/Small parts ○Accessory items

When moving the indoor unit, hold only the hanging hardware (4 places) only, with care not to apply forces to any other parts of the unit (particularly the refrigerant pipe, drain pipe, and resin parts).

Accessory item

For unit hanging		For refrigerant pipe			For drain pipe			
Flat washer (M10)	Level gauge	Pipe cover(big)	Pipe cover (small)	Strap	Pipe cover(big)	Pipe cover(small)	Drain hose	Hose clamp
								
8	1	1	1	4	1	1	1	1
For unit hanging	For unit hight position adjustment and hanging suport	For heat insulation of gas pipe	For heat insulation of liquid tube	For pipe cover fixing	For heat insulation of drain socket	For heat insulation of drain socket	For drain pipe connecting	For drain hose mounting

②Selection of installation location for the indoor unit

① Select the suitable areas to install the unit under approval of the user.

- Areas where the indoor unit can deliver hot and cold wind sufficiently. Suggest to the user to use a circulator if the ceiling height is over 3m to avoid warm air being accumulated on the ceiling.
- In case of the panel having the motion sensor, the installation height must be no higher than 4 m. It could reduce the sensitivity of motion sensor, disabling the detection.
- Areas where there is enough space to install and service.
- Areas where it can be drained properly. Areas where drain pipe descending slope can be taken.
- Areas where there is no obstruction of air flow on both air return grille and air supply port.
- Areas where fire alarm will not be accidentally activated by the air-conditioner.
- Areas where the supply air does not short-circuit.
- Areas where it is not influenced by draft air.
- Areas not exposed to direct sunlight.
- Areas where dew point is lower than around 28°C and relative humidity is lower than 80%.

This indoor unit is tested under the condition of JIS (Japan Industrial Standard) high humidity condition and confirmed there is no problem. However, there is some risk of condensation drop if the air-conditioner is operated under the severer condition than mentioned above.
If there is a possibility to use it under such a condition, attach additional insulation of 10 to 20mm thick for entire surface of indoor unit, refrigeration pipe and drain pipe.

- Areas where TV and radio stays away more than 1m. (It could cause jamming and noise.)
- Areas where any items which will be damaged by getting wet are not placed such as food, table wares, server, or medical equipment under the unit.
- Areas where there is no influence by the heat which cookware generates.
- Areas where not exposed to oil mist, powder and/or steam directly such as above fryer.
- Areas where lighting device such as fluorescent light or incandescent light doesn't affect the operation.
  (A beam from lighting device sometimes affects the infrared receiver for the wireless remote control and the air-conditioner might not work properly.)

②Check if the place where the air-conditioner is installed can hold the weight of the unit. If it is not able to hold, reinforce the structure with boards and beams strong enough to hold it. If the strength is not enough, it could cause injury due to unit falling.

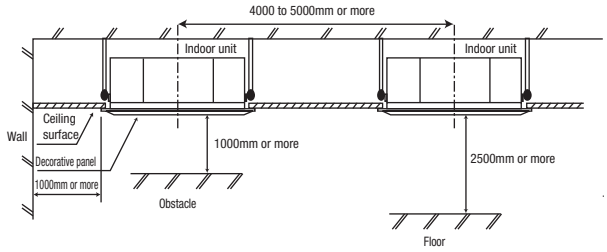
③If there are 2 units of wireless type, keep them away for more than 6m to avoid malfunction due to cross communication.

④When plural indoor units are installed nearby, keep them away for more than 4 to 5m.

Space for installation and service

●When it is not possible to keep enough space between indoor unit and wall or between indoor units, close the air supply port where it is not possible to keep space and confirm there is no short-circuit of air flow.

●Install the indoor unit at a height of more than 2.5m above the floor.



Where there are pipe joints on the way of embedded piping, provide adequate openings for inspection of the joints.

Set blow-out pattern

●Select the most proper number of blow-out air supply port direction from 4 way, 3 way or 2 way according to the shape of the room and installation position. (1 way is not available.)

●If it is necessary to change the number of air supply port, prepare the covering materials. (sold as accessory)

●Instruct the user not to use low fan speed when 2 way or 3 way air supply is used.

●Do not use 2 way air supply port under high temperature and humidity environment. (Otherwise it could cause condensation and leakage of water.)

●It is possible to set the air flow direction port by port independently. Refer to the user's manual for details.

③Preparation before installation

●If suspension bolt becomes longer, do reinforcement of earthquake resistant.

○For grid ceiling

When suspension bolt length is over 500mm, or the gap between the ceiling and roof is over 700mm, apply earthquake resistant brace to the bolt.

○In case the unit is hanged directly from the slab and is installed on the ceiling plane which has enough strength.

When suspension bolt length is over 1000mm, apply the earthquake resistant brace to the bolt.

●Prepare four (4) sets of suspension bolt, nut and spring washer (M10 or M8) on site.

Ceiling opening, Suspension bolts pitch, Pipe position

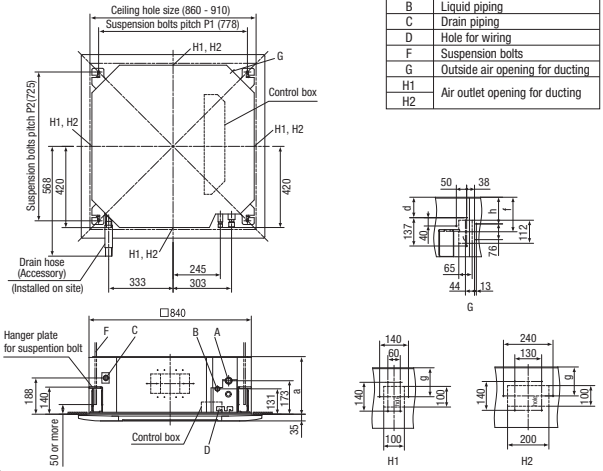
※It is possible the suspension bolts pitch to adjust accoding to the this table.

Type \ Mark	P1	P2
1	770	725-770
2	770-800	725

(mm)

Series	Type	a	d	f	g	h
Single Split (PAC) series	40 to 71 type	236	37	105	88	67
	100 to 140 type	298	99	167	140	129
VRF (KX) series	28 to 71 type	236	37	105	88	67
	90 to 160 type	298	99	167	140	129

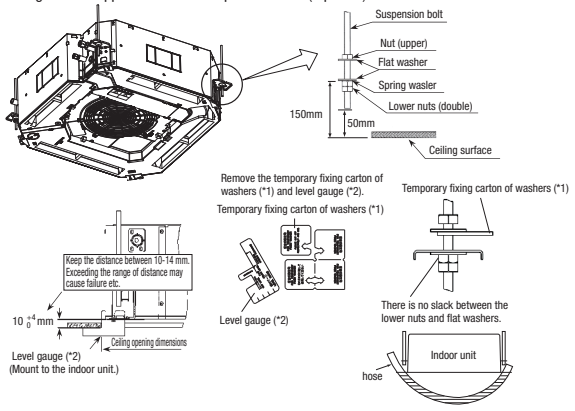
Symbol	
A	Gas piping
B	Liquid piping
C	Drain piping
D	Hole for wiring
F	Suspension bolts
G	Outside air opening for ducting
H1 H2	Air outlet opening for ducting



④Installation of indoor unit

Work procedure

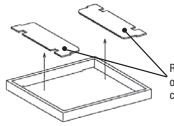
1. Set the suspension bolt length to about 50 mm from the ceiling.
2. Temporarily locate the lower nuts of the suspension bolts (4 places) at a position approximately 150 mm from the ceiling.
3. Temporarily locate the upper nuts of the suspension bolts (4 places) at positions sufficiently distance from the lower nuts so that they do not interfere with the suspension of the indoor unit and with its height adjustment.
4. Set the upper nuts of the suspension bolts and upper washers (4 places) at positions sufficiently distance from the lower nuts. Then, push and insert the temporary fixing carton of washers (*1) onto suspension bolts. Make sure that the upper washers do not slide down.
5. Suspend the indoor unit.
6. After suspending the indoor unit, mount the level gauge (*2) to the air outlet of the indoor unit, and adjust the suspension height of the indoor unit. Loosen the upper nuts (4 places), and adjust the suspension height using the lower nuts (4 places). Confirm there is no slack between the lower nuts and flat washers of the indoor unit hanger plate (4 places).
7. Remove the temporary fixing carton of washers (from all 4 places).
8. Make sure that the indoor unit is installed horizontally. Confirm the levelness of the indoor unit using a level gauge or transparent hose filled with water.
   (Keep the height difference at both ends of the indoor unit within 3 mm.)
9. Tighten the upper nuts of the suspension bolts (4 places).

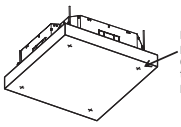


④Installation of indoor unit (continued)

Protection of the indoor unit

- If it is not possible to install the panel for a while or if attaching the ceiling board after installing the indoor unit, protect the indoor unit by using upper carton.





Caution

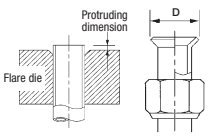
- Do not adjust the unit height by adjusting the upper nuts. Doing so will cause unexpected stress on the indoor unit and cause the unit to become deformed, prevent the panel from being installed, and be generated fan interference noise.
- Make sure that the indoor unit is installed horizontally and set the appropriate gap between the underside of the unit and the ceiling plane. Improper installation may cause air leakage, dew condensation, water leakage and noise.
- Even after the panel has been installed, the unit height can still be finely adjusted. Refer to the panel installation manual for details.
- Make sure there is no gap between the panel and the ceiling surface, and between the panel and the indoor unit. Any gap may cause air and/or water to leak, or condensation to form.

⑤Refrigerant pipe

Caution

- Be sure to use new pipes for the refrigerant pipes. Use the flare nut attached to the product.
  Regarding whether existing pipes can be reused or not, and the washing method, refer to the instruction manual of the outdoor unit, catalogue or technical data.
  1) In case of reuse: Do not use old flare nut, but use the nut attached to the unit.
  2) In case of reuse: Flare the end of pipe replaced partially for R32 or R410A.

⚠WARNING : When flared joints are reused indoors, the flare part shall be re-fabricated. (only for R32)



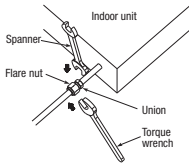
Pipe dia. d mm	Min. pipe wall thickness mm	Protruding dimension for flare, mm		Flare O.D. D mm	Flare nut tightening torque N-m
		Rigid (Clutch type)			
		For R32 For R410A	Conventional tool		
6.35	0.8	0 – 0.5	0.7 – 1.3	8.9 – 9.1	14 – 18
9.52	0.8			12.8 – 13.2	34 – 42
12.7	0.8			16.2 – 16.6	49 – 61
15.88	1			19.3 – 19.7	68 – 82
19.05	1.2			23.6 – 24.0	100 – 120

- Use phosphorus deoxidized copper alloy seamless pipe (C1220T) for refrigeration pipe installation. In addition, make sure there is no damage both inside and outside of the pipe, and no harmful substances such as sulfur, oxide, dust or a contaminant stuck on the pipes.
- Do not use any refrigerant other than the designated refrigerant.
  Using other refrigerant except the designated refrigerant, may degrade inside refrigeration oil. And air getting into refrigeration circuit may cause over-pressure and resultant it may result in bursting, etc.
- Store the copper pipes indoors and seal the both end of them until they are brazed in order to avoid any dust, dirt or water getting into pipe. Otherwise it will cause degradation of refrigeration oil and compressor breakdown, etc.
- Use special tools for R32 or R410A refrigerant.

Work procedure

1. Remove the flare nut and blind flanges on the pipe of the indoor unit.
   ※ Make sure to loosen the flare nut with holding the nut on pipe side with a spanner and giving torque to the nut with another spanner in order to avoid unexpected stress to the copper pipe, and then remove them. (Gas may come out at this time, but it is not abnormal.)
   - Pay attention whether the flare nut pops out. (as the indoor unit is sometimes pressured.)
2. Make a flare on liquid pipe and gas pipe, and connect the refrigeration pipes on the indoor unit.
   ※Bend radius of pipe must be 4D or larger. Once a pipe is bent, do not readjust the bending. Do not twist a pipe or collapse to 2/3D or smaller.
   - Make sure to use flare nuts assembled on the unions. Usage of other flare nuts could cause refrigerant leakage.

   ※Do a flare connection as follows:
   - Make sure to hold the nut on indoor unit pipe side using double spanner method as indicated when fastening / loosening flare nuts in order to prevent unintentional twisting of the copper pipe.
   - When fastening the flare nut, align the refrigeration pipe with the center of flare nut, screw the nut for 3-4 times by hand and then tighten it by spanner with the specified torque mentioned in the table above.

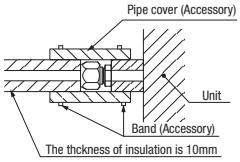


3. Cover the flare connection part of the indoor unit with attached insulation material after a gas leakage inspection, and tighten both ends with attached straps.
   - Make sure to insulate both gas pipes and liquid pipes completely.
     ※Incomplete insulation may cause dew condensation or water dropping.
   - Use heat-resistant (120 °C or more) insulations on the gas side pipes.
   - In case of using at high humidity condition, reinforce insulation of refrigerant pipes. Surface of insulation may cause dew condition or water dropping, if insulations are not reinforced.
4. Refrigerant is charged in the outdoor unit.
   As for the additional refrigerant charge for the indoor unit and piping, refer to the installation manual attached to the outdoor unit.

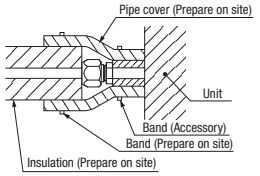
⑤Refrigerant pipe (continued)

Caution:
Refrigerating machine oil should not be applied to the threads of union or external surface of flare. It is because, even if the same tightening torque is applied, the oil is likely to decrease the slide friction force on the threads and increase, in turn, the axial component force so that it could crack the flare by the stress corrosion.
Refrigerating machine oil may be applied to the internal surface of flare only.

<The case of using thicness of insulation is 10mm>



<The case of using reinfoced insulation>



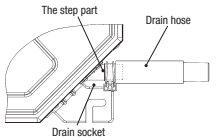
⑥Drain pipe

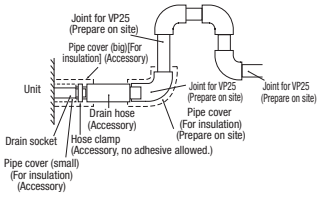
Caution

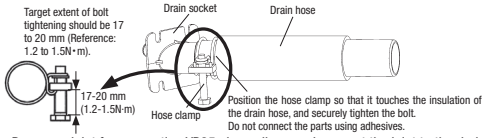
- Install the drain pipe according to the installation manual in order to drain properly.
  Imperfection in draining may cause flood indoors and wetting the household goods, etc.
- Do not put the drain pipe directly into the ditch where toxic gas such as sulfur, the other harmful and inflammable gas is generated. Toxic gas would flow into the room and it would cause serious damage to user's health and safety (some poisoning or deficiency of oxygen). In addition, it may cause corrosion of heat exchanger and bad smell.
- Connect the pipe securely to avoid water leakage from the joint.
- Insulate the pipe properly to avoid condensation drop.
- Check if the water can flow out properly from both the drain outlet on the indoor unit and the end of the drain pipe after installation.
- Make sure to make descending slope of greater than 1/100 and do not make up-down bend and/or trap in the midway. In addition, do not put air vent on the drain pipe. Check if water is drained out properly from the pipe during commissioning. Also, keep sufficient space for inspection and maintenance.

Work procedure

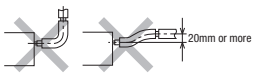
1. Make sure that the drain hose (the soft PVC side) is inserted into the end of the step part of the drain socket.
   Fix the hose clamp so that its bolt is located on the outside of the indoor unit, and the bolt are fastened in a vertical orientation.
   - Do not apply adhesives on this end.
2. Position the hose clamp so that it touches the insulation of the drain hose, and then tighten the bolt.
3. Turn the bolt several times until it is securely tightened, but do not tighten it excessively.



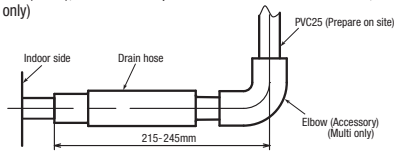




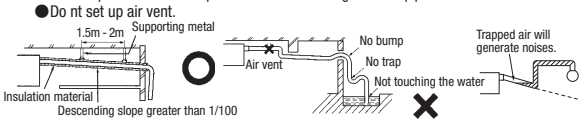
4. Prepare a joint for connecting VP25 pipe, adhere and connect the joint to the drain hose (the rigid PVC side), and adhere and connect VP25 pipe (prepare on site).
   ※As for drain pipe, apply VP25 made of rigid PVC which is on the market.
   - Make sure that the adhesive will not get into the supplied drain hose.
     It may cause the flexible part broken after the adhesive is dried up and gets rigid.
   - The flexible drain hose is intended to absorb a small difference at installation of the unit or drain pipes. Intentional bending, expanding may cause the flexible hose broken and water leakage.



   - As for drain pipe, apply VP25 (OD32).
     If apply PVC25 (OD25), connect the expanded connector to the drain hose, with adhesive. (Multi unit only)

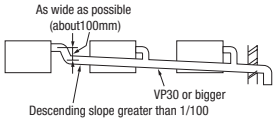


5. Make sure to make descending slope of greater than 1/100 and do not make up-down bend and/or trap in the midway.
   - Pay attention not to give stress on the pipe on the indoor unit side, and support and fix the pipe as close place to the unit as possible when connecting the drain pipe.
   - Do nt set up air vent.



⑥Drain pipe (continued)

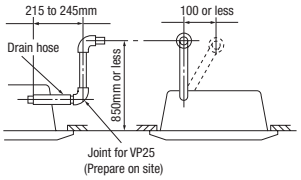
●When sharing a drain pipe for more than 1 unit, lay the main pipe 100mm below the drain outlet of the unit. In addition, select VP30 or bigger size for main drain pipe.



6. Insulate the drain pipe.
   ● Be sure to insulate the drain socket and rigid PVC pipe installed indoors otherwise it may cause dew condensation and water leakage.
   ※After drainage test implementation, cover the drain socket part with pipe cover (small size), then use the pipe cover (big size) to cover the pipe cover (small size), clamps and part of the drain hose, and fix and wrap it with tapes to wrap and make joint part gapless.

Drain up

● The position for drain pipe outlet can be raised up to 850mm above the ceiling. Use elbows for installation to avoid obstacles inside ceiling. If the horizontal drain pipe is too long before vertical pipe, the backflow of water will increase when the unit is stopped, and it may cause overflow of water from the drain pan on the indoor unit. In order to avoid overflow, keep the horizontal pipe length and offset of the pipe within the limit shown in the figure below.

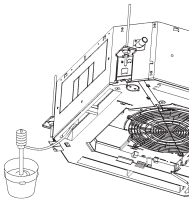


Drain test

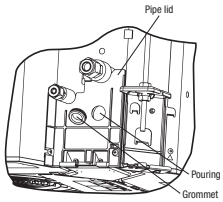
● After installing the drain pipe, make sure that drain system works correctly and that no water leaks from the joint and drain pan. Check whether the motor sound of the drain pump is normal.
● Conduct a drain test when installing, even during the heating season.
● In the case of new buildings, be sure to complete the test before fixing the ceiling.

1. Pour about 1,000 cc of test water into the drain pan of the indoor unit. Exercise care not to allow electrical equipment such as the drain pump and other components to become wet while filling water.
   Pour test water through the pouring port of the pipe lid using a feed water pump or a similar device, or through the refrigerant pipe joint.

●In case of pouring water from the air outlet



●In case of pouring water from the pouring port of the pipe lid



2. Make sure that water drains out completely and that no water leaks from any joints of the drain pipe during the test.
   Test to confirm that the water drains out correctly while listening to the drain pump motor operating sound.
   At the drain socket (transparent), it is possible to check whether the water drains out correctly.
3. Unplug the rubber plug on the indoor unit so that the remaining water drains from the drain pan after the draining test.
   After checking the water drainage, fix the rubber plug correctly. Installation work for the drain pipe must be performed for the entire drain pipe up to the indoor unit.
   If the pipe lid has been removed in order to pour water, mount the pipe lid again.

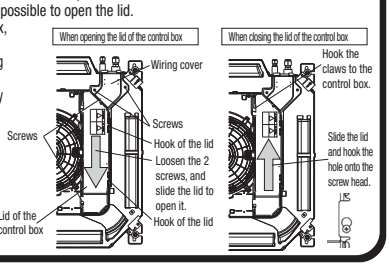
Drain pump operation

●In case electrical wiring work completed
Drain pump can be operated by the wired remote control.
For the operation method, refer to Operation for drain pump in the installation manual for wiring work.
●In case electrical wiring work not completed
Drain pump will run continuously when the DIP switch"SW7-1" on the indoor unit PCB is turned ON, the connector CnB is disconnected, and then the power source (230VAC on the terminal block ① and ②) is turned ON.
Make sure to turn OFF "SW7-1" and reconnect the connector CnB after the test.

⑦Wiring-out position and wiring connection

● Electrical installation work must be performed according to the installation manual by an electrical installation service provider qualified by a power provider of the country, and be executed according to the technical standards and other regulations applicable to electrical installation in the country.
Be sure to use an exclusive circuit.
● Use specified cord, fasten the wiring to the terminal securely, and hold the cord securely in order not to apply unexpected stress on the terminal.
● Do not put both power source line and signal line on the same route. It may cause miscommunication and malfunction.
● Be sure to do D type earth work.
● For the details of electrical wiring work, see attached instruction manual for electrical wiring work.

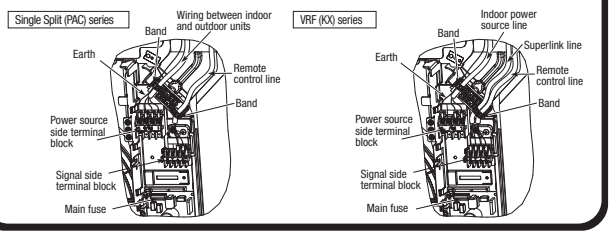
1. Loosen the 2 screws of the lid of the control box, and slide the lid in the direction of the arrow shown in the figure. It will then be possible to open the lid.
2. Unhook the lid from the control box, and remove the lid.
3. Remove the 2 screws from the wiring cover, and remove the wiring cover.
4. Hold each wire inside the unit, and securely fasten them to the terminal block.
5. Fix the wiring using clamps.
6. Install the wiring cover and the lid of the control box.



Main fuse specification

Specification	Part No.
T3.15A L250V	SSA564A149AF

⑦Wiring-out position and wiring connection (continued)



⑧Panel installation

●Install the panel on the indoor unit after electrical wiring work.
●Refer to the attached manual for panel installation for details.

⑨Check list after installation

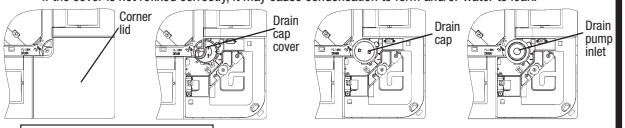
●Check the following items after all installation work completed.

Check if;	Expected trouble	Check
The indoor and outdoor units are fixed securely?	Falling, vibration, noise	
Inspection for leakage is done?	Insufficient capacity	
Insulation work is properly done?	Water leakage	
Water is drained properly?	Water leakage	
Power source voltage is same as mentioned in the model name plate?	PCB burnt out, not working at all	
There is mis-wiring or mis-connection of piping?	PCB burnt out, not working at all	
Earth wiring is connected properly?	Electric shock	
Cable size comply with specified size?	PCB burnt out, not working at all	
Any obstacle blocks airflow on air inlet and outlet?	Insufficient capacity	

⑩How to check the dirt of drain pan and cleanimg the inlet of the drain pump. (Maintenance)

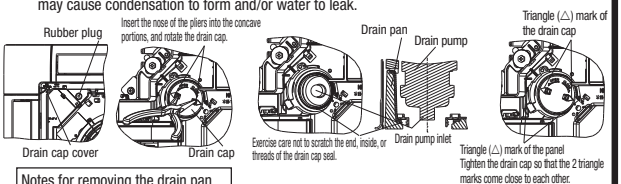
The method of checking the dirt of drain pan

●It is possible to check dirt on the drain pan and drain pump inlet without removing the panel.
1. Open the inlet grille and remove the corner lid on the drain pan side.
2. Remove the drain cap cover (1 screw) from the panel corner.
3. Check the dirt on the drain pan from the drain cap, and check the drain pump inlet. If the drain pan is very dirty, remove the drain pan and clean it.
4. After checking, refix the drain cap cover securely.
   If the cover is not refixed correctly, it may cause condensation to form and/or water to leak.



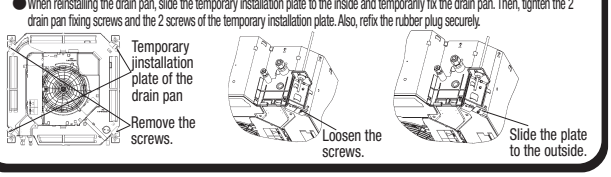
Cleaning of drain pump inlet

●It is possible to clean the drain pump inlet and surrounding area by removing the drain cap only; it is not necessary to remove the panel and drain pan.
●Before removing the drain cap, remove the rubber plug and drain water from the drain pan.
1. Remove the drain cap cover as described above.
2. Insert the nose of the pliers into the concave portions (2 places) of the drain cap, and rotate the pliers about 1 turn in the CCW direction. The drain cap is removed.
3. When cleaning the drain pump inlet, use a soft plastic tool. If a metallic tool is used, the drain cap mounting portion may be scratched and water may leak.
4. Before mounting the drain cap, rinse it and **remove any foreign material from the inside of the cap.** If the drain cap is installed with foreign material inside it, it may cause water to leak.
5. Insert the nose of the pliers into the concave portions of the drain cap and rotate the pliers to install the drain cap. Rotate the drain cap about 1 turn in the CW direction until it stops rotating. If the drain cap is not rotated for 1 or more turns, the cap will not have been installed correctly.
   Remove the drain cap, and then install it again correctly.
6. After tightening the drain cap, make sure the triangle (△) mark of the drain cap comes close to the triangle mark on the panel. If these triangle marks are not close to each other, tighten the drain cap further.
7. Refix the drain cap cover and rubber plug securely. If the cover is not refixed correctly, it may cause condensation to form and/or water to leak.



Notes for removing the drain pan

●Before removing the drain pan, drain water from the drain pan. Remove the rubber plug and drain water.
●The drain pan is installed by the temporary installation plate. Remove the 2 drain pan fixing screws, and loosen the 2 screws of the temporary installation plate.
Slide the temporary installation plate to the outside of the drain pan. And then,it is possible to remove the drain pan.
●When reinstalling the drain pan, slide the temporary installation plate to the inside and temporarily fix the drain pan. Then, tighten the 2 drain pan fixing screws and the 2 screws of the temporary installation plate. Also, refix the rubber plug securely.



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• Panel installation

Read this manual together with the indoor unit's installation manual.

⚠ WARNING

- **Fasten the wiring to the terminal securely and hold the cable securely so as not to apply unexpected stress on the terminal. Loose connection or hold will cause abnormal heat generation or fire.**
- **Make sure the power source is turned off when electric wiring work. Otherwise, electric shock, malfunction and improper running may occur.**

Function

The Anti draft panel has the anti draft mechanism. If the Anti draft panel is installed and the anti draft function is set, the anti draft function will be oprerated and reduce the draft feeling. (Refer to ⑯ Panel setting for details.)

- Standard panel : without the anti draft mechanism
- Anti draft panel : with the anti draft mechanism

① Before installation

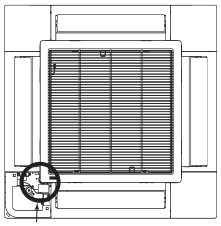
- Follow installation manual carefully, and install the panel properly.
- Check the following items.

○ Accessories

Accessories

Bolt		4 pieces	For panel installation
Strap		4 pieces	For avoiding the corner panel from falling
Screw		4 pieces	For fixing the corner panel

Note: Accessories are laid in the position removing the corner lid.



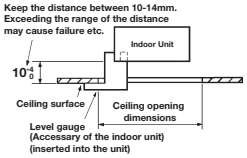
Accessories holding position

② Checking the indoor unit installation position

- Read this manual together with the air-conditioner installation manual carefully.
- Check if the opening size for the indoor unit is correct with the level gauge supplied in the indoor unit.
- Check if the gap between the plane and the indoor unit is correct by inserting the level gauge into the air outlet port of the indoor unit. (See below drawing)
- Adjust the installation elevation if necessary.
- Remove the level gauge before installing the panel.

Caution

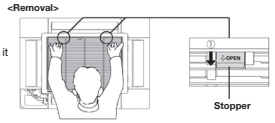
If there is a height difference beyond the design limit between the installation level of the indoor unit and the panel, the panel may be subject to excessive stress during installation and it may cause distortion and damage.



- The installation level of the indoor unit can be adjusted finely from the opening provided on the corner, even after panel is Installed. (Refer to ⑥ Installing the panel for details.)

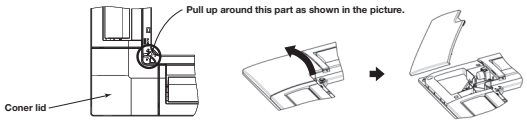
③ Removing the inlet grille

1. Hold the stoppers on the inlet grille (2 places) toward OPEN direction, open the inlet grille.
2. Remove the hooks of the inlet grille from the panel while it is in the open position.



④ Removing the corner lid

- Pull the corner lid toward the direction indicated by the arrow and remove it. (Same way for all 4 corner lids)



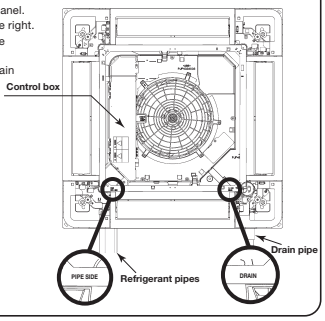
⑤ Orientation of the panel installation

Take note that there is an orientation to install the panel.

- Install the panel with the orientation shown on the right.
- Align the "PIPE SIDE" mark (on the panel) with the refrigerant pipes on the indoor unit.
- Align the "DRAIN" mark (on the panel) with the drain pipe on the indoor unit.

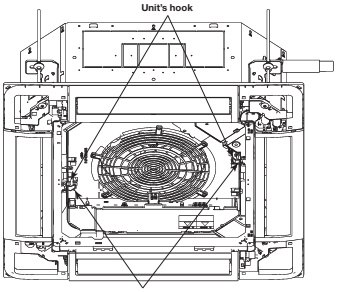
CAUTION

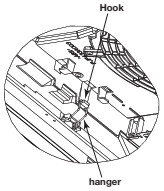
In case the orientation of the panel is not correct, it will lead to air leakage and also it is not possible to connect the flap motor wiring.

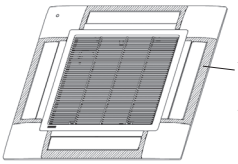


⑥ Installing the panel

1. Temporary hanging
   - Lift up the hanger (2 places) on the panel for temporary support.
   - Hang the panel on the hook on the indoor unit.







The Anti draft panel moves the parts of the anti draft mechanism (shaded area,4 places).Note that they may break if they are moved forcibly by hand. Although the parts (shaded area) of the Standard panel are separate parts from the body, they do not move.

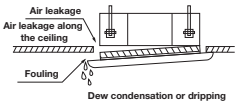
Caution

- The parts (shaded area), of the anti draft mechanism around the air outlet, are separate parts. Handle the panel with care. Especialy, the shaded area of the Anti draft panel move. Note that they may break if they are moved forcibly by hand.

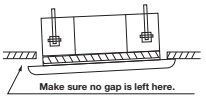
2. Fix the panel on the indoor unit
   - Fasten the panel on the indoor unit with the 4 bolts supplied with the panel.

Caution

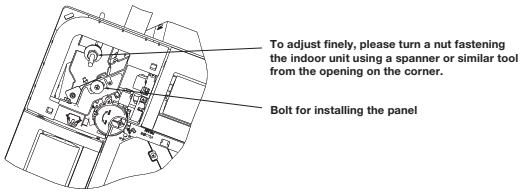
- Improperly tightened fixing bolts cause the problems listed below, so make sure that bolts are securely tightened.



- If there is a gap between the ceiling and the panel even after the fixing bolts are tightened, adjust the installation level of the indoor unit again.



- It is possible to adjust the installation height of the indoor unit with the panel installed as long as there is no influence on the drain pipe inclination and/or the indoor unit levelness.

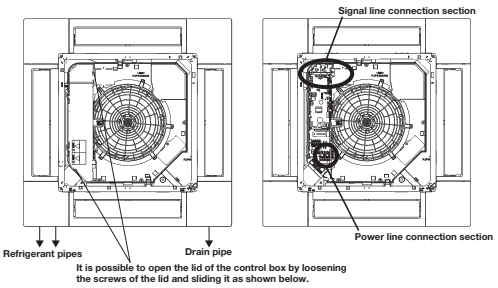


Caution

Do not give any stress on the panel when adjusting the height of the indoor unit to avoid unexpected distortion. It may cause the distortion of panel or failing to close the inlet grille, and the parts of the anti draft mechanism.

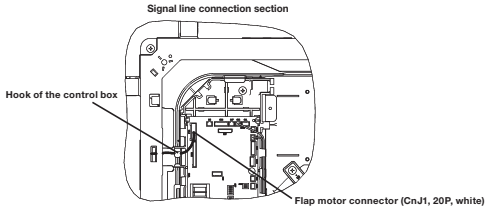
⑦ Electrical wiring

The wiring work varies depending on the panel type. Select the wiring work appropriate for the panel type.
The connection positions of the indoor unit are as shown below irrespective of the panel type.



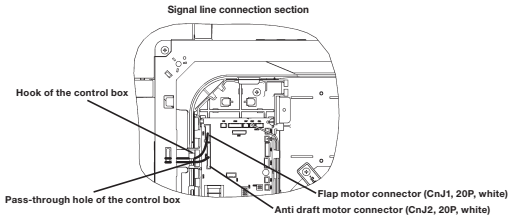
<For the Standard panel>
1. Loosen 2 screws on the control box lid of the indoor unit, and remove the lid by sliding it.
2. Pass the flap motor wiring (20-wire) through the hook of the control box, and connect to CnJ1 (20P, white).
3. Fix the control box lid of the indoor unit, and tighten 2 screws.

For the Standard panel



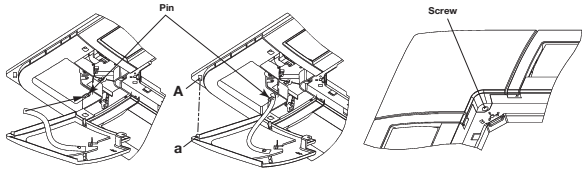
<For the Anti draft panel>
1. Loosen 2 screws on the control box lid of the indoor unit, and remove the lid by sliding it.
2. Pass the flap motor cable (20-wire) through the hook of the control box, and connect to CnJ1 (20P, white).
3. Pass the anti draft motor cable (20-wire) through the hook of the control box, and connect to CnJ2 (20P, white).
4. Fix the control box lid of the indoor unit, and tighten the 2 screws.

For the Anti draft panel



⑧ Installing a corner lid

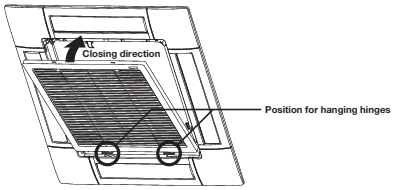
1. To avoid unexpected falling of the corner lid, put the strap onto the corner lid's pin with turning the strap up.
2. Then hang the strap of a corner lid onto the panel's pin.
3. First insert the part "a" of a corner lid into the part "A" of the panel, and then engage 2 hooks.
4. Fix with screw.



⑨ Installing the inlet grille

To attach the inlet grille, follow the procedure described in ⑤ Removing the inlet grille in the reverse order.
1. Hang the hooks of the inlet grille in the hole of the panel. (The hooks of the grille can be hanged in 4 side of the panel as following.)
2. After the grille is hanged, close the grille while the stoppers(2 places) on the grille are kept pressed to "OPEN" direction. When the grille comes to the original position, release the stoppers to hold the grille. Make sure to hear the sound of "CLICK" in both stoppers.

<Installation>



Caution

- Installing the inlet grille from the hinge side.
- Be careful in the inlet grille Installing, unstable installing may cause grille falling.
- Repair or replace the distorted, broken stopper at once, or the grille falling may occur.

⑩ Panel setting

<Flap swing range setting (Individual flap cotrol setting)>

It is possible to change the swing range of the flap by the wired remote control. Once the upper and lower limit positions are set, the flap will swing within the set range.It is also possible to set the different range to each flap.

<Anti draft setting>

The anti draft function will not be operated if the anti draft panel is installed and its wirings are only connected. To operate the anti draft function, enable the anti draft setting by using the wired or wireless remote control.

Note: It is not possible to set by the following remote control models or older.
Wired:RC-EX1A, RC-E5, RCH-E3
Wireless: RCN-E1R

Once you have enabled the settings in this mode, the anti draft function is operated when the air-conditioner is started, and the parts of the anti draft mechanism are always open when the air-conditioner is operating. When the air-conditioner is stopped, they are closed. It is possible to enabled or disabled the anti draft function for each air outlet.

For the setting details, refer to the user's manual supplied with the remote control.

(2) Ceiling cassette-4 way compact type (FDTC)

PJF012D509

This manual is for the installation of the indoor unit. For electrical wiring work (Indoor unit), refer to page 238. For wired remote control installation, refer to page 242. For wireless kit installation, refer to page 334. For electrical wiring work (Outdoor unit) and refrigerant pipe work installation for outdoor unit, refer to the installation manual attached to the outdoor unit. For motion sensor kit installation, refer to page 385. This unit must always be used with the panel.

SAFETY PRECAUTIONS

- Read the "SAFETY PRECAUTIONS" carefully first of all and then strictly follow it during the installation work in order to protect yourself.
- The precautionary items mentioned below are distinguished into two levels, ⚠WARNING and ⚠CAUTION .
  ⚠WARNING: Wrong installation would cause serious consequences such as injuries or death.
  ⚠CAUTION : Wrong installation might cause serious consequences depending on circumstances.
  Both mentions the important items to protect your health and safety so strictly follow them by any means.
- The meanings of "Marks" used here are as shown on the right:
  ⃠ Never do it under any circumstances. ❗ Always do it according to the instruction.
- After completing the installation, do commissioning to confirm there are no abnormalities, and explain to the customers about "SAFETY PRECAUTIONS", correct operation method and maintenance method (air filter cleaning, operation method and temperature setting method) with user's manual of this unit.
  Ask your customers to keep this installation manual together with the user's manual. Also, ask them to hand over the user's manual to the new user when the owner is changed.

⚠ WARNING

- **Installation should be performed by the specialist.**
  If you install the unit by yourself, it may lead to serious trouble such as water leakage, electric shock, fire, and injury due to overturn of the unit.
- **Install the system correctly according to these installation manuals.**
  Improper installation may cause explosion, injury, water leakage, electric shock, and fire.
- **Check the density refered by the foumula (accordance with ISO5149).**
  If the density exceeds the limit density, please consult the dealer and installate the ventilation system.
- **Use the genuine accessories and the specified parts for installation.**
  If parts unspecified by our company are used it could cause water leakage, electric shock, fire, and injury due to overturn of the unit.
- **Ventilate the working area well in case the refrigerant leaks during installation.**
  If the refrigerant contacts the fire, toxic gas is produced.
  In case of R32, the refrigerant could be ignited because of its flammability.
- **Install the unit in a location that can hold heavy weight.**
  Improper installation may cause the unit to fall leading to accidents.
- **Install the unit properly in order to be able to withstand strong winds such as typhoons, and earthquakes.**
  Improper installation may cause the unit to fall leading to accidents.
- **Do not mix air in to the cooling cycle on installation or removal of the air conditioner.**
  If air is mixed in, the pressure in the cooling cycle will rise abnormally and may cause explosion and injuries.
- **Be sure to have the electrical wiring work done by qualified electrical installer, and use exclusive circuit.**
  Power source with insufficient capacity and improper work can cause electric shock and fire.
- **Use specified wire for electrical wiring, fasten the wiring to the terminal securely, and hold the cable securely in order not to apply unexpected stress on the terminal.**
  Loose connections or hold could result in abnormal heat generation or fire.
- **Arrange the electrical wires in the control box properly to prevent them from rising. Fit the lid of the services panel property.**
  Improper fitting may cause abnormal heat and fire.
- **Check for refrigerant gas leakage after installation is completed.**
  If the refrigerant gas leaks into the house and comes in contact with a fan heater, a stove, or an oven, toxic gas is produced.
- **Use the specified pipe, flare nut, and tools for R32 or R410A.**
  Using existing parts (R22) could cause the unit failure and serious accident due to explosion of the cooling cycle.
- **Tighten the flare nut according to the specified method by with torque wrench.**
  If the flare nut were tightened with excess torque, it could cause burst and refrigerant leakage after a long period.
- **Do not put the drainage pipe directly into drainage channels where poisonous gases such as sulfide gas can occur.**
  Poisonous gases will flow into the room through drainage pipe and seriously affect the user's health and safety. This can also cause the corrosion of the indoor unit and a resultant unit failure or refrigerant leak.
- **Connect the pipes for refrigeration circuit securely in installation work before compressor is operated.**
  If the compressor is operated when the service valve is open without connecting the pipe, it could cause explosion and injuries due to abnormal high pressure in the system.
- **Stop the compressor before removing the pipe after shutting the service valve on pump down work.**
  If the pipe is removed when the compressor is in operation with the service valve open, air would be mixed in the refrigeration circuit and it could cause explosion and injuries due to abnormal high pressure in the cooling cycle.
- **Only use prescribed option parts. The installation must be carried out by the qualified installer.**
  If you install the system by yourself, it can cause serious trouble such as water leaks, electric shocks, fire.
- **Do not repair by yourself. And consult with the dealer about repair.**
  Improper repair may cause water leakage, electric shock or fire.
- **Consult the dealer or a specialist about removal of the air-conditioner.**
  Improper installation may cause water leakage, electric shock or fire.
- **Turn off the power source during servicing or inspection work.**
  If the power is supplied during servicing or inspection work, it could cause electric shock and injury by the operating fan.
- **Do not run the unit when the panel or protection guard are taken off.**
  Touching the rotating equipment, hot surface, or high voltage section could cause an injury to be caught in the machine, to get burned, or electric shock.
- **Shut off the power before electrical wiring work.**
  It could cause electric shock, unit failure and improper running.

⚠ CAUTION

- **Perform earth wiring surely.**
  Do not connect the earth wiring to the gas pipe, water pipe, lightning rod and telephone earth wiring. Improper earth could cause unit failure and electric shock due to a short circuit.
- **Earth leakage breaker must be installed.**
  If the earth leakage breaker is not installed, it can cause electric shocks.
- **Use the circuit breaker of correct capacity. Circuit breaker should be the one that disconnect all poles under over current.**
  Using the incorrect one could cause the system failure and fire.
- **Do not use any materials other than a fuse of correct capacity where a fuse should be used.**
  Connecting the circuit by wire or copper wire could cause unit failure and fire.
- **Do not install the indoor unit near the location where there is possibility of flammable gas leakages.**
  If the gas leaks and gathers around the unit, it could cause fire.
- **Do not install and use the unit where corrosive gas (such as sulfurous acid gas etc.) or flammable gas (such as thinner, petroleum etc.) may be generated or accumulated, or volatile flammable substances are handled.**
  It could cause the corrosion of heat exchanger, breakage of plastic parts etc. And inflammable gas could cause fire.
- **Secure a space for installation, inspection and maintenance specified in the manual.**
  Insufficient space can result in accident such as personal injury due to falling from the installation place.
- **Do not use the indoor unit at the place where water splashes such as laundry.**
  Indoor unit is not waterproof. It could cause electric shock and fire.
- **Do not use the indoor unit for a special purpose such as food storage, cooling for precision instrument, preservation of animals, plants, and a work of art.**
  It could cause the damage of the items.
- **Do not install nor use the system near equipments which generate electromagnetic wave or high harmonics.**
  Equipments like inverter equipment, private power generator, high-frequency medical equipment, or telecommunication equipment might influence the air conditioner and cause a malfunction and breakdown. Or the air conditioner might influence medical equipments or telecommunication equipments, and obstruct their medical activity or cause jamming.
- **Do not install the remote control at the direct sunlight.**
  It could cause breakdown or deformation of the remote control.
- **Do not install the indoor unit at the place listed below.**
  - Places where flammable gas could leak.
  - Places where carbon fiber, metal powder or any powder is floated.
  - Place where the substances which affect the air conditioner are generated such as sulfide gas, chloride gas, acid, alkali or ammonic atmospheres.
  - Places exposed to oil mist or steam directly.
  - On vehicles and ships
  - Places where machinery which generates high harmonics is used.
  - Places where cosmetics or special sprays are frequently used.
  - Highly salted area such as beach.
  - Heavy snow area
  - Places where the system is affected by smoke from a chimney.
  - Altitude over 1000m
- **Do not install the indoor unit in the locations listed below (Be sure to install the indoor unit according to the installation manual for each model because each indoor unit has each limitation)**
  - Locations with any obstacles which can prevent inlet and outlet air of the unit
  - Locations where vibration can be amplified due to insufficient strength of structure.
  - Locations where the infrared receiver is exposed to the direct sunlight or the strong light beam. (in case of the infrared specification unit)
  - Locations where an equipment affected by high harmonics is placed. (TV set or radio receiver is placed within 5m)
  - Locations where drainage cannot run off safely.

  It can affect performance or function and etc..

  Do not install the motion sensor mounting panel at following places. It could cause detection error, incapacity of detection, or characteristic degradation.
  - Place where vibration is applied to it for a long period of time.
  - Place where static electricity or electromagnetic wave generates.
  - Place where it is exposed to high temperature or humidity for a long period of time.
  - Dusty place or where the lens face could be fouled or damaged.
- **Do not put any valuables which will break down by getting wet under the air-conditioner.**
  Condensation could drop when the relative humidity is higher than 80% or drain pipe is clogged, and it damages user's belongings.
- **Do not use the base frame for the outdoor unit which is corroded or damaged after a long period of use.**
  It could cause the unit falling down and injury.
- **Pay attention not to damage the drain pan by weld sputter when brazing work is done near the unit.**
  If sputter entered into the unit during brazing work, it could cause damage (pinhole) of drain pan and leakage of water. To avoid damaging, keep the indoor unit packed or cover the indoor unit.
- **Install the drain pipe to drain the water surely according to the installation manual.**
  Improper connection of the drain pipe may cause dropping water into room and damaging user's belongings.
- **Be sure to perform air tightness test by pressurizing with nitrogen gas after completed refrigerant piping work.**
  If the density of refrigerant exceeds the limit in the event of refrigerant leakage in the small room, lack of oxygen can occur, which can cause serious accidents.
- **For drain pipe installation, be sure to make descending slope of greater than 1/100, not to make traps, and not to make air-bleeding.**
  Check if the drainage is correctly done during commissioning and ensure the space for inspection and maintenance.
- **Ensure the insulation on the pipes for refrigeration circuit so as not to condense water.**
  Incomplete insulation could cause condensation and it would wet ceiling, floor, and any other valuables.
- **Do not install the outdoor unit where is likely to be a nest for insects and small animals.**
  Insects and small animals could come into the electronic components and cause breakdown and fire. Instruct the user to keep the surroundings clean.
- **Pay extra attention, carrying the unit by hand.**
  Carry the unit with 2 people if it is heavier than 20kg. Do not use the plastic straps but the grabbing place, moving the unit by hand. Use protective gloves in order to avoid injury by the aluminum fin.
- **Make sure to dispose of the packaging material.**
  Leaving the materials may cause injury as metals like nail and woods are used in the package.
- **Do not operate the system without the air filter.**
  It may cause the breakdown of the system due to clogging of the heat exchanger.
- **Do not touch any button with wet hands.**
  It could cause electric shock.
- **Do not touch the refrigerant piping with bare hands when in operation.**
  The pipe during operation would become very hot or cold according to the operating condition, and it could cause a burn or frostbite.
- **Do not clean up the air-conditioner with water.**
  It could cause electric shock.
- **Do not turn off the power source immediately after stopping the operation.**
  Be sure to wait for more than 5 minutes. Otherwise it could cause water leakage or breakdown.
- **Do not control the operation with the circuit breaker.**
  It could cause fire or water leakage. In addition, the fan may start operation unexpectedly and it may cause injury.

①Before installation

- Install correctly according to the installation manual.
- Confirm the following points:
  - ○Unit type/Power source specification
  - ○Pipes/Wires/Small parts ○Accessory items

When moving the indoor unit, hold only the hanging hardware (4 places) only, with care not to apply forces to any other parts of the unit (particularly the refrigerant pipe, drain pipe, and resin parts).

Accessory item

For unit hanging		For refrigerant pipe			For drain pipe			
Flat washer (M10)	Level gauge	Pipe cover(big)	Pipe cover (small)	Strap	Pipe cover(big)	Pipe cover(small)	Drain hose	Hose clamp
								
8	1	1	1	4	1	1	1	1
For unit hanging	For unit hight position adjustment and hanging spare	For heat insulation of gas pipe	For heat insulation of liquid tube	For pipe cover fixing	For heat insulation of drain socket	For heat insulation of drain socket	For drain pipe connecting	For drain hose mounting

②Selection of installation location for the indoor unit

① Select the suitable areas to install the unit under approval of the user.
- Areas where the indoor unit can deliver hot and cold wind sufficiently. Suggest to the user to use a circulator if the ceiling height is over 3m to avoid warm air being accumulated on the ceiling.
- In case of the panel having the motion sensor, the installation height must be no higher than 4 m. It could reduce the sensitivity of motion sensor, disabling the detection.
- Areas where there is enough space to install and service.
- Areas where it can be drained properly. Areas where drain pipe descending slope can be taken.
- Areas where there is no obstruction of airflow on both air return grille and air supply port.
- Areas where fire alarm will not be accidentally activated by the air-conditioner.
- Areas where the supply air does not short-circuit.
- Areas where it is not influenced by draft air.
- Areas not exposed to direct sunlight.
- Areas where dew point is lower than around 28°C and relative humidity is lower than 80%. This indoor unit is tested under the condition of JIS (Japan Industrial Standard) high humidity condition and confirmed there is no problem. However, there is some risk of condensation drop if the air-conditioner is operated under the severer condition than mentioned above. If there is a possibility to use it under such a condition, attach additional insulation of 10 to 20mm thick for entire surface of indoor unit, refrigeration pipe and drain pipe.
- Areas where TV and radio stays away more than 1m. (It could cause jamming and noise.)
- Areas where any items which will be damaged by getting wet are not placed such as food, table wares, server, or medical equipment under the unit.
- Areas where there is no influence by the heat which cookware generates.
- Areas where not exposed to oil mist, powder and/or steam directly such as above fryer.
- Areas where lighting device such as fluorescent light or incandescent light doesn't affect the operation.
  (A beam from lighting device sometimes affects the infrared receiver for the wireless remote control and the air-conditioner might not work properly.)

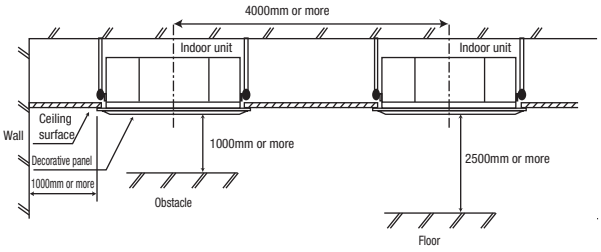
②Check if the place where the air-conditioner is installed can hold the weight of the unit. If it is not able to hold, reinforce the structure with boards and beams strong enough to hold it. If the strength is not enough, it could cause injury due to unit falling.

③If there are 2 units of wireless type, keep them away for more than 6m to avoid malfunction due to cross communication.

④When plural indoor units are installed nearby, keep them away for more than 4m.

Space for installation and service

- When it is not possible to keep enough space between indoor unit and wall or between indoor units, close the air supply port where it is not possible to keep space and confirm there is no short circuit of airflow.
- Install the indoor unit at a height of more than 2.5m above the floor.



Where there are pipe joints on the way of embedded piping, provide adequate openings for inspection of the joints.

Set blow-out pattern

- Select the most proper number of blow-out air supply port direction from 4 way, 3 way or 2 way according to the shape of the room and installation position. (1 way is not available.)
- If it is necessary to change the number of air supply port, prepare the covering materials. (sold as accessory)
- Instruct the user not to use low fan speed when 2way or 3way air supply is used.
- Do not use 2way air supply port under high temperature and humidity environment. (Otherwise it could cause condensation and leakage of water.)
- It is possible to set the airflow direction port by port independently. Refer to tne user's manual for details.

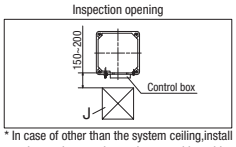
③Preparation before installation

- If suspension bolt becomes longer, do reinforcement of earthquake resistant.
  - ○For grid ceiling
    When suspension bolt length is over 500mm, or the gap between the ceiling and roof is over 700mm, apply earthquake resistant brace to the bolt.
  - ○In case the unit is hanged directly from the slab and is installed on the ceiling plane which has enough strength.
    When suspension bolt length is over 1000mm, apply the earthquake resistant brace to the bolt.
- Prepare four (4) sets of suspension bolt, nut and spring washer (M10 or M8) on site.

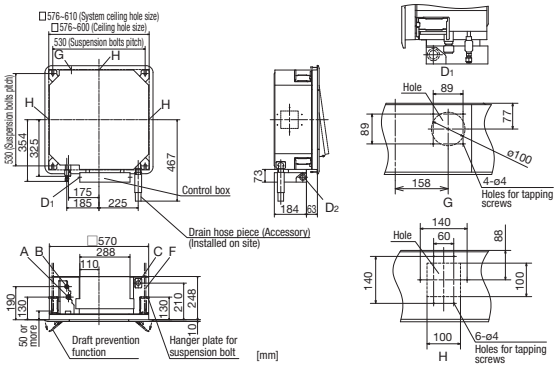
Ceiling opening, Suspension bolts pitch, Pipe position

Symbol	Content
A	Gas piping
B	Liquid piping
C	Drain piping
D_1	Power supply connection
D_2	Remote control code and signal wiring connection
F	Suspension bolts
G	Outside air opening for ducting
H	Air outlet opening for ducting
J	Inspection opening

Inspection opening



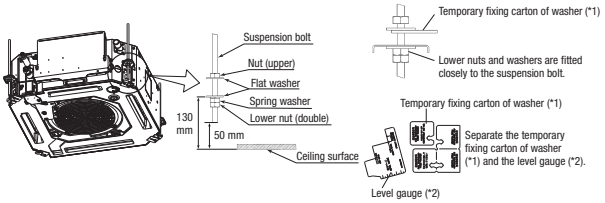
* In case of other than the system ceiling,install an inspection opening at the control box side.

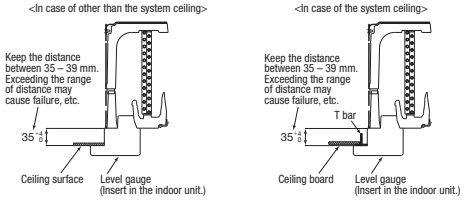


④Installation of indoor unit

Work procedure

1. This unit is designed to install on a system ceiling.
   If necessary, remove T bars temporarily before installing the unit.
   When it is installed on a ceiling other than the system ceiling, install an inspection port at the control box side.
2. Determine the position of suspension bolts (530 mm × 530 mm).
3. Use 4 suspension bolts, and fix them such that each bolt can withstand a pull-out load of 500 N.
4. Set the suspension bolt length to about 50 mm from the ceiling.
5. Temporarily locate the lower nuts of the suspension bolts (4 places) at a position approximately 130 mm from the ceiling.
6. Temporarily locate the upper nuts of the suspension bolts (4 places) at positions sufficiently distance from the lower nuts so that they do not interfere with the suspension of the indoor unit and with its height adjustment.
7. Set the upper nuts of the suspension bolts and upper washers (4 places) at positions sufficiently distance from the lower nuts. Then, push and insert the temporary fixing carton of washers (*1) onto suspension bolts. Make sure that the upper washers do not slide down.
8. Suspend the indoor unit.
9. After suspending the indoor unit, mount the level gauge (*2) to the air outlet of the indoor unit, and adjust the suspension height of the indoor unit. Loosen the upper nuts (4 places), and adjust the suspension height using the lower nuts (4 places). Confirm there is no slack between the lower nuts and flat washers of the indoor unit hanger plate (4 places).
10. Remove the temporary fixing carton of washers (from all 4 places).
11. Make sure that the indoor unit is installed horizontally. Confirm the levelness of the indoor unit using a level gauge or transparent hose filled with water.
    (Keep the height difference at both ends of the indoor unit within 3 mm.)
12. Tighten the upper nuts of the suspension bolts (4 places).

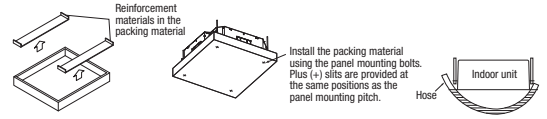




④Installation of indoor unit (continued)

Protection of the indoor unit

- If it is not possible to install the panel for a while or if attaching the ceiling board after installing the indoor unit, protect the indoor unit by using upper carton.



Caution

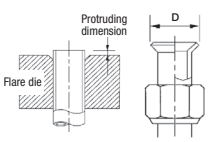
- Do not adjust the unit height by adjusting the upper nuts. Doing so will cause unexpected stress on the indoor unit and cause the unit to become deformed, prevent the panel from being installed, and be generated fan interference noise.
- Make sure that the indoor unit is installed horizontally and set the appropriate gap between the underside of the unit and the ceiling plane. Improper installation may cause air leakage, dew condensation, water leakage and noise.
- Make sure there is no gap between the panel and the ceiling surface, and between the panel and the indoor unit. Any gap may cause air and/or water to leak, or condensation to form.

⑤Refrigerant pipe

Caution

- Be sure to use new pipes for the refrigerant pipes. Use the flare nut attached to the product.
  Regarding whether existing pipes can be reused or not, and the washing method, refer to the instruction manual of the outdoor unit, catalogue or technical data.
  1) In case of reuse: Do not use old flare nut, but use the nut attached to the unit.
  2) In case of reuse: Flare the end of pipe replaced partially for R32 or R410A.

⚠WARNING : When flared joints are reused indoors, the flare part shall be re-fabricated. (only for R32)



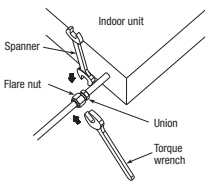
Pipe dia. d mm	Min. pipe wall thickness mm	Protruding dimension for flare, mm		Flare O.D. D mm	Flare nut tightening torque N·m
		Rigid (Clutch type)			
		For R32 For R410A	Conventional tool		
6.35	0.8	0 – 0.5	0.7 – 1.3	8.9 – 9.1	14 – 18
9.52	0.8			12.8 – 13.2	34 – 42
12.7	0.8			16.2 – 16.6	49 – 61
15.88	1			19.3 – 19.7	68 – 82
19.05	1.2			23.6 – 24.0	100 – 120

- Use phosphorus deoxidized copper alloy seamless pipe (C1220T) for refrigeration pipe installation. In addition, make sure there is no damage both inside and outside of the pipe, and no harmful substances such as sulfur, oxide, dust or a contaminant stuck on the pipes.
- Do not use any refrigerant other than the designated refrigerant.
  Using other refrigerant except the designated refrigerant, may degrade inside refrigeration oil. And air getting into refrigeration circuit may cause over-pressure and resultant it may result in bursting, etc.
- Store the copper pipes indoors and seal the both end of them until they are brazed in order to avoid any dust, dirt or water getting into pipe. Otherwise it will cause degradation of refrigeration oil and compressor breakdown, etc.
- Use special tools for R32 or R410A refrigerant.

Work procedure

1. Remove the flare nut and blind flanges on the pipe of the indoor unit.
   ※ Make sure to loosen the flare nut with holding the nut on pipe side with a spanner and giving torque to the nut with another spanner in order to avoid unexpected stress to the copper pipe, and then remove them. (Gas may come out at this time, but it is not abnormal.)
   - Pay attention whether the flare nut pops out. (as the indoor unit is sometimes pressured.)
2. Make a flare on liquid pipe and gas pipe, and connect the refrigeration pipes on the indoor unit.
   ※Bend radius of pipe must be 4D or larger. Once a pipe is bent, do not readjust the bending. Do not twist a pipe or collapse to 2/3D or smaller.
   - Make sure to use flare nuts assembled on the unions. Usage of other flare nuts could cause refrigerant leakage.

   ※Do a flare connection as follows:
   - Make sure to hold the nut on indoor unit pipe side using double spanner method as indicated when fastening / loosening flare nuts in order to prevent unintentional twisting of the copper pipe.
   - When fastening the flare nut, align the refrigeration pipe with the center of flare nut, screw the nut for 3-4 times by hand and then tighten it by spanner with the specified torque mentioned in the table above.

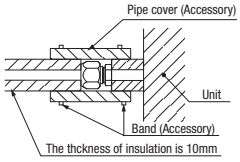


3. Cover the flare connection part of the indoor unit with attached insulation material after a gas leakage inspection, and tighten both ends with attached straps.
   - Make sure to insulate both gas pipes and liquid pipes completely.
     ※Incomplete insulation may cause dew condensation or water dropping.
   - Use heat-resistant (120 °C or more) insulations on the gas side pipes.
   - In case of using at high humidity condition, reinforce insulation of refrigerant pipes. Surface of insulation may cause dew condition or water dropping, if insulations are not reinforced.
4. Refrigerant is charged in the outdoor unit.
   As for the additional refrigerant charge for the indoor unit and piping, refer to the installation manual attached to the outdoor unit.

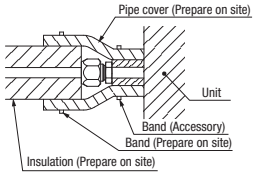
⑤Refrigerant pipe (continued)

Caution:
Refrigerating machine oil should not be applied to the threads of union or external surface of flare. It is because, even if the same tightening torque is applied, the oil is likely to decrease the slide friction force on the threads and increase, in turn, the axial component force so that it could crack the flare by the stress corrosion.
Refrigerating machine oil may be applied to the internal surface of flare only.

<The case of using thicness of insulation is 10mm>



<The case of using reinfoced insulation>



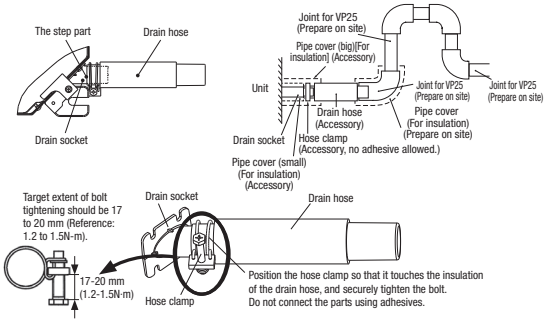
⑥Drain pipe

Caution

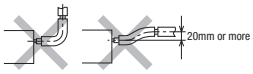
- Install the drain pipe according to the installation manual in order to drain properly.
  Imperfection in draining may cause flood indoors and wetting the household goods,etc.
- Do not put the drain pipe directly into the ditch where toxic gas such as sulfur, the other harmful and inflammable gas is generated. Toxic gas would flow into the room and it would cause serious damage to user's health and safety (some poisoning or deficiency of oxygen). In addition, it may cause corrosion of heat exchanger and bad smell.
- Connect the pipe securely to avoid water leakage from the joint.
- Insulate the pipe properly to avoid condensation drop.
- Check if the water can flow out properly from both the drain outlet on the indoor unit and the end of the drain pipe after installation.
- Make sure to make descending slope of greater than 1/100 and do not make up-down bend and/or trap in the midway. In addition, do not put air vent on the drain pipe. Check if water is drained out properly from the pipe during commissioning. Also, keep sufficient space for inspection and maintenance.

Work procedure

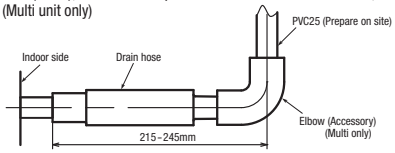
1. Make sure that the drain hose (the soft PVC side) is inserted into the end of the step part of the drain socket.
   Fix the hose clamp so that its bolt is located on the outside of the indoor unit, and the bolt are fastened in a vertical orientation.
   - Do not apply adhesives on this end.
2. Position the hose clamp so that it touches the insulation of the drain hose, and then tighten the bolt.
3. Turn the bolt several times until it is securely tightened, but do not tighten it excessively.



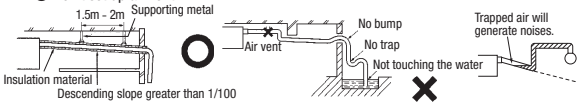
4. Prepare a joint for connecting VP25 pipe, adhere and connect the joint to the drain hose (the rigid PVC side), and adhere and connect VP25 pipe (prepare on site).
   ※As for drain pipe, apply VP25 made of rigid PVC which is on the market.
   - Make sure that the adhesive will not get into the supplied drain hose.
     It may cause the flexible part broken after the adhesive is dried up and gets rigid.
   - The flexible drain hose is intended to absorb a small difference at installation of the unit or drain pipes. Intentional bending, expanding may cause the flexible hose broken and water leakage.



   - As for drain pipe, apply VP25 (OD32).
     If apply PVC25 (OD25), connect the expanded connector to the drain hose, with adhesive. (Multi unit only)

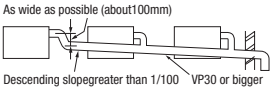


5. Make sure to make descending slope of greater than 1/100 and do not make up-down bend and/or trap in the midway.
   - Pay attention not to give stress on the pipe on the indoor unit side, and support and fix the pipe as close place to the unit as possible when connecting the drain pipe.
   - Do nt set up air vent.



⑥Drain pipe (continued)

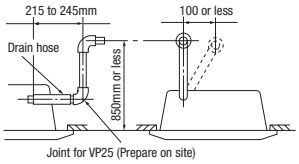
● When sharing a drain pipe for more than 1 unit, lay the main pipe 100mm below the drain outlet of the unit. In addition, select VP30 or bigger size for main drain pipe.



6. Insulate the drain pipe.
● Be sure to insulate the drain socket and rigid PVC pipe installed indoors otherwise it may cause dew condensation and water leakage.
※ After drainage test implementation, cover the drain socket part with pipe cover (small size), then use the pipe cover (big size) to cover the pipe cover (small size), clamps and part of the drain hose, and fix and wrap it with tapes to wrap and make joint part gapless.

Drain up

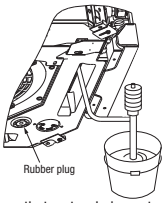
● The position for drain pipe outlet can be raised up to 850mm above the ceiling. Use elbows for installation to avoid obstacles inside ceiling. If the horizontal drain pipe is too long before vertical pipe, the backflow of water will increase when the unit is stopped, and it may cause overflow of water from the drain pan on the indoor unit. In order to avoid overflow, keep the horizontal pipe length and offset of the pipe within the limit shown in the figure below.



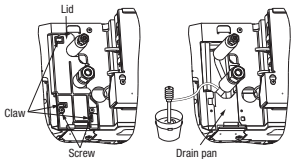
Drain test

● After installing the drain pipe, make sure that drain system works correctly and that no water leaks from the joint and drain pan. Check whether the motor sound of the drain pump is normal.
● Conduct a drain test when installing, even during the heating season.
● In the case of new buildings, be sure to complete the test before fixing the ceiling.
1. Pour about 1,000 cc of test water into the drain pan of the indoor unit. Exercise care not to allow electrical equipment such as the drain pump and other components to become wet while filling water.
Pour test water through the pipe lid using a feed water pump or a similar device, or through the refrigerant pipe joint.

● In case of pouring water from the air outlet



● In case of pouring water from the pipe lid
(1) Remove screws at 2 places.
(2) Release the claws, and remove the lid.



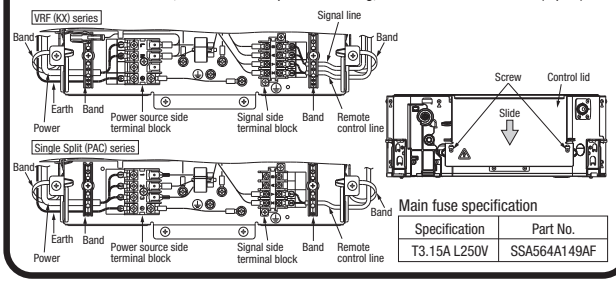
2. Make sure that water drains out completely and that no water leaks from any joints of the drain pipe during the test.
Test to confirm that the water drains out correctly while listening to the drain pump motor operating sound.
At the drain socket (transparent), it is possible to check whether the water drains out correctly.
3. Unplug the rubber plug on the indoor unit so that the remaining water drains from the drain pan after the draining test.
After checking the water drainage, fix the rubber plug correctly. Installation work for the drain pipe must be performed for the entire drain pipe up to the indoor unit.
If the pipe lid has been removed in order to pour water, mount the pipe lid again.

Drain pump operation

● In case electrical wiring work completed
Drain pump can be operated by the wired remote control.
For the operation method, refer to Operation for drain pump in the installation manual for wiring work.
● In case electrical wiring work not completed
Drain pump will run continuously when the DIP switch"SW7-1" on the indoor unit PCB is turned ON, the Connector CNB is disconnected, and then the power source (230VAC on the terminal block ① and ②) is turned ON.
Make sure to turn OFF "SW7-1" and reconnect the Connector CNB after the test.

⑦Wiring-out position and wiring connection

● Electrical installation work must be performed according to the installation manual by an electrical installation service provider qualified by a power provider of the country, and be executed according to the technical standards and other regulations applicable to electrical installation in the country.
Be sure to use an exclusive circuit.
● Use specified cord, fasten the wiring to the terminal securely, and hold the cord securely in order not to apply unexpected stress on the terminal.
● Do not put both power source line and signal line on the same route. It may cause miscommunication and malfunction.
● Be sure to do D type earth work.
● For the details of electrical wiring work, see attached instruction manual for electrical wiring work.
1. Loosen screws (2 pcs.) on the control box of the unit.
2. Remove the control lid by sliding it in the arrow direction in the figure.
3. Introduce the wiring in the control box, and connect it securely to the terminal block.
4. Fix the wiring with bands as shown below.
5. Install the control lid, with care not to pinch the wiring, and fix the lid with screws (2 pcs.).



Main fuse specification

Specification	Part No.
T3.15A L250V	SSA564A149AF

⑧Panel installation

● Install the panel on the indoor unit after electrical wiring work.
● Refer to the attached manual for panel installation for details.

⑨Check list after installation

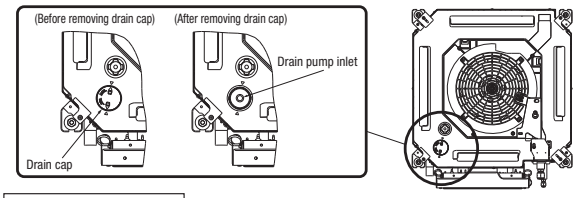
● Check the following items after all installation work completed.

Check if;	Expected trouble	Check
The indoor and outdoor units are fixed securely?	Falling, vibration, noise	
Inspection for leakage is done?	Insufficient capacity	
Insulation work is properly done?	Water leakage	
Water is drained properly?	Water leakage	
Power source voltage is same as mentioned in the model name plate?	PCB burnt out, not working at all	
There is mis-wiring or mis-connection of piping?	PCB burnt out, not working at all	
Earth wiring is connected properly?	Electric shock	
Cable size comply with specified size?	PCB burnt out, not working at all	
Any obstacle blocks airflow on air inlet and outlet?	Insufficient capacity	

⑩How to check the dirt of drain pan and cleanimg the inlet of the drain pump. (Maintenance)

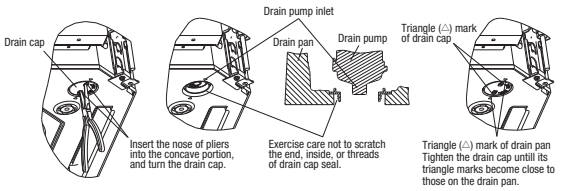
The method of checking the dirt of drain pan

1. Remove the panel according to the installation manual of the panel.
2. Check the dirt on the drain pan from the drain cap, and check the drain pump inlet. If the drain pan is very dirty, remove the drain pan and clean it.



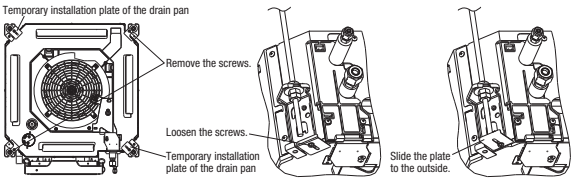
Cleaning of drain pump inlet

● It is possible to clean the drain pump inlet and surrounding area by removing the drain cap only; it is not necessary to remove the drain pan.
● Before removing the drain cap, remove the rubber plug and drain water from the drain pan.
1. Insert the nose of the pliers into the concave portions (2 places) of the drain cap, and rotate the pliers about 1 turn in the CCW direction. The drain cap is removed.
2. When cleaning the drain pump inlet, use a soft plastic tool. If a metallic tool is used, the drain cap mounting portion may be scratched and water may leak.
3. Before mounting the drain cap, rinse it and **remove any foreign material from the inside of the cap.** If the drain cap is installed with foreign material inside it, it may cause water to leak.
4. Insert the nose of the pliers into the concave portions of the drain cap and rotate the pliers to install the drain cap. Rotate the drain cap about 1 turn in the CW direction until it stops rotating. If the drain cap is not rotated for 1 or more turns, the cap will not have been installed correctly. Remove the drain cap, and then install it again correctly.
5. After tightening the drain cap, make sure the triangle (△) mark of the drain cap comes close to the triangle mark on the drain pan. If these triangle marks are not close to each other, tighten the drain cap further.
6. Refix the rubber plug securely. If the cover is not refixed correctly, it may cause condensation to form and/or water to leak.



Notes for removing the drain pan

● Before removing the drain pan, drain water from the drain pan. Remove the rubber plug and drain water.
● The drain pan is installed by the temporary installation plate. Remove the 2 drain pan fixing screws, and loosen the 2 screws of the temporary installation plate.
Slide the temporary installation plate to the outside of the drain pan. And then,it is possible to remove the drain pan.
● When reinstalling the drain pan, slide the temporary installation plate to the inside and temporarily fix the drain pan. Then, tighten the 2 drain pan fixing screws and the 2 screws of the temporary installation plate. Also, refix the rubber plug securely.



• Panel installation

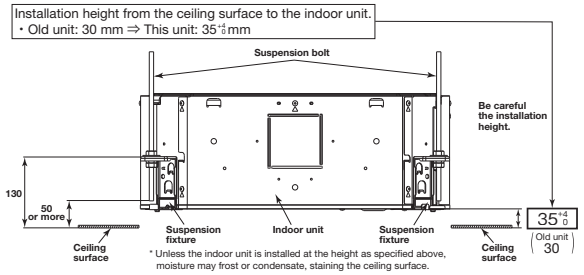
PJF012D503 A

Read this manual together with the indoor unit's installation manual.

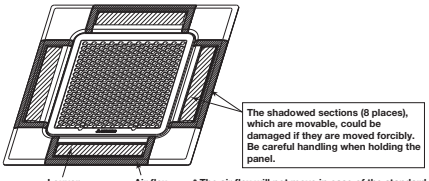
* Caution before use

①Be careful the installation height when installing the indoor unit.
Also note that the installation height of this indoor unit is different from that of current (old) unit.

Installation height from the ceiling surface to the indoor unit.
・Old unit: 30 mm ⇒ This unit: 35 +4 0 mm



②Do not attempt to move forcibly the louver and the air flex.



⚠ WARNING

- **Fasten the wiring to the terminal securely and hold the cable securely so as not to apply unexpected stress on the terminal. Loose connection or hold will cause abnormal heat generation or fire.**
- **Make sure the power source is turned off when electric wiring work. Otherwise, electric shock, malfunction and improper running may occur.**

Function

The draft prevention panel has the draft prevention mechanism. If the draft prevention panel is installed and the draft prevention function is set, the draft prevention function will be operated and reduce the draft feeling. (Refer to ⑪ Panel setting for details.)
・Standard panel : without the draft prevention mechanism
・Draft prevention panel : with the draft prevention mechanism

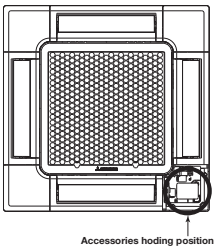
① Before installation

・Follow installation manual carefully, and install the panel properly.
・Check the following items.
○ Accessories

Accessories

Bolt		4 pieces	For panel installation
Strap		4 pieces	For avoiding the corner panel from falling
Grille hook		1 piece	For avoiding the grille from falling
Screw		4 pieces	For fixing the corner panel

Note: Accessories are laid in the position removing the corner lid.

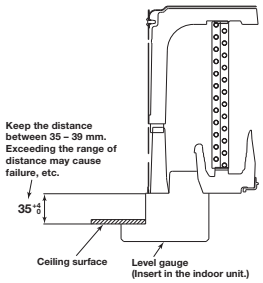


② Checking the indoor unit installation height

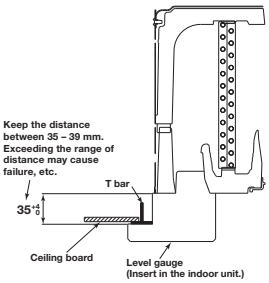
・Read this manual together with the air-conditioner installation manual carefully.
・Check if the opening size for the indoor unit is correct with the level gauge supplied in the indoor unit.
・Check if the gap between the plane and the indoor unit is correct by inserting the level gauge into the air outlet port of the indoor unit. (See below drawing)
・Adjust the installation elevation if necessary.
・Remove the level gauge before installing the panel.

Caution
If there is a height difference beyond the design limit between the installation level of the indoor unit and the panel, the panel may be subject to excessive stress during installation and it may cause distortion and damage.

<In case of other than the system ceiling>

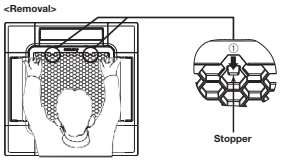


<In case of the system ceiling>



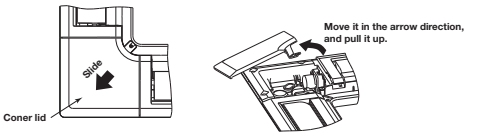
③ Removing the inlet grille

1. While placing a finger behind the stopper (2 places) and pressing it in the direction of arrow ①, pull the grille downward to open the grille.
2. Release the hooks of the inlet grille from the panel while it is in the open position.



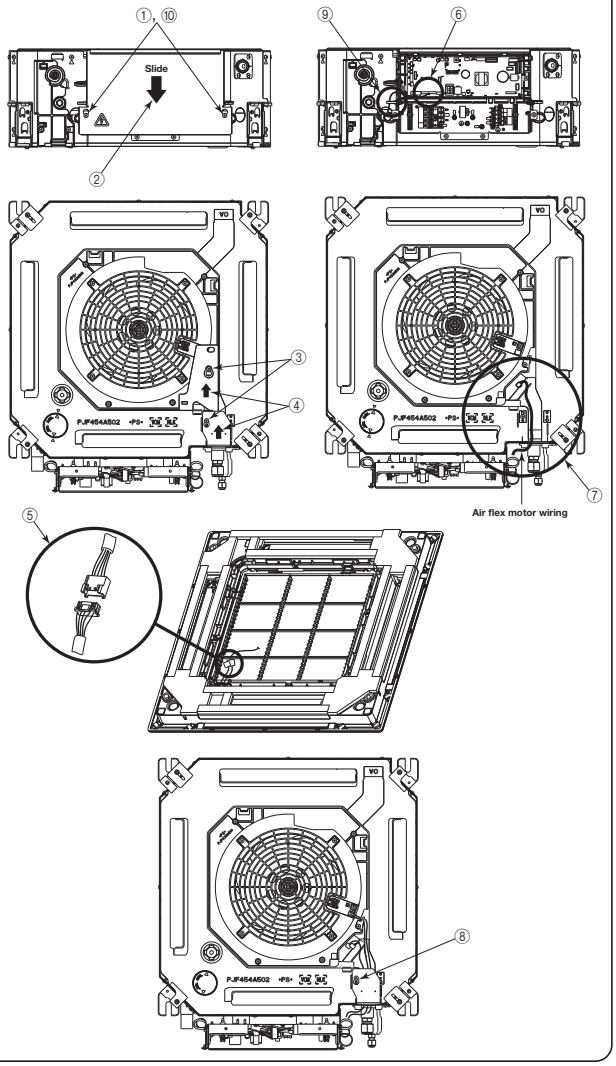
④ Removing the corner lid

・Pull the corner lid toward the direction indicated by the arrow and remove it. (Same way for all 4 corner lids)



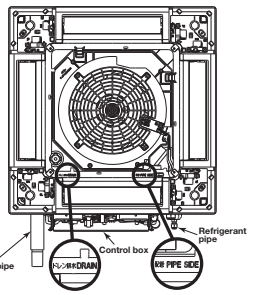
⑤ Before installing the panel <Only draft prevention panel>

① Loosen screws (2 pcs.) on the control lid of the unit.
② Slide the control lid in the arrow direction in the figure, and remove it.
③ Loosen screws on the wiring cover (2 places).
④ Slide the wiring cover (2 places) in the arrow direction in the figure, and remove it.
⑤ Disconnect the relay connector of the air flex motor wiring attached to the panel.
⑥ Connect the air flex motor wiring to CNJ2 (20 P, gray) on PCB in the control box of the unit.
⑦ Pass the air flex motor wiring as shown in the figure.
⑧ Install the wiring cover (1 place) with care not to pinch wiring, and fix it with a screw.
⑨ Fix the air flex motor wiring with a band as shown in the figure.
⑩ Install the control lid with care not to pinch wiring, and fix with screws (2 places,).



⑥ Orientation of the panel installation

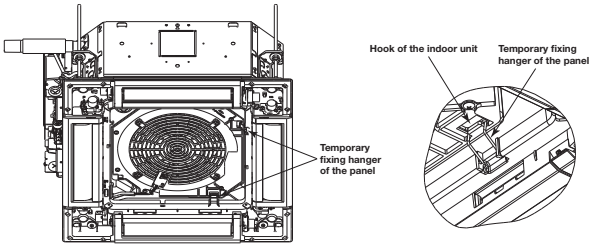
Take note that there is an orientation to install the panel.
- Install the panel with the orientation shown on the right.
- Align the "PIPE SIDE" mark (on the panel) with the refrigerant pipes on the indoor unit.
- Align the "DRAIN" mark (on the panel) with the drain pipe on the indoor unit.



CAUTION
In case the orientation of the panel is not correct, it will lead to air leakage and also it is not possible to connect the motor wiring.

⑦ Installing the panel

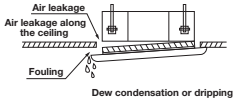
1. Temporary hanging
   - Lift up the hanger (2 places) on the panel for temporary support.
   - Hang the panel on the hook on the indoor unit.



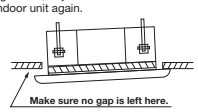
2. Fix the panel on the indoor unit
   - Fasten the panel on the indoor unit with the 4 bolts supplied with the panel.

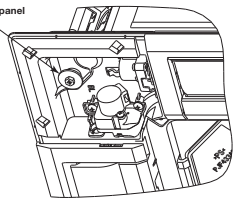
Caution
Be careful not to pinch the motion sensor wiring.

Caution
- Improperly tightened fixing bolts cause the problems listed below, so make sure that bolts are securely tightened.



- If there is a gap between the ceiling and the panel even after the fixing bolts are tightened, adjust the installation level of the indoor unit again.





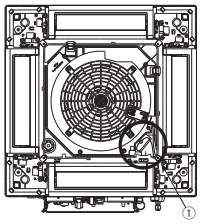
Caution
Do not give any stress on the panel when adjusting the height of the indoor unit to avoid unexpected distortion. It may cause the distortion of panel or failing to close the inlet grille, and the parts of the draft prevention mechanism.

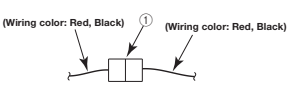
⑧ Electrical wiring

The wiring work varies depending on the panel type. Select the wiring work appropriate for the panel type.

<For the standard panel>
① Connect the connector of the louver motor wiring (Wiring color: Red, Black) at the panel side to the connector CnJ3 (20 P, White) of the louver motor wiring (Wiring color: Red, Black) at the unit side.

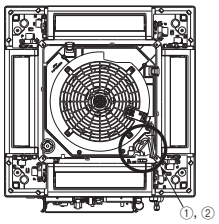
For the Standard panel

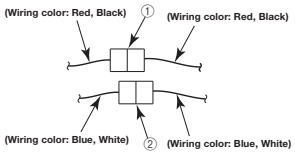




<For the draft prevention panel>
① Connect the connector of the louver motor wiring (Wiring color: Red, Black) at the panel side to the connector CnJ3 (20 P, White) of the louver motor wiring (Wiring color: Red, Black) at the unit side.
② Connect the connector of the air flex motor wiring (Wiring color: Blue, White) at the panel side to the connector CnJ4 (20 P, White) of the air flex motor wiring (Wiring color: Blue, White) at the unit side.

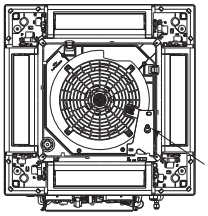
For the Draft prevention panel

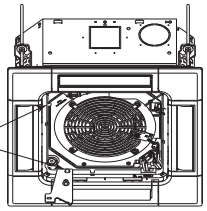




Motor wiring connection – Detail view

Install the wiring cover with care not to pinch wiring, and fix it with screws.

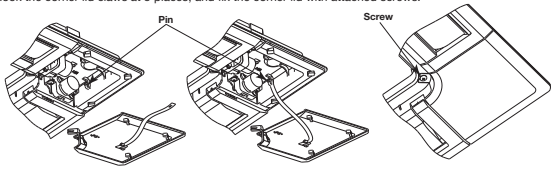




*** If the wiring cover is hung at the hook on panel, it will become easier to work.**

⑨ Installing a corner lid

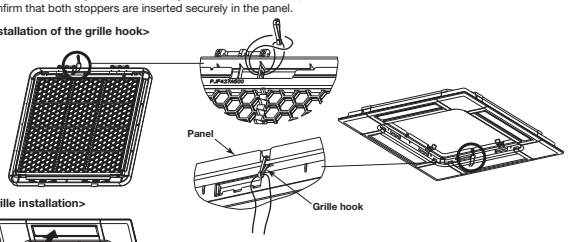
1. To avoid unexpected falling of the corner lid, put the strap onto the corner lid's pin with turning the strap up.
2. Then hang the strap of a corner lid onto the panel's pin.
3. Hook the corner lid claws at 3 places, and fix the corner lid with attached screws.



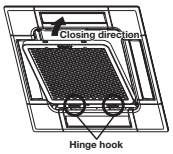
⑩ Installing the inlet grille

The panel and the inlet grille have no directional limitation to install. (Hinges of the inlet grille can be hooked at any side.)
Install the inlet grille in the reverse order of the steps described at ⑨ Removing the inlet grille .
① Attach the fall grille hook to the panel.
② Insert the hinges of inlet grille in the insert holes on the panel.
Close then the inlet grille while pressing the stoppers (2 places).
Confirm that both stoppers are inserted securely in the panel.

<① Installation of the grille hook>



<② Grille installation>



Caution
- Install the grille hook securely at the panel.
- The inlet grille must be installed starting from the hinge side.
- Install the inlet grille securely. It may drop if it is installed insecurely.
- When the stoppers have been deformed or damaged, repair them immediately, Unless they are repaired properly, the inlet grille may drop off.

⑪ Panel setting

<Louver swing range setting (Individual louver control setting)>

It is possible to change the swing range of the louver by the wired remote control. Once the upper and lower limit positions are set, the louver will swing within the set range.It is also possible to set the different range to each louver.

<Draft prevention setting>

The draft prevention function will not be operated if the draft prevention panel is installed and its wirings are only connected. To operate the draft prevention function, enable the draft prevention setting by using the wired or wireless remote control.

Note: It is not possible to set by the following remote control models or older.
Wired:RC-EX3, RC-E5, RCH-E3
Wireless: RCN-E1R

Once you have enabled the settings in this mode, the draft prevention function is operated when the air-conditioner is started, and the parts of the draft prevention mechanism are always open when the air-conditioner is operating. When the air-conditioner is stopped, they are closed. It is possible to enabled or disabled the draft prevention function for each air outlet.

For the setting details, refer to the user's manual supplied with the remote control.

FRESH AIR INTAKE (Location for installation) FOR FDTC

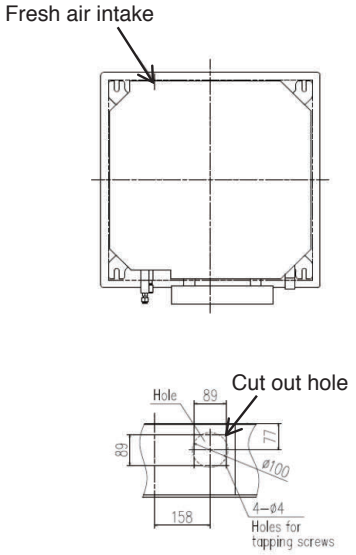
At the time of installation use the duct hole (cut out) located at the positions shown in follwing diagram, as and when required.

(1)Temperature conditions for OA spacer(1)

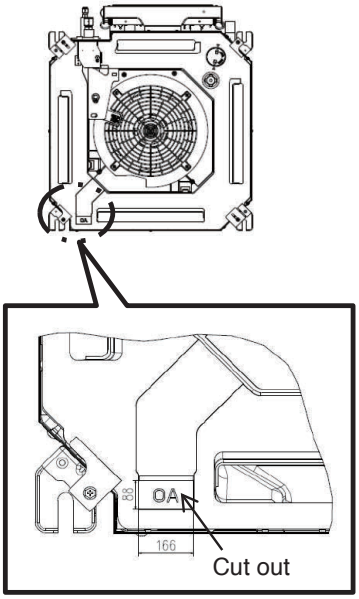
- Adjust the temperature conditions of mixed air with outdoor air and indoor air within the usage range of suction air temperature for the air-conditioner.
- The usage temperature conditions of intake outdoor air and indoor air around the ducts are shown in the following table.
- If the temperature conditions of intake outdoor air do not satisfy, process the outdoor air before intaking.

Operation mode	Usage temperature conditions	
	Intake outdoor air	Indoor air around the ducts
In heating	5˚C DB or higher	18.5˚C WB or lower and 60% RH or lower
In cooling	29˚C DB or lower and 80% RH or lower	20˚C DB or higher

Note(1) : For the OA spacer, refer to page 411.



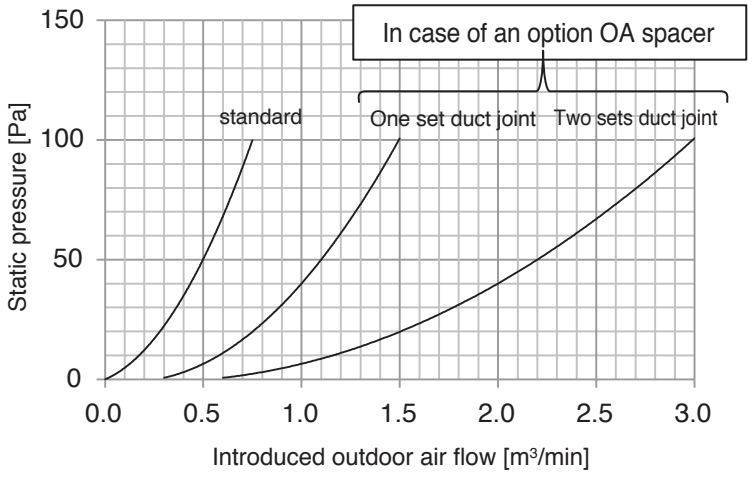
Detail drawing of fresh air intake



Detail of cut out

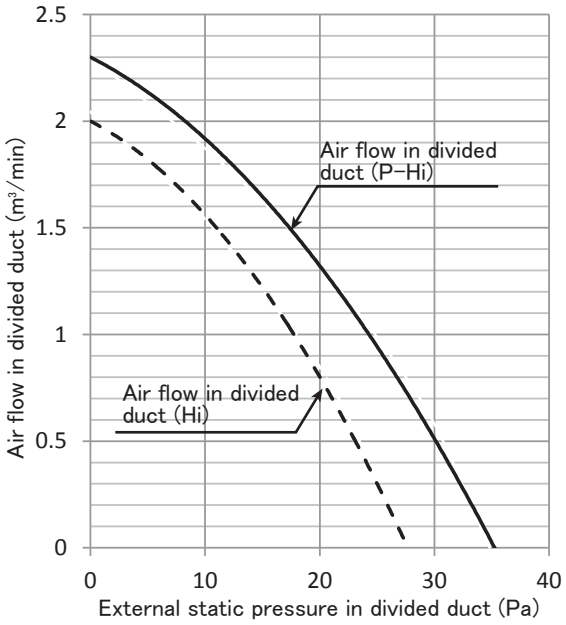
■Fresh air intake amount & static pressure characteristics

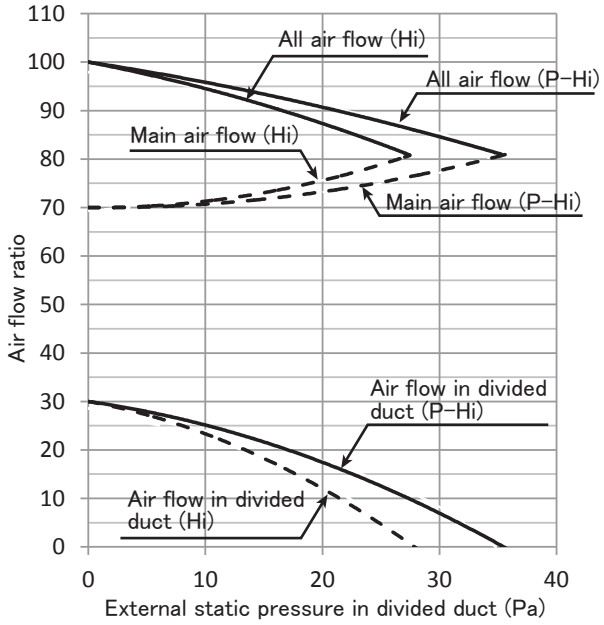
All models



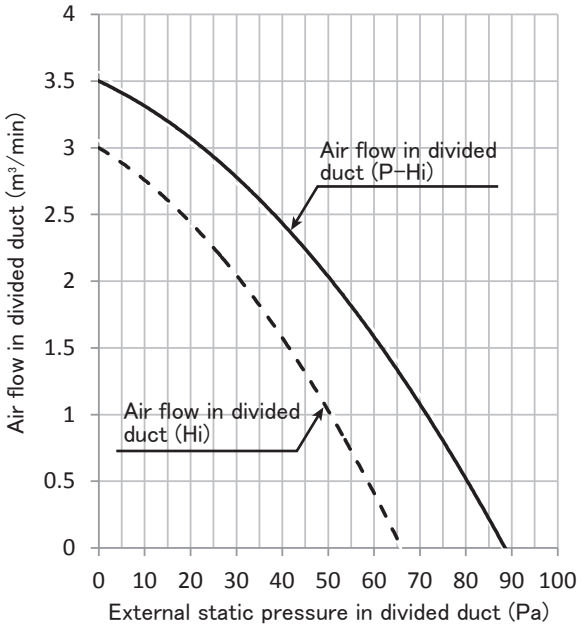
CHARACTERISTICS OF AIR FLOW IN DIVIDED DUCT FOR FDTC

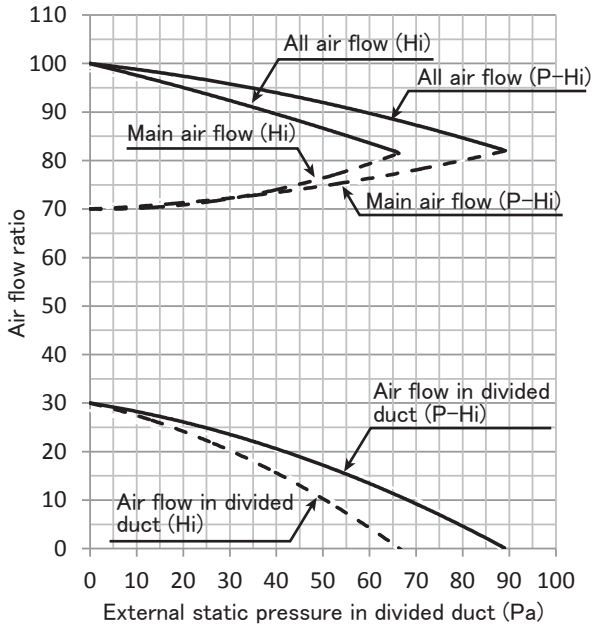
Models FDTC15,22,28,36KXZE1





Models FDTC45,56KXZE1





■Divided duct connection method

1. Open some one during 4 knockout holes, and please connect a divided duct.
   It isn't possible to use more than one hole at the same time.
2. Please make the wind shielding a blowout vent on the side where a divided duct was connected.
3. The shorage of the external static pressure by pressure loss for a connected divided duct and blowout unit is made up by a booster fan.
   example : When 2.5m³/min of ventilation by divided duct is needed in model FDTC56KXZE1
   (In case of connection duct ϕ 125 x 5m)
   ①Duct resistance : Pressure loss by a flexible duct =35Pa (7Pa/mx5m)
   ②Blowout unit : Pressure loss by a blowout unit =10Pa
   ③External static pressure when being 2.5m³/min =17Pa (See upper table.)
   ⇒Correspondence by a booster fan =①+②-③ =28Pa

(3) Ceiling cassette-2 way type (FDTW)

PJB012D312

This manual is for the installation of an indoor unit.
For electrical wiring work of indoor unit, refer to page 238. For wired remote control installation, refer to page 242.For wireless kit installation, refer to page 342.
For electrical wiring work of outdoor unit and refrigerant pipe work installation for outdoor unit, refer to the installation manual attached to an outdoor unit.
For motion sensor kit installation, refer to page 389. This unit must be always used with the panel.

SAFETY PRECAUTIONS

- First of all, read the "SAFETY PRECAUTIONS" carefully and strictly follow the instruction during the installation work in order to protect yourself.
- The precautionary items mentioned below are distinguished into two levels, ⚠WARNING and ⚠CAUTION .
  ⚠WARNING : Wrong installation would cause serious consequences such as injuries or death.
  ⚠CAUTION : Wrong installation might cause serious consequences depending on circumstances.
  Both mentions the important items to protect your health and safety so strictly follow them by any means.
- The meanings of "Marks" used here are as shown on the right:

⃠	Never do it under any circumstances.	❗	Always do it according to the instruction.

- After completing the installation, do commissioning to confirm there are no abnormalities, and explain to the customers about "SAFETY PRECAUTIONS", correct operation method and maintenance method (air filter cleaning, operation method and temperature setting method) with user's manual of this unit. Ask your customers to keep this installation manual together with the user's manual. Also, ask them to hand over the user's manual to the new user when the owner is changed.

⚠ WARNING

- **Installation should be performed by the specialist.**
  If you install the unit by yourself, it may lead to serious trouble such as water leakage, electric shock, fire, and injury due to overturn of the unit.
- **Install the system correctly according to these installation manuals.**
  Improper installation may cause explosion, injury, water leakage, electric shock, and fire.
- **Check the density refered by the foumula (accordance with ISO5149).**
  If the density exceeds the limit density, please consult the dealer and installate the ventilation system.
- **Use the genuine accessories and the specified parts for installation.**
  If parts unspecified by our company are used it could cause water leakage, electric shock, fire, and injury due to overturn of the unit.
- **Ventilate the working area well in case the refrigerant leaks during installation.**
  If the refrigerant contacts the fire, toxic gas is produced. In case of R32, the refrigerant could be ignited because of its flammability.
- **Install the unit in a location that can hold heavy weight.**
  Improper installation may cause the unit to fall leading to accidents.
- **Install the unit properly in order to be able to withstand strong winds such as typhoons, and earthquakes.**
  Improper installation may cause the unit to fall leading to accidents.
- **Do not mix air in to the cooling cycle on installation or removal of the air conditioner.**
  If air is mixed in, the pressure in the cooling cycle will rise abnormally and may cause explosion and injuries.
- **Be sure to have the electrical wiring work done by qualified electrical installer, and use exclusive circuit.**
  Power source with insufficient capacity and improper work can cause electric shock and fire.
- **Use specified wire for electrical wiring, fasten the wiring to the terminal securely, and hold the cable securely in order not to apply unexpected stress on the terminal.**
  Loose connections or hold could result in abnormal heat generation or fire.
- **Arrange the electrical wires in the control box properly to prevent them from rising. Fit the lid of the services panel property.**
  Improper fitting may cause abnormal heat and fire.
- **Check for refrigerant gas leakage after installation is completed.**
  If the refrigerant gas leaks into the house and comes in contact with a fan heater, a stove, or an oven, toxic gas is produced.
- **Use the specified pipe, flare nut, and tools for R32 or R410A.**
  Using existing parts (R22) could cause the unit failure and serious accident due to explosion of the cooling cycle.
- **Tighten the flare nut according to the specified method by with torque wrench.**
  If the flare nut were tightened with excess torque, it could cause burst and refrigerant leakage after a long period.
- **Do not put the drainage pipe directly into drainage channels where poisonous gases such as sulfide gas can occur.**
  Poisonous gases will flow into the room through drainage pipe and seriously affect the user's health and safety. This can also cause the corrosion of the indoor unit and a resultant unit failure or refrigerant leak.
- **Connect the pipes for refrigeration circuit securely in installation work before compressor is operated.**
  If the compressor is operated when the service valve is open without connecting the pipe, it could cause explosion and injuries due to abnormal high pressure in the system.
- **Stop the compressor before removing the pipe after shutting the service valve on pump down work.**
  If the pipe is removed when the compressor is in operation with the service valve open, air would be mixed in the refrigeration circuit and it could cause explosion and injuries due to abnormal high pressure in the cooling cycle.
- **Only use prescribed option parts. The installation must be carried out by the qualified installer.**
  If you install the system by yourself, it can cause serious trouble such as water leaks, electric shocks, fire.
- **Do not repair by yourself. And consult with the dealer about repair.**
  Improper repair may cause water leakage, electric shock or fire.
- **Consult the dealer or a specialist about removal of the air-conditioner.**
  Improper installation may cause water leakage, electric shock or fire.
- **Turn off the power source during servicing or inspection work.**
  If the power is supplied during servicing or inspection work, it could cause electric shock and injury by the operating fan.
- **Do not run the unit when the panel or protection guard are taken off.**
  Touching the rotating equipment, hot surface, or high voltage section could cause an injury to be caught in the machine, to get burned, or electric shock.
- **Shut off the power before electrical wiring work.**
  It could cause electric shock, unit failure and improper running.

⚠ CAUTION

● **Perform earth wiring surely.**
Do not connect the earth wiring to the gas pipe, water pipe, lightning rod and telephone earth wiring. Improper earth could cause unit failure and electric shock due to a short circuit.

● **Earth leakage breaker must be installed.**
If the earth leakage breaker is not installed, it can cause electric shocks.

● **Use the circuit breaker of correct capacity. Circuit breaker should be the one that disconnect all poles under over current.**
Using the incorrect one could cause the system failure and fire.

● **Do not use any materials other than a fuse of correct capacity where a fuse should be used.**
Connecting the circuit by wire or copper wire could cause unit failure and fire.

● **Do not install the indoor unit near the location where there is possibility of flammable gas leakages.**
If the gas leaks and gathers around the unit, it could cause fire.

● **Do not install and use the unit where corrosive gas (such as sulfurous acid gas etc.) or flammable gas (such as thinner, petroleum etc.) may be generated or accumulated, or volatile flammable substances are handled.**
It could cause the corrosion of heat exchanger, breakage of plastic parts etc. And inflammable gas could cause fire.

● **Secure a space for installation, inspection and maintenance specified in the manual.**
Insufficient space can result in accident such as personal injury due to falling from the installation place.

● **Do not use the indoor unit at the place where water splashes such as laundry.**
Indoor unit is not waterproof. It could cause electric shock and fire.

● **Do not use the indoor unit for a special purpose such as food storage, cooling for precision instrument, preservation of animals, plants, and a work of art.**
It could cause the damage of the items.

● **Do not install nor use the system near equipments which generate electromagnetic wave or high harmonics.**
Equipments like inverter equipment, private power generator, high-frequency medical equipment, or telecommunication equipment might influence the air conditioner and cause a malfunction and breakdown. Or the air conditioner might influence medical equipments or telecommunication equipments, and obstruct their medical activity or cause jamming.

● **Do not install the remote control at the direct sunlight.**
It could cause breakdown or deformation of the remote control.

● **Do not install the indoor unit at the place listed below.**
- Places where flammable gas could leak.
- Places where carbon fiber, metal powder or any powder is floated.
- Place where the substances which affect the air conditioner are generated such as sulfide gas, chloride gas, acid, alkali or ammonic atmospheres.
- Places exposed to oil mist or steam directly.
- On vehicles and ships.
- Places where machinery which generates high harmonics is used.
- Places where cosmetics or special sprays are frequently used.
- Highly salted area such as beach.
- Heavy snow area.
- Places where the system is affected by smoke from a chimney.
- Altitude over 1000m.

● **Do not install the indoor unit in the locations listed below (Be sure to install the indoor unit according to the installation manual for each model because each indoor unit has each limitation)**
- Locations with any obstacles which can prevent inlet and outlet air of the unit
- Locations where vibration can be amplified due to insufficient strength of structure.
- Locations where the infrared receiver is exposed to the direct sunlight or the strong light beam. (in case of the infrared specification unit)
- Locations where an equipment affected by high harmonics is placed. (TV set or radio receiver is placed within 5m)
- Locations where drainage cannot run off safely.

It can affect performance or function and etc.

Do not install the motion sensor mounting panel at following places. It could cause detection error, incapacity of detection, or characteristic degradation.
- Place where vibration is applied to it for a long period of time.
- Place where static electricity or electromagnetic wave generates.
- Place where it is exposed to high temperature or humidity for a long period of time.
- Dusty place or where the lens face could be fouled or damaged.

● **Do not put any valuables which will break down by getting wet under the air-conditioner.**
Condensation could drop when the relative humidity is higher than 80% or drain pipe is clogged, and it damages user's belongings.

● **Do not use the base frame for the outdoor unit which is corroded or damaged after a long period of use.**
It could cause the unit falling down and injury.

● **Pay attention not to damage the drain pan by weld sputter when brazing work is done near the unit.**
If sputter entered into the unit during brazing work, it could cause damage (pinhole) of drain pan and leakage of water. To avoid damaging, keep the indoor unit packed or cover the indoor unit.

● **Install the drain pipe to drain the water surely according to the installation manual.**
Improper connection of the drain pipe may cause dropping water into room and damaging user's belongings.

● **Do not share the drain pipe for indoor unit and GHP (Gas Heat Pump system) outdoor unit.**
Toxic exhaust gas would flow into room and it might cause serious damage (some poisoning or deficiency of oxygen) to user's health and safety.

● **Be sure to perform air tightness test by pressurizing with nitrogen gas after completed refrigerant piping work.**
If the density of refrigerant exceeds the limit in the event of refrigerant leakage in the small room, lack of oxygen can occur, which can cause serious accidents.

● **For drain pipe installation, be sure to make descending slope of greater than 1/100, not to make traps, and not to make air-bleeding.**
Check if the drainage is correctly done during commissioning and ensure the space for inspection and maintenance.

● **Ensure the insulation on the pipes for refrigeration circuit so as not to condense water.**
Incomplete insulation could cause condensation and it would wet ceiling, floor, and any other valuables.

● **Do not install the outdoor unit where is likely to be a nest for insects and small animals.**
Insects and small animals could come into the electronic components and cause breakdown and fire.
Instruct the user to keep the surroundings clean.

● **Pay extra attention, carrying the unit by hand.**
Carry the unit with 2 people if it is heavier than 20kg. Do not use the plastic straps but the grabbing place, moving the unit by hand.
Use protective gloves in order to avoid injury by the aluminum fin.

● **Make sure to dispose of the packaging material.**
Leaving the materials may cause injury as metals like nail and woods are used in the package.

● **Do not operate the system without the air filter.**
It may cause the breakdown of the system due to clogging of the heat exchanger.

● **Do not touch any button with wet hands.**
It could cause electric shock.

● **Do not touch the refrigerant piping with bare hands when in operation.**
The pipe during operation would become very hot or cold according to the operating condition, and it could cause a burn or frostbite.

● **Do not clean up the air-conditioner with water.**
It could cause electric shock.

● **Do not turn off the power source immediately after stopping the operation.**
Be sure to wait for more than 5 minutes. Otherwise it could cause water leakage or breakdown.

● **Do not control the operation with the circuit breaker.**
It could cause fire or water leakage. In addition, the fan may start operation unexpectedly and it may cause injury.

① Before installation

● Install the unit correctly according to this installation manual.
● Check the following items:
○ Unit type/Power source specification ○ Piping/Wiring/Small parts ○ Accessory

Accessory

For unit suspension		For refrigerant pipe			For drain pipe			
Flat washer (M10)	Level gauge	Pipe cover (Large)	Pipe cover (Small)	Strap	Pipe cover (Large)	Pipe cover (Small)	Drain hose	Hose clamp
								
8 pc	1 pc	1 pc	1 pc	4 pc	1 pc	1 pc	1 pc	1 pc
For unit suspension	For adjustment of unit suspension	For heat insulation of gas pipe	For heat insulation of liquid pipe	For pipe cover fixing	For heat insulation of drain socket	For heat insulation of drain socket	For drain pipe connecting	For drain hose mounting

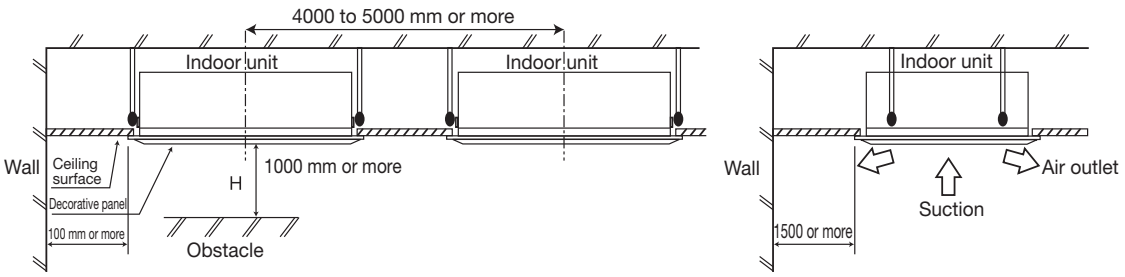
② Selection of installation location for the indoor unit

① Select the suitable areas to install the unit under approval of the user.
- Areas where the indoor unit can deliver hot and cold wind sufficiently. Suggest to the user to use a circulator if the ceiling height is over 3m to avoid warm air being accumulated on the ceiling.
- In case of the panel having the motion sensor, the installation height must be no higher than 4 m. It could reduce the sensitivity of motion sensor, disabling the detection.
- Areas where there is enough space to install and do maintenace.
- Areas where it can be drained properly. Areas where drain pipe descending slope can be taken.
- Areas where there is no obstruction of airflow on both air return grille and air supply port.
- Areas where fire alarm will not be accidentally activated by the air-conditioner.
- Areas where the supply air does not short-circuit.
- Areas where it is not influenced by draft air.
- Areas not exposed to direct sunlight.
- Areas where dew point is lower than around 28°C and relative humidity is lower than 80%.
  This indoor unit is tested under the condition of JIS (Japan Industrial Standard) high humidity condition and confirmed there is no problem. However, there is some risk of condensation drop if the air-conditioner is operated under the severer condition than mentioned above. If there is a possibility to use it under such a condition, attach additional insulation of 10 to 20mm thick for entire surface of indoor unit, refrigeration pipe and drain pipe.
- Areas where TV and radio stays away more than 1m. (It could cause jamming and noise.)
- Areas where any items which will be damaged by getting wet are not placed such as food, table ware, server, or medical equipment under the unit.
- Areas where there is no influence by the heat which cookware generates.
- Areas where not exposed to oil mist, powder and/or steam directly such as above fryer.
- Areas where lighting device such as fluorescent light or incandescent light doesn't affect the operation.
  (A beam from lighting device sometimes affects the infrared receiver for the wireless remote control and the air-conditioner might not work properly.)

② Check if the place where the air-conditioner is installed is strong enough to support the weight of the unit. If it is not strong enough to support, reinforce the structure with boards, beams and soon. If the strength is not enough, the unit may fall and it could injure someone.
③ If there are 2 units using wireless remote control, keep them away for more than 6m to avoid malfunction due to cross communication.
④ When plural indoor units are installed nearby, keep them away for more than 4 to 5m.

Space for installation and maintenance

● **Install the unit at 2.5 m or higher.**



③ Preparation before installation

● If suspension bolt becomes longer, do reinforcement of earthquake resistant.
○ For grid ceiling
When suspension bolt length is over 500mm, or the gap between the ceiling and roof is over 700mm, apply earthquake resistant brace to the bolt.
○ In case the unit is hanged directly from the slab and is installed on the ceiling plane which has enough strength.
When suspension bolt length is over 1000mm, apply the earthquake resistant brace to the bolt.
● Prepare four (4) sets of suspension bolt, nut and spring washer (M10 or M8) on site.

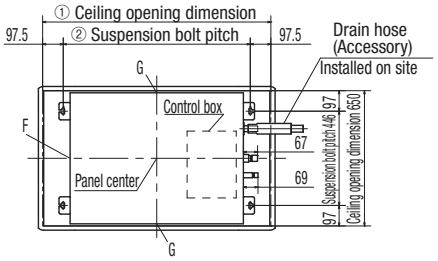
③ Preparation before installation - Continued

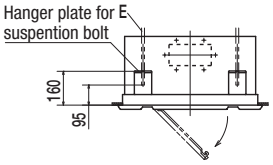
Ceiling opening, suspension bolt pitch and pipe position

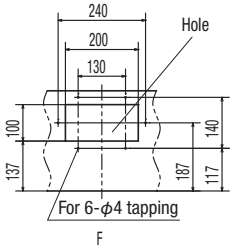
(mm)

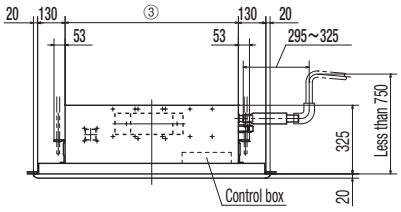
Symbol	Description	Symbol	Description
A	Gas piping	E	Suspension bolt
B	Liquid piping	F	Outside air opening for ducting
C	Drain piping	G	Air outlet opening for ducting
D	Hole for wiring		

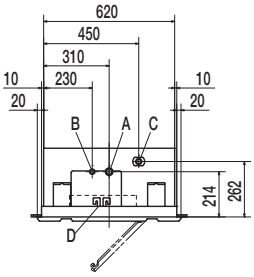
Series	Type	①	②	③	④	⑤
VRF (KX) Series	28 to 71 type	1080	885	820	200	240
	90 to 140 type	1795	1600	1535	440	480

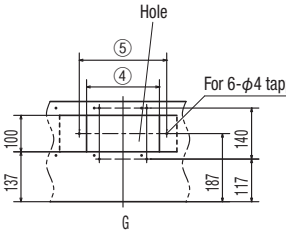








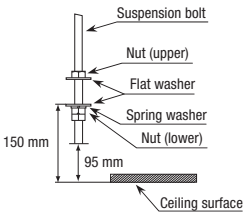


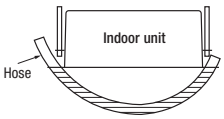


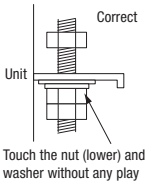
④ Installation of indoor unit

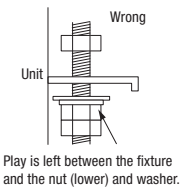
Work procedure

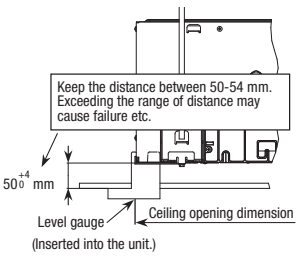
1. Prepare a hole of specified size on the ceiling.
2. Install suspension bolts at specified positions.
3. Make sure to use four suspension bolts.
4. Ensure that the lower end of the suspension bolt should be 95mm above the ceiling plane. Temporarily put the four lower nuts 150mm above the ceiling plane and the upper nuts on distant place from the lower nuts in order not to obstruct hanging the indoor unit or adjust the indoor unit position, and then hang the indoor unit.
5. Adjust the indoor unit position after hanging it by inserting the level gauge attached on the package into the air supply port and checking if the gap between the ceiling plane and the indoor unit is appropriate. In order to adjust the indoor unit position, adjust the lower nuts while the upper nuts are put on distant place. Confirm there is no backlash between the hanger plate for suspension bolt and the lower nut and washer.
6. Make sure to install the indoor unit horizontally. Confirm the levelness of the indoor unit with a level gauge or transparent hose filled with water. Keep the height difference at both ends of the indoor unit within 3mm.
7. Tighten four upper nuts and fix the unit after height and levelness adjustment.











④ Installation of indoor unit - Continued

Caution

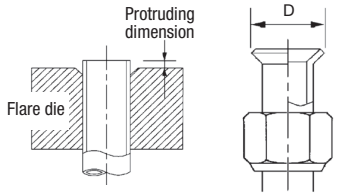
- Do not adjust the height by adjusting upper nuts. It will cause unexpected stress on the indoor unit and it will lead to deformation of the unit, failure of attaching a panel, and generating noise from the fan.
- Make sure to install the indoor unit horizontally and set the gap between the unit underside and the ceiling plane properly. Improper installation may cause air leakage, dew condensation, water leakage and noise.
- Make sure there is no gap between decoration panel and ceiling surface, and between decoration panel and the indoor unit. The gap may cause air leakage, dew condensation and water leakage.

⑤ Refrigerant pipe

Caution

- **Be sure to use new pipes for the refrigerant pipes. Use the flare nut attached to the product.**
  Regarding whether existing pipes can be reused or not, and the washing method, refer to the instruction manual of the outdoor unit, catalogue or technical data.
  1) In case of reuse: Do not use old flare nut, but use the nut attached to the unit.
  2) In case of reuse: Flare the end of pipe replaced partially for R32 or R410A.

⚠WARNING : When flared joints are reused indoors, the flare part shall be re-fabricated. (only for R32)

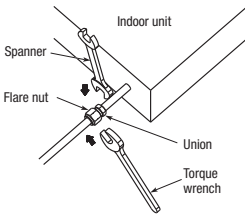


Pipe dia. d mm	Min. pipe wall thickness mm	Protruding dimension for flare, mm		Flare O.D. D mm	Flare nut tightening torque N·m
		Rigid (Clutch type)			
		For R32 For R410A	Conventional tool		
6.35	0.8	0-0.5	0.7-1.3	8.9-9.1	14-18
9.52	0.8			12.8-13.2	34-42
12.7	0.8			16.2-16.6	49-61
15.88	1			19.3-19.7	68-82
19.05	1.2			23.6-24.0	100-120

- Use phosphorus deoxidized copper alloy seamless pipe (C1220T) for refrigeration pipe installation. In addition, make sure there is no damage both inside and outside of the pipe, and no harmful substances such as sulfur, oxide, dust or a contaminant stuck on the pipes.
- Do not use any refrigerant other than the designated refrigerant.
  Using other refrigerant except the designated refrigerant, may degrade inside refrigeration oil. And air getting into refrigeration circuit may cause over-pressure and resultant it may result in bursting, etc.
- Store the copper pipes indoors and seal the both end of them until they are brazed in order to avoid any dust, dirt or water getting into pipe. Otherwise it will cause degradation of refrigeration oil and compressor breakdown, etc.
- Use special tools for R32 or R410A refrigerant.

Work procedure

1. Remove the flare nut and blind flanges on the pipe of the indoor unit.
   ※ Make sure to loosen the flare nut with holding the nut on pipe side with a spanner and giving torque to the nut with another spanner in order to avoid unexpected stress to the copper pipe, and then remove them.
   (Gas may come out at this time, but it is not abnormal.)
   - Pay attention whether the flare nut pops out. (as the indoor unit is sometimes pressured.)
2. Make a flare on liquid pipe and gas pipe, and connect the refrigeration pipes on the indoor unit.
   ※ Bend radius of pipe must be 4D or larger. Once a pipe is bent, do not readjust the bending.
   Do not twist a pipe or collapse to 2/3D or smaller.
   - Make sure to use flare nuts assembled on the unions. Usage of other flare nuts could cause refrigerant leakage.
   ※ Do a flare connection as follows:
   - Make sure to hold the nut on indoor unit pipe side using double spanner method as indicated when fastening / loosening flare nuts in order to prevent unintentional twisting of the copper pipe.
   - When fastening the flare nut, align the refrigeration pipe with the center of flare nut, screw the nut for 3-4 times by hand and then tighten it by spanner with the specified torque mentioned in the table above.



3. Cover the flare connection part of the indoor unit with attached insulation material after a gas leakage inspection, and tighten both ends with attached straps.
   - Make sure to insulate both gas pipes and liquid pipes completely.
     ※ Incomplete insulation may cause dew condensation or water dropping.
   - Use heat-resistant (120 °C or more) insulations on the gas side pipes.
   - In case of using at high humidity condition, reinforce insulation of refrigerant pipes.
     Surface of insulation may cause dew condition or water dropping, if insulations are not reinfoced.
4. Refrigerant is charged in the outdoor unit.
   As for the additional refrigerant charge for the indoor unit and piping, refer to the installation manual attached to the outdoor unit.

Caution:
Refrigerating machine oil should not be applied to the threads of union or external surface of flare. It is because, even if the same tightening torque is applied, the oil is likely to decrease the slide friction force on the threads and increase, in turn, the axial component force so that it could crack the flare by the stress corrosion.
Refrigerating machine oil may be applied to the internal surface of flare only.

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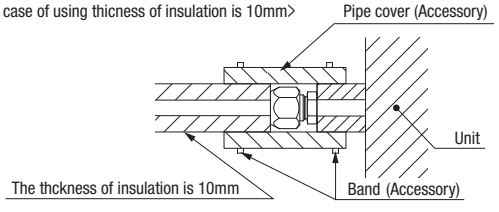
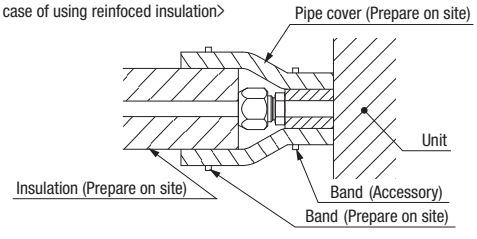


<The case of using reinfoced insulation>



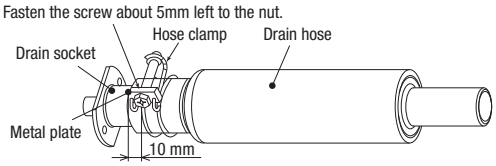
⑥ Drain pipe

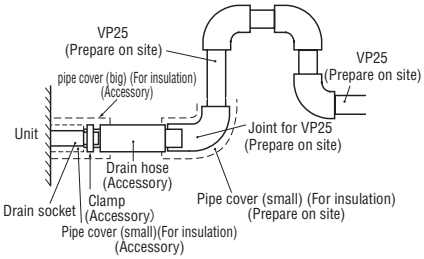
Caution

- **Install the drain pipe according to the installation manual in order to drain properly.**
  Imperfection in draining may cause flood indoors and wetting the household goods,etc.
- **Do not put the drain pipe directly into the ditch where toxic gas such as sulfur, the other harmful and inflammable gas is generated.**
  Toxic gas would flow into the room and it would cause serious damage to user's health and safety (some poisoning or deficiency of oxygen). In addition, it may cause corrosion of heat exchanger and bad smell.
- **Connect the pipe securely to avoid water leakage from the joint.**
- **Insulate the pipe properly to avoid condensation drop.**
- **Check if the water can flow out properly from both the drain outlet on the indoor unit and the end of the drain pipe after installation.**
- **Make sure to make descending slope of greater than 1/100 and do not make up-down bend and/or trap in the midway. In addition, do not put air vent on the drain pipe.**
  Check if water is drained out properly from the pipe during commissioning. Also, keep sufficient space for inspection and maintenance.

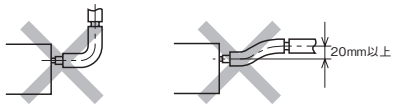
Work procedure

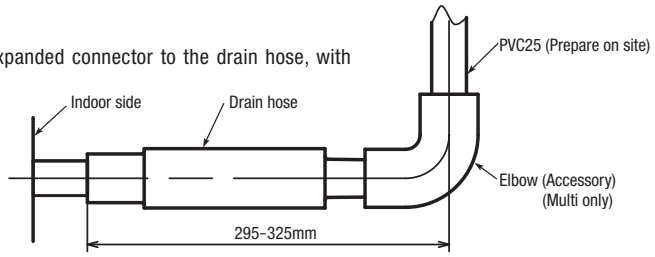
1. Make sure to insert the drain hose (the end mode of soft PVC) to the end of the step part of drain socket.
   Attach the hose clamp to the drain hose around 10mm from the end, and fasten the screw about 5mm left to the nut.
   - **Do not apply adhesives on this end.**



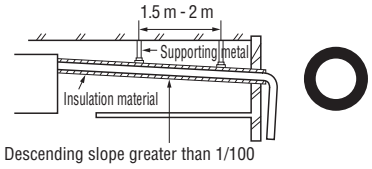


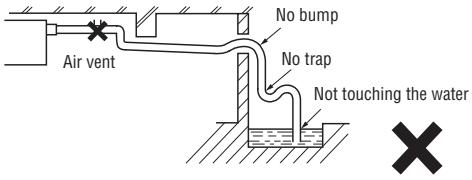
2. Prepare a joint for connecting VP25 pipe, adhere and connect the joint to the drain hose (the end made of rigid PVC), and adhere and connect VP25 pipe (prepare on site).
   ※ As for drain pipe, apply VP25 made of rigid PVC which is on the market.
   - **Make sure that the adhesive will not get into the supplied drain hose.**
     It may cause the flexible part broken after the adhesive is dried up and gets rigid.
   - The flexible drain hose is intended to absorb a small difference at installation of the unit or drain pipes. Intentional bending, expanding may cause the flexible hose broken and water leakage.
   - As for drain pipe, apply VP25 (OD32).
     If apply PVC25 (OD25), connect the expanded connector to the drain hose, with adhesive. (Multi unit only)

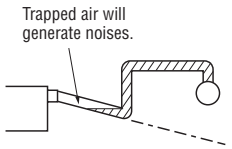




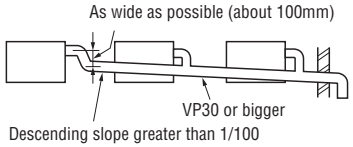
3. Make sure to make descending slope of greater than 1/100 and do not make up-down bend and/or trap in the midway.
   - Pay attention not to give stress on the pipe on the indoor unit side, and support and fix the pipe as close place to the unit as possible when connecting the drain pipe.
   - Do nt set up air vent.







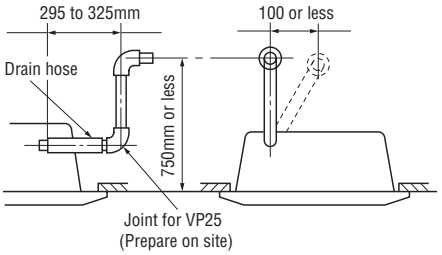
   - When sharing a drain pipe for more than one unit, lay the main pipe 100mm below the drain outlet of the unit. In addition, select VP30 or bigger size for main drain pipe.



4. Insulate the drain pipe.
   - Be sure to insulate the drain socket and rigid PVC pipe installed indoors otherwise it may cause dew condensation and water leakage.
     ※ After drainage test implementation, cover the drain socket part with pipe cover (small size), then use the pipe cover (big size) to cover the pipe cover (small size), clamps and part of the drain hose, and fix and wrap it with tapes to wrap and make joint part gapless.

⑥ Drain pipe connection – Continued

Drain up



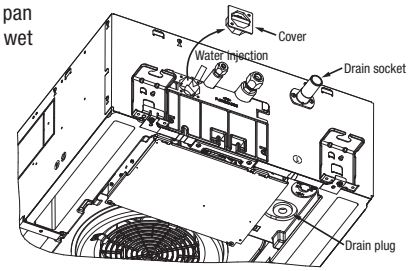
- The position for drain pipe outlet can be raised up to 700mm above the ceiling. Use elbows for installation to avoid obstacles inside ceiling. If the horizontal drain pipe is too long before vertical pipe, the backflow of water will increase when the unit is stopped, and it may cause overflow of water from the drain pan in the indoor unit. In order to avoid overflow, keep the horizontal pipe length and offset of the pipe within the limit shown in the figure on the right.

Drain test

- After installation of drain pipe, make sure that drain system works in good condition and there is no water leakage from joint and drain pan. Check if the motor sound of drain pump is normal or not.
- Do drain test even if installation of heating season.
- For new building cases, make sure to complete the test before hanging the ceiling.

Work procedure

1. Remove the cover from the piping lid (2 screws), inject water of approx. 1,000 cc into the drain pan of main unit using a water pump, or other, from the section shown in the figure with care not to wet electrical parts.
2. Confirm that water is drained properly and that no water leaks from drain pipe joints.
   Test the draining while hearing the operating sound of drain motor.
   Draining can be seen through the drain socket (transparent).
3. When the drain test is over, remove the drain plug and drain water.
   After checking the draining, reinstall the drain plug.



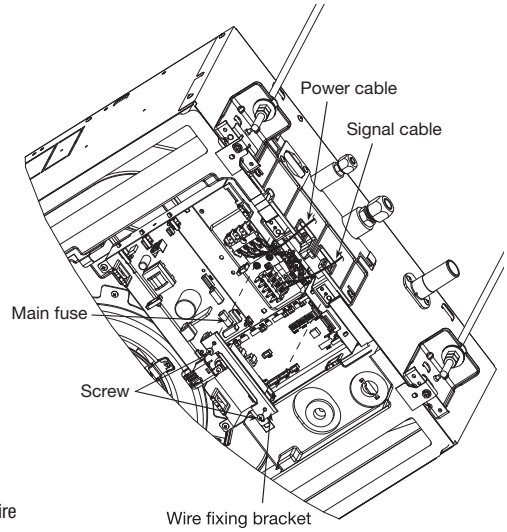
Drain pump operation

○ In case electrical wiring work finished
Drain pump can be operated by remote control (wired).
For the operation method, refer to Operation for drain pump in the installation manual for wiring work.

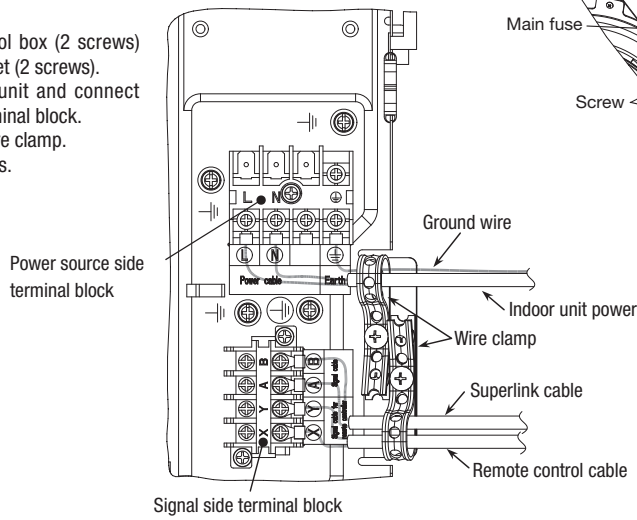
○ In case electrical wiring work not finished
Drain pump will run continuously when the DIP switch"SW7-1" on the indoor unit PCB is turned ON, the Connector CNB is disconnected, and then the power source (230VAC on the terminal block ① and ②) is turned ON.
Make sure to turn OFF "SW7-1" and reconnect the Connector CNB after the test.

⑦ Wiring-out position and wiring connection

- Electrical installation work must be performed according to the installation manual by an electrical installation service provider qualified by a power provider of the country, and be executed according to the technical standards and other regulations applicable to electrical installation in the country.
  Be sure to use an exclusive circuit.
- Use specified cord, fasten the wiring to the terminal firmly, and hold the cord securely in order not to apply unexpected stress on the terminal.
- Do not put both power source line and signal line on the same route. It may cause miscommunication and malfunction.
- Be sure to do D type earth work.
- For the details of electrical wiring work, see attached instruction manual for electrical wiring work.



1. Remove the lid of control box (2 screws) and the wire fixing bracket (2 screws).
2. Introduce wires in the unit and connect them securely to the terminal block.
3. Fix each wire with the wire clamp.
4. Reinstall all removed parts.



Main fuse specification

Specification	Part No.
T5A L250V	SSA564A149H

⑧ Panel installation

● Attach the panel on the indoor unit after electrical wiring work.
● Refer to attached manual for panel installation for details.

⑨ Check list after installation

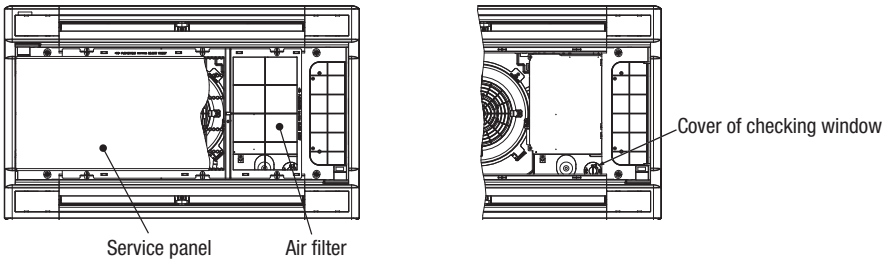
● Check the following items after all installation work completed.

Check if;	Expected trouble	Check
The indoor and outdoor units are fixed securely?	Falling, vibration, noise	
Inspection for leakage is done?	Insufficient capacity	
Insulation work is properly done?	Water leakage	
Water is drained properly?	Water leakage	
Power source voltage is same as mentioned in the model name plate?	PCB burnt out, not working at all	
There is mis-wiring or mis-connection of piping?	PCB burnt out, not working at all	
Earth wiring is connected properly?	Electric shock	
Cable size comply with specified size?	PCB burnt out, not working at all	
Any obstacle blocks airflow on air inlet and outlet?	Insufficient capacity	

⑩ How to check the dirt of drain pan (Maintenance)

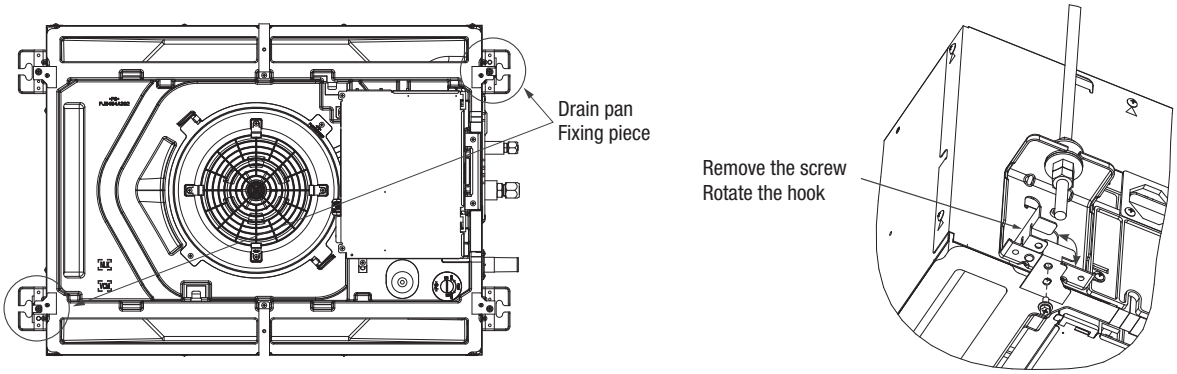
The method of checking the dirt of drain pan

● It is possible to check the dirt for inlet of drain pan without detaching the panel.
1. Remove the service panel and the air filter.
2. Remove the inspection hole cover located at the corner of drain pan.
3. Observe the condition of drain pan through the inspection hole.
   When the drain pan is fouled heavily, remove it and clean.
4. Reinstall the inspection hole cover securely after the check. Unless it is fitted properly, it could cause dewing or water leakage.



Attention for removing drain pan

● The fixing components have been attached the with drain pan. Pay attention to these components during installation and removing. Take off the hanging hook after removing four screws. During the installation of drain pan, fix the drain pan firmly by using four screws after hanging it up with the fixing hook.



PANEL INSTALLATION MANUAL

PJB012D300A A

Read this manual together with the indoor unit's installation manual.

SAFETY PRECAUTIONS

- First of all, read the "SAFETY PRECAUTIONS" carefully and strictly follow the instruction during the installation work in order to protect yourself.
- The precautionary items mentioned below are distinguished into two levels, ⚠WARNING and ⚠CAUTION.
  ⚠WARNING : Wrong installation would cause serious consequences such as injuries or death.
  ⚠CAUTION : Wrong installation might cause serious consequences depending on circumstances.
  Both mentions the important items to protect your health and safety so strictly follow them by any means.
- The meanings of "Marks" used here are as shown on the right:
  ⃠ Never do it under any circumstances. ❗ Always do it according to the instruction.
- After completing the installation, do commissioning to confirm there are no abnormalities, and explain to the customers about "SAFETY PRECAUTIONS", correct operation method and maintenance method (air filter cleaning, operation method and temperature setting method) with user's manual of this unit. Ask your customers to keep this installation manual together with the user's manual. Also, ask them to hand over the user's manual to the new user when the owner is changed.

⚠WARNING

- **Installation should be performed by the specialist.**
  If you install the unit by yourself, it may lead to serious trouble such as water leakage, electric shock, fire, and injury due to overturn of the unit. ❗
- **Install the system correctly according to these installation manuals.**
  Improper installation may cause explosion, injury, water leakage, electric shock, and fire. ❗
- **Use the genuine accessories and the specified parts for installation.**
  If parts unspecified by our company are used it could cause water leakage, electric shock, fire, and injury due to overturn of the unit. ❗
- **Be sure to have the electrical wiring work done by qualified electrical installer, and use exclusive circuit.**
  Power source with insufficient capacity and improper work can cause electric shock and fire. ❗
- **Use specified wire for electrical wiring, fasten the wiring to the terminal securely, and hold the cable securely in order not to apply unexpected stress on the terminal.**
  Loose connections or hold could result in abnormal heat generation or fire. ❗
- **Arrange the electrical wires in the control box properly to prevent them from rising. Fit the lid of the services panel property.**
  Improper fitting may cause abnormal heat and fire. ❗
- **Only use prescribed option parts. The installation must be carried out by the qualified installer.**
  If you install the system by yourself, it can cause serious trouble such as water leaks, electric shocks, fire. ❗
- **Do not repair by yourself. And consult with the dealer about repair.**
  Improper repair may cause water leakage, electric shock or fire. ⃠
- **Turn off the power source during servicing or inspection work.**
  If the power is supplied during servicing or inspection work, it could cause electric shock and injury by the operating fan. ❗
- **Do not run the unit when the panel or protection guard are taken off.**
  Touching the rotating equipment, hot surface, or high voltage section could cause an injury to be caught in the machine, to get burned, or electric shock. ⃠
- **Shut off the power before electrical wiring work.**
  It could cause electric shock, unit failure and improper running. ❗

① Before installation

- Follow installation manual carefully, and install the panel properly.
- Confirm that the item shown at right is contained in the packing.

Accessory

Bolt		6 pieces	For panel installation

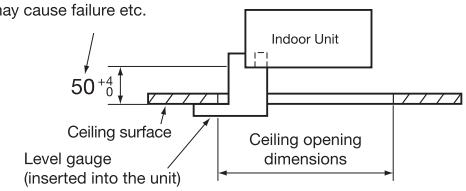
② Checking the indoor unit installation position

- Read this manual together with the air-conditioner installation manual carefully.
- Check if the opening size for the indoor unit is correct with the level gauge supplied in the indoor unit.
- Check if the gap between the ceiling plane and the indoor unit is correct by inserting the level gauge into the air outlet port of the indoor unit. (See below drawing.)
- Adjust the installation elevation if necessary.
- Remove the level gauge before installing the panel.

Caution

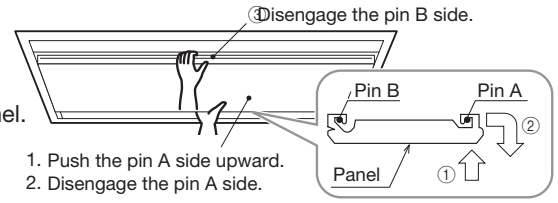
If there is a height difference beyond the design limit between the installation level of the indoor unit and the ceiling surface, the panel may be subject to excessive stress during installation, it may cause distortion and damage.

Keep the distance between 50~54mm.
Exceeding the range of distance may cause failure etc.



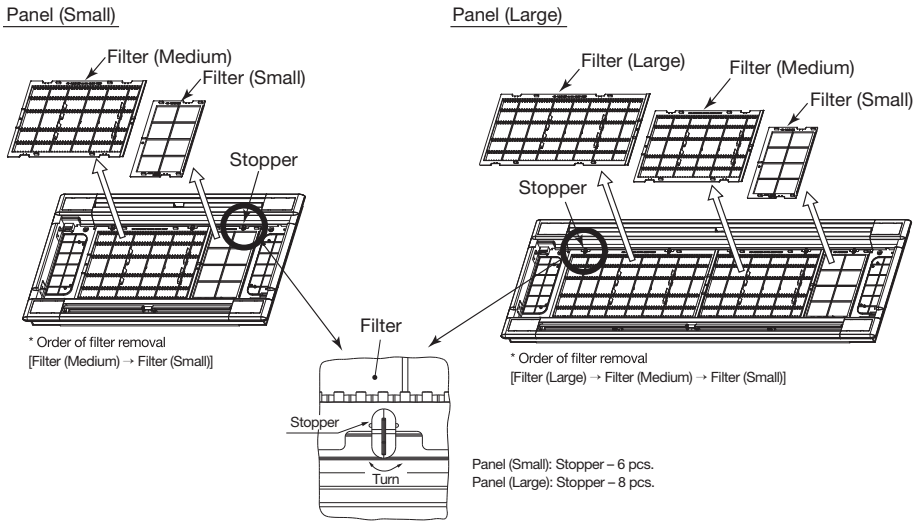
③ Removing the service panel

1. Push one side of the inlet panel (pin A side) upward.
2. Disengage the panel from pin A.
3. Disengage the panel from the pin B and remove the panel.



④ Removing the filters

• To remove a filter, turn the stopper as shown below while holding down the filter.

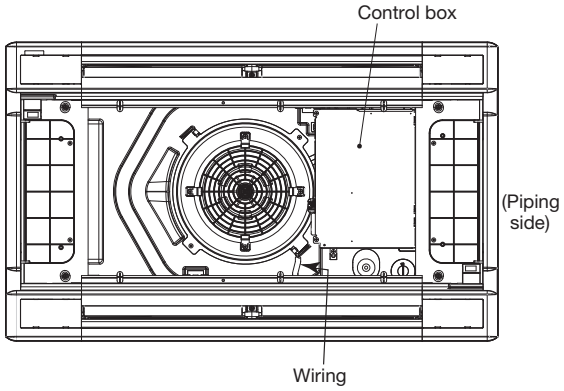


⑤ Orientation to attach the panel

1. Orientation to attach the panel on the unit body is specified.
   • Attach the panel such that the electrical wiring will become closer to the control box as shown at right.

Caution

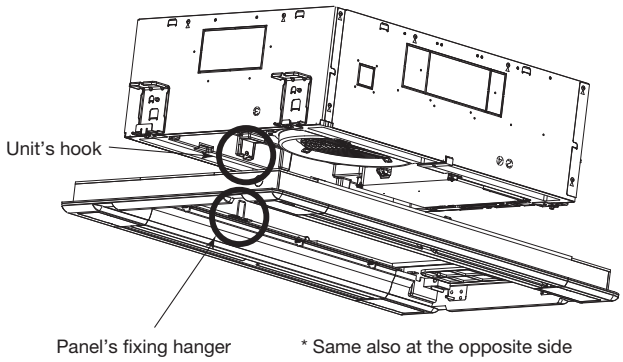
• If the panel is installed in a way other than as shown at right, air could leak because the air filter interferes with the control box,
It will also make impossible to connect electric wires.

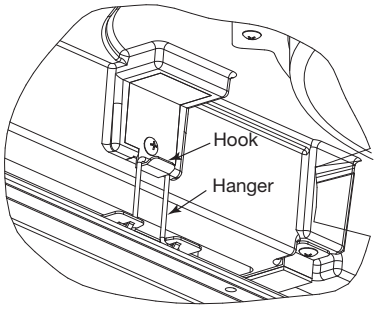


⑥ Attaching the panel

1.Temporary attaching

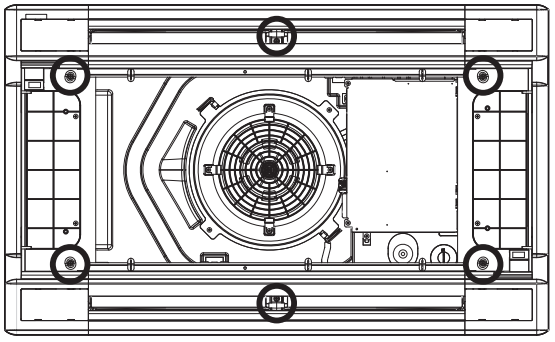
- Lift up the hanger (2 places) on the panel for temporary support.
- Hang the panel on the hook on the indoor unit.





2.Fix the panel on the indoor unit

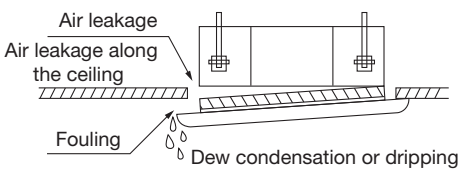
- Fasten the panel on the indoor unit with the four bolts supplied with the panel.



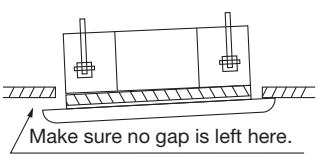
○ : Positions to fix the panel on the unit body

Caution

- Improperly tightened hanging bolts can cause the problems listed below, so make sure that you have tightened them securely.

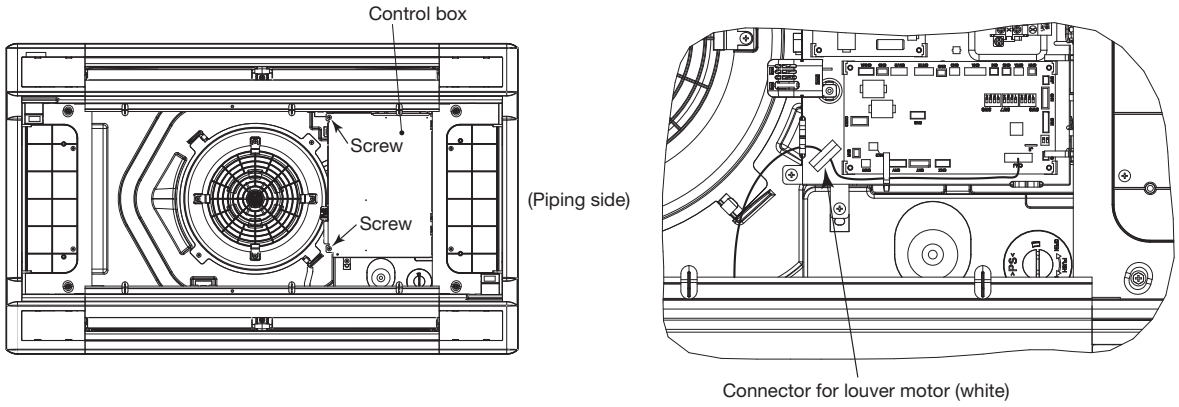


- If there is a gap remaining between the ceiling and the decorative panel even after the hanging bolts are tightened, adjust the installation level of the indoor unit again.



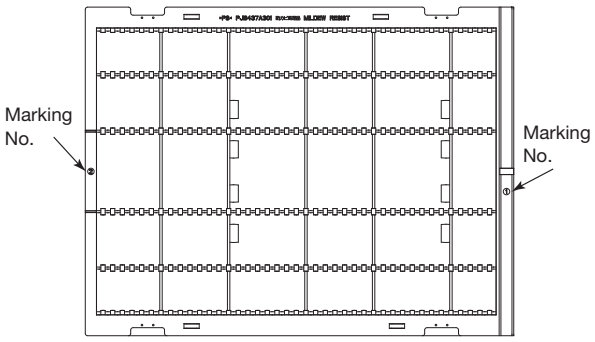
⑦ Electrical wiring

1. After removing two screws of control box, detach the cover of control box.
2. Connect the connector for louver motor (white 20P).
   • Hold the connector inside the control box.
3. Attach the cover of control box.



⑧ Installing the filter

1. Orientation is specified for installing the filters.
2. Install the filters in the reverse order of ④ Removing the filter.
3. Install each filter according to the No. marked on it.



⑨ Installing the service panel

1. Orientation is not specified to install the panel and the service panel.
2. Install the service panel in the reverse order of ③ Removing the service panel.

(4) Ceiling cassette-1 way type (FDTS)

PJC012D312

This manual is for the installation of an indoor unit.
For electrical wiring work of indoor unit, refer to page 238. For wired remote control installation, refer to page 242. For wireless kit installation, refer to page 350.
For electrical wiring work of outdoor unit and refrigerant pipe work installation for outdoor unit, refer to the installation manual attached to an outdoor unit.
For motion sensor kit installation, refer to page 397. This unit must be always used with the panel.

SAFETY PRECAUTIONS

- First of all, read the "SAFETY PRECAUTIONS" carefully and strictly follow the instruction during the installation work in order to protect yourself.
- The precautionary items mentioned below are distinguished into two levels, ⚠WARNING and ⚠CAUTION .
  ⚠WARNING : Wrong installation would cause serious consequences such as injuries or death.
  ⚠CAUTION : Wrong installation might cause serious consequences depending on circumstances.
  Both mentions the important items to protect your health and safety so strictly follow them by any means.
- The meanings of "Marks" used here are as shown on the right:

⃠	Never do it under any circumstances.	❗⏚	Always do it according to the instruction.

- After completing the installation, do commissioning to confirm there are no abnormalities, and explain to the customers about "SAFETY PRECAUTIONS", correct operation method and maintenance method (air filter cleaning, operation method and temperature setting method) with user's manual of this unit. Ask your customers to keep this installation manual together with the user's manual. Also, ask them to hand over the user's manual to the new user when the owner is changed.

⚠ WARNING

- **Installation should be performed by the specialist.**
  If you install the unit by yourself, it may lead to serious trouble such as water leakage, electric shock, fire, and injury due to overturn of the unit.
- **Install the system correctly according to these installation manuals.**
  Improper installation may cause explosion, injury, water leakage, electric shock, and fire.
- **Check the density refered by the foumula (accordance with ISO5149).**
  If the density exceeds the limit density, please consult the dealer and installate the ventilation system.
- **Use the genuine accessories and the specified parts for installation.**
  If parts unspecified by our company are used it could cause water leakage, electric shock, fire, and injury due to overturn of the unit.
- **Ventilate the working area well in case the refrigerant leaks during installation.**
  If the refrigerant contacts the fire, toxic gas is produced.
  In case of R32, the refrigerant could be ignited because of its flammability.
- **Install the unit in a location that can hold heavy weight.**
  Improper installation may cause the unit to fall leading to accidents.
- **Install the unit properly in order to be able to withstand strong winds such as typhoons, and earthquakes.**
  Improper installation may cause the unit to fall leading to accidents.
- **Do not mix air in to the cooling cycle on installation or removal of the air conditioner.**
  If air is mixed in, the pressure in the cooling cycle will rise abnormally and may cause explosion and injuries.
- **Be sure to have the electrical wiring work done by qualified electrical installer, and use exclusive circuit.**
  Power source with insufficient capacity and improper work can cause electric shock and fire.
- **Use specified wire for electrical wiring, fasten the wiring to the terminal securely, and hold the cable securely in order not to apply unexpected stress on the terminal.**
  Loose connections or hold could result in abnormal heat generation or fire.
- **Arrange the electrical wires in the control box properly to prevent them from rising. Fit the lid of the services panel property.**
  Improper fitting may cause abnormal heat and fire.
- **Check for refrigerant gas leakage after installation is completed.**
  If the refrigerant gas leaks into the house and comes in contact with a fan heater, a stove, or an oven, toxic gas is produced.
- **Use the specified pipe, flare nut, and tools for R32 or R410A.**
  Using existing parts (R22) could cause the unit failure and serious accident due to explosion of the cooling cycle.
- **Tighten the flare nut according to the specified method by with torque wrench.**
  If the flare nut were tightened with excess torque, it could cause burst and refrigerant leakage after a long period.
- **Do not put the drainage pipe directly into drainage channels where poisonous gases such as sulfide gas can occur.**
  Poisonous gases will flow into the room through drainage pipe and seriously affect the user's health and safety. This can also cause the corrosion of the indoor unit and a resultant unit failure or refrigerant leak.
- **Connect the pipes for refrigeration circuit securely in installation work before compressor is operated.**
  If the compressor is operated when the service valve is open without connecting the pipe, it could cause explosion and injuries due to abnormal high pressure in the system.
- **Stop the compressor before removing the pipe after shutting the service valve on pump down work.**
  If the pipe is removed when the compressor is in operation with the service valve open, air would be mixed in the refrigeration circuit and it could cause explosion and injuries due to abnormal high pressure in the cooling cycle.
- **Only use prescribed option parts. The installation must be carried out by the qualified installer.**
  If you install the system by yourself, it can cause serious trouble such as water leaks, electric shocks, fire.
- **Do not repair by yourself. And consult with the dealer about repair.**
  Improper repair may cause water leakage, electric shock or fire.
- **Consult the dealer or a specialist about removal of the air-conditioner.**
  Improper installation may cause water leakage, electric shock or fire.
- **Turn off the power source during servicing or inspection work.**
  If the power is supplied during servicing or inspection work, it could cause electric shock and injury by the operating fan.
- **Do not run the unit when the panel or protection guard are taken off.**
  Touching the rotating equipment, hot surface, or high voltage section could cause an injury to be caught in the machine, to get burned, or electric shock.
- **Shut off the power before electrical wiring work.**
  It could cause electric shock, unit failure and improper running.

⚠ CAUTION

- **Perform earth wiring surely.**
  Do not connect the earth wiring to the gas pipe, water pipe, lightning rod and telephone earth wiring. Improper earth could cause unit failure and electric shock due to a short circuit.
- **Earth leakage breaker must be installed.**
  If the earth leakage breaker is not installed, it can cause electric shocks.
- **Use the circuit breaker of correct capacity. Circuit breaker should be the one that disconnect all poles under over current.**
  Using the incorrect one could cause the system failure and fire.
- **Do not use any materials other than a fuse of correct capacity where a fuse should be used.**
  Connecting the circuit by wire or copper wire could cause unit failure and fire.
- **Do not install the indoor unit near the location where there is possibility of flammable gas leakages.**
  If the gas leaks and gathers around the unit, it could cause fire.
- **Do not install and use the unit where corrosive gas (such as sulfurous acid gas etc.) or flammable gas (such as thinner, petroleum etc.) may be generated or accumulated, or volatile flammable substances are handled.**
  It could cause the corrosion of heat exchanger, breakage of plastic parts etc. And inflammable gas could cause fire.
- **Secure a space for installation, inspection and maintenance specified in the manual.**
  Insufficient space can result in accident such as personal injury due to falling from the installation place.
- **Do not use the indoor unit at the place where water splashes such as laundry.**
  Indoor unit is not waterproof. It could cause electric shock and fire.
- **Do not use the indoor unit for a special purpose such as food storage, cooling for precision instrument, preservation of animals, plants, and a work of art.**
  It could cause the damage of the items.
- **Do not install nor use the system near equipments which generate electromagnetic wave or high harmonics.**
  Equipments like inverter equipment, private power generator, high-frequency medical equipment, or telecommunication equipment might influence the air conditioner and cause a malfunction and breakdown. Or the air conditioner might influence medical equipments or telecommunication equipments, and obstruct their medical activity or cause jamming.
- **Do not install the remote control at the direct sunlight.**
  It could cause breakdown or deformation of the remote control.
- **Do not install the indoor unit at the place listed below.**
  - Places where flammable gas could leak.
  - Places where carbon fiber, metal powder or any powder is floated.
  - Place where the substances which affect the air conditioner are generated such as sulfide gas, chloride gas, acid, alkali or ammonic atmospheres.
  - Places exposed to oil mist or steam directly.
  - On vehicles and ships.
  - Places where machinery which generates high harmonics is used.
  - Places where cosmetics or special sprays are frequently used.
  - Highly salted area such as beach.
  - Heavy snow area.
  - Places where the system is affected by smoke from a chimney.
  - Altitude over 1000m.
- **Do not install the indoor unit in the locations listed below (Be sure to install the indoor unit according to the installation manual for each model because each indoor unit has each limitation)**
  - Locations with any obstacles which can prevent inlet and outlet air of the unit
  - Locations where vibration can be amplified due to insufficient strength of structure.
  - Locations where the infrared receiver is exposed to the direct sunlight or the strong light beam. (in case of the infrared specification unit)
  - Locations where an equipment affected by high harmonics is placed. (TV set or radio receiver is placed within 5m)
  - Locations where drainage cannot run off safely.

  It can affect performance or function and etc..

  Do not install the motion sensor mounting panel at following places. It could cause detection error, incapacity of detection, or characteristic degradation.
  - Place where vibration is applied to it for a long period of time.
  - Place where static electricity or electromagnetic wave generates.
  - Place where it is exposed to high temperature or humidity for a long period of time.
  - Dusty place or where the lens face could be fouled or damaged.
- **Do not put any valuables which will break down by getting wet under the air-conditioner.**
  Condensation could drop when the relative humidity is higher than 80% or drain pipe is clogged, and it damages user's belongings.
- **Do not use the base frame for the outdoor unit which is corroded or damaged after a long period of use.**
  It could cause the unit falling down and injury.
- **Pay attention not to damage the drain pan by weld sputter when brazing work is done near the unit.**
  If sputter entered into the unit during brazing work, it could cause damage (pinhole) of drain pan and leakage of water. To avoid damaging, keep the indoor unit packed or cover the indoor unit.
- **Install the drain pipe to drain the water surely according to the installation manual.**
  Improper connection of the drain pipe may cause dropping water into room and damaging user's belongings.
- **Do not share the drain pipe for indoor unit and GHP (Gas Heat Pump system) outdoor unit.**
  Toxic exhaust gas would flow into room and it might cause serious damage (some poisoning or deficiency of oxygen) to user's health and safety.
- **Be sure to perform air tightness test by pressurizing with nitrogen gas after completed refrigerant piping work.**
  If the density of refrigerant exceeds the limit in the event of refrigerant leakage in the small room, lack of oxygen can occur, which can cause serious accidents.
- **For drain pipe installation, be sure to make descending slope of greater than 1/100, not to make traps, and not to make air-bleeding.**
  Check if the drainage is correctly done during commissioning and ensure the space for inspection and maintenance.
- **Ensure the insulation on the pipes for refrigeration circuit so as not to condense water.**
  Incomplete insulation could cause condensation and it would wet ceiling, floor, and any other valuables.
- **Do not install the outdoor unit where is likely to be a nest for insects and small animals.**
  Insects and small animals could come into the electronic components and cause breakdown and fire.
  Instruct the user to keep the surroundings clean.
- **Pay extra attention, carrying the unit by hand.**
  Carry the unit with 2 people if it is heavier than 20kg. Do not use the plastic straps but the grabbing place, moving the unit by hand.
  Use protective gloves in order to avoid injury by the aluminum fin.
- **Make sure to dispose of the packaging material.**
  Leaving the materials may cause injury as metals like nail and woods are used in the package.
- **Do not operate the system without the air filter.**
  It may cause the breakdown of the system due to clogging of the heat exchanger.
- **Do not touch any button with wet hands.**
  It could cause electric shock.
- **Do not touch the refrigerant piping with bare hands when in operation.**
  The pipe during operation would become very hot or cold according to the operating condition, and it could cause a burn or frostbite.
- **Do not clean up the air-conditioner with water.**
  It could cause electric shock.
- **Do not turn off the power source immediately after stopping the operation.**
  Be sure to wait for more than 5 minutes. Otherwise it could cause water leakage or breakdown.
- **Do not control the operation with the circuit breaker.**
  It could cause fire or water leakage. In addition, the fan may start operation unexpectedly and it may cause injury.

① Before installation

● Install the unit correctly according to this installation manual.
● Check the following items:
○ Unit type/Power source specification ○ Piping/Wiring/Small parts ○ Accessory

Accessory

For unit suspension	For refrigerant pipe			For drain pipe			
Flat washer (M10)	Pipe cover (Large)	Pipe cover (Small)	Strap	Pipe cover (Large)	Pipe cover (Small)	Drain hose	Hose clamp
							
8 pc	1 pc	1 pc	4 pc	1 pc	1 pc	1 pc	1 pc
For unit suspension	For heat insulation of gas pipe	For heat insulation of liquid pipe	For pipe cover fixing	For heat insulation of drain socket	For heat insulation of drain socket	For drain pipe connecting	For drain hose mounting

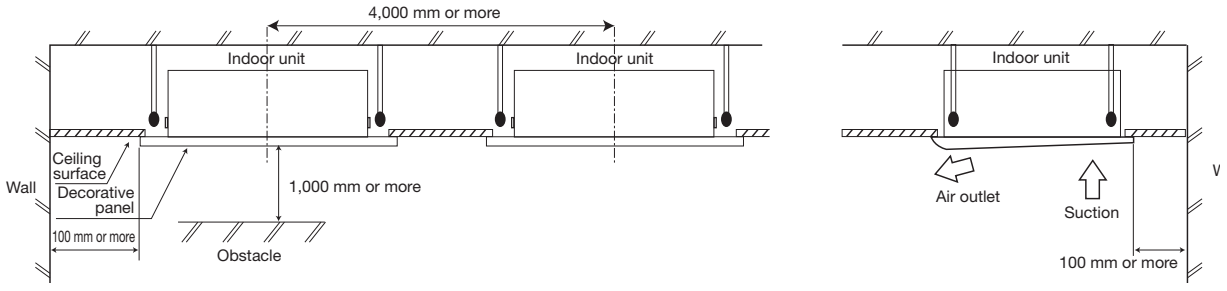
② Selection of installation location for the indoor unit

① Select the suitable areas to install the unit under approval of the user.
- Areas where the indoor unit can deliver hot and cold wind sufficiently. Suggest to the user to use a circulator if the ceiling height is over 3m to avoid warm air being accumulated on the ceiling.
- In case of the panel having the motion sensor, the installation height must be no higher than 4 m. It could reduce the sensitivity of motion sensor, disabling the detection.
- Areas where there is enough space to install and do maintenace.
- Areas where it can be drained properly. Areas where drain pipe descending slope can be taken.
- Areas where there is no obstruction of airflow on both air return grille and air supply port.
- Areas where fire alarm will not be accidentally activated by the air-conditioner.
- Areas where the supply air does not short-circuit.
- Areas where it is not influenced by draft air.
- Areas not exposed to direct sunlight.
- Areas where dew point is lower than around 28°C and relative humidity is lower than 80%.

  This indoor unit is tested under the condition of JIS (Japan Industrial Standard) high humidity condition and confirmed there is no problem. However, there is some risk of condensation drop if the air-conditioner is operated under the severer condition than mentioned above.
  If there is a possibility to use it under such a condition, attach additional insulation of 10 to 20mm thick for entire surface of indoor unit, refrigeration pipe and drain pipe.
- Areas where TV and radio stays away more than 1m. (It could cause jamming and noise.)
- Areas where any items which will be damaged by getting wet are not placed such as food, table ware, server, or medical equipment under the unit.
- Areas where there is no influence by the heat which cookware generates.
- Areas where not exposed to oil mist, powder and/or steam directly such as above fryer.
- Areas where lighting device such as fluorescent light or incandescent light doesn't affect the operation.
  (A beam from lighting device sometimes affects the infrared receiver for the wireless remote control and the air-conditioner might not work properly.)

② Check if the place where the air-conditioner is installed is strong enough to support the weight of the unit. If it is not strong enough to support, reinforce the structure with boards, beams and soon. If the strength is not enough, the unit may fall and it could injure someone.
③ If there are 2 units using wireless remote control, keep them away for more than 6m to avoid malfunction due to cross communication.
④ When plural indoor units are installed nearby, keep them away for more than 4m.

Indoor unit installation space

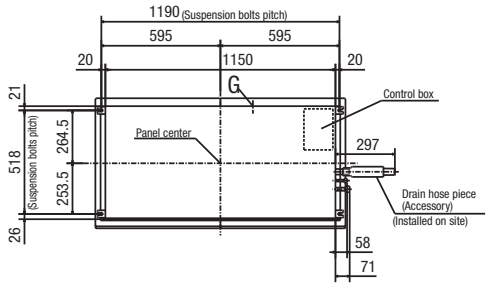


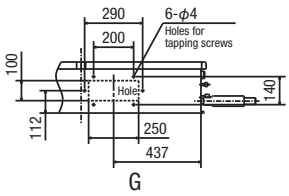
③ Preparation before installation

● If suspension bolt becomes longer, do reinforcement of earthquake resistant.
○ For grid ceiling
When suspension bolt length is over 500mm, or the gap between the ceiling and roof is over 700mm, apply earthquake resistant brace to the bolt.
○ In case the unit is hanged directly from the slab and is installed on the ceiling plane which has enough strength.
When suspension bolt length is over 1000mm, apply the earthquake resistant brace to the bolt.
● Prepare four (4) sets of suspension bolt, nut and spring washer (M10) on site.

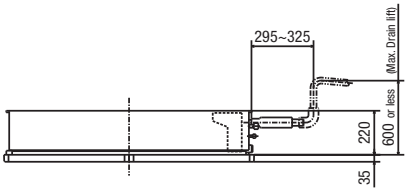
③ Preparation before installation (continued)

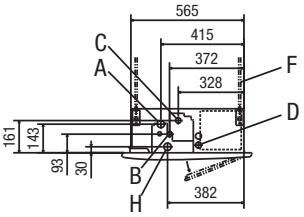
Size of hole on the ceiling, suspension bolt pitch and pipe position

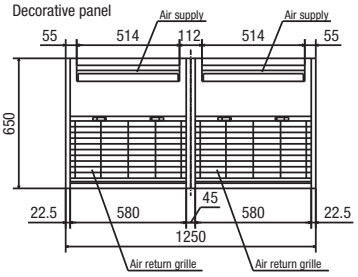




Symbol	Content
A	Gas piping
B	Liquid piping
C	Drain piping
D	Hole for wiring
F	Suspension bolts
G	Outside air opening for ducting
H	Drain piping (Gravity drainage)



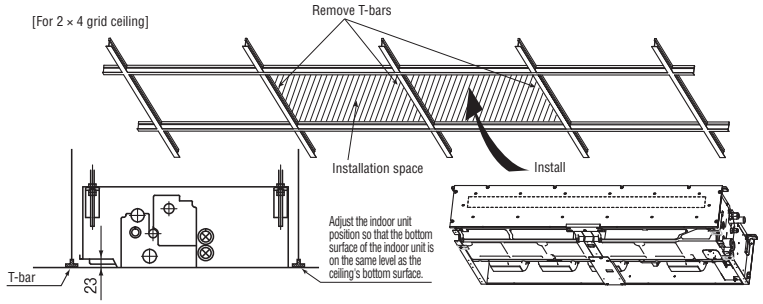


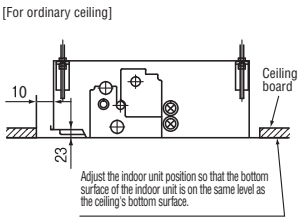


④ Installation of indoor unit

Work procedure

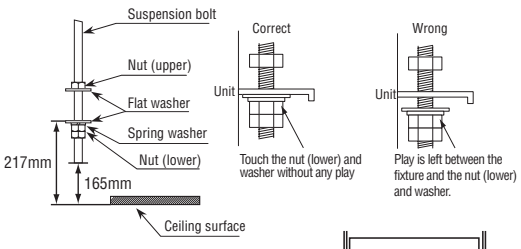
1. In case of installing on the 2 × 4 grid ceiling, remove three T-bars.
2. In case of installing on the ceiling other than 2 × 4 grid ceiling, prepare a ceiling hole with the size of 1420mm × 600mm.
3. Arrange the suspension bolt at the right position (1190mm × 518mm).
4. Make sure to use four suspension bolts.





5. Ensure that the lower end of the suspension bolt should be 165mm above the ceiling plane. Temporarily put the four lower nuts 217mm above the ceiling plane and the upper nuts on distant place from the lower nuts in order not to obstruct hanging the indoor unit or adjust the indoor unit position, and then hang the indoor unit.
6. Adjust the indoor unit position after hanging it so that the bottom surface of the indoor unit is on the same level as the ceiling (bottom surface of the T bar).

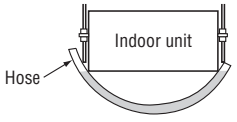
The allowable gap between the bottom surface of the ceiling and that of the indoor unit is when the bottom surface of the indoor unit is no higher than 5mm.
In order to adjust the indoor unit position, adjust the lower nuts while the upper nuts are put on distant place. Confirm there is no backlash between the hanger plate for suspension bolt and the lower nut and washer.



Caution

● Do not install the bottom surface of the inddor unit lower than the bottom surface of the ceiling.

7. Make sure to install the indoor unit horizontally. Confirm the levelness of the indoor unit with a level gauge or transparent hose filled with water. Keep the height difference at both ends of the indoor unit within 3mm.
8. Tighten four upper nuts and fix the unit after height and levelness adjustment.



Caution

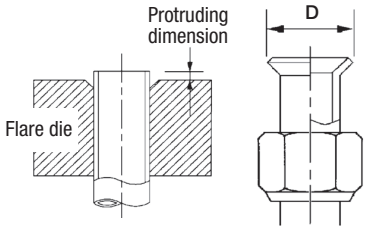
- Do not adjust the height by adjusting upper nuts. It will cause unexpected stress on the indoor unit and it will lead to deformation of the unit, failure of attaching a panel.
- Make sure to install the indoor unit horizontally and set the gap between the unit underside and the ceiling plane properly. Improper installation may cause air leakage, dew condensation, water leakage and noise.
- Make sure there is no gap between decoration panel and ceiling surface, and between decoration panel and the indoor unit. The gap may cause air leakage, dew condensation and water leakage.
- In case decorative panel is not installed at the same time, or ceiling material is installed after the unit installed, avoid dust coming into the indoor unit.

⑤ Refrigerant pipe

Caution

●Be sure to use new pipes for the refrigerant pipes. Use the flare nut attached to the product.
Regarding whether existing pipes can be reused or not, and the washing method, refer to the instruction manual of the outdoor unit, catalogue or technical data.
1) In case of reuse: Do not use old flare nut, but use the nut attached to the unit.
2) In case of reuse: Flare the end of pipe replaced partially for R32 or R410A.

⚠WARNING : When flared joints are reused indoors, the flare part shall be re-fabricated. (only for R32)

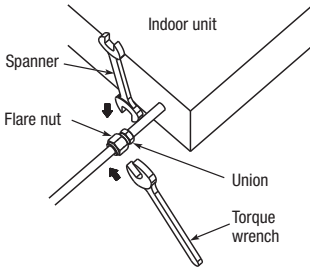


Pipe dia. d mm	Min. pipe wall thickness mm	Protruding dimension for flare, mm		Flare O.D. D mm	Flare nut tightening torque N·m
		Rigid (Clutch type)			
		For R32 For R410A	Conventional tool		
6.35	0.8	0–0.5	0.7–1.3	8.9–9.1	14–18
9.52	0.8			12.8–13.2	34–42
12.7	0.8			16.2–16.6	49–61
15.88	1			19.3–19.7	68–82
19.05	1.2			23.6–24.0	100–120

●Use phosphorus deoxidized copper alloy seamless pipe (C1220T) for refrigeration pipe installation.
In addition, make sure there is no damage both inside and outside of the pipe, and no harmful substances such as sulfur, oxide, dust or a contaminant stuck on the pipes.
●Do not use any refrigerant other than the designated refrigerant.
Using other refrigerant except the designated refrigerant, may degrade inside refrigeration oil. And air getting into refrigeration circuit may cause over-pressure and resultant it may result in bursting, etc.
●Store the copper pipes indoors and seal the both end of them until they are brazed in order to avoid any dust, dirt or water getting into pipe. Otherwise it will cause degradation of refrigeration oil and compressor breakdown, etc.
●Use special tools for R32 or R410A refrigerant.

Work procedure

1. Remove the flare nut and blind flanges on the pipe of the indoor unit.
※Make sure to loosen the flare nut with holding the nut on pipe side with a spanner and giving torque to the nut with another spanner in order to avoid unexpected stress to the copper pipe, and then remove them.
(Gas may come out at this time, but it is not abnormal.)
● **Pay attention whether the flare nut pops out.** (as the indoor unit is sometimes pressured.)



2. Make a flare on liquid pipe and gas pipe, and connect the refrigeration pipes on the indoor unit.
※Bend radius of pipe must be 4D or larger. Once a pipe is bent, do not readjust the bending.
Do not twist a pipe or collapse to 2/3D or smaller.
●Make sure to use flare nuts assembled on the unions. Usage of other flare nuts could cause refrigerant leakage.
※Do a flare connection as follows:
●Make sure to hold the nut on indoor unit pipe side using double spanner method as indicated when fastening / loosening flare nuts in order to prevent unintentional twisting of the copper pipe.
●When fastening the flare nut, align the refrigeration pipe with the center of flare nut, screw the nut for 3-4 times by hand and then tighten it by spanner with the specified torque mentioned in the table above.
3. Cover the flare connection part of the indoor unit with attached insulation material after a gas leakage inspection, and tighten both ends with attached straps.
● Make sure to insulate both gas pipes and liquid pipes completely.
※Incomplete insulation may cause dew condensation or water dropping.
● Use heat-resistant (120 °C or more) insulations on the gas side pipes.
● In case of using at high humidity condition, reinforce insulation of refrigerant pipes.
Surface of insulation may cause dew condition or water dropping, if insulations are not reinfoced.
4. Refrigerant is charged in the outdoor unit.
As for the additional refrigerant charge for the indoor unit and piping, refer to the installation manual attached to the outdoor unit.

Caution:
Refrigerating machine oil should not be applied to the threads of union or external surface of flare. It is because, even if the same tightening torque is applied, the oil is likely to decrease the slide friction force on the threads and increase, in turn, the axial component force so that it could crack the flare by the stress corrosion.
Refrigerating machine oil may be applied to the internal surface of flare only.

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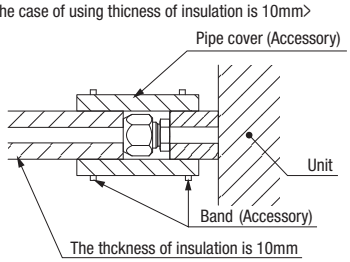
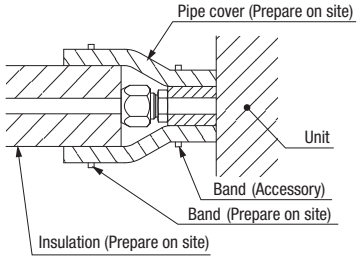


<The case of using reinfoced insulation>



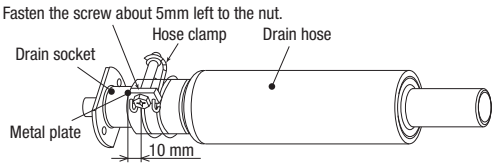
⑥ Drain pipe

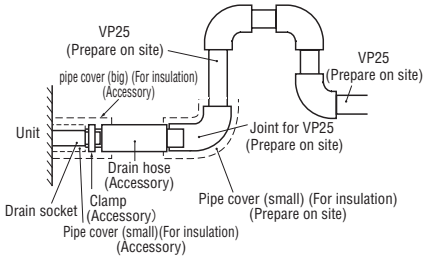
Caution

- **Install the drain pipe according to the installation manual in order to drain properly.**
  Imperfection in draining may cause flood indoors and wetting the household goods,etc.
- **Do not put the drain pipe directly into the ditch where toxic gas such as sulfur, the other harmful and inflammable gas is generated.**
  Toxic gas would flow into the room and it would cause serious damage to user's health and safety (some poisoning or deficiency of oxygen). In addition, it may cause corrosion of heat exchanger and bad smell.
- **Connect the pipe securely to avoid water leakage from the joint.**
- **Insulate the pipe properly to avoid condensation drop.**
- **Check if the water can flow out properly from both the drain outlet on the indoor unit and the end of the drain pipe after installation.**
- **Make sure to make descending slope of greater than 1/100 and do not make up-down bend and/or trap in the midway. In addition, do not put air vent on the drain pipe.**
  Check if water is drained out properly from the pipe during commissioning. Also, keep sufficient space for inspection and maintenance.

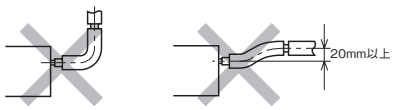
Work procedure

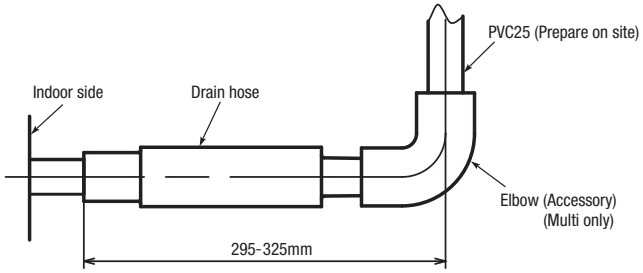
1. Make sure to insert the drain hose (the end mode of soft PVC) to the end of the step part of drain socket.
   Attach the hose clamp to the drain hose around 10mm from the end, and fasten the screw about 5mm left to the nut.
   - **Do not apply adhesives on this end.**



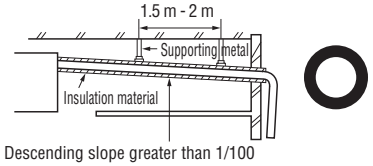


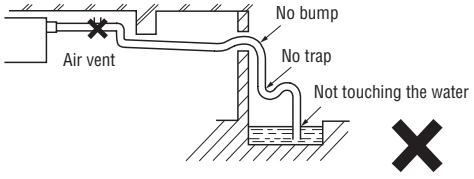
2. Prepare a joint for connecting VP25 pipe, adhere and connect the joint to the drain hose (the end made of rigid PVC), and adhere and connect VP25 pipe (prepare on site).
   ※As for drain pipe, apply VP25 made of rigid PVC which is on the market.
   - **Make sure that the adhesive will not get into the supplied drain hose.**
     It may cause the flexible part broken after the adhesive is dried up and gets rigid.
   - The flexible drain hose is intended to absorb a small difference at installation of the unit or drain pipes. Intentional bending, expanding may cause the flexible hose broken and water leakage.
   - As for drain pipe, apply VP25 (OD32).
     If apply PVC25 (OD25), connect the expanded connector to the drain hose, with adhesive.
     (Multi unit only)

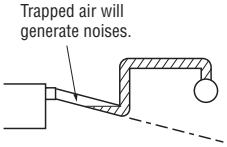




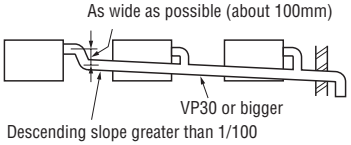
3. Make sure to make descending slope of greater than 1/100 and do not make up-down bend and/or trap in the midway.
   - Pay attention not to give stress on the pipe on the indoor unit side, and support and fix the pipe as close place to the unit as possible when connecting the drain pipe.
   - Do nt set up air vent.







   - When sharing a drain pipe for more than one unit, lay the main pipe 100mm below the drain outlet of the unit. In addition, select VP30 or bigger size for main drain pipe.

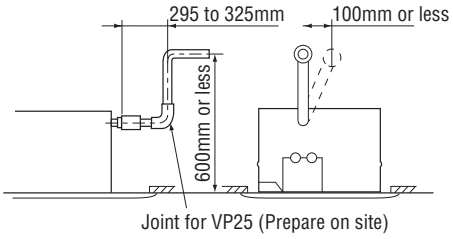


4. Insulate the drain pipe.
   - Be sure to insulate the drain socket and rigid PVC pipe installed indoors otherwise it may cause dew condensation and water leakage.
     ※After drainage test implementation, cover the drain socket part with pipe cover (small size), then use the pipe cover (big size) to cover the pipe cover (small size), clamps and part of the drain hose, and fix and wrap it with tapes to wrap and make joint part gapless.

⑥ Drain pipe (continued)

Drain up

● The position for drain pipe outlet can be raised up to 600mm above the ceiling. Use elbows for installation to avoid obstacles inside ceiling. If the horizontal drain pipe is too long before vertical pipe, the backflow of water will increase when the unit is stopped, and it may cause overflow of water from the drain pan on the indoor unit. In order to avoid overflow, keep the horizontal pipe length and offset of the pipe within the limit shown in the figure below.

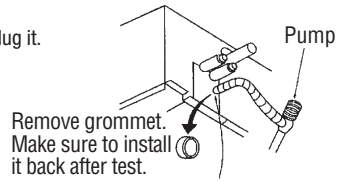


Drain test

● After installation of drain pipe, make sure that drain system work in good condition and no water leakage from joint and drain pan. Check if the motor sound of drain pump is normal or not.
● Do drain test even if installation of heating season.
● For new building cases, make sure to complete the test before hanging the ceiling.

Work procedure

1. Remove the drain grommet, and pour water of about 1000cc into the drain pan in the indoor unit by pump so as not to get the electrical component wet.
2. Make sure that water is drained out properly and there is no water leakage from any joints of the drain pipe at the test.
   Confirm that the water is properly drained out while the drain motor is operating. At the drain socket (transparent), it is possible to check if the water is drained out properly.
3. Unplug the drain plug on the indoor unit to remove remaining water on the drain pan after the test, and re-plug it.
4. Make sure to install the grommet back to original place.
5. Insulate the drain pipe properly finally.



Drain pump operation

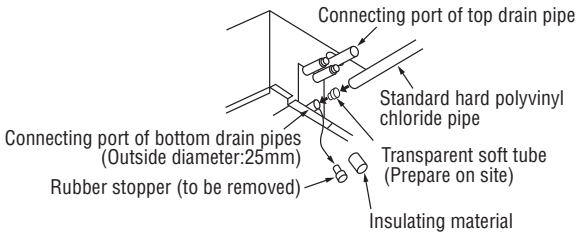
○ In case electrical wiring work finished
Drain pump can be operated by remote control (wired).
For the operation method, refer to **Operation for drain pump** in the installation manual for wiring work.

Insert the edge of water pump hose in the drain pan.

○ In case electrical wiring work not finished
Drain pump will run continuously when the DIP switch"SW7-1" on the indoor unit PCB is turned ON, the connector CNB is disconnected, and then the power source (220-240VAC on the terminal block L and N) is turned ON. Make sure to turn OFF "SW7-1" and reconnect the connector CNB after the test.

Outline of bottom drain piping work

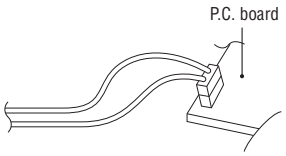
● If the bottom drain piping can be done with a descending gradient (1/50-1/100), it is possible to connect the pipes as shown in the drawing below.



Uncoupling the drain motor connector

● Uncouple the connector CNR for the drain motor as illustrated in the drawing on the right.

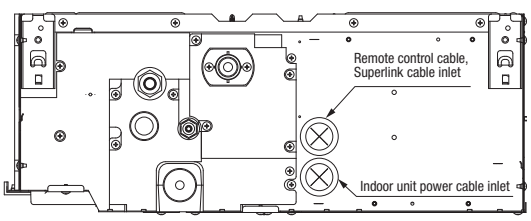
(Note: If the unit is run with the connector coupled, drain water will be discharged from the upper drain pipe joint, causing a water leak.)



⑦ Wiring-out position and wiring connection

● Electrical installation work must be performed according to the installation manual by an electrical installation service provider qualified by a power provider of the country, and be executed according to the technical standards and other regulations applicable to electrical installation in the country. Be sure to use an exclusive circuit.
● Use specified cord, fasten the wiring to the terminal firmly, and hold the cord securely in order not to apply unexpected stress on the terminal.
● Do not put both power source line and signal line on the same route. It may cause miscommunication and malfunction.
● Be sure to do D type earth work.
● For the details of electrical wiring work, see attached instruction manual for electrical wiring work.

1. Remove the control box cover (2 screws).
2. Introduce cables into the unit.
3. Securely connect wires to the terminal block.
4. Fix each wire with the wire clamp.
5. Reinstall the control box cover with 2 screws.

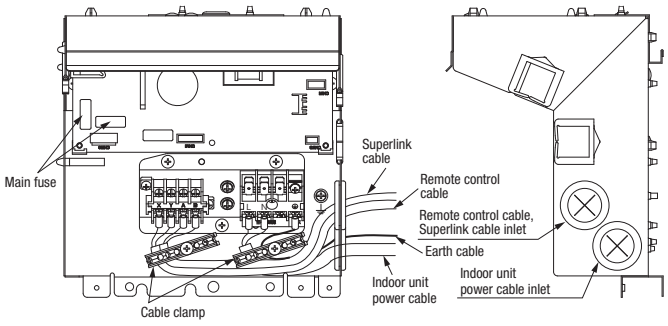


Main fuse specification

Specification	Part No.
T3.15A L250V	SSA564A149AF

⑦ Wiring-out position and wiring connection (continued)

Wire connection



⑧ Panel installation

- Attach the panel on the indoor unit after electrical wiring work.
- Refer to attached manual for panel installation for details.

⑨ Check list after installation

- Check the following items after all installation work completed.

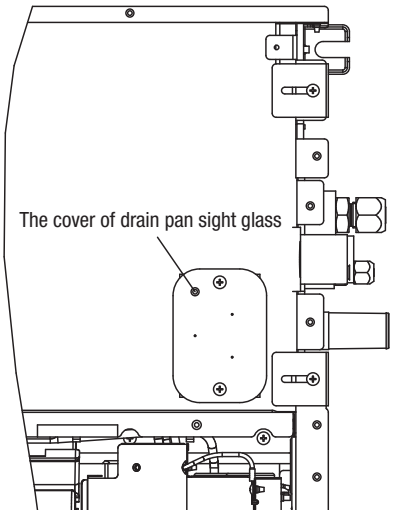
Check if;	Expected trouble	Check
The indoor and outdoor units are fixed securely?	Falling, vibration, noise	
Inspection for leakage is done?	Insufficient capacity	
Insulation work is properly done?	Water leakage	
Water is drained properly? Water leakage	Water is drained properly? Water leakage	
Power source voltage is same as mentioned in the model name plate?	PCB burnt out, not working at all	
There is mis-wiring or mis-connection of piping?	PCB burnt out, not working at all	
Earth wiring is connected properly?	Electric shock	
Cable size comply with specified size?	PCB burnt out, not working at all	
Any obstacle blocks airflow on air inlet and outlet?	Insufficient capacity	

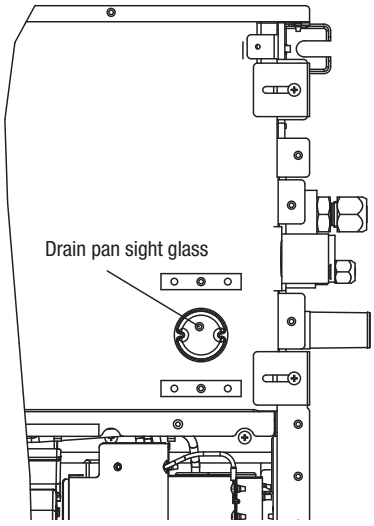
⑩ How to check the dirt of drain pan (Maintenance)

The method of checking the dirt of drain pan

- Dirt on the drain pan at the suction inlet of drain pump can be inspected without removing the drain pan.

1. Remove the panel.
2. Remove the cover of the drain pan sight glass.
3. Inspect the dirt on the drain pan through the sight glass.
   When it is heavily diirt, remove and clean the drain pan.
4. Reinstall the sight glass cover securely after the inspection of dirt. Unless it is installed properly, it could cause water leakage.





PANEL INSTALLATION MANUAL

PJC012D300 A

Read this manual together with the indoor unit's installation manual.

SAFETY PRECAUTIONS

- First of all, read the "SAFETY PRECAUTIONS" carefully and strictly follow the instruction during the installation work in order to protect yourself.
- The precautionary items mentioned below are distinguished into two levels, ⚠WARNING and ⚠CAUTION.
  ⚠WARNING : Wrong installation would cause serious consequences such as injuries or death.
  ⚠CAUTION : Wrong installation might cause serious consequences depending on circumstances.
  Both mentions the important items to protect your health and safety so strictly follow them by any means.
- The meanings of "Marks" used here are as shown on the right:

⃠	Never do it under any circumstances.	❗	Always do it according to the instruction.

- After completing the installation, do commissioning to confirm there are no abnormalities, and explain to the customers about "SAFETY PRECAUTIONS", correct operation method and maintenance method (air filter cleaning, operation method and temperature setting method) with user's manual of this unit. Ask your customers to keep this installation manual together with the user's manual. Also, ask them to hand over the user's manual to the new user when the owner is changed.

⚠WARNING

- **Installation should be performed by the specialist.**
  If you install the unit by yourself, it may lead to serious trouble such as water leakage, electric shock, fire, and injury due to overturn of the unit.
- **Install the system correctly according to these installation manuals.**
  Improper installation may cause explosion, injury, water leakage, electric shock, and fire.
- **Use the genuine accessories and the specified parts for installation.**
  If parts unspecified by our company are used it could cause water leakage, electric shock, fire, and injury due to overturn of the unit.
- **Be sure to have the electrical wiring work done by qualified electrical installer, and use exclusive circuit.**
  Power source with insufficient capacity and improper work can cause electric shock and fire.
- **Use specified wire for electrical wiring, fasten the wiring to the terminal securely, and hold the cable securely in order not to apply unexpected stress on the terminal.**
  Loose connections or hold could result in abnormal heat generation or fire.
- **Arrange the electrical wires in the control box properly to prevent them from rising. Fit the lid of the services panel property.**
  Improper fitting may cause abnormal heat and fire.
- **Only use prescribed option parts. The installation must be carried out by the qualified installer.**
  If you install the system by yourself, it can cause serious trouble such as water leaks, electric shocks, fire.
- **Do not repair by yourself. And consult with the dealer about repair.**
  Improper repair may cause water leakage, electric shock or fire.
- **Turn off the power source during servicing or inspection work.**
  If the power is supplied during servicing or inspection work, it could cause electric shock and injury by the operating fan.
- **Do not run the unit when the panel or protection guard are taken off.**
  Touching the rotating equipment, hot surface, or high voltage section could cause an injury to be caught in the machine, to get burned, or electric shock.
- **Shut off the power before electrical wiring work.**
  It could cause electric shock, unit failure and improper running.

① Before installation

- Follow installation manual carefully, and install the panel properly.
- Confirm that the item shown at below is contained in the packing.

Accessory

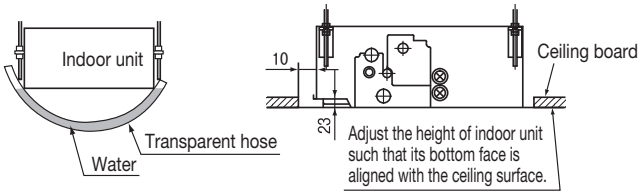
Bolt		4 pieces (For the right panel) 4 pieces (For the left panel)	For panel installation
Screw (M4 L=8mm)		2 pieces (For the right panel) 2 pieces (For the left panel)	For chains installation

② Confirmation of the installation level of main unit

- Read also the installation manual for the indoor unit, in addition to this manual.
- Confirm the installation level of main unit of indoor unit relative to the ceiling material.
  Adjust the height of indoor unit such that its bottom face is aligned with the ceiling surface.
  (The air outlet is hidden above the ceiling.)
- Limit the difference between the levels of the ceiling surface and the bottom face of indoor unit to less than 5 mm.

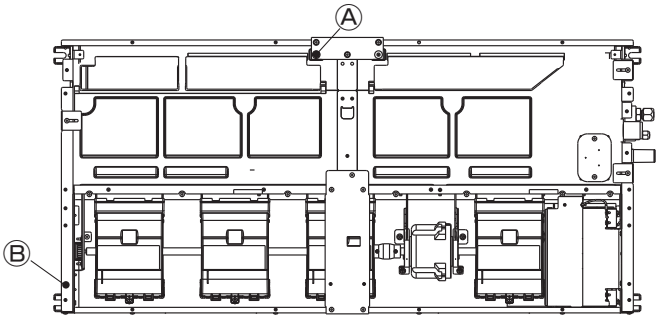
Caution

Install the main unit of indoor unit such that it will not protrude beyond the ceiling surface.

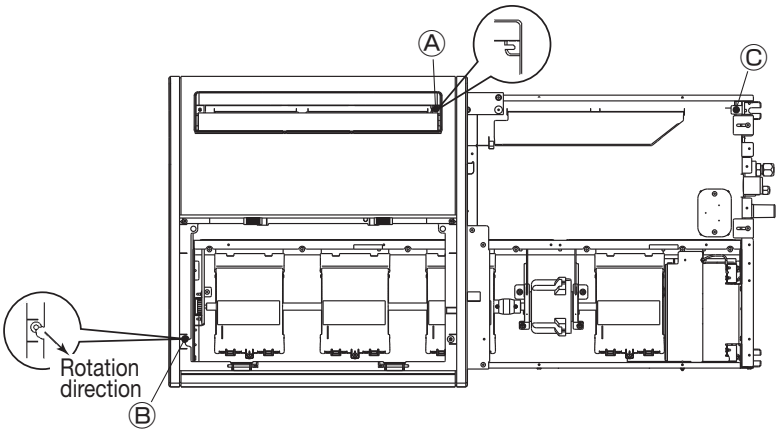


③ Installation of panel

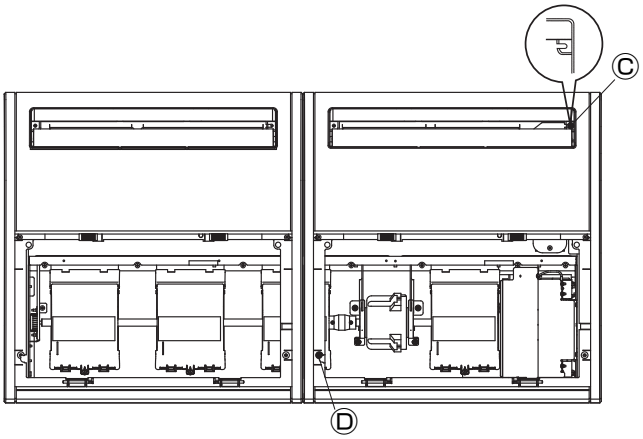
1. Tighten 2 out of 4 bolts attached to the left panel, one at the center of indoor unit at blowout side and the other at the opposite to it on the diagonal line (Ⓐ and Ⓑ in the figure), by less than 5 mm.



2. Open the suction grill. Hook the left panel on 2 pieces of bolt and tighten them provisionally.
   To do this, hook the panel on the bolt Ⓐ at first, and then turn the panel to hook it on the bolt Ⓑ.

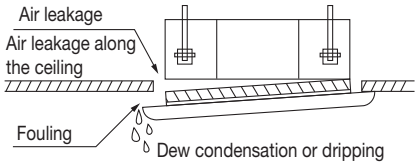


3. Tighten 1 out of 4 bolts attached to the right panel at the pipe side of indoor unit by less than 5 mm. (Bolt Ⓒ)
4. Hook the panel on the bolt Ⓒ and then tighten provisionally the bolt opposite to it on the diagonal line (bolt Ⓓ).
5. While adjusting the clearance between the right and left panels, tighten up the provisionally tightened bolts and remaining bolts.

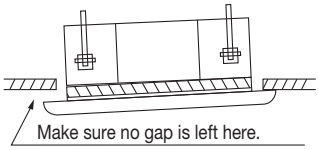


Caution

- Improperly tightened hanging bolts can cause the problems listed below, so make sure that you have tightened them securely.

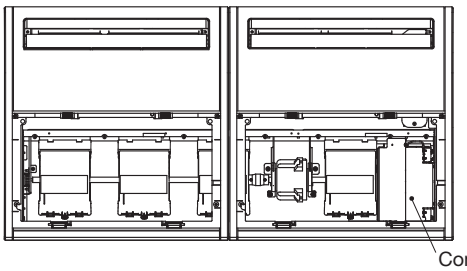


- If there is a gap remaining between the ceiling and the decorative panel even after the hanging bolts are tightened, adjust the installation level of the indoor unit again.

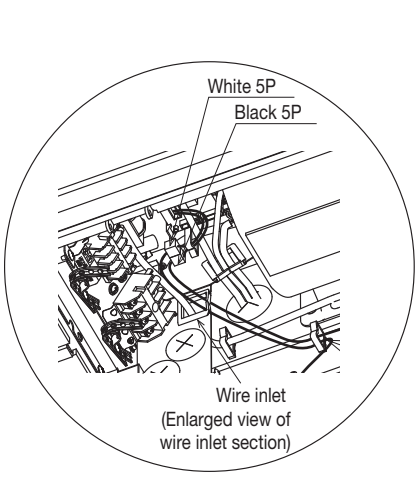


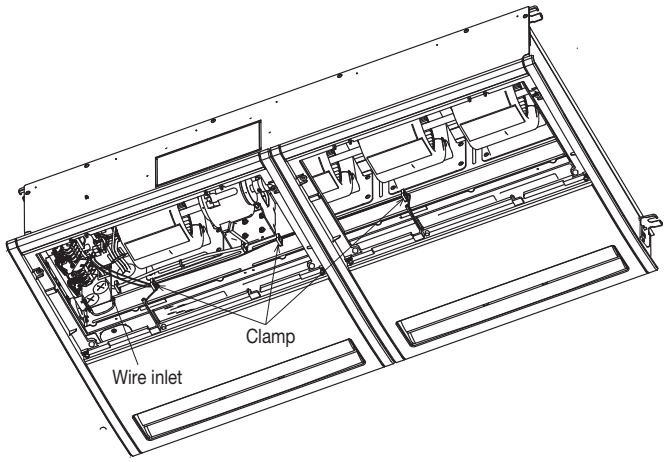
④ Electric wiring

1. Removing 2 screws, remove the control box cover of the main unit of unit.

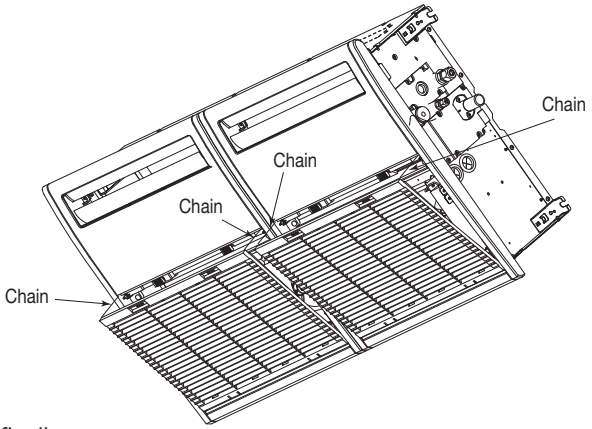


2. Pass the louver motor wires through the clamp on the indoor unit.





3. Connect the left panel louver motor connector (black 5P) and the right panel louver motor connector (white 5P) respectively.
   Connectors at the indoor unit side are provided in the control box.
   Connect the connectors according to the color designation.
4. After connecting the connectors, pass the panel side wires through the wire inlet on the control box. Put the connectors in the control box.
5. Close the control box cover, and fix with 2 screws.
6. Install the chains attached to the suction grill on the panel with screws.
   The screws to install chains are put in the same bag as bolts.



7. Close the suction grill finally.

(5) Duct connected-High static pressure type (FDU)
Outdoor air processing unit (FDU-F)
(a) Models FDU45-160KXE6F
Models FDU650, 1100FKXZE1
(i) Indoor unit

PJG012D022

- This manual is for installation of an indoor unit and an outdoor air processing unit (FDU-F).
- This manual is for the installation of an indoor unit. For electrical wiring work (Indoor), refer to page 238. For wired remote control installation, refer to page 242. For wireless kit installation, refer to page 374. For electrical wiring work (Outdoor) and refrigerant pipe work installation for outdoor unit, refer to the installation manual attached to an outdoor unit. For motion sensor kit installation, refer to page 397.

The case of FDU-F

- The total connection capacity of the other air-conditioning units and the outdoor air processing units must be from 50% to 100% (the total includes the outdoor air processing unit).
  The connection capacity of the outdoor air processing unit must not exceed 30% of the capacity of the outdoor unit.
- Single outdoor air processing unit can be used alone. The connection capacity of the outdoor air processing unit must be from 50% to 100% of the total capacity of the outdoor unit.
  Maximum number of outdoor air processing units that can be connected to the outdoor unit is 2units.
- Capacities of the suction air processing units can be calculated with the forllowing formulas.
  FDU650FKXZE1 = 90, FDU1100FKXZE1 = 140

SAFETY PRECAUTIONS

- Read the "SAFETY PRECAUTIONS" carefully first of all and then strictly follow it during the installation work in order to protect yourself.
- The precautionary items mentioned below are distinguished into two levels, ⚠WARNING and ⚠CAUTION .
  ⚠WARNING : Wrong installation would cause serious consequences such as injuries or death.
  ⚠CAUTION : Wrong installation might cause serious consequences depending on circumstances.
  Both mentions the important items to protect your health and safety so strictly follow them by any means.
- The meanings of "Marks" used here are as shown on the right:
  ⃠ Never do it under any circumstances. ❗ Always do it according to the instruction.
- After completing the installation, do commissioning to confirm there are no abnormalities, and explain to the customers about "SAFETY PRECAUTIONS", correct operation method and maintenance method (air filter cleaning, operation method and temperature setting method) with user's manual of this unit.
  Ask your customers to keep this installation manual together with the user's manual. Also, ask them to hand over the user's manual to the new user when the owner is changed.

⚠WARNING

- **Installation should be performed by the specialist.**
  If you install the unit by yourself, it may lead to serious trouble such as water leakage, electric shock, fire, and injury due to overturn of the unit.
- **Install the system correctly according to these installation manuals.**
  Improper installation may cause explosion, injury, water leakage, electric shock, and fire.
- **Check the density refered by the foumula (accordance with ISO5149).**
  If the density exceeds the limit density, please consult the dealer and installate the ventilation system.
- **Use the genuine accessories and the specified parts for installation.**
  If parts unspecified by our company are used it could cause water leakage, electric shock, fire, and injury due to overturn of the unit.
- **Ventilate the working area well in case the refrigerant leaks during installation.**
  If the refrigerant contacts the fire, toxic gas is produced. In case of R32, the refrigerant could be ignited because of its flammability.
- **Install the unit in a location that can hold heavy weight.**
  Improper installation may cause the unit to fall leading to accidents.
- **Install the unit properly in order to be able to withstand strong winds such as typhoons, and earthquakes.**
  Improper installation may cause the unit to fall leading to accidents.
- **Do not mix air in to the cooling cycle on installation or removal of the air conditioner.**
  If air is mixed in, the pressure in the cooling cycle will rise abnormally and may cause explosion and injuries.
- **Be sure to have the electrical wiring work done by qualified electrical installer, and use exclusive circuit.**
  Power source with insufficient capacity and improper work can cause electric shock and fire.
- **Use specified wire for electrical wiring, fasten the wiring to the terminal securely, and hold the cable securely in order not to apply unexpected stress on the terminal.**
  Loose connections or hold could result in abnormal heat generation or fire.
- **Arrange the electrical wires in the control box properly to prevent them from rising. Fit the lid of the services panel property.**
  Improper fitting may cause abnormal heat and fire.
- **Check for refrigerant gas leakage after installation is completed.**
  If the refrigerant gas leaks into the house and comes in contact with a fan heater, a stove, or an oven, toxic gas is produced.
- **Use the specified pipe, flare nut, and tools for R32 or R410A.**
  Using existing parts (R22) could cause the unit failure and serious accident due to explosion of the cooling cycle.
- **Tighten the flare nut according to the specified method by with torque wrench.**
  If the flare nut were tightened with excess torque, it could cause burst and refrigerant leakage after a long period.
- **Do not put the drainage pipe directly into drainage channels where poisonous gases such as sulfide gas can occur.**
  Poisonous gases will flow into the room through drainage pipe and seriously affect the user's health and safety. This can also cause the corrosion of the indoor unit and a resultant unit failure or refrigerant leak.
- **Connect the pipes for refrigeration circuit securely in installation work before compressor is operated.**
  If the compressor is operated when the service valve is open without connecting the pipe, it could cause explosion and injuries due to abnormal high pressure in the system.
- **Stop the compressor before removing the pipe after shutting the service valve on pump down work.**
  If the pipe is removed when the compressor is in operation with the service valve open, air would be mixed in the refrigeration circuit and it could cause explosion and injuries due to abnormal high pressure in the cooling cycle.
- **Only use prescribed option parts. The installation must be carried out by the qualified installer.**
  If you install the system by yourself, it can cause serious trouble such as water leaks, electric shocks, fire.
- **Do not repair by yourself. And consult with the dealer about repair.**
  Improper repair may cause water leakage, electric shock or fire.
- **Consult the dealer or a specialist about removal of the air-conditioner.**
  Improper installation may cause water leakage, electric shock or fire.
- **Turn off the power source during servicing or inspection work.**
  If the power is supplied during servicing or inspection work, it could cause electric shock and injury by the operating fan.
- **Do not run the unit when the panel or protection guard are taken off.**
  Touching the rotating equipment, hot surface, or high voltage section could cause an injury to be caught in the machine, to get burned, or electric shock.
- **Shut off the power before electrical wiring work.**
  It could cause electric shock, unit failure and improper running.

⚠CAUTION

- **Perform earth wiring surely.**
  Do not connect the earth wiring to the gas pipe, water pipe, lightning rod and telephone earth wiring. Improper earth could cause unit failure and electric shock or fire due to a short circuit.
- **Earth leakage breaker must be installed.**
  If the earth leakage breaker is not installed, it could cause electric shocks or fire.
- **Use the circuit breaker of correct capacity. Circuit breaker should be the one that disconnect all poles under over current.**
  Using the incorrect one could cause the system failure and fire.
- **Do not use any materials other than a fuse of correct capacity where a fuse should be used.**
  Connecting the circuit by wire or copper wire could cause unit failure and fire.
- **Do not install the indoor unit near the location where there is possibility of flammable gas leakages.**
  If the gas leaks and gathers around the unit, it could cause fire.
- **Do not install and use the unit where corrosive gas (such as sulfurous acid gas etc.) or flammable gas (such as thinner, petroleum etc.) may be generated or accumulated, or volatile flammable substances are handled.**
  It could cause the corrosion of heat exchanger, breakage of plastic parts etc. And inflammable gas could cause fire.
- **Secure a space for installation, inspection and maintenance specified in the manual.**
  Insufficient space can result in accident such as personal injury due to falling from the installation place.
- **Do not use the indoor unit at the place where water splashes such as laundry.**
  Indoor unit is not waterproof. It could cause electric shock and fire.
- **Do not use the indoor unit for a special purpose such as food storage, cooling for precision instrument, preservation of animals, plants, and a work of art.**
  It could cause the damage of the items.
- **Do not install nor use the system near equipments which generate electromagnetic wave or high harmonics.**
  Equipments like inverter equipment, private power generator, high-frequency medical equipment, or telecommunication equipment might influence the air conditioner and cause a malfunction and breakdown. Or the air conditioner might influence medical equipments or telecommunication equipments, and obstruct their medical activity or cause jamming.
- **Do not install the remote control at the direct sunlight.**
  It could cause breakdown or deformation of the remote control.
- **Do not install the indoor unit at the place listed below.**
  - Places where flammable gas could leak.
  - Places where carbon fiber, metal powder or any powder is floated.
  - Place where the substances which affect the air conditioner are generated such as sulfide gas, chloride gas, acid, alkali or ammonic atmospheres.
  - Places exposed to oil mist or steam directly.
  - On vehicles and ships
  - Places where machinery which generates high harmonics is used.
  - Places where cosmetics or special sprays are frequently used.
  - Highly salted area such as beach.
  - Heavy snow area
  - Places where the system is affected by smoke from a chimney.
  - Altitude over 1000m
- **Do not install the indoor unit in the locations listed below (Be sure to install the indoor unit according to the installation manual for each model because each indoor unit has each limitation)**
  - Locations with any obstacles which can prevent inlet and outlet air of the unit
  - Locations where vibration can be amplified due to insufficient strength of structure.
  - Locations where the infrared receiver is exposed to the direct sunlight or the strong light beam. (in case of the infrared specification unit)
  - Locations where an equipment affected by high harmonics is placed. (TV set or radio receiver is placed within 5m)
  - Locations where drainage cannot run off safely.

  It can affect performance or function and etc..

  Do not install the motion sensor at following places. It could cause detection error, incapacity of detection, or characteristic degradation.
  - Place where vibration is applied to it for a long period of time.
  - Place where static electricity or electromagnetic wave generates.
  - Place where it is exposed to high temperature or humidity for a long period of time.
  - Dusty place or where the lens face could be fouled or damaged.
- **Do not put any valuables which will break down by getting wet under the air-conditioner.**
  Condensation could drop when the relative humidity is higher than 80% or drain pipe is clogged, and it damages user's belongings.
- **Do not use the base frame for the outdoor unit which is corroded or damaged after a long period of use.**
  It could cause the unit falling down and injury.
- **Pay attention not to damage the drain pan by weld sputter when brazing work is done near the unit.**
  If sputter entered into the unit during brazing work, it could cause damage (pinhole) of drain pan and leakage of water. To avoid damaging, keep the indoor unit packed or cover the indoor unit.
- **Install the drain pipe to drain the water surely according to the installation manual.**
  Improper connection of the drain pipe may cause dropping water into room and damaging user's belongings.
- **Do not share the drain pipe for indoor unit and GHP (Gas Heat Pump system) outdoor unit.**
  Toxic exhaust gas would flow into room and it might cause serious damage (some poisoning or deficiency of oxygen) to user's health and safety.
- **Be sure to perform air tightness test by pressurizing with nitrogen gas after completed refrigerant piping work.**
  If the density of refrigerant exceeds the limit in the event of refrigerant leakage in the small room, lack of oxygen can occur, which can cause serious accidents.
- **For drain pipe installation, be sure to make descending slope of greater than 1/100, not to make traps, and not to make air-bleeding.**
  Check if the drainage is correctly done during commissioning and ensure the space for inspection and maintenance.
- **Ensure the insulation on the pipes for refrigeration circuit so as not to condense water.**
  Incomplete insulation could cause condensation and it would wet ceiling, floor, and any other valuables.
- **Do not install the outdoor unit where is likely to be a nest for insects and small animals.**
  Insects and small animals could come into the electronic components and cause breakdown and fire. Instruct the user to keep the surroundings clean.
- **Pay extra attention, carrying the unit by hand.**
  Carry the unit with 2 people if it is heavier than 20kg. Do not use the plastic straps but the grabbing place, moving the unit by hand. Use protective gloves in order to avoid injury by the aluminum fin.
- **Make sure to dispose of the packaging material.**
  Leaving the materials may cause injury as metals like nail and woods are used in the package.
- **Do not operate the system without the air filter.**
  It may cause the breakdown of the system due to clogging of the heat exchanger.
- **Do not touch any button with wet hands.**
  It could cause electric shock.
- **Do not touch the refrigerant piping with bare hands when in operation.**
  The pipe during operation would become very hot or cold according to the operating condition, and it could cause a burn or frostbite.
- **Do not clean up the air-conditioner with water.**
  It could cause electric shock.
- **Do not turn off the power source immediately after stopping the operation.**
  Be sure to wait for more than 5 minutes. Otherwise it could cause water leakage or breakdown.
- **Do not control the operation with the circuit breaker.**
  It could cause fire or water leakage. In addition, the fan may start operation unexpectedly and it may cause injury.

○This model is high static ducted type air conditioning unit. Therefore, do not use this model for direct blow type air conditioning unit.

①Before installation

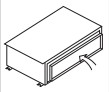
●Install correctly according to the installation manual.

●Confirm the following points:

○Unit type/Power source specification ○Pipes/Wires/Small parts ○Accessory items

Accessory item

For hanging	For refrigerant pipe			For drain pipe				
Flat washer (M10)	Pipe cover (big)	Pipe cover (small)	Strap	Pipe cover (big)	Pipe cover (small)	Drain hose	Hose clamp	Elbow (Multi only)
8	1	1	4	1	1	1	1	1
For unit hanging	For heat insulation of gas pipe	For heat insulation of liquid tube	For pipe cover fixing	For heat insulation of drain socket	For heat insulation of drain socket	For drain pipe connecting	For drain hose mounting	For drain pipe connecting



Accessory parts are stored inside this suction side.

②Selection of installation location for the indoor unit

① Select the suitable areas to install the unit under approval of the user.

・Areas where the indoor unit can deliver hot and cold wind sufficiently. Suggest to the user to use a circulator if the ceiling height is over 3m to avoid warm air being accumulated on the ceiling.
・Areas where there is enough space to install and service.
・Areas where it can be drained properly. Areas where drain pipe descending slope can be taken.
・Areas where there is no obstruction of airflow on both air return grille and air supply port.
・Areas where fire alarm will not be accidentally activated by the air-conditioner.
・Areas where the supply air does not short-circuit.
・Areas where it is not influenced by draft air.
・Areas not exposed to direct sunlight.
・Areas where dew point is lower than around 28°C and relative humidity is lower than 80%.
(This indoor unit is tested under the condition of JIS (Japan Industrial Standard) high humidity condition and confirmed there is no problem. However, there is some risk of condensation drop if the air-conditioner is operated under the severer condition than mentioned above. If there is a possibility to use it under such a condition, attach additional insulation of 10 to 20mm thick for entire surface of indoor unit, refrigeration pipe and drain pipe.)
・Areas where TV and radio stays away more than 1m. (It could cause jamming and noise.)
・Areas where any items which will be damaged by getting wet are not placed such as food, table wares, server, or medical equipment under the unit.
・Areas where there is no influence by the heat which cookware generates.
・Areas where not exposed to oil mist, powder and/or steam directly such as above fryer.
・Areas where lighting device such as fluorescent light or incandescent light doesn't affect the operation.
(A beam from lighting device sometimes affects the infrared receiver for the wireless remote control and the air-conditioner might not work properly.)
・When operating the suction air processing unit independently, it operates in the outdoor air processing mode.
Blowout temperatures are not same at the standard unit operation and the outdoor air processing mode operations.
Since the temperatures become higher during cooling or lower during heating, take care of the direction of blowout outlet.
Avoid directing the blowout outlet to the space where people are present.

② Check if the place where the air-conditioner is installed can hold the weight of the unit. If it is not able to hold, reinforce the structure with boards and beams strong enough to hold it. If the strength is not enough, it could cause injury due to unit falling.

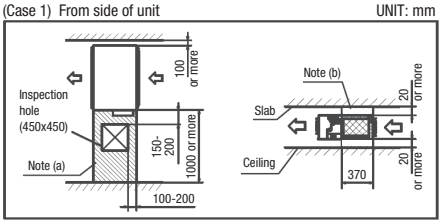
Space for installation and service

●Make installation altitude over 2.5m.

(Indoor Unit)

Select either of two cases to keep space for installation and services.

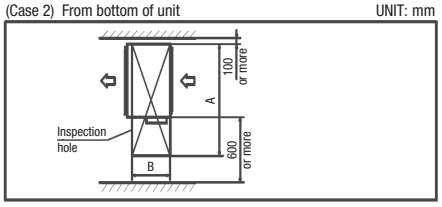
(Case 1) From side of unit UNIT: mm



Notes (a) There must not be obstacle to draw out fan motor. (marked area)

(b) Install refrigerant pipe, drain pipe, and wiring so as not to cross marked area.

(Case 2) From bottom of unit UNIT: mm

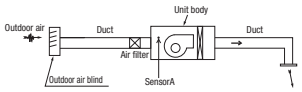


(Size of inspection hole) UNIT: mm

Single type	–	71	100-140
Multi type	45, 56	71, 90	112-160
FDU-F	–	650	1100
A	1100	1300	1720
B	620		725

③Cautions for the handling and installation place of outdoor air processing unit

①This unit monitors the outdoor air temperature at the position of sensor A in the figure, and controls the start and stop with the thermostat based on the value of sensor A and the setting temperature by the remote control.



Remote control's setting temperature indicates the outdoor air temperature that controls the start and stop of operation by the thermostat.

When the thermostat is turned off, the operation is changed to the fan mode so that the outdoor air is blown out directly into the room. For example if the remote control is set to 22°C in cooling operation, and if the outdoor air temperature is 22°C or lower at that time, the unit will go into fan operation.

②When there is a difference between the air conditioning temperature in the room during cooling operation and the temperature of air blown out from the outdoor air processing unit, dewing water may drip from the unit. To prevent the dewing, provide a sufficient heat insulation means at the air blow outlet.

③Since the air blow outlet on the outdoor air processing unit may blow out the outdoor air directly, orient the outlet in such a way that it will not blow air directly to persons in the room.

④Since the unit controls the thermostat start and stop by monitoring the outdoor air temperature, it is prohibited to monitor the room temperature by means of the room temperature monitoring by changing the thermostat setting at the remote control side and the optional remote thermistor. Otherwise, dewing water may drip from the unit at lower outdoor air temperatures during cooling operation.

⑤Install the remote control of the outdoor air processing unit at a place closer to the administrator to avoid the end user from using the remote control.

When handing over the unit to the end user, make sure to explain sufficiently about the foregoing cautions, the installation place of the remote control for the outdoor air processing unit and the position of air blow outlet.

④Preparation before installation

●If suspension bolt becomes longer, do reinforcement of earthquake resistant.

○For grid ceiling

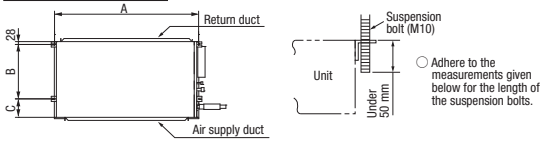
When the suspension bolt length is over 500mm, or the gap between the ceiling and roof is over 700mm, apply earthquake resistant brace to the bolt.

○In case the unit is hanged directly from the slab and is installed on the ceiling plane which has enough strength.

When suspension bolt length is over 1000mm, apply the earthquake resistant brace to the bolt.

●Prepare four (4) sets of suspension bolt, nut and spring washer (M10) on site.

Suspension bolt location

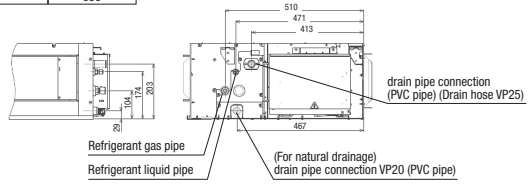


UNIT: mm

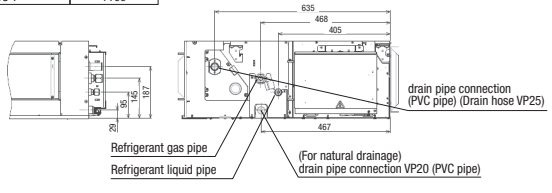
Single type	—	71	100-140
Multi type	45, 56	71, 90	112-160
FDU-F	—	650	1100
A	786	986	1720
B	472	472	725
C	135	135	180

Pipe locations UNIT: mm

Single type	71
Multi type	45-90
FDU-F	650



Single type	100-140
Multi type	112-160
FDU-F	1100



⑤Installation of indoor unit

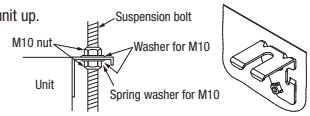
Work procedure

1. Prepare a hole of specified size on the ceiling.
2. Install suspension bolts at specified positions.
3. Make sure to use four suspension bolts.
4. Adjust the indoor unit position in order to fit with it.
5. Make sure to install the indoor unit horizontally. Confirm the levelness of the indoor unit with a level gauge or transparent hose filled with water. Keep the height difference at both ends of the indoor unit within 3mm.
6. Tighten four upper nuts and fix the unit after height and levelness adjustment.

Installation

[Hanging]

Hang the unit up.

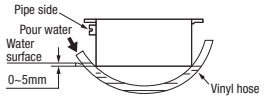


If the measurements between the unit and the ceiling hole do not match upon installation, it may be adjusted with the long holed installation tool.

Adjustment for horizontality

○Either use a level vial, or adjust the level according to the method below.

●Adjust so the bottom side of the unit will be leveled with the water surface as illustrated below.



Let the pipe side be slightly sloped.

○If the unit is not leveled, it may cause malfunctions or inoperation of the float switch.

⑥Duct Work

①A corrugated board (for preventing sputtering) is attached to the main body of the air conditioner (on the outlet port). Do not remove it until connecting the duct.

●An air filter can be provided on the main body of the air conditioner (on the inlet port). Remove it when connecting the duct on the inlet port.

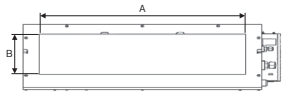
②Blowout duct

●Use rectangular duct to connect with unit.

●Duct size for each unit is as shown below.

UNIT: mm

Single type	—	71	100-140
Multi type	45, 56	71, 90	112-160
FDU-F	—	650	1100
A	682	882	1202
B	172	172	172



●Duct should be at their minimum length.

●We recommend to use sound and heat insulated duct to prevent it from condensation.

●Connect duct to unit before ceiling attachment.

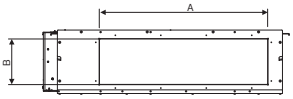
③Inlet port

●When connecting the duct to the inlet port, remove the air filter if it is fitted to the inlet port.

●Inlet port size for each unit is as shown below.

UNIT: mm

Single type	-	71	100-140
Multi Type	45, 56	71, 90	112-160
FDU-F	-	650	1100
A	582	742	1282
B	202	202	237

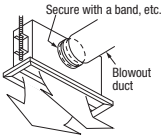


●Make sure to insulate the duct to prevent dewing on it.

④Install the specific blowout duct in a location where the air will circulate to the entire room.

●Conduct the installation of the specific blowout hole and the connection of the duct before attaching them to the ceiling.

●Insulate the area where the duct is secured by a band for dew condensation prevention.



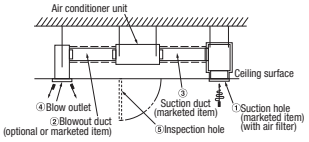
⑤Make sure provide an inspection hole on the ceiling. It is indispensable to service electric equipment, motor, functional components and cleaning of heat exchanger.

⑥Duct Work (continued)

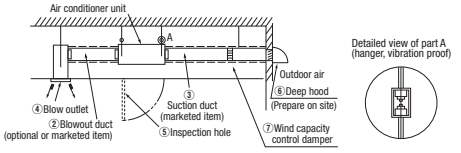
⑥Make sure to insulate ducts, in order to prevent dewing on them.

⑦Connect the duct with care not to touch the blower (fan motor) with fingers. Or, when inhaling air directly from the suction side, install an air filter at the air suction inlet.

FDU



FDU-F



Bad example of duct work

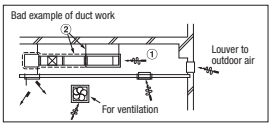
①If a duct is not provided at the suction side but it is substituted with the space over the ceiling, humidity in the space will increase by the influence of capacity of ventilation fan, strength of wind blowing against the out door air louver, weather (rainy day) and others.

a)Moisture in air is likely to condense over the external plates of the unit and to drip on the ceiling. Unit should be operated under the conditions as listed in the above table and within the limitation of wind volume. When the building is a concrete structure, especially immediately after the construction, humidity tends to rise even if the space over the ceiling is not substituted in place of a duct. In such occasion, it is necessary to insulate the entire unit with glass wool (25mm). (Use a wire net or equivalent to hold the glass wool in place.)

b)It may run out the allowable limit of unit operation (Example, the case of FDU: When outdoor air temperature is 35°CDB, suction air temperature is 27°CWB) and it could result in such troubles as compressor overload, etc..

c)There is a possibility that the blow air volume may exceed the allowable range of operation due to the capacity of ventilation fan or strength of wind blowing against external air louver so that drainage from be heat exchanger may fall to reach the drain pan but leak outside (Example: drip on to the ceiling) with consequential water leakage in the room.

②If vibration damping is not conducted between the unit and the duct, and between the unit and the slab, vibration will be transmitted to the duct and vibration noise may occur. Also, vibration may be transmitted from the unit to the slab. Vibration damping must be performed.

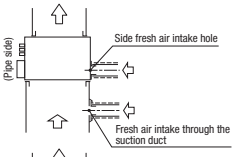


Connecting the air intake/vent ducts the case of FDU

①Fresh air intake

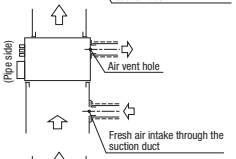
[for air intake duct only]

○Use the side fresh air intake hole, or supply through a part of the suction duct.



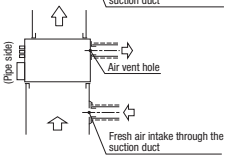
[for simultaneous air intake/vent]

○Intake air through the suction duct.
(the side cannot be used)



②Air vent

○Use the side air vent hole.
(always use together with the air intake)



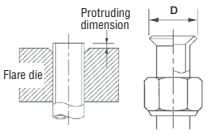
○Insulate the duct to protect it from dew condensation.

⑦Refrigerant pipe

Caution

●Be sure to use new pipes for the refrigerant pipes. Use the flare nut attached to the product.
Regarding whether existing pipes can be reused or not, and the washing method, refer to the instruction manual of the outdoor unit, catalogue or technical data.
1) In case of reuse: Do not use old flare nut, but use the one attached to the unit.
2) In case of reuse: Flare the end of pipe replaced partially for R32 or R410A.

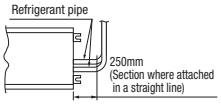
⚠WARNING : When flared joints are reused indoors, the flare part shall be re-fabricated. (only for R32)



Pipe dia. d mm	Min. pipe wall thickness mm	Protruding dimension for flare, mm		Flare O.D. D mm	Flare nut tightening torque N·m
		Rigid (Clutch type)			
		For R32 For R410A	Conventional tool		
6.35	0.8	0 - 0.5	0.7 - 1.3	8.9 - 9.1	14 - 18
9.52	0.8			12.8 - 13.2	34 - 42
12.7	0.8			16.2 - 16.6	49 - 61
15.88	1			19.3 - 19.7	68 - 82
19.05	1.2			23.6 - 24.0	100 - 120

●Use phosphorus deoxidized copper alloy seamless pipe (C1220T) for refrigeration pipe installation. In addition, make sure there is no damage both inside and outside of the pipe, and no harmful substances such as sulfur, oxide, dust or a contaminant stuck on the pipes.
●Do not use any refrigerant other than R32 or R410A.
Using other refrigerant except R32 or R410A (R22 etc.) may degrade inside refrigeration oil. And air getting into refrigeration circuit may cause over-pressure and resultant it may result in bursting, etc.
●Store the copper pipes indoors and seal the both end of them until they are brazed in order to avoid any dust, dirt or water getting into pipe. Otherwise it will cause degradation of refrigeration oil and compressor breakdown, etc.
●Use special tools for R32 or R410A refrigerant.

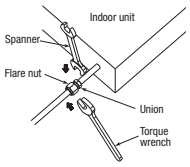
Piping work



When conducting piping work, make sure to allow the pipes to be aligned in a straight line for at least 250 mm, as shown in the left illustration. (This is necessary for the drain pump to function)

Work procedure

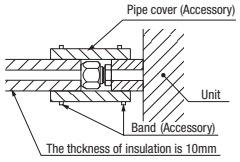
1. Remove the flare nut and blind flanges on the pipe of the indoor unit.
※ Make sure to loosen the flare nut with holding the nut on pipe side with a spanner and giving torque to the nut with another spanner in order to avoid unexpected stress to the copper pipe, and then remove them. (Gas may come out at this time, but it is not abnormal.)
● Pay attention whether the flare nut pops out. (as the indoor unit is sometimes pressured.)
2. Make a flare on liquid pipe and gas pipe, and connect the refrigeration pipes on the indoor unit.
※Bend radius of pipe must be 4D or larger. Once a pipe is bent, do not readjust the bending. Do not twist a pipe or collapse to 2/3D or smaller.
● Make sure to use flare nuts assembled on the unions. Usage of other flare nuts could cause refrigerant leakage.
※Do a flare connection as follows:
● Make sure to hold the nut on indoor unit pipe side using double spanner method as indicated when fastening / loosening flare nuts in order to prevent unintentional twisting of the copper pipe.
● When fastening the flare nut, align the refrigeration pipe with the center of flare nut, screw the nut for 3-4 times by hand and then tighten it by spanner with the specified torque mentioned in the table above.



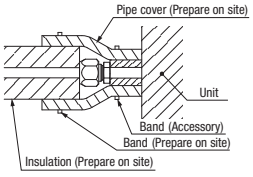
3. Cover the flare connection part of the indoor unit with attached insulation material after a gas leakage inspection, and tighten both ends with attached straps.
● Make sure to insulate both gas pipes and liquid pipes completely.
※Incomplete insulation may cause dew condensation or water dropping.
● Use heat-resistant (120 °C or more) insulations on the gas side pipes.
● In case of using at high humidity condition, reinforce insulation of refrigerant pipes. Surface of insulation may cause dew condition or water dropping, if insulations are not reinfoced.
4. Refrigerant is charged in the outdoor unit.
As for the additional refrigerant charge for the indoor unit and piping, refer to the installation manual attached to the outdoor unit.

Caution:
Refrigerating machine oil should not be applied to the threads of union or external surface of flare. It is because, even if the same tightening torque is applied, the oil is likely to decrease the slide friction force on the threads and increase, in turn, the axial component force so that it could crack the flare by the stress corrosion.
Refrigerating machine oil may be applied to the internal surface of flare only.

<The case of using thicness of insulation is 10mm>



<The case of using reinfoced insulation>



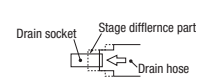
⑧Drain pipe

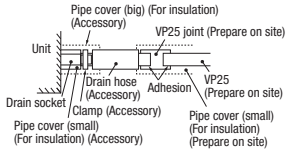
Caution

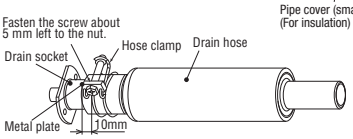
● Install the drain pipe according to the installation manual in order to drain properly. Imperfection in draining may cause flood indoors and wetting the household goods, etc.
● Do not put the drain pipe directly into the ditch where toxic gas such as sulfur, the other harmful and inflammable gas is generated. Toxic gas would flow into the room and it would cause serious damage to user's health and safety (some poisoning or deficiency of oxygen). In addition, it may cause corrosion of heat exchanger and bad smell.
● Connect the pipe securely to avoid water leakage from the joint.
● Insulate the pipe properly to avoid condensation drop.
● Check if the water can flow out properly from both the drain outlet on the indoor unit and the end of the drain pipe after installation.
● Make sure to make descending slope of greater than 1/100 and do not make up-down bend and/or trap in the midway. In addition, do not put air vent on the drain pipe. Check if water is drained out properly from the pipe during commissioning. Also, keep sufficient space for inspection and maintenance.

Work procedure

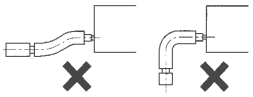
1. Make sure to insert the drain hose (the end mode of soft PVC) to the end of the step part of drain socket.
Attach the hose clamp to the drain hose around 10mm from the end, and fasten the screw about 5mm left to the nut.
●Do not apply adhesives on this end.
●Do not use acetone-based adhesives to connect to the drain socket.



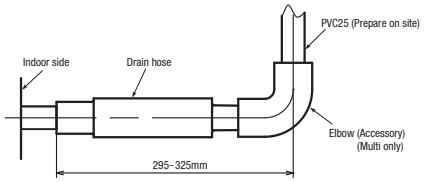




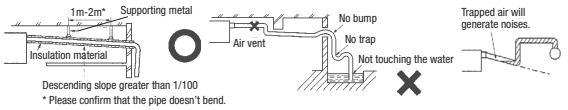
2. Prepare a joint for connecting VP25 pipe, adhere and connect the joint to the drain hose (the end made of rigid PVC), and adhere and connect VP25 pipe (prepare on site).
※As for drain pipe, apply VP25 made of rigid PVC which is on the market.
● Make sure that the adhesive will not get into the supplied drain hose.
It may cause the flexible part broken after the adhesive is dried up and gets rigid.
●The flexible drain hose is intended to absorb a small difference at installation of the unit or drain pipes. Intentional bending, expanding may cause the flexible hose broken and water leakage.



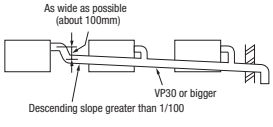
●As for drain pipe, apply VP25 (OD32).
If apply PVC25 (OD25), connect the expanded connector to the drain hose, with adhesive. (Multi unit only)



3. Make sure to make descending slope of greater than 1/100 and do not make up-down bend and/or trap in the midway.
●Pay attention not to give stress on the pipe on the indoor unit side, and support and fix the pipe as close place to the unit as possible when connecting the drain pipe.
●Do not set up air vent.



●When sharing a drain pipe for more than one unit, lay the main pipe 100mm below the drain outlet of the unit. In addition, select VP30 or bigger size for main drain pipe.

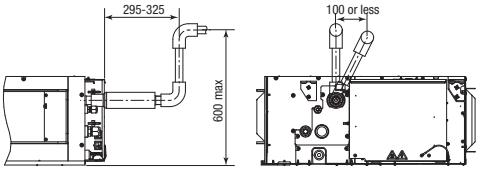


⑧Drain pipe (continued)

4. Insulate the drain pipe.
   - ● Be sure to insulate the drain socket and rigid PVC pipe installed indoors otherwise it may cause dew condensation and water leakage.
     - ※ After drainage test implementation, cover the drain socket part with pipe cover (small size), then use the pipe cover (big size) to cover the pipe cover (small size), clamps and part of the drain hose, and fix and wrap it with tapes to wrap and make joint part gapless.

Drain up

- ● The position for drain pipe outlet can be raised up to 600mm above the ceiling. Use elbows for installation to avoid obstacles inside ceiling. If the horizontal drain pipe is too long before vertical pipe, the backflow of water will increase when the unit is stopped, and it may cause overflow of water from the drain pan on the indoor unit. In order to avoid overflow, keep the horizontal pipe length and offset of the pipe within the limit shown in the figure below.



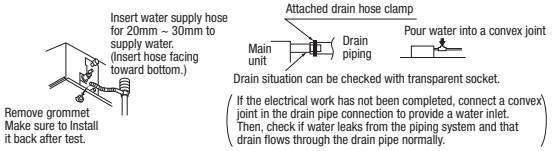
Otherwise, the construction point makes it same as drain pipe construction.

Drain test

1. Conduct a drain test after completion of the electrical work.
2. During the trail, make sure that drain flows properly through the piping and that no water leaks from connections.
3. In case of a new building, conduct the test before it is furnished with the ceiling.
4. Be sure to conduct this test even when the unit is installed in the heating season.

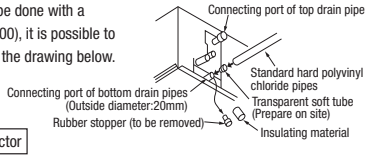
Procedures

1. Supply about 2000 cc of water to the unit through the air outlet by using a feed water pump.
2. Check the drain while cooling operation.



Outline of bottom drain piping work

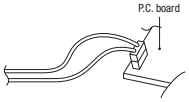
- ● If the bottom drain piping can be done with a descending gradient (1/50-1/100), it is possible to connect the pipes as shown in the drawing below.



Uncoupling the drain motor connector

- ● Uncouple the connector CNR for the drain motor as illustrated in the drawing on the right.

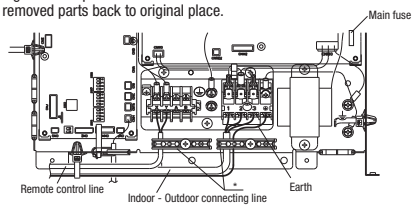
(Note: If the unit is run with the connector coupled, drain water will be discharged from the upper drain pipe joint, causing a water leak.)



⑨Wiring-out position and wiring connection

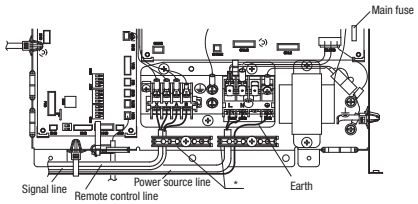
- ● Electrical installation work must be performed according to the installation manual by an electrical installation service provider qualified by a power provider of the country, and be executed according to the technical standards and other regulations applicable to electrical installation in the country.
  Be sure to use an exclusive circuit.
- ● Use specified cord, fasten the wiring to the terminal securely, and hold the cord securely in order not to apply unexpected stress on the terminal.
- ● Do not put both power source line and signal line on the same route. It may cause miscommunication and malfunction.
- ● Be sure to do D type earth work.
- ● For the details of electrical wiring work, see attached instruction manual for electrical wiring work.

1. Remove a lid of the control box (2 screws).
2. Hold each wiring inside the unit and fasten them to terminal block securely.
3. Fix the wiring with clamps.
4. Install the removed parts back to original place.



Single unit wiring connection

⑨Wiring-out position and wiring connection (continued)



Multi unit wiring connection

* Please fix the wiring in the band not to move even if it pulls.

Main fuse specification

Model		Specification	Part No.
FDU	FDU-F		
45~90	650	T 5A L 250V	SSA564A149AH
112~160	1100	T 6.3A L 250V	SSA564A149AJ

⑩External static pressure setting

You can set External Static Pressure (E.S.P.) by method of MANUAL SETTING on remote control. Indoor unit will control fan-speed to keep rated air flow volume at each fan speed setting (Lo-Uhi)

You can set required E.S.P. by wired remote control that calculated with the set air flow rate and pressure loss of the duct connected.

- ● How to set E.S.P. by wired remote control
  - ① Push "◆" marked button(E.S.P. button).
  - ② Select indoor unit No. by using ◆◆ button.
  - ③ Select setting No. by using ◆◆ button and set E.S.P. by ⊙ button.
    See detailed procedure in technical manual.



Notice

You can NOT set E.S.P. by wireless remote control.

With E.S.P. setting, confirm that actual E.S.P. agrees with E.S.P. setting.
When E.S.P. setting is higher than actual E.S.P., the airflow rate becomes excessively higher. This will cause water leakage if water splashes.
When E.S.P. setting is lower than actual E.S.P., the airflow rate becomes excessively lower and the cooling or heating may become ineffective.
In order to reduce the risk above the factory E.S.P. setting is set within the range of 80 – 150 Pa (E.S.P. setting No. 8 – 15). Be sure to use within the range of 80 – 150 Pa in actual operations. If actual E.S.P. is lower than 80 Pa, it may cause water leakage.

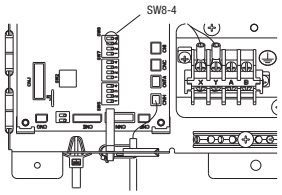
Setting No.	8	9	10	11	12	13	14	15
E.S.P (Pa)	80	90	100	110	120	130	140	150

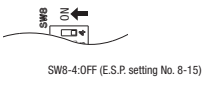
※ If 1 – 7 is selected for the setting No. on the remote control, the setting No. shows No. 8.
If 16 – 20 is selected for the setting No. on the remote control, the setting No. shows No. 15.
Factory default is No. 8.

The Case of FDU-F

Setting No.	1	2	3	4	5	6	7	8	9	10	11	12
E.S.P. (Pa)	10	20	30	40	50	60	70	80	90	100	110	120

※ If 13-20 is selected for the setting No. on the remote control, the setting No. shows No. 12.
※ Factory default is No. 8.





If SW8-4 is turned to "ON", E.S.P. setting range can be changed to 10 – 200 Pa (E.S.P. setting No. 1 – 19). This should not be used when actual E.S.P. cannot be confirmed, because the risk above becomes higher.

Setting No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
E.S.P. (Pa)	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	200

※ If 20 is selected for the setting No. on the remote control, the setting No. shows No. 19.

⑪Check list after installation

- ● Check the following items after all installation work completed.

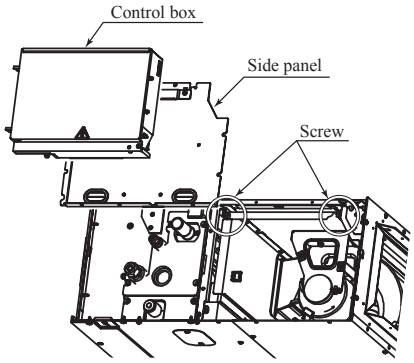
Check if	Expected trouble	Check
The indoor and outdoor units are fixed securely?	Falling, vibration, noise	
Inspection for leakage is done?	Insufficient capacity	
Insulation work is properly done?	Water leakage	
Water is drained properly?	Water leakage	
Power source voltage is same as mentioned in the model name plate?	PCB burnt out, not working at all	
No mis-wiring or mis-connection of piping?	PCB burnt out, not working at all	
Earth wiring is connected properly?	Electric shock	
Cable size comply with specified size?	PCB burnt out, not working at all	
Any obstacle blocks airflow on air inlet and outlet?	Insufficient capacity	
Is setting of E.S.P finished?	Excessive air flow, water drop blow out	

(ii) Replacement procedure of the fan unit

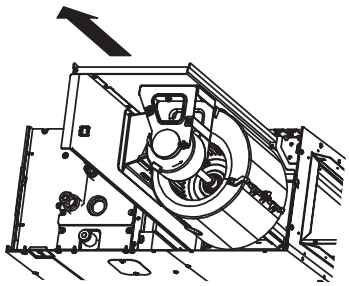
Notes(1) The unit is a heavy item. It must be supported securely and handled with care not to drop when it is necessary to replace.
(2) For the maintenance space, refer to page 27 (FDU-F:40).

1) Models FDU45, 56KXE6F

a) Remove the control box and the side panel, and remove the screws marked in the circles (2 places) in the figure.

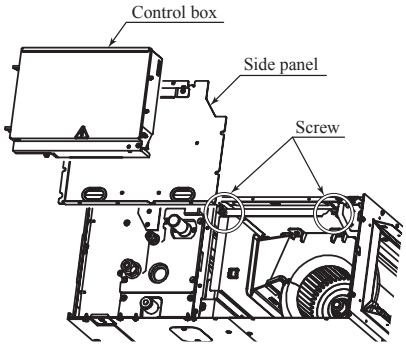


b) Take out the fan unit in the arrow direction.

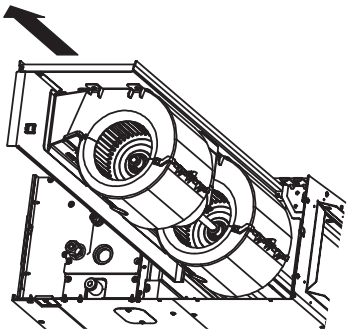


2) Models FDU71, 90KXE6F, 650FKXZE1

a) Remove the control box and the side panel, and remove the screws marked in the circles (2 places) in the figure.

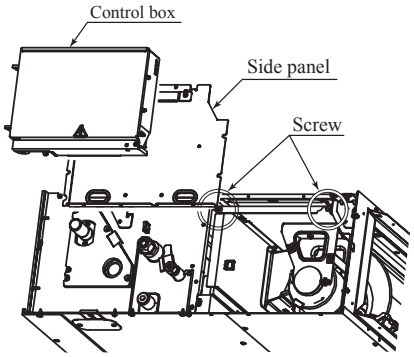


b) Take out the fan unit in the arrow direction.

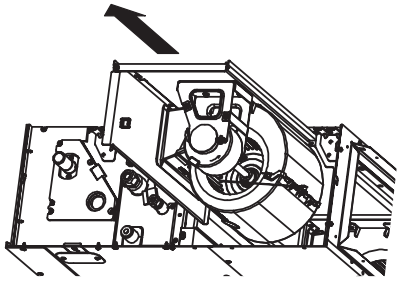


3) Models FDU112, 140, 160KXE6F, 1100FKXZE1

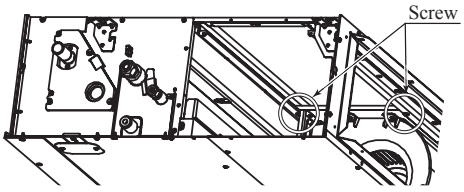
a) Remove the control box and the side panel, and remove the screws marked in the circles (2 places) from the unit located at the near side.



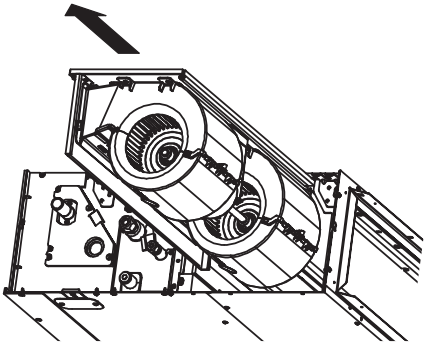
b) Take out the fan unit located at the near side in the arrow direction.



c) Remove the screws marked in the circles (2 places) from the fan unit located at the far side.



d) Take out the fan unit in the arrow direction.



(b) Models FDU224, 280KXZE1
Models FDU1800, 2400FKXZE1

PJG012D023

•This manual is for the installation of an indoor unit and an outdoor air processing unit (FDU-F).
•For electrical wiring work (Indoor), refer to page 238. For wired remote control installation, refer to page 242. For wireless kit installation, refer to page 374. For electrical wiring work (Outdoor) and refrigerant pipe work installation for outdoor unit, refer to the installation manual attached to an outdoor unit. For motion sensor kit installation, refer to page 397.
The case of FDU-F
•The total connection capacity of the other air-conditioning units and the outdoor air processing units must be from 50% to 100% (the total includes the outdoor air processing unit).
The connection capacity of the outdoor air processing unit must not exceed 30% of the capacity of the outdoor unit.
•Single outdoor air processing unit can be used alone. The connection capacity of the outdoor air processing unit must be from 50% to 100% of the total capacity of the outdoor unit.
Maximum number of outdoor air processing units that can be connected to the outdoor unit is 2units.
•Capacities of the suction air processing units can be calculated with the forllowing formulas.
FDU1800FKXZE1 = 224, FDU2400FKXZE1 = 280

SAFETY PRECAUTIONS

● Read the "SAFETY PRECAUTIONS" carefully first of all and then strictly follow it during the installation work in order to protect yourself.
● The precautionary items mentioned below are distinguished into two levels, ⚠WARNING and ⚠CAUTION .
⚠WARNING : Wrong installation would cause serious consequences such as injuries or death.
⚠CAUTION : Wrong installation might cause serious consequences depending on circumstances.
Both mentions the important items to protect your health and safety so strictly follow them by any means.
● The meanings of "Marks" used here are as shown on the right:
⃠ Never do it under any circumstances. ❗ Always do it according to the instruction.
● After completing the installation, do commissioning to confirm there are no abnormalities, and explain to the customers about "SAFETY PRECAUTIONS", correct operation method and maintenance method (air filter cleaning, operation method and temperature setting method) with user's manual of this unit.
Ask your customers to keep this installation manual together with the user's manual. Also, ask them to hand over the user's manual to the new user when the owner is changed.

⚠ WARNING

● **Installation should be performed by the specialist.**
If you install the unit by yourself, it may lead to serious trouble such as water leakage, electric shock, fire, and injury due to overturn of the unit.
● **Install the system correctly according to these installation manuals.**
Improper installation may cause explosion, injury, water leakage, electric shock, and fire.
● **Check the density refered by the foumula (accordance with ISO5149).**
If the density exceeds the limit density, please consult the dealer and installate the ventilation system.
● **Use the genuine accessories and the specified parts for installation.**
If parts unspecified by our company are used it could cause water leakage, electric shock, fire, and injury due to overturn of the unit.
● **Ventilate the working area well in case the refrigerant leaks during installation.**
If the refrigerant contacts the fire, toxic gas is produced.
In case of R32, the refrigerant could be ignited because of its flammability.
● **Install the unit in a location that can hold heavy weight.**
Improper installation may cause the unit to fall leading to accidents.
● **Install the unit properly in order to be able to withstand strong winds such as typhoons, and earthquakes.**
Improper installation may cause the unit to fall leading to accidents.
● **Do not mix air in to the cooling cycle on installation or removal of the air conditioner.**
If air is mixed in, the pressure in the cooling cycle will rise abnormally and may cause explosion and injuries.
● **Be sure to have the electrical wiring work done by qualified electrical installer, and use exclusive circuit.**
Power source with insufficient capacity and improper work can cause electric shock and fire.
● **Use specified wire for electrical wiring, fasten the wiring to the terminal securely, and hold the cable securely in order not to apply unexpected stress on the terminal.**
Loose connections or hold could result in abnormal heat generation or fire.
● **Arrange the electrical wires in the control box properly to prevent them from rising. Fit the lid of the services panel property.**
Improper fitting may cause abnormal heat and fire.
● **Check for refrigerant gas leakage after installation is completed.**
If the refrigerant gas leaks into the house and comes in contact with a fan heater, a stove, or an oven, toxic gas is produced.
● **Use the specified pipe, flare nut, and tools for R32 or R410A.**
Using existing parts (R22) could cause the unit failure and serious accident due to explosion of the cooling cycle.
● **Tighten the flare nut according to the specified method by with torque wrench.**
If the flare nut were tightened with excess torque, it could cause burst and refrigerant leakage after a long period.
● **Do not put the drainage pipe directly into drainage channels where poisonous gases such as sulfide gas can occur.**
Poisonous gases will flow into the room through drainage pipe and seriously affect the user's health and safety. This can also cause the corrosion of the indoor unit and a resultant unit failure or refrigerant leak.
● **Connect the pipes for refrigeration circuit securely in installation work before compressor is operated.**
If the compressor is operated when the service valve is open without connecting the pipe, it could cause explosion and injuries due to abnormal high pressure in the system.
● **Stop the compressor before removing the pipe after shutting the service valve on pump down work.**
If the pipe is removed when the compressor is in operation with the service valve open, air would be mixed in the refrigeration circuit and it could cause explosion and injuries due to abnormal high pressure in the cooling cycle.
● **Only use prescribed option parts. The installation must be carried out by the qualified installer.**
If you install the system by yourself, it can cause serious trouble such as water leaks, electric shocks, fire.
● **Do not repair by yourself. And consult with the dealer about repair.**
Improper repair may cause water leakage, electric shock or fire.
● **Consult the dealer or a specialist about removal of the air-conditioner.**
Improper installation may cause water leakage, electric shock or fire.
● **Turn off the power source during servicing or inspection work.**
If the power is supplied during servicing or inspection work, it could cause electric shock and injury by the operating fan.
● **Do not run the unit when the panel or protection guard are taken off.**
Touching the rotating equipment, hot surface, or high voltage section could cause an injury to be caught in the machine, to get burned, or electric shock.
● **Shut off the power before electrical wiring work.**
It could cause electric shock, unit failure and improper running.

⚠ CAUTION

● **Perform earth wiring surely.**
Do not connect the earth wiring to the gas pipe, water pipe, lightning rod and telephone earth wiring. Improper earth could cause unit failure and electric shock or fire due to a short circuit.
● **Earth leakage breaker must be installed.**
If the earth leakage breaker is not installed, it could cause electric shocks or fire.
● **Use the circuit breaker of correct capacity. Circuit breaker should be the one that disconnect all poles under over current.**
Using the incorrect one could cause the system failure and fire.
● **Do not use any materials other than a fuse of correct capacity where a fuse should be used.**
Connecting the circuit by wire or copper wire could cause unit failure and fire.
● **Do not install the indoor unit near the location where there is possibility of flammable gas leakages.**
If the gas leaks and gathers around the unit, it could cause fire.
● **Do not install and use the unit where corrosive gas (such as sulfurous acid gas etc.) or flammable gas (such as thinner, petroleum etc.) may be generated or accumulated, or volatile flammable substances are handled.**
It could cause the corrosion of heat exchanger, breakage of plastic parts etc. And inflammable gas could cause fire.
● **Secure a space for installation, inspection and maintenance specified in the manual.**
Insufficient space can result in accident such as personal injury due to falling from the installation place.
● **Do not use the indoor unit at the place where water splashes such as laundry.**
Indoor unit is not waterproof. It could cause electric shock and fire.
● **Do not use the indoor unit for a special purpose such as food storage, cooling for precision instrument, preservation of animals, plants, and a work of art.**
It could cause the damage of the items.
● **Do not install nor use the system near equipments which generate electromagnetic wave or high harmonics.**
Equipments like inverter equipment, private power generator, high-frequency medical equipment, or telecommunication equipment might influence the air conditioner and cause a malfunction and breakdown. Or the air conditioner might influence medical equipments or telecommunication equipments, and obstruct their medical activity or cause jamming.
● **Do not install the remote control at the direct sunlight.**
It could cause breakdown or deformation of the remote control.
● **Do not install the indoor unit at the place listed below.**
· Places where flammable gas could leak.
· Places where carbon fiber, metal powder or any powder is floated.
· Place where the substances which affect the air conditioner are generated such as sulfide gas, chloride gas, acid, alkali or ammonic atmospheres.
· Places exposed to oil mist or steam directly.
· On vehicles and ships
· Places where machinery which generates high harmonics is used.
· Places where cosmetics or special sprays are frequently used.
· Highly salted area such as beach.
· Heavy snow area
· Places where the system is affected by smoke from a chimney.
· Altitude over 1000m
● **Do not install the indoor unit in the locations listed below (Be sure to install the indoor unit according to the installation manual for each model because each indoor unit has each limitation)**
· Locations with any obstacles which can prevent inlet and outlet air of the unit
· Locations where vibration can be amplified due to insufficient strength of structure.
· Locations where the infrared receiver is exposed to the direct sunlight or the strong light beam. (in case of the infrared specification unit)
· Locations where an equipment affected by high harmonics is placed. (TV set or radio receiver is placed within 5m)
· Locations where drainage cannot run off safely.
It can affect performance or function and etc.
Do not install the motion sensor mounting panel at following places. It could cause detection error, incapacity of detection, or characteristic degradation.
• Place where vibration is applied to it for a long period of time.
• Place where static electricity or electromagnetic wave generates.
• Place where it is exposed to high temperature or humidity for a long period of time.
• Dusty place or where the lens face could be fouled or damaged.
● **Do not put any valuables which will break down by getting wet under the air-conditioner.**
Condensation could drop when the relative humidity is higher than 80% or drain pipe is clogged, and it damages user's belongings.
● **Do not use the base frame for the outdoor unit which is corroded or damaged after a long period of use.**
It could cause the unit falling down and injury.
● **Pay attention not to damage the drain pan by weld sputter when brazing work is done near the unit.**
If sputter entered into the unit during brazing work, it could cause damage (pinhole) of drain pan and leakage of water. To avoid damaging, keep the indoor unit packed or cover the indoor unit.
● **Install the drain pipe to drain the water surely according to the installation manual.**
Improper connection of the drain pipe may cause dropping water into room and damaging user's belongings.
● **Do not share the drain pipe for indoor unit and GHP (Gas Heat Pump system) outdoor unit.**
Toxic exhaust gas would flow into room and it might cause serious damage (some poisoning or deficiency of oxygen) to user's health and safety.
● **Be sure to perform air tightness test by pressurizing with nitrogen gas after completed refrigerant piping work.**
If the density of refrigerant exceeds the limit in the event of refrigerant leakage in the small room, lack of oxygen can occur, which can cause serious accidents.
● **For drain pipe installation, be sure to make descending slope of greater than 1/100, not to make traps, and not to make air-bleeding.**
Check if the drainage is correctly done during commissioning and ensure the space for inspection and maintenance.
● **Ensure the insulation on the pipes for refrigeration circuit so as not to condense water.**
Incomplete insulation could cause condensation and it would wet ceiling, floor, and any other valuables.
● **Do not install the outdoor unit where is likely to be a nest for insects and small animals.**
Insects and small animals could come into the electronic components and cause breakdown and fire. Instruct the user to keep the surroundings clean.
● **Pay extra attention, carrying the unit by hand.**
Carry the unit with 2 people if it is heavier than 20kg. Do not use the plastic straps but the grabbing place, moving the unit by hand. Use protective gloves in order to avoid injury by the aluminum fin.
● **Make sure to dispose of the packaging material.**
Leaving the materials may cause injury as metals like nail and woods are used in the package.
● **Do not operate the system without the air filter.**
It may cause the breakdown of the system due to clogging of the heat exchanger.
● **Do not touch any button with wet hands.**
It could cause electric shock.
● **Do not touch the refrigerant piping with bare hands when in operation.**
The pipe during operation would become very hot or cold according to the operating condition, and it could cause a burn or frostbite.
● **Do not clean up the air-conditioner with water.**
It could cause electric shock.
● **Do not turn off the power source immediately after stopping the operation.**
Be sure to wait for more than 5 minutes. Otherwise it could cause water leakage or breakdown.
● **Do not control the operation with the circuit breaker.**
It could cause fire or water leakage. In addition, the fan may start operation unexpectedly and it may cause injury.

○This model is middle static ducted type air conditioning unit. Therefore, do not use this model for direct blow type air conditioning unit.

①Before installation

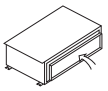
●Install correctly according to the installation manual.

●Confirm the following points:

○Unit type/Power source specification ○Pipes/Wires/Small parts ○Accessory items

Accessory item

For hanging	For drain pipe					
	FDU · FDU-F		FDUA			
Flat washer (M10)	Hose clamp	Soket	Pipe cover (big)	Pipe cover (small)	Drain hose	Hose clamp
						
8	2	1	1	1	1	1
For unit hanging	For drain soket mounting	For drain pipe mounting	For heat insulation of drain socket	For heat insulation of drain socket	For drain pipe connecting	For drain hose mounting



Accessory parts are stored inside this suction side.

②Selection of installation location for the indoor unit

① Select the suitable areas to install the unit under approval of the user.

- Areas where the indoor unit can deliver hot and cold wind sufficiently. Suggest to the user to use a circulator if the ceiling height is over 3m to avoid warm air being accumulated on the ceiling.
- Areas where there is enough space to install and service.
- Areas where it can be drained properly. Areas where drain pipe descending slope can be taken.
- Areas where there is no obstruction of airflow on both air return grille and air supply port.
- Areas where fire alarm will not be accidentally activated by the air-conditioner.
- Areas where the supply air does not short-circuit.
- Areas where it is not influenced by draft air.
- Areas not exposed to direct sunlight.
- Areas where dew point is lower than around 28°C and relative humidity is lower than 80%.

This indoor unit is tested under the condition of JIS (Japan Industrial Standard) high humidity condition and confirmed there is no problem. However, there is some risk of condensation drop if the air-conditioner is operated under the severer condition than mentioned above. If there is a possibility to use it under such a condition, attach additional insulation of 10 to 20mm thick for entire surface of indoor unit, refrigeration pipe and drain pipe.

- Areas where TV and radio stays away more than 1m. (It could cause jamming and noise.)
- Areas where any items which will be damaged by getting wet are not placed such as food, table wares, server, or medical equipment under the unit.
- Areas where there is no influence by the heat which cookware generates.
- Areas where not exposed to oil mist, powder and/or steam directly such as above fryer.
- Areas where lighting device such as fluorescent light or incandescent light doesn't affect the operation.
  (A beam from lighting device sometimes affects the infrared receiver for the wireless remote control and the air-conditioner might not work properly.)

② Check if the place where the air-conditioner is installed can hold the weight of the unit. If it is not able to hold, reinforce the structure with boards and beams strong enough to hold it. If the strength is not enough, it could cause injury due to unit falling.

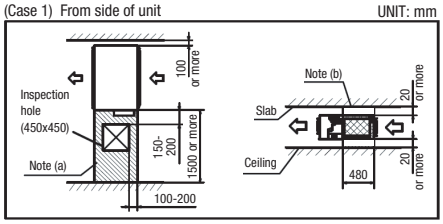
Space for installation and service

●Make installation altitude over 2.5m.

(Indoor Unit)

Select either of two cases to keep space for installation and services.

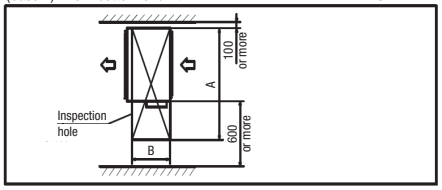
(Case 1) From side of unit UNIT: mm



Notes (a) There must not be obstacle to draw out fan motor. (marked area)

(b) Install refrigerant pipe, drain pipe, and wiring so as not to cross marked area.

(Case 2) From bottom of unit UNIT: mm

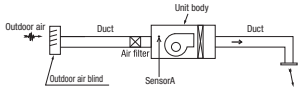


(Size of inspection hole) UNIT: mm

Single type	200-250
Multi type	224-280
FDU-F	1800-2400
A	1900
B	880

③Cautions for the handling and installation place of outdoor air processing unit

① This unit monitors the outdoor air temperature at the position of sensor A in the figure, and controls the start and stop with the thermostat based on the value of sensor A and the setting temperature by the remote control.



Remote control's setting temperature indicates the outdoor air temperature that controls the start and stop of operation by the thermostat.

When the thermostat is turned off, the operation is changed to the fan mode so that the outdoor air is blown out directly into the room. For example if the remote control is set to 22°C in cooling operation, and if the outdoor air temperature is 22°C or lower at that time, the unit will go into fan operation.

② When there is a difference between the air conditioning temperature in the room during cooling operation and the temperature of air blown out from the outdoor air processing unit, dewing water may drip from the unit. To prevent the dewing, provide a sufficient heat insulation means at the air blow outlet.

③ Since the air blow outlet on the outdoor air processing unit may blow out the outdoor air directly, orient the outlet in such a way that it will not blow air directly to persons in the room.

④ Since the unit controls the thermostat start and stop by monitoring the outdoor air temperature, it is prohibited to monitor the room temperature by means of the room temperature monitoring by changing the thermostat setting at the remote control side and the optional remote thermistor. Otherwise, dewing water may drip from the unit at lower outdoor air temperatures during cooling operation.

⑤ Install the remote control of the outdoor air processing unit at a place closer to the administrator to avoid the end user from using the remote control.

When handing over the unit to the end user, make sure to explain sufficiently about the foregoing cautions, the installation place of the remote control for the outdoor air processing unit and the position of air blow outlet.

④Preparation before installation

●If suspension bolt becomes longer, do reinforcement of earthquake resistant.

○For grid ceiling

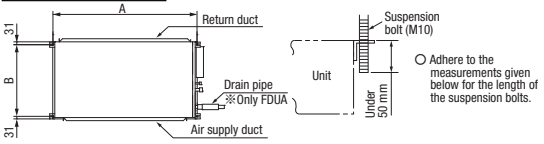
When the suspension bolt length is over 500mm, or the gap between the ceiling and roof is over 700mm, apply earthquake resistant brace to the bolt.

○In case the unit is hanged directly from the slab and is installed on the ceiling plane which has enough strength.

When suspension bolt length is over 1000mm, apply the earthquake resistant brace to the bolt.

●Prepare four (4) sets of suspension bolt, nut and spring washer (M10) on site.

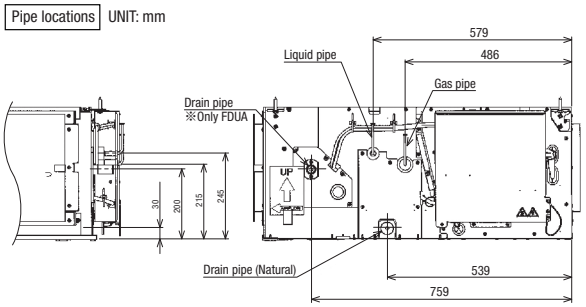
Suspension bolt location



UNIT: mm

Single type	200, 250
Multi type	224, 280
FDU-F	1800, 2400
A	1634
B	831

Pipe locations UNIT: mm



⑤Installation of indoor unit

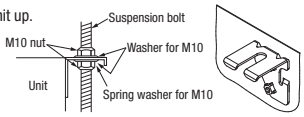
Work procedure

1. Prepare a hole of specified size on the ceiling.
2. Install suspension bolts at specified positions.
3. Make sure to use four suspension bolts.
4. Adjust the indoor unit position in order to fit with it.
5. Make sure to install the indoor unit horizontally. Confirm the levelness of the indoor unit with a level gauge or transparent hose filled with water. Keep the height difference at both ends of the indoor unit within 3mm.
6. Tighten four upper nuts and fix the unit after height and levelness adjustment.

Installation

[Hanging]

Hang the unit up.

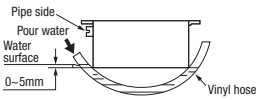


If the measurements between the unit and the ceiling hole do not match upon installation, it may be adjusted with the long holed installation tool.

Adjustment for horizontality

○Either use a level vial, or adjust the level according to the method below.

●Adjust so the bottom side of the unit will be leveled with the water surface as illustrated below.



Let the pipe side be slightly sloped.

○If the unit is not leveled, it may cause malfunctions or inoperation of the float switch.

⑥Duct Work

①A corrugated board (for preventing sputtering) is attached to the main body of the air conditioner (on the outlet port). Do not remove it until connecting the duct.

●An air filter can be provided on the main body of the air conditioner (on the inlet port). Remove it when connecting the duct on the inlet port.

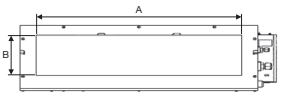
②Blowout duct

●Use rectangular duct to connect with unit.

●Duct size for each unit is as shown below.

UNIT: mm

Single type	200, 250
Multi type	224, 280
FDU-F	1800, 2400
A	1450
B	250



●Duct should be at their minimum length.

●We recommend to use sound and heat insulated duct to prevent it from condensation.

●Connect duct to unit before ceiling attachment.

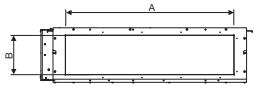
③Inlet port

●When connecting the duct to the inlet port, remove the air filter if it is fitted to the inlet port.

●Inlet port size for each unit is as shown below.

UNIT: mm

Single type	200, 250
Multi type	224, 280
FDU-F	1800, 2400
A	1450
B	250

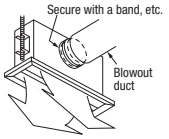


●Make sure to insulate the duct to prevent dewing on it.

④Install the specific blowout duct in a location where the air will circulate to the entire room.

●Conduct the installation of the specific blowout hole and the connection of the duct before attaching them to the ceiling.

●Insulate the area where the duct is secured by a band for dew condensation prevention.

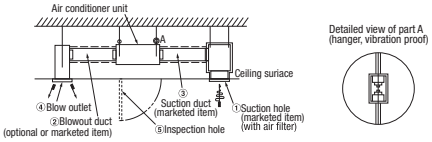


⑤Make sure provide an inspection hole on the ceiling. It is indispensable to service electric equipment, motor, functional components and cleaning of heat exchanger.

⑥Make sure to insulate ducts, in order to prevent dewing on them.

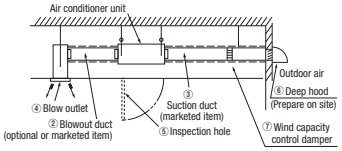
⑦Connect the duct with care not to touch the blower (fan motor) with fingers. Or, when inhaling air directly from the suction side, install an air filter at the air suction inlet.

FDU · FDUA



⑥Duct Work (continued)

FDU-F



Bad example of duct work

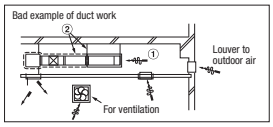
①If a duct is not provided at the suction side but it is substituted with the space over the ceiling, humidity in the space will increase by the influence of capacity of ventilation fan, strength of wind blowing against the out door air louver, weather (rainy day) and others.

a)Moisture in air is likely to condense over the external plates of the unit and to drip on the ceiling. Unit should be operated under the conditions as listed in the above table and within the limitation of wind volume. When the building is a concrete structure, especially immediately after the construction, humidity tends to rise even if the space over the ceiling is not substituted in place of a duct. In such occasion, it is necessary to insulate the entire unit with glass wool (25mm). (Use a wire net or equivalent to hold the glass wool in place.)

b)It may run out the allowable limit of unit operation (Example: When outdoor air temperature is 35°C DB, suction air temperature is 27°C WB) and it could result in such troubles as compressor overload, etc..

c)There is a possibility that the blow air volume may exceed the allowable range of operation due to the capacity of ventilation fan or strength of wind blowing against external air louver so that drainage from be heat exchanger may fall to reach the drain pan but leak outside (Example: drip on to the ceiling) with consequential water leakage in the room.

②If vibration damping is not conducted between the unit and the duct, and between the unit and the slab, vibration will be transmitted to the duct and vibration noise may occur. Also, vibration may be transmitted from the unit to the slab. Vibration damping must be performed.



⑦Refrigerant pipe

Caution

●Use the new refrigerant pipe.
When re-using the existing pipe system for R22 or R407C, pay attention to the following items.
・Change the flare nuts with the attached ones, and reprocess the flare parts.
・Do not use thin-walled pipes.

●Use phosphorus deoxidized copper alloy seamless pipe (C1220T) for refrigeration pipe installation. In addition, make sure there is no damage both inside and outside of the pipe, and no harmful substances such as sulfur, oxide, dust or a contaminant stuck on the pipes.

●Do not use any refrigerant other than the designated refrigerant.
Using other refrigerant except R32 or R410A (R22 etc.) may degrade inside refrigeration oil. And air getting into refrigeration circuit may cause over-pressure and resultant it may result in bursting, etc.

●Store the copper pipes indoors and seal the both end of them until they are brazed in order to avoid any dust, dirt or water getting into pipe. Otherwise it will cause degradation of refrigeration oil and compressor breakdown, etc.

●Use special tools for R32 or R410A refrigerant.

●The indoor unit pipes allow the maintenance panel to be removed. Therefore, regardless of the piping direction, there should be a straight section of 400 mm or more.

Work procedure

1. When brazing work, perform it while cool down around the brazing port with wet towels to prevent the overheating.
2. After check the gas leak test, install the heat insulation (prepare on site) to the brazing port of the indoor unit.
   ●Be sure to perform the heat insulation both of gas side piping with liquid side piping.
   ※If heat insulation does not install to the pipes, dew condensation may occurs and it may cause the water leakage.
   The thickness of the heat insulation should be more than 20mm.
3. Refrigerant is charged in the outdoor unit.
   As for the additional refrigerant charge for the indoor unit and piping, refer to the installation manual attached to the outdoor unit.
   ○The brazing port size of the indoor unit.

Single unit	Liquid/Gas	Size	Multi unit	Liquid/Gas	Size
Type 200	Liquid piping	ϕ9.52	Type 224	Liquid piping	ϕ9.52
	Gas piping	ϕ25.4		Gas piping	ϕ19.05
Type 250	Liquid piping	ϕ12.7	Type 280	Liquid piping	ϕ9.52
	Gas piping	ϕ25.4		Gas piping	ϕ22.22

※Please refer to the installation sheet of outdoor units for details.

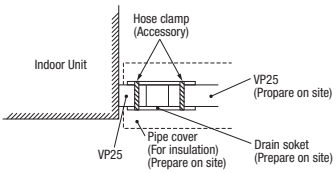
⑧Drain pipe

Caution

- Install the drain pipe according to the installation manual in order to drain properly. Imperfection in draining may cause flood indoors and wetting the household goods, etc.
- Do not put the drain pipe directly into the ditch where toxic gas such as sulfur, the other harmful and inflammable gas is generated. Toxic gas would flow into the room and it would cause serious damage to user's health and safety (some poisoning or deficiency of oxygen). In addition, it may cause corrosion of heat exchanger and bad smell.
- Connect the pipe securely to avoid water leakage from the joint.
- Insulate the pipe properly to avoid condensation drop.
- Check if the water can flow out properly from both the drain outlet on the indoor unit and the end of the drain pipe after installation.
- Make sure to make descending slope of greater than 1/100 and do not make up-down bend and/or trap in the midway. In addition, do not put air vent on the drain pipe. Check if water is drained out properly from the pipe during commissioning. Also, keep sufficient space for inspection and maintenance.

Work procedure

1. Insert the supplied drain hose (the end made of soft PVC) to the step of the drain socket on the indoor unit and fix it securely with the clamp.
   - ●Do not apply adhesives on this end.

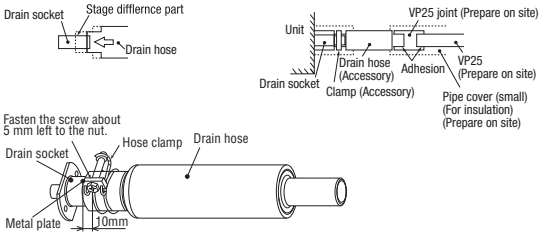


○The cases of FDUA and mouting a Drain-up KIT (optional parts)

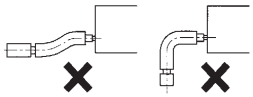
Make sure to insert the drain hose (the end mode of soft PVC) to the end of the step part of drain socket.

Attach the hose clamp to the drain hose around 10mm from the end, and fasten the screw about 5mm left to the nut.

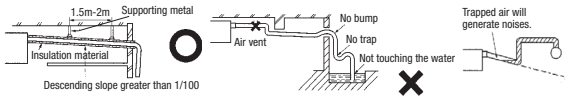
- ●Do not apply adhesives on this end.
- ●Do not use acetone-based adhesives to connect to the drain socket.



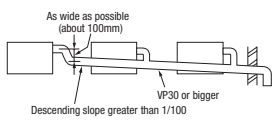
2. Prepare a joint for connecting VP25 pipe, adhere and connect the joint to the drain hose (the end made of rigid PVC), and adhere and connect VP25 pipe (prepare on site).
   ※As for drain pipe, apply VP25 made of rigid PVC which is on the market.
   - ●Make sure that the adhesive will not get into the supplied drain hose. It may cause the flexible part broken after the adhesive is dried up and gets rigid.
   - ●The flexible drain hose is intended to absorb a small difference at installation of the unit or drain pipes. Intentional bending, expanding may cause the flexible hose broken and water leakage.



3. Make sure to make descending slope of greater than 1/100 and do not make up-down bend and/or trap in the midway.
   - ●Pay attention not to give stress on the pipe on the indoor unit side, and support and fix the pipe as close place to the unit as possible when connecting the drain pipe.
   - ●Do not set up air vent.



- ●When sharing a drain pipe for more than one unit, lay the main pipe 100mm below the drain outlet of the unit. In addition, select VP30 or bigger size for main drain pipe.



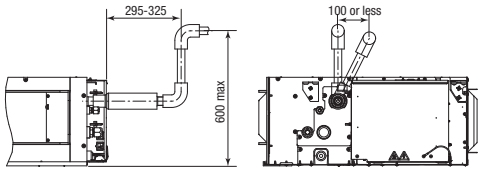
⑧Drain pipe (continued)

4. Insulate the drain pipe.
   - ●Be sure to insulate the drain socket and rigid PVC pipe installed indoors otherwise it may cause dew condensation and water leakage.

Drain up

○The cases of FDUA and mounting a drain-up KIT (optional parts)

- ●The position for drain pipe outlet can be raised up to 600mm above the ceiling. Use elbows for installation to avoid obstacles inside ceiling. If the horizontal drain pipe is too long before vertical pipe, the backflow of water will increase when the unit is stopped, and it may cause overflow of water from the drain pan on the indoor unit. In order to avoid overflow, keep the horizontal pipe length and offset of the pipe within the limit shown in the figure below.



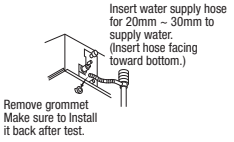
Otherwise, the construction point makes it same as drain pipe construction.

Drain test

1. Conduct a drain test after completion of the electrical work.
2. During the trail, make sure that drain flows properly through the piping and that no water leaks from connections.
3. In case of a new building, conduct the test before it is furnished with the ceiling.
4. Be sure to conduct this test even when the unit is installed in the heating season.

Procedures

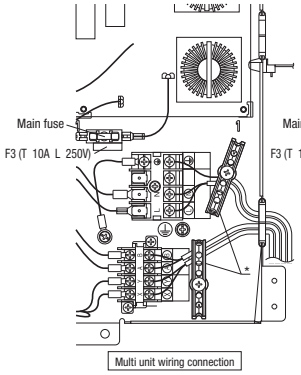
1. Supply about 2000 cc of water to the unit through the air outlet by using a feed water pump.
2. Check the drain while cooling operation.



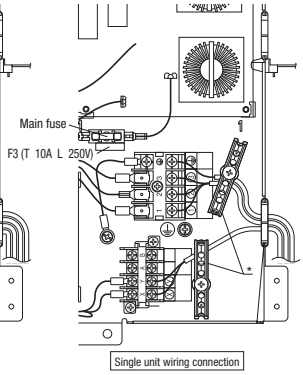
⑨Wiring-out position and wiring connection

- Electrical installation work must be performed according to the installation manual by an electrical installation service provider qualified by a power provider of the country, and be executed according to the technical standards and other regulations applicable to electrical installation in the country.
  Be sure to use an exclusive circuit.
- Use specified cord, fasten the wiring to the terminal securely, and hold the cord securely in order not to apply unexpected stress on the terminal.
- Do not put both power source line and signal line on the same route. It may cause miscommunication and malfunction.
- For the details of electrical wiring work, see attached instruction manual for electrical wiring work.

1. Remove a lid of the control box (2 screws).
2. Hold each wiring inside the unit and fasten them to terminal block securely.
3. Fix the wiring with clamps.
4. Install the removed parts back to original place.



Multi unit wiring connection



Single unit wiring connection

* Please fix the wiring in the band not to move even if it pulls.

Main fuse specification

Specification	Part No.
T 10A L 250V	SSA 564A149AL

⑩External static pressure setting

You can set External Static Pressure (E.S.P.) by method of MANUAL SETTING on remote control.
Indoor unit will control fan-speed to keep rated air flow volume at each fan speed setting (Lo-Uhi)
You can set required E.S.P. by wired remote control that calculated with the set air flow rate and pressure loss of the duct connected.

- How to set E.S.P. by wired remote control
  ① Push "◆" marked button(E.S.P. button).
  ② Select indoor unit No. by using ◆◆ button.
  ③ Select setting No. by using ◆◆ button and set E.S.P. by ( ) button.
  See detailed procedure in technical manual.



Notice
You can NOT set E.S.P. by wireless remote control.

With E.S.P. setting, confirm that actual E.S.P. agrees with E.S.P. setting.
When E.S.P. setting is higher than actual E.S.P., the airflow rate becomes excessively higher. This will cause water leakage if water splashes.
When E.S.P. setting is lower than actual E.S.P., the airflow rate becomes excessively lower and the cooling or heating may become ineffective.
In order to reduce the risk above the factory E.S.P. setting is set within the range of 80 – 150 Pa (E.S.P. setting No. 8 – 15). Be sure to use within the range of 80 – 150 Pa in actual operations. If actual E.S.P. is lower than 80 Pa, it may cause water leakage.

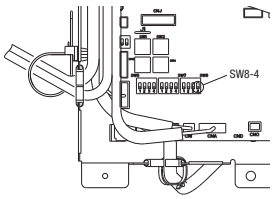
Setting No.	8	9	10	11	12	13	14	15
E.S.P (Pa)	80	90	100	110	120	130	140	150

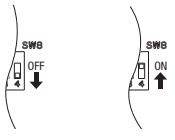
※ If 1 – 7 is selected for the setting No. on the remote control, the setting No. shows No. 8.
If 16 – 20 is selected for the setting No. on the remote control, the setting No. shows No. 15.
Factory default is No. 8.

The Case of FDU-F

Setting No.	1	2	3	4	5	6	7	8	9	10	11	12
E.S.P. (Pa)	10	20	30	40	50	60	70	80	90	100	110	120

※ If 13-20 is selected for the setting No. on the remote control, the setting No. shows No. 12.
※ Factory default is No. 8.





SW8-4:OFF
(E.S.P. setting No. 8-15)

SW8-4:ON
(E.S.P. setting No. 1-19)

⑩External static pressure setting

If SW8-4 is turned to "ON", E.S.P. setting range can be changed to 10 – 200 Pa (E.S.P. setting No. 1 – 19). This should not be used when actual E.S.P. cannot be confirmed, because the risk above becomes higher.

Setting No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
E.S.P. (Pa)	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	200

※ If 20 is selected for the setting No. on the remote control, the setting No. shows No. 19.

⑪Check list after installation

●Check the following items after all installation work completed.

Check if	Expected trouble	Check
The indoor and outdoor units are fixed securely?	Falling, vibration, noise	
Inspection for leakage is done?	Insufficient capacity	
Insulation work is properly done?	Water leakage	
Water is drained properly?	Water leakage	
Power source voltage is same as mentioned in the model name plate?	PCB burnt out, not working at all	
No mis-wiring or mis-connection of piping?	PCB burnt out, not working at all	
Earth wiring is connected properly?	Electric shock	
Cable size comply with specified size?	PCB burnt out, not working at all	
Any obstacle blocks airflow on air inlet and outlet?	Insufficient capacity	
Is setting of E.S.P finished?	Excessive air flow, water drop blow out	

(6) Duct connected-Low/Middle static pressure type (FDUM)

(a) Indoor unit

PJG012D021

This manual is for the installation of an indoor unit.
For electrical wiring work (Indoor), refer to page 238. For wired remote control installation, refer to page 242. For wireless kit installation, refer to page 374. For electrical wiring work (Outdoor) and refrigerant pipe work installation for outdoor unit, refer to the installation manual attached to an outdoor unit. For motion sensor kit installation, refer to page 397.

SAFETY PRECAUTIONS

- Read the "SAFETY PRECAUTIONS" carefully first of all and then strictly follow it during the installation work in order to protect yourself.
- The precautionary items mentioned below are distinguished into two levels, ⚠WARNING and ⚠CAUTION.
  ⚠WARNING : Wrong installation would cause serious consequences such as injuries or death.
  ⚠CAUTION : Wrong installation might cause serious consequences depending on circumstances.
  Both mentions the important items to protect your health and safety so strictly follow them by any means.
- The meanings of "Marks" used here are as shown on the right:
  ⃠ Never do it under any circumstances. | ❗ Always do it according to the instruction.
- After completing the installation, do commissioning to confirm there are no abnormalities, and explain to the customers about "SAFETY PRECAUTIONS", correct operation method and maintenance method (air filter cleaning, operation method and temperature setting method) with user's manual of this unit.
  Ask your customers to keep this installation manual together with the user's manual. Also, ask them to hand over the user's manual to the new user when the owner is changed.

⚠WARNING

- **Installation should be performed by the specialist.**
  If you install the unit by yourself, it may lead to serious trouble such as water leakage, electric shock, fire, and injury due to overturn of the unit.
- **Install the system correctly according to these installation manuals.**
  Improper installation may cause explosion, injury, water leakage, electric shock, and fire.
- **Check the density refered by the foumula (accordance with ISO5149).**
  If the density exceeds the limit density, please consult the dealer and installate the ventilation system.
- **Use the genuine accessories and the specified parts for installation.**
  If parts unspecified by our company are used it could cause water leakage, electric shock, fire, and injury due to overturn of the unit.
- **Ventilate the working area well in case the refrigerant leaks during installation.**
  If the refrigerant contacts the fire, toxic gas is produced.
  In case of R32, the refrigerant could be ignited because of its flammability.
- **Install the unit in a location that can hold heavy weight.**
  Improper installation may cause the unit to fall leading to accidents.
- **Install the unit properly in order to be able to withstand strong winds such as typhoons, and earthquakes.**
  Improper installation may cause the unit to fall leading to accidents.
- **Do not mix air in to the cooling cycle on installation or removal of the air-conditioner.**
  If air is mixed in, the pressure in the cooling cycle will rise abnormally and may cause explosion and injuries.
- **Be sure to have the electrical wiring work done by qualified electrical installer, and use exclusive circuit.**
  Power source with insufficient capacity and improper work can cause electric shock and fire.
- **Use specified wire for electrical wiring, fasten the wiring to the terminal securely, and hold the cable securely in order not to apply unexpected stress on the terminal.**
  Loose connections or hold could result in abnormal heat generation or fire.
- **Arrange the electrical wires in the control box properly to prevent them from rising. Fit the lid of the services panel property.**
  Improper fitting may cause abnormal heat and fire.
- **Check for refrigerant gas leakage after installation is completed.**
  If the refrigerant gas leaks into the house and comes in contact with a fan heater, a stove, or an oven, toxic gas is produced.
- **Use the specified pipe, flare nut, and tools for R32 or R410A.**
  Using existing parts (R22) could cause the unit failure and serious accident due to explosion of the cooling cycle.
- **Tighten the flare nut according to the specified method by with torque wrench.**
  If the flare nut were tightened with excess torque, it could cause burst and refrigerant leakage after a long period.
- **Do not put the drainage pipe directly into drainage channels where poisonous gases such as sulfide gas can occur.**
  Poisonous gases will flow into the room through drainage pipe and seriously affect the user's health and safety. This can also cause the corrosion of the indoor unit and a resultant unit failure or refrigerant leak.
- **Connect the pipes for refrigeration circuit securely in installation work before compressor is operated.**
  If the compressor is operated when the service valve is open without connecting the pipe, it could cause explosion and injuries due to abnormal high pressure in the system.
- **Stop the compressor before removing the pipe after shutting the service valve on pump down work.**
  If the pipe is removed when the compressor is in operation with the service valve open, air would be mixed in the refrigeration circuit and it could cause explosion and injuries due to abnormal high pressure in the cooling cycle.
- **Only use prescribed option parts. The installation must be carried out by the qualified installer.**
  If you install the system by yourself, it can cause serious trouble such as water leaks, electric shocks, fire.
- **Do not repair by yourself. And consult with the dealer about repair.**
  Improper repair may cause water leakage, electric shock or fire.
- **Consult the dealer or a specialist about removal of the air-conditioner.**
  Improper installation may cause water leakage, electric shock or fire.
- **Turn off the power source during servicing or inspection work.**
  If the power is supplied during servicing or inspection work, it could cause electric shock and injury by the operating fan.
- **Do not run the unit when the panel or protection guard are taken off.**
  Touching the rotating equipment, hot surface, or high voltage section could cause an injury to be caught in the machine, to get burned, or electric shock.
- **Shut off the power before electrical wiring work.**
  It could cause electric shock, unit failure and improper running.

⚠ CAUTION

- **Perform earth wiring surely.**
  Do not connect the earth wiring to the gas pipe, water pipe, lightning rod and telephone earth wiring. Improper earth could cause unit failure and electric shock or fire due to a short circuit.
- **Earth leakage breaker must be installed.**
  If the earth leakage breaker is not installed, it could cause electric shocks or fire.
- **Use the circuit breaker of correct capacity. Circuit breaker should be the one that disconnect all poles under over current.**
  Using the incorrect one could cause the system failure and fire.
- **Do not use any materials other than a fuse of correct capacity where a fuse should be used.**
  Connecting the circuit by wire or copper wire could cause unit failure and fire.
- **Do not install the indoor unit near the location where there is possibility of flammable gas leakages.**
  If the gas leaks and gathers around the unit, it could cause fire.
- **Do not install and use the unit where corrosive gas (such as sulfurous acid gas etc.) or flammable gas (such as thinner, petroleum etc.) may be generated or accumulated, or volatile flammable substances are handled.**
  It could cause the corrosion of heat exchanger, breakage of plastic parts etc. And inflammable gas could cause fire.
- **Secure a space for installation, inspection and maintenance specified in the manual.**
  Insufficient space can result in accident such as personal injury due to falling from the installation place.
- **Do not use the indoor unit at the place where water splashes such as laundry.**
  Indoor unit is not waterproof. It could cause electric shock and fire.
- **Do not use the indoor unit for a special purpose such as food storage, cooling for precision instrument, preservation of animals, plants, and a work of art.**
  It could cause the damage of the items.
- **Do not install nor use the system near equipments which generate electromagnetic wave or high harmonics.**
  Equipments like inverter equipment, private power generator, high-frequency medical equipment, or telecommunication equipment might influence the air-conditioner and cause a malfunction and breakdown. Or the air-conditioner might influence medical equipments or telecommunication equipments, and obstruct their medical activity or cause jamming.
- **Do not install the remote control at the direct sunlight.**
  It could cause breakdown or deformation of the remote control.
- **Do not install the indoor unit at the place listed below.**
  · Places where flammable gas could leak.
  · Places where carbon fiber, metal powder or any powder is floated.
  · Place where the substances which affect the air-conditioner are generated such as sulfide gas, chloride gas, acid, alkali or ammonic atmospheres.
  · Places exposed to oil mist or steam directly.
  · On vehicles and ships
  · Places where machinery which generates high harmonics is used.
  · Places where cosmetics or special sprays are frequently used.
  · Highly salted area such as beach.
  · Heavy snow area
  · Places where the system is affected by smoke from a chimney.
  · Altitude over 1000m
- **Do not install the indoor unit in the locations listed below (Be sure to install the indoor unit according to the installation manual for each model because each indoor unit has each limitation)**
  · Locations with any obstacles which can prevent inlet and outlet air of the unit
  · Locations where vibration can be amplified due to insufficient strength of structure.
  · Locations where the infrared receiver is exposed to the direct sunlight or the strong light beam. (in case of the infrared specification unit)
  · Locations where an equipment affected by high harmonics is placed. (TV set or radio receiver is placed within 5m)
  · Locations where drainage cannot run off safely.
  It can affect performance or function and etc..
  Do not install the motion sensor at following places. It could cause detection error, incapacity of detection, or characteristic degradation.
  · Place where vibration is applied to it for a long period of time.
  · Place where static electricity or electromagnetic wave generates.
  · Place where it is exposed to high temperature or humidity for a long period of time.
  · Dusty place or where the lens face could be fouled or damaged.
- **Do not put any valuables which will break down by getting wet under the air-conditioner.**
  Condensation could drop when the relative humidity is higher than 80% or drain pipe is clogged, and it damages user's belongings.
- **Do not use the base frame for the outdoor unit which is corroded or damaged after a long period of use.**
  It could cause the unit falling down and injury.
- **Pay attention not to damage the drain pan by weld sputter when brazing work is done near the unit.**
  If sputter entered into the unit during brazing work, it could cause damage (pinhole) of drain pan and leakage of water. To avoid damaging, keep the indoor unit packed or cover the indoor unit.
- **Install the drain pipe to drain the water surely according to the installation manual.**
  Improper connection of the drain pipe may cause dropping water into room and damaging user's belongings.
- **Do not share the drain pipe for indoor unit and GHP (Gas Heat Pump system) outdoor unit.**
  Toxic exhaust gas would flow into room and it might cause serious damage (some poisoning or deficiency of oxygen) to user's health and safety.
- **Be sure to perform air tightness test by pressurizing with nitrogen gas after completed refrigerant piping work.**
  If the density of refrigerant exceeds the limit in the event of refrigerant leakage in the small room, lack of oxygen can occur, which can cause serious accidents.
- **For drain pipe installation, be sure to make descending slope of greater than 1/100, not to make traps, and not to make air-bleeding.**
  Check if the drainage is correctly done during commissioning and ensure the space for inspection and maintenance.
- **Ensure the insulation on the pipes for refrigeration circuit so as not to condense water.**
  Incomplete insulation could cause condensation and it would wet ceiling, floor, and any other valuables.
- **Do not install the outdoor unit where is likely to be a nest for insects and small animals.**
  Insects and small animals could come into the electronic components and cause breakdown and fire. Instruct the user to keep the surroundings clean.
- **Pay extra attention, carrying the unit by hand.**
  Carry the unit with 2 people if it is heavier than 20kg. Do not use the plastic straps but the grabbing place, moving the unit by hand. Use protective gloves in order to avoid injury by the aluminum fin.
- **Make sure to dispose of the packaging material.**
  Leaving the materials may cause injury as metals like nail and woods are used in the package.
- **Do not operate the system without the air filter.**
  It may cause the breakdown of the system due to clogging of the heat exchanger.
- **Do not touch any button with wet hands.**
  It could cause electric shock.
- **Do not touch the refrigerant piping with bare hands when in operation.**
  The pipe during operation would become very hot or cold according to the operating condition, and it could cause a burn or frostbite.
- **Do not clean up the air-conditioner with water.**
  It could cause electric shock.
- **Do not turn off the power source immediately after stopping the operation.**
  Be sure to wait for more than 5 minutes. Otherwise it could cause water leakage or breakdown.
- **Do not control the operation with the circuit breaker.**
  It could cause fire or water leakage. In addition, the fan may start operation unexpectedly and it may cause injury.

○This model is middle static ducted type air conditioning unit. Therefore, do not use this model for direct blow type air conditioning unit.

①Before installation

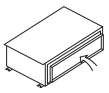
●Install correctly according to the installation manual.

●Confirm the following points:

○Unit type/Power source specification ○Pipes/Wires/Small parts ○Accessory items

Accessory item

For hanging	For refrigerant pipe			For drain pipe			
Flat washer (M10)	Pipe cover (big)	Pipe cover (small)	Strap	Pipe cover (big)	Pipe cover (small)	Drain hose	Hose clamp
							
8	1	1	4	1	1	1	1
For unit hanging	For heat insulation of gas pipe	For heat insulation of liquid tube	For pipe cover fixing	For heat insulation of drain socket	For heat insulation of drain socket	For drain pipe connecting	For drain hose mounting



Accessory parts are stored inside this suction side.

②Selection of installation location for the indoor unit

① Select the suitable areas to install the unit under approval of the user.

- Areas where the indoor unit can deliver hot and cold wind sufficiently. Suggest to the user to use a circulator if the ceiling height is over 3m to avoid warm air being accumulated on the ceiling.
- Areas where there is enough space to install and service.
- Areas where it can be drained properly. Areas where drain pipe descending slope can be taken.
- Areas where there is no obstruction of air flow on both air return grille and air supply port.
- Areas where fire alarm will not be accidentally activated by the air-conditioner.
- Areas where the supply air does not short-circuit.
- Areas where it is not influenced by draft air.
- Areas not exposed to direct sunlight.
- Areas where dew point is lower than around 28°C and relative humidity is lower than 80%.

  This indoor unit is tested under the condition of JIS (Japan Industrial Standard) high humidity condition and confirmed there is no problem. However, there is some risk of condensation drop if the air-conditioner is operated under the severer condition than mentioned above. If there is a possibility to use it under such a condition, attach additional insulation of 10 to 20mm thick for entire surface of indoor unit, refrigeration pipe and drain pipe.
- Areas where TV and radio stays away more than 1m. (It could cause jamming and noise.)
- Areas where any items which will be damaged by getting wet are not placed such as food, table wares, server, or medical equipment under the unit.
- Areas where there is no influence by the heat which cookware generates.
- Areas where not exposed to oil mist, powder and/or steam directly such as above fryer.
- Areas where lighting device such as fluorescent light or incandescent light doesn't affect the operation.

  (A beam from lighting device sometimes affects the infrared receiver for the wireless remote control and the air-conditioner might not work properly.)

② Check if the place where the air-conditioner is installed can hold the weight of the unit. If it is not able to hold, reinforce the structure with boards and beams strong enough to hold it. If the strength is not enough, it could cause injury due to unit falling.

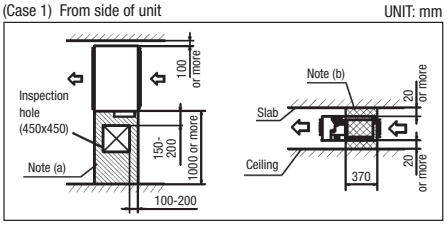
Space for installation and service

●Make installation altitude over 2.5m.

(Indoor Unit)

Select either of two cases to keep space for installation and services.

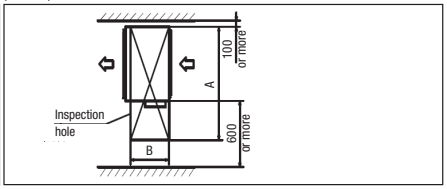
(Case 1) From side of unit UNIT: mm



Notes (a) There must not be obstacle to draw out fan motor. (marked area)

(b) Install refrigerant pipe, drain pipe, and wiring so as not to cross marked area.

(Case 2) From bottom of unit UNIT: mm



(Size of inspection hole) UNIT: mm

Single type	40-50	60, 71	100-140
Multi type	22-56	71, 90	112-160
A	1100	1300	1720
B	620		725

③Preparation before installation

●If suspension bolt becomes longer, do reinforcement of earthquake resistant.

○For grid ceiling

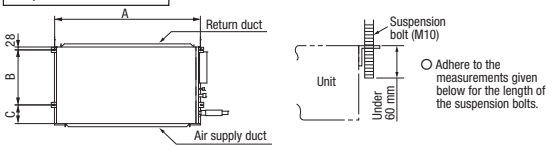
When the suspension bolt length is over 500mm, or the gap between the ceiling and roof is over 700mm, apply earthquake resistant brace to the bolt.

○In case the unit is hanged directly from the slab and is installed on the ceiling plane which has enough strength.

When suspension bolt length is over 1000mm, apply the earthquake resistant brace to the bolt.

●Prepare four (4) sets of suspension bolt, nut and spring washer (M10) on site.

Suspension Bolt Location

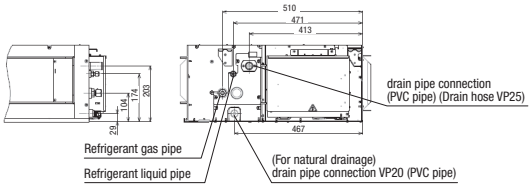


UNIT: mm

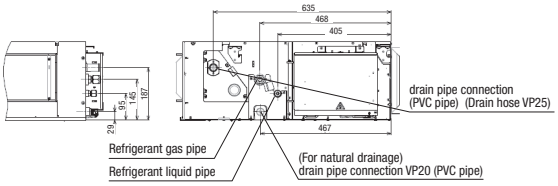
Multi type	22-56	71, 90	112-160
Single type	40-50	60, 71	100-140
A	786	986	1404
B	472	472	530
C	135	135	180

Pipe locations UNIT: mm

Multi type	22-90
Single type	40-71



Multi type	112-160
Single type	100-140

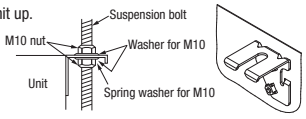


④Installation of indoor unit

Installation

[Hanging]

Hang the unit up.

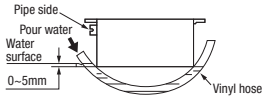


If the measurements between the unit and the ceiling hole do not match upon installation, it may be adjusted with the long holed installation tool.

Adjustment for horizontality

○Either use a level vial, or adjust the level according to the method below.

●Adjust so the bottom side of the unit will be leveled with the water surface as illustrated below.



Let the pipe side be slightly sloped.

○If the unit is not leveled, it may cause malfunctions or inoperation of the float switch.

⑤Duct Work

①A corrugated board (for preventing sputtering) is attached to the main body of the air-conditioner (on the outlet port). Do not remove it until connecting the duct.

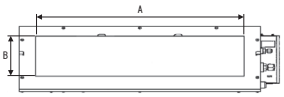
●An air filter can be provided on the main body of the air-conditioner (on the inlet port). Remove it when connecting the duct on the inlet port.

②Blowout duct

●Use rectangular duct to connect with unit.
Duct size for each unit is as shown below.

UNIT: mm

Single type	40-50	60, 71	100-140
Multi type	22-56	71, 90	112-140
A	682	882	1202
B	172	172	172



●Duct should be at their minimum length.

●We recommend to use sound and heat insulated duct to prevent it from condensation.

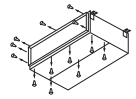
●Connect duct to unit before ceiling attachment.

③Inlet port

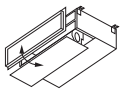
●When shipped the inlet port lies on the back.

●When connecting the duct to the inlet port, remove the air filter if it is fitted to the inlet port.

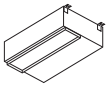
●When placing the inlet port to carry out suction from the bottom side, use the following procedure to replace the suction duct joint and the bottom plate.



●Remove the screws which fasten the bottom plate and the duct joint on the inlet port side of the unit.



●Replace the removed bottom plate and duct joint.



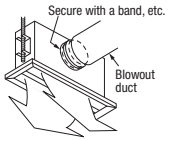
●Fit the duct join with a screw; fit the bottom plate.

●Make sure to insulate the duct to prevent dewing on it.

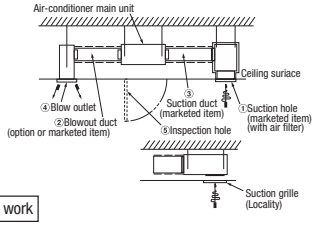
④Install the specific blowout duct in a location where the air will circulate to the entire room.

●Conduct the installation of the specific blowout hole and the connection of the duct before attaching them to the ceiling.

●Insulate the area where the duct is secured by a band for dew condensation prevention.



⑤Make sure provide an inspection hole on the ceiling. It is indispensable to service electric equipment, motor, functional components and cleaning of heat exchanger.



Bad example of duct work

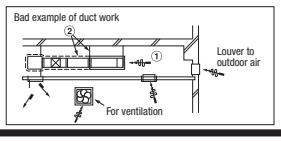
①If a duct is not provided at the suction side but it is substituted with the space over the ceiling, humidity in the space will increase by the influence of capacity of ventilation fan, strength of wind blowing against the out door air louver, weather (rainy day) and others.

a)Moisture in air is likely to condense over the external plates of the unit and to drip on the ceiling. Unit should be operated under the conditions as listed in the above table and within the limitation of wind volume. When the building is a concrete structure, especially immediately after the construction, humidity tends to rise even if the space over the ceiling is not substituted in place of a duct. In such occasion, it is necessary to insulate the entire unit with glass wool (25mm). (Use a wire net or equivalent to hold the glass wool in place.)

b)It may run out the allowable limit of unit operation (Example: When outdoor air temperature is 35°C DB, suction air temperature is 27°C WB) and it could result in such troubles as compressor overload, etc..

c)There is a possibility that the blow air volume may exceed the allowable range of operation due to the capacity of ventilation fan or strength of wind blowing against external air louver so that drainage from be heat exchanger may fall to reach the drain pan but leak outside (Example: drip on to the ceiling) with consequential water leakage in the room.

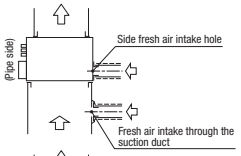
②If vibration damping is not conducted between the unit and the duct, and between the unit and the slab, vibration will be transmitted to the duct and vibration noise may occur. Also, vibration may be transmitted from the unit to the slab. Vibration damping must be performed.



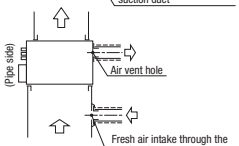
⑤Duct Work (continued)

Connecting the air intake/vent ducts

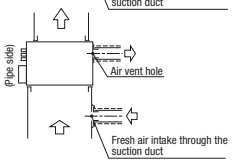
①Fresh air intake
[for air intake duct only]
○Use the side fresh air intake hole, or supply through a part of the suction duct.



[for simultaneous air intake/vent]
○Intake air through the suction duct.
(the side cannot be used)



②Air vent
○Use the side air vent hole.
(always use together with the air intake)



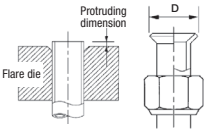
○Insulate the duct to protect it from dew condensation.

⑥Refrigerant pipe

Caution

●Be sure to use new pipes for the refrigerant pipes. Use the flare nut attached to the product.
Regarding whether existing pipes can be reused or not, and the washing method, refer to the instruction manual of the outdoor unit, catalogue or technical data.
1) In case of reuse: Do not use old flare nut, but use the one attached to the unit.
2) In case of reuse: Flare the end of pipe replaced partially for R32 or R410A.

⚠WARNING : When flared joints are reused indoors, the flare part shall be re-fabricated. (only for R32)



Pipe dia. d mm	Min. pipe wall thickness mm	Protruding dimension for flare, mm		Flare O.D. D mm	Flare nut tightening torque N·m
		Rigid (Clutch type)			
		For R32 For R410A	Conventional tool		
6.35	0.8	0 – 0.5	0.7 – 1.3	8.9 – 9.1	14 – 18
9.52	0.8			12.8 – 13.2	34 – 42
12.7	0.8			16.2 – 16.6	49 – 61
15.88	1			19.3 – 19.7	68 – 82
19.05	1.2			23.6 – 24.0	100 – 120

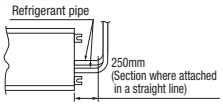
●Use phosphorus deoxidized copper alloy seamless pipe (C1220T) for refrigeration pipe installation. In addition, make sure there is no damage both inside and outside of the pipe, and no harmful substances such as sulfur, oxide, dust or a contaminant stuck on the pipes.

●Do not use any refrigerant other than R32 or R410A.
Using other refrigerant except R32 or R410A (R22 etc.) may degrade inside refrigeration oil. And air getting into refrigeration circuit may cause over-pressure and resultant it may result in bursting, etc.

●Store the copper pipes indoors and seal the both end of them until they are brazed in order to avoid any dust, dirt or water getting into pipe. Otherwise it will cause degradation of refrigeration oil and compressor breakdown, etc.

●Use special tools for R32 or R410A refrigerant.

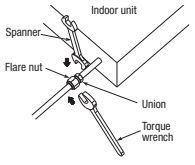
Piping work



When conducting piping work, make sure to allow the pipes to be aligned in a straight line for at least 250 mm, as shown in the left illustration. (This is necessary for the drain pump to function)

Work procedure

1. Remove the flare nut and blind flanges on the pipe of the indoor unit.
※ Make sure to loosen the flare nut with holding the nut on pipe side with a spanner and giving torque to the nut with another spanner in order to avoid unexpected stress to the copper pipe, and then remove them. (Gas may come out at this time, but it is not abnormal.)
● Pay attention whether the flare nut pops out. (as the indoor unit is sometimes pressured.)
2. Make a flare on liquid pipe and gas pipe, and connect the refrigeration pipes on the indoor unit.
※Bend radius of pipe must be 4D or larger. Once a pipe is bent, do not readjust the bending. Do not twist a pipe or collapse to 2/3D or smaller.
● Make sure to use flare nuts assembled on the unions. Usage of other flare nuts could cause refrigerant leakage.
※Do a flare connection as follows:
● Make sure to hold the nut on indoor unit pipe side using double spanner method as indicated when fastening / loosening flare nuts in order to prevent unintentional twisting of the copper pipe.
● When fastening the flare nut, align the refrigeration pipe with the center of flare nut, screw the nut for 3-4 times by hand and then tighten it by spanner with the specified torque mentioned in the table above.



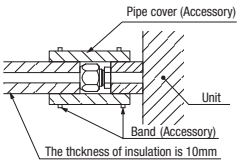
3. Cover the flare connection part of the indoor unit with attached insulation material after a gas leakage inspection, and tighten both ends with attached straps.
● Make sure to insulate both gas pipes and liquid pipes completely.
※ Incomplete insulation may cause dew condensation or water dropping.
● Use heat-resistant (120 °C or more) insulations on the gas side pipes.
● In case of using at high humidity condition, reinforce insulation of refrigerant pipes. Surface of insulation may cause dew condition or water dropping, if insulations are not reinfoced.

⑥Refrigerant pipe (continued)

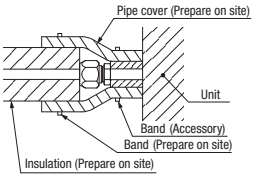
4. Refrigerant is charged in the outdoor unit.
   As for the additional refrigerant charge for the indoor unit and piping, refer to the installation manual attached to the outdoor unit.

Caution:
Refrigerating machine oil should not be applied to the threads of union or external surface of flare. It is because, even if the same tightening torque is applied, the oil is likely to decrease the slide friction force on the threads and increase, in turn, the axial component force so that it could crack the flare by the stress corrosion.
Refrigerating machine oil may be applied to the internal surface of flare only.

<The case of using thicness of insulation is 10mm>



<The case of using reinfoced insulation>



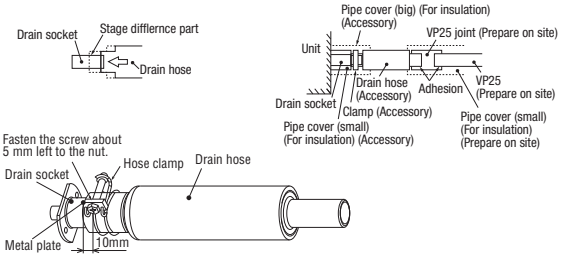
⑦Drain pipe

Caution

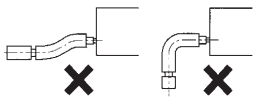
- Install the drain pipe according to the installation manual in order to drain properly. Imperfection in draining may cause flood indoors and wetting the household goods, etc.
- Do not put the drain pipe directly into the ditch where toxic gas such as sulfur, the other harmful and inflammable gas is generated. Toxic gas would flow into the room and it would cause serious damage to user's health and safety (some poisoning or deficiency of oxygen). In addition, it may cause corrosion of heat exchanger and bad smell.
- Connect the pipe securely to avoid water leakage from the joint.
- Insulate the pipe properly to avoid condensation drop.
- Check if the water can flow out properly from both the drain outlet on the indoor unit and the end of the drain pipe after installation.
- Make sure to make descending slope of greater than 1/100 and do not make up-down bend and/or trap in the midway. In addition, do not put air vent on the drain pipe. Check if water is drained out properly from the pipe during commissioning. Also, keep sufficient space for inspection and maintenance.

Work procedure

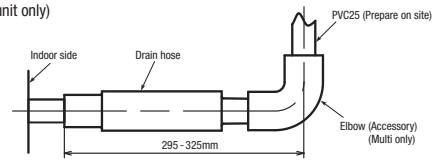
1. Make sure to insert the drain hose (the end mode of soft PVC) to the end of the step part of drain socket.
   Attach the hose clamp to the drain hose around 10mm from the end, and fasten the screw about 5mm left to the nut.
   - ●Do not apply adhesives on this end.
   - ●Do not use acetone-based adhesives to connect to the drain socket.



2. Prepare a joint for connecting VP25 pipe, adhere and connect the joint to the drain hose (the end made of rigid PVC), and adhere and connect VP25 pipe (prepare on site).
   ※As for drain pipe, apply VP25 made of rigid PVC which is on the market.
   - ●Make sure that the adhesive will not get into the supplied drain hose. It may cause the flexible part broken after the adhesive is dried up and gets rigid.
   - ●The flexible drain hose is intended to absorb a small difference at installation of the unit or drain pipes. Intentional bending, expanding may cause the flexible hose broken and water leakage.

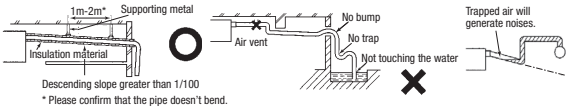


   - ●As for drain pipe, apply VP25 (OD32).
     If apply PVC25 (OD25), connect the expanded connector to the drain hose, with adhesive. (Multi unit only)

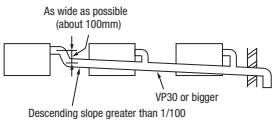


⑦Drain pipe (continued)

3. Make sure to make descending slope of greater than 1/100 and do not make up-down bend and/or trap in the midway.
   - ●Pay attention not to give stress on the pipe on the indoor unit side, and support and fix the pipe as close place to the unit as possible when connecting the drain pipe.
   - ●Do not set up air vent.



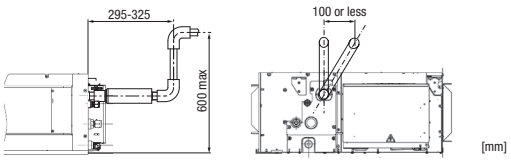
   - ●When sharing a drain pipe for more than one unit, lay the main pipe 100mm below the drain outlet of the unit. In addition, select VP30 or bigger size for main drain pipe.



4. Insulate the drain pipe.
   - ● Be sure to insulate the drain socket and rigid PVC pipe installed indoors otherwise it may cause dew condensation and water leakage.
     ※After drainage test implementation, cover the drain socket part with pipe cover (small size), then use the pipe cover (big size) to cover the pipe cover (small size), clamps and part of the drain hose, and fix and wrap it with tapes to wrap and make joint part gapless.

Drain up

- The position for drain pipe outlet can be raised up to 600mm above the ceiling. Use elbows for installation to avoid obstacles inside ceiling. If the horizontal drain pipe is too long before vertical pipe, the backflow of water will increase when the unit is stopped, and it may cause overflow of water from the drain pan on the indoor unit. In order to avoid overflow, keep the horizontal pipe length and offset of the pipe within the limit shown in the figure below.



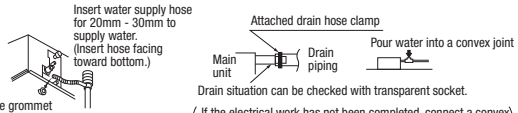
Otherwise, the construction point makes it same as drain pipe construction.

Drain test

1. Conduct a drain test after completion of the electrical work.
2. During the trail, make sure that drain flows properly through the piping and that no water leaks from connections.
3. In case of a new building, conduct the test before it is furnished with the ceiling.
4. Be sure to conduct this test even when the unit is installed in the heating season.

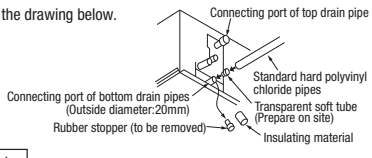
Procedures

1. Supply about 1000 cc of water to the unit through the air outlet by using a feed water pump.
2. Check the drain while cooling operation.



Outline of bottom drain piping work

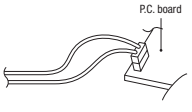
- If the bottom drain piping can be done with a descending gradient (1/50-1/100), it is possible to connect the pipes as shown in the drawing below.



Uncoupling the drain motor connector

- Uncouple the connector CnR for the drain motor as illustrated in the drawing on the right.

(Note: If the unit is run with the connector coupled, drain water will be discharged from the upper drain pipe joint, causing a water leak.)

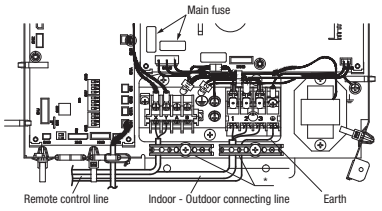


⑧Wiring-out position and wiring connection

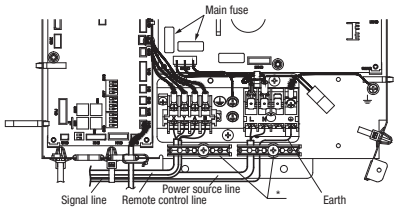
- Electrical installation work must be performed according to the installation manual by an electrical installation service provider qualified by a power provider of the country, and be executed according to the technical standards and other regulations applicable to electrical installation in the country.
  Be sure to use an exclusive circuit.
- Use specified cord, fasten the wiring to the terminal securely, and hold the cord securely in order not to apply unexpected stress on the terminal.
- Do not put both power source line and signal line on the same route. It may cause miscommunication and malfunction.
- Be sure to do D type earth work.
- For the details of electrical wiring work, see attached instruction manual for electrical wiring work.

1. Remove a lid of the control box (2 screws).
2. Hold each wiring inside the unit and fasten them to terminal block securely.
3. Fix the wiring with clamps.
4. Install the removed parts back to original place.

Single unit wiring connection



Multi unit wiring connection



* Please fix the wiring in the band not to move even if it pulls.

Main fuse specification

Model	Specification	Part No.
22-56	T3.15A L250V	SSA564A149AF
71-160	T5A L250V	SSA564A149AH

⑨External static pressure setting

You can set External Static Pressure (E.S.P.) by either method of MANUAL SETTING or AUTOMATIC SETTING by remote control.
Indoor unit will control fan-speed to keep rated air flow volume at each fan speed setting (Lo-Uhi)

1. MANUAL SETTING
   You can set required E.S.P. by wired remote control that calculated with the set air flow rate and pressure loss of the duct connected.
   Select No.1-10 (10Pa-100Pa) from following table according to calculation result.
   Refer to technical manual for details of air flow characteristic.

Setting No.	1	2	3	4	5	6	7	8	9	10
External Static Pressure (Pa)	10	20	30	40	50	60	70	80	90	100

※ When you set No.11-19 by remote control, unit will control fan-speed with setting of No.10 Factory default is at No.5.

- How to set E.S.P by wired remote control
  ① Push "◆" marked button(E.S.P button).
  ② Select indoor unit No. by using ▲▼ button.
  ③ Select setting No. by using ▲▼ button and set E.S.P. by ⏻ button.
  See detailed procedure in technical manual.



Notice
You can not set E.S.P. by wireless remote control.

Caution
Be sure to set E.S.P. according to actual duct connected.
Wrong settings causes excessive air flow volume or water drop blown out.

2. AUTOMATIC SETTING
   Indoor unit will recognize E.S.P. by itself automatically and select appropriate fan speed No.1-10.

⑨External static pressure setting (continued)

- How to start automatic setting
  ①, ②Same setting as MANUAL SETTING.
  ③ Select [AUT] by using ▲▼ button and press ⏻ button .
  ② After setting E.S.P. at "AUT", operate unit in FAN mode with certain fan speed (Lo-Uhi).

Indoor unit fan will run automatically and recognize E.S.P. by itself.
The operation for automatic E.S.P. recognition will last about 6 minutes, and it will be stopped after recognition is completed.

Caution
· Be sure to execute AUTOMATIC SETTING by remote control AFTER ducting work is completed. When duct specification is changed after AUTOMATIC SETTING, be sure to execute AUTOMATIC SETTING again after power resetting and turning on again.
· Be sure to execute AUTOMATIC SETTING before trial cooling operation. (See ELECTRICAL WIRING WORK INSTRUCTION about trial cooling operation)
· Before AUTOMATIC SETTING, be sure to check that return air filter in duct is installed and damper is opened.
  Wrong procedure causes excessive air flow or water drop blown out.

Notice
· During operation for automatic recognition (the Auto Operation), fan rotates with certain speeds regardless of set fan speed by remote control.
· When duct is set with low static pressure (around 10-50Pa), even if indoor unit operate with higher air flow volume than rated one, but it is not abnormal.
· When you changed operation mode or stop operation with ON/OFF button during Auto Operation, the Auto operation will be canceled.
· In such case, be sure to execute AUTOMATIC SETTING again according to above procedure.

⑩Check list after installation

●Check the following items after all installation work completed.

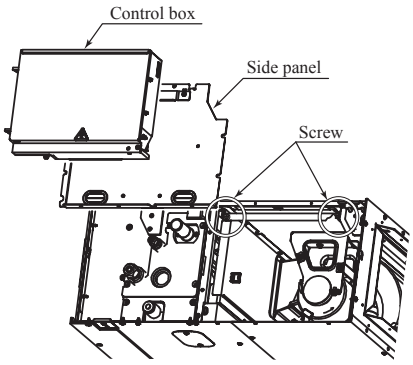
Check if	Expected trouble	Check
The indoor and outdoor units are fixed securely?	Falling, vibration, noise	
Inspection for leakage is done?	Insufficient capacity	
Insulation work is properly done?	Water leakage	
Water is drained properly?	Water leakage	
Power source voltage is same as mentioned in the model name plate?	PCB burnt out, not working at all	
No mis-wiring or mis-connection of piping?	PCB burnt out, not working at all	
Earth wiring is connected properly?	Electric shock	
Cable size comply with specified size?	PCB burnt out, not working at all	
Any obstacle blocks air flow on air inlet and outlet?	Insufficient capacity	
Is setting of E.S.P finished?	Excessive air flow, water drop blow out	

(b) Replacement procedure of the fan unit

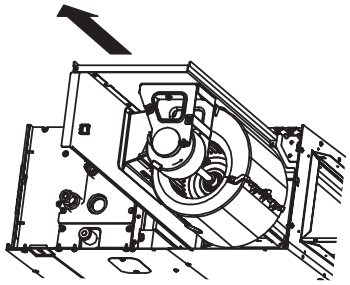
Notes(1) The unit is a heavy item. It must be supported securely and handled with care not to drop when it is necessary to replace.
(2) For the maintenance space, refer to page 31.

(i) Models FDUM22, 28, 36, 45, 56KXE6F

1) Remove the control box and the side panel, and remove the screws marked in the circles (2 places) in the figure.

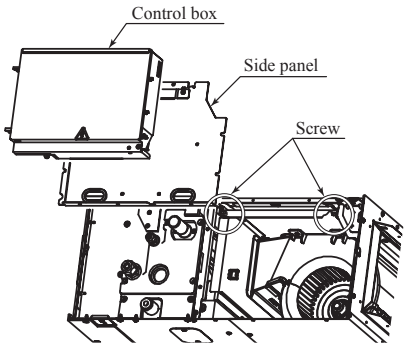


2) Take out the fan unit in the arrow direction.

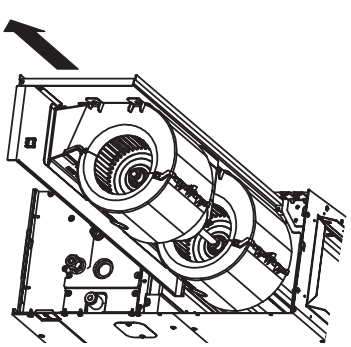


(ii) Models FDUM71, 90KXE6F

1) Remove the control box and the side panel, and remove the screws marked in the circles (2 places) in the figure.

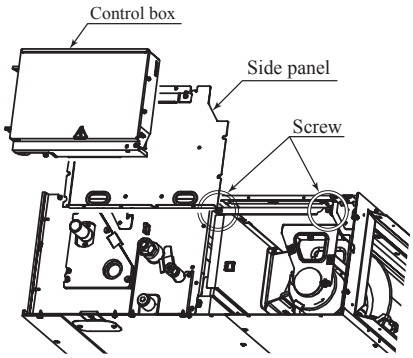


2) Take out the fan unit in the arrow direction.

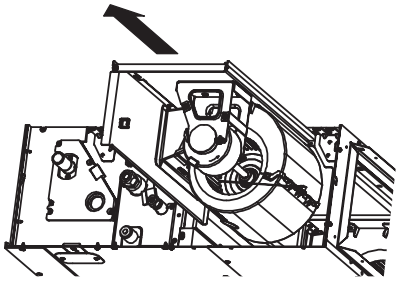


(iii) Models FDUM112, 140, 160KXE6F

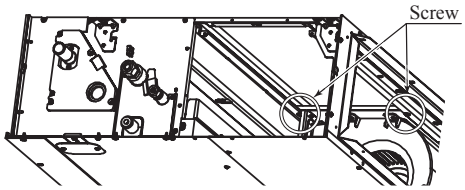
1) Remove the control box and the side panel, and remove the screws marked in the circles (2 places) from the unit located at the near side.



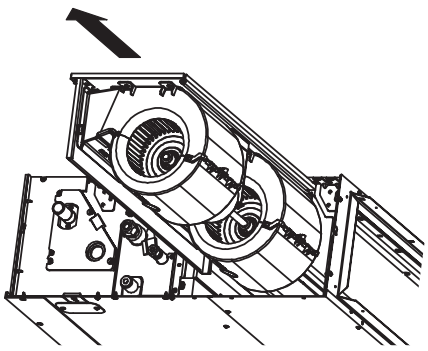
2) Take out the fan unit located at the near side in the arrow direction.



3) Remove the screws marked in the circles (2 places) from the fan unit located at the far side.



4) Take out the fan unit in the arrow direction.



(7) Duct connected (thin)-Low static pressure type (FDUT)

PJH012D005

This manual is for the installation of an indoor unit.
For electrical wiring work (Indoor), refer to page 238. For wired remote control installation, refer to page 242. For wireless kit installation, refer to page 374. For electrical wiring work (Outdoor) and refrigerant pipe work installation for outdoor unit, refer to the installation manual attached to an outdoor unit. For motion sensor kit installation, refer to page 397.

SAFETY PRECAUTIONS

- Read the "SAFETY PRECAUTIONS" carefully first of all and then strictly follow it during the installation work in order to protect yourself.
- The precautionary items mentioned below are distinguished into two levels, ⚠WARNING and ⚠CAUTION .
  ⚠WARNING : Wrong installation would cause serious consequences such as injuries or death.
  ⚠CAUTION : Wrong installation might cause serious consequences depending on circumstances.
  Both mentions the important items to protect your health and safety so strictly follow them by any means.
- The meanings of "Marks" used here are as shown on the right:
  Never do it under any circumstances. | Always do it according to the instruction.
- After completing the installation, do commissioning to confirm there are no abnormalities, and explain to the customers about "SAFETY PRECAUTIONS", correct operation method and maintenance method (air filter cleaning, operation method and temperature setting method) with user's manual of this unit.
  Ask your customers to keep this installation manual together with the user's manual. Also, ask them to hand over the user's manual to the new user when the owner is changed.

⚠WARNING

- **Installation should be performed by the specialist.**
  If you install the unit by yourself, it may lead to serious trouble such as water leakage, electric shock, fire, and injury due to overturn of the unit.
- **Install the system correctly according to these installation manuals.**
  Improper installation may cause explosion, injury, water leakage, electric shock, and fire.
- **Check the density refered by the foumula (accordance with ISO5149).**
  If the density exceeds the limit density, please consult the dealer and installate the ventilation system.
- **Use the genuine accessories and the specified parts for installation.**
  If parts unspecified by our company are used it could cause water leakage, electric shock, fire, and injury due to overturn of the unit.
- **Ventilate the working area well in case the refrigerant leaks during installation.**
  If the refrigerant contacts the fire, toxic gas is produced.
  In case of R32, the refrigerant could be ignited because of its flammability.
- **Install the unit in a location that can hold heavy weight.**
  Improper installation may cause the unit to fall leading to accidents.
- **Install the unit properly in order to be able to withstand strong winds such as typhoons, and earthquakes.**
  Improper installation may cause the unit to fall leading to accidents.
- **Do not mix air in to the cooling cycle on installation or removal of the air conditioner.**
  If air is mixed in, the pressure in the cooling cycle will rise abnormally and may cause explosion and injuries.
- **Be sure to have the electrical wiring work done by qualified electrical installer, and use exclusive circuit.**
  Power source with insufficient capacity and improper work can cause electric shock and fire.
- **Use specified wire for electrical wiring, fasten the wiring to the terminal securely, and hold the cable securely in order not to apply unexpected stress on the terminal.**
  Loose connections or hold could result in abnormal heat generation or fire.
- **Arrange the electrical wires in the control box properly to prevent them from rising. Fit the lid of the services panel property.**
  Improper fitting may cause abnormal heat and fire.
- **Check for refrigerant gas leakage after installation is completed.**
  If the refrigerant gas leaks into the house and comes in contact with a fan heater, a stove, or an oven, toxic gas is produced.
- **Use the specified pipe, flare nut, and tools for R32 or R410A.**
  Using existing parts (R22) could cause the unit failure and serious accident due to explosion of the cooling cycle.
- **Tighten the flare nut according to the specified method by with torque wrench.**
  If the flare nut were tightened with excess torque, it could cause burst and refrigerant leakage after a long period.
- **Do not put the drainage pipe directly into drainage channels where poisonous gases such as sulfide gas can occur.**
  Poisonous gases will flow into the room through drainage pipe and seriously affect the user's health and safety. This can also cause the corrosion of the indoor unit and a resultant unit failure or refrigerant leak.
- **Connect the pipes for refrigeration circuit securely in installation work before compressor is operated.**
  If the compressor is operated when the service valve is open without connecting the pipe, it could cause explosion and injuries due to abnormal high pressure in the system.
- **Stop the compressor before removing the pipe after shutting the service valve on pump down work.**
  If the pipe is removed when the compressor is in operation with the service valve open, air would be mixed in the refrigeration circuit and it could cause explosion and injuries due to abnormal high pressure in the cooling cycle.
- **Only use prescribed option parts. The installation must be carried out by the qualified installer.**
  If you install the system by yourself, it can cause serious trouble such as water leaks, electric shocks, fire.
- **Do not repair by yourself. And consult with the dealer about repair.**
  Improper repair may cause water leakage, electric shock or fire.
- **Consult the dealer or a specialist about removal of the air-conditioner.**
  Improper installation may cause water leakage, electric shock or fire.
- **Turn off the power source during servicing or inspection work.**
  If the power is supplied during servicing or inspection work, it could cause electric shock and injury by the operating fan.
- **Do not run the unit when the panel or protection guard are taken off.**
  Touching the rotating equipment, hot surface, or high voltage section could cause an injury to be caught in the machine, to get burned, or electric shock.
- **Shut off the power before electrical wiring work.**
  It could cause electric shock, unit failure and improper running.

⚠ CAUTION

- **Perform earth wiring surely.**
  Do not connect the earth wiring to the gas pipe, water pipe, lightning rod and telephone earth wiring. Improper earth could cause unit failure and electric shock due to a short circuit.
- **Earth leakage breaker must be installed.**
  If the earth leakage breaker is not installed, it can cause electric shocks.
- **Use the circuit breaker of correct capacity. Circuit breaker should be the one that disconnect all poles under over current.**
  Using the incorrect one could cause the system failure and fire.
- **Do not use any materials other than a fuse of correct capacity where a fuse should be used.**
  Connecting the circuit by wire or copper wire could cause unit failure and fire.
- **Do not install the indoor unit near the location where there is possibility of flammable gas leakages.**
  If the gas leaks and gathers around the unit, it could cause fire.
- **Do not install and use the unit where corrosive gas (such as sulfurous acid gas etc.) or flammable gas (such as thinner, petroleum etc.) may be generated or accumulated, or volatile flammable substances are handled.**
  It could cause the corrosion of heat exchanger, breakage of plastic parts etc. And inflammable gas could cause fire.
- **Secure a space for installation, inspection and maintenance specified in the manual.**
  Insufficient space can result in accident such as personal injury due to falling from the installation place.
- **Do not use the indoor unit at the place where water splashes such as laundry.**
  Indoor unit is not waterproof. It could cause electric shock and fire.
- **Do not use the indoor unit for a special purpose such as food storage, cooling for precision instrument, preservation of animals, plants, and a work of art.**
  It could cause the damage of the items.
- **Do not install nor use the system near equipments which generate electromagnetic wave or high harmonics.**
  Equipments like inverter equipment, private power generator, high-frequency medical equipment, or telecommunication equipment might influence the air conditioner and cause a malfunction and breakdown. Or the air conditioner might influence medical equipments or telecommunication equipments, and obstruct their medical activity or cause jamming.
- **Do not install the remote control at the direct sunlight.**
  It could cause breakdown or deformation of the remote control.
- **Do not install the indoor unit at the place listed below.**
  · Places where flammable gas could leak.
  · Places where carbon fiber, metal powder or any powder is floated.
  · Place where the substances which affect the air conditioner are generated such as sulfide gas, chloride gas, acid, alkali or ammonic atmospheres.
  · Places exposed to oil mist or steam directly.
  · On vehicles and ships
  · Places where machinery which generates high harmonics is used.
  · Places where cosmetics or special sprays are frequently used.
  · Highly salted area such as beach.
  · Heavy snow area
  · Places where the system is affected by smoke from a chimney.
  · Altitude over 1000m
- **Do not install the indoor unit in the locations listed below (Be sure to install the indoor unit according to the installation manual for each model because each indoor unit has each limitation)**
  · Locations with any obstacles which can prevent inlet and outlet air of the unit
  · Locations where vibration can be amplified due to insufficient strength of structure.
  · Locations where the infrared receiver is exposed to the direct sunlight or the strong light beam. (in case of the infrared specification unit)
  · Locations where an equipment affected by high harmonics is placed. (TV set or radio receiver is placed within 5m)
  · Locations where drainage cannot run off safely.
  It can affect performance or function and etc.
  Do not install the motion sensor mounting panel at following places. It could cause detection error, incapacity of detection, or characteristic degradation.
  • Place where vibration is applied to it for a long period of time.
  • Place where static electricity or electromagnetic wave generates.
  • Place where it is exposed to high temperature or humidity for a long period of time.
  • Dusty place or where the lens face could be fouled or damaged.
- **Do not put any valuables which will break down by getting wet under the air-conditioner.**
  Condensation could drop when the relative humidity is higher than 80% or drain pipe is clogged, and it damages user's belongings.
- **Do not use the base frame for the outdoor unit which is corroded or damaged after a long period of use.**
  It could cause the unit falling down and injury.
- **Pay attention not to damage the drain pan by weld sputter when brazing work is done near the unit.**
  If sputter entered into the unit during brazing work, it could cause damage (pinhole) of drain pan and leakage of water. To avoid damaging, keep the indoor unit packed or cover the indoor unit.
- **Install the drain pipe to drain the water surely according to the installation manual.**
  Improper connection of the drain pipe may cause dropping water into room and damaging user's belongings.
- **Do not share the drain pipe for indoor unit and GHP (Gas Heat Pump system) outdoor unit.**
  Toxic exhaust gas would flow into room and it might cause serious damage (some poisoning or deficiency of oxygen) to user's health and safety.
- **Be sure to perform air tightness test by pressurizing with nitrogen gas after completed refrigerant piping work.**
  If the density of refrigerant exceeds the limit in the event of refrigerant leakage in the small room, lack of oxygen can occur, which can cause serious accidents.
- **For drain pipe installation, be sure to make descending slope of greater than 1/100, not to make traps, and not to make air-bleeding.**
  Check if the drainage is correctly done during commissioning and ensure the space for inspection and maintenance.
- **Ensure the insulation on the pipes for refrigeration circuit so as not to condense water.**
  Incomplete insulation could cause condensation and it would wet ceiling, floor, and any other valuables.
- **Do not install the outdoor unit where is likely to be a nest for insects and small animals.**
  Insects and small animals could come into the electronic components and cause breakdown and fire. Instruct the user to keep the surroundings clean.
- **Pay extra attention, carrying the unit by hand.**
  Carry the unit with 2 people if it is heavier than 20kg. Do not use the plastic straps but the grabbing place, moving the unit by hand. Use protective gloves in order to avoid injury by the aluminum fin.
- **Make sure to dispose of the packaging material.**
  Leaving the materials may cause injury as metals like nail and woods are used in the package.
- **Do not operate the system without the air filter.**
  It may cause the breakdown of the system due to clogging of the heat exchanger.
- **Do not touch any button with wet hands.**
  It could cause electric shock.
- **Do not touch the refrigerant piping with bare hands when in operation.**
  The pipe during operation would become very hot or cold according to the operating condition, and it could cause a burn or frostbite.
- **Do not clean up the air-conditioner with water.**
  It could cause electric shock.
- **Do not turn off the power source immediately after stopping the operation.**
  Be sure to wait for more than 5 minutes. Otherwise it could cause water leakage or breakdown.
- **Do not control the operation with the circuit breaker.**
  It could cause fire or water leakage. In addition, the fan may start operation unexpectedly and it may cause injury.
- **When it has been changed to the bottom suction configuration at site, install a guard to protect hands from the fan.**

○ This model is low static ducted type air conditioning unit. Therefore, do not use this model for direct blow type air conditioning unit.

① Before installation

● Install correctly according to the installation manual.

● Confirm the following points:

○ Unit type/Power source specification ○ Pipes/Wires/Small parts ○ Accessory items

Accessory item

For refrigerant pipe			For drain pipe					
Pipe cover(big)	Pipe cover (small)	Strap	Pipe cover(big)	Pipe cover(small)	Drain hose	Hose clamp (big)	Hose clamp (small)	Joint
								
1	1	4	1 (71 only)	1 (71 only)	1 (71 only)	1	1 (15~56 only)	1 (15~56 only)
For heat insulation of gas pipe	For heat insulation of liquid tube	For pipe cover fixing	For heat insulation of drain socket	For heat insulation of drain socket	For drain pipe connecting	For drain hose mounting	For drain hose mounting	For drain pipe connecting

② Selection of installation location for the indoor unit

① Select the suitable areas to install the unit under approval of the user.
- Areas where the indoor unit can deliver hot and cold wind sufficiently. Suggest to the user to use a circulator if the ceiling height is over 3m to avoid warm air being accumulated on the ceiling.
- Areas where there is enough space to install and service.
- Areas where it can be drained properly. Areas where drain pipe descending slope can be taken.
- Areas where there is no obstruction of airflow on both air return grille and air supply port.
- Areas where fire alarm will not be accidentally activated by the air-conditioner.
- Areas where the supply air does not short-circuit.
- Areas where it is not influenced by draft air.
- Areas not exposed to direct sunlight.
- Areas where dew point is lower than around 28°C and relative humidity is lower than 80%. This indoor unit is tested under the condition (27°C/78%RH) of JIS (Japan Industrial Standard) high humidity condition and confirmed there is no problem. However, there is some risk of condensation drop if the air-conditioner is operated under the severer condition than mentioned above. If there is a possibility to use it under such a condition, attach additional insulation of 10 to 20mm thick for entire surface of indoor unit, refrigeration pipe and drain pipe.
- Areas where TV and radio stays away more than 1m. (It could cause jamming and noise.)
- Areas where any items which will be damaged by getting wet are not placed such as food, table wares, server, or medical equipment under the unit.
- Areas where there is no influence by the heat which cookware generates.
- Areas where not exposed to oil mist, powder and/or steam directly such as above fryer.
- Areas where lighting device such as fluorescent light or incandescent light doesn't affect the operation. (A beam from lighting device sometimes affects the infrared receiver for the wireless remote control and the air-conditioner might not work properly.)

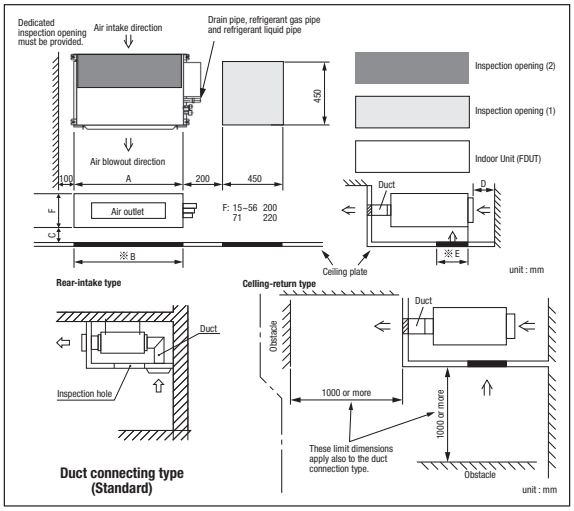
② Check if the place where the air-conditioner is installed can hold the weight of the unit. If it is not able to hold, reinforce the structure with boards and beams strong enough to hold it. If the strength is not enough, it could cause injury due to unit falling.

③ If there are 2 units of wireless type, keep them away for more than 6m to avoid malfunction due to cross communication.

④ When plural indoor units are installed nearby, keep them away for more than 4m.

Space for installation and service

● Make installation altitude over 2.5m.



※Dimensions of the opening on the ceiling after removing inspection opening (1)

FDUT, standard method of air intake: Rear intake (Specification at shipping from factory)

	A	B
15, 22, 28, 36	750	770
45, 56	950	970
71	1150	1170

Dimension C: 100 mm or more
Dimension D: 150 mm or more
Dimension E: 270 mm or more

② Selection of installation location for the indoor unit

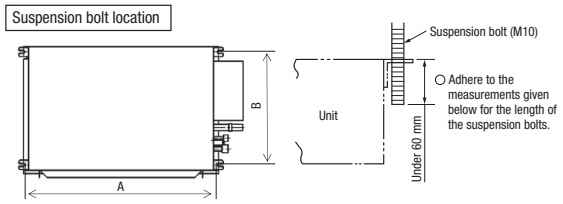
		Inspection opening (1)	Inspection opening (2)
1	Clamping of the flare of required and gas refrigerant pipe	Use	Not Use
2	Drain pipe connection	Use	Not Use
3	Installation and removal of blower	Not Use	Use
4	Control box		
	• Power source wire connection	Use	Not Use
	• Signal wire connection (between indoor and outdoor)	Use	Not Use
	• Signal wire connection (Remote control)	Use	Not Use
	• Address setting	Use	Not Use
5	Replace drain pump	Use	Not Use
6	Replace heat exch sensor	Use	Not Use

③ Preparation before installation

● If suspension bolt becomes longer, do reinforcement of earthquake resistant.
- ○ For grid ceiling
  When suspension bolt length is over 500mm, or the gap between the ceiling and roof is over 700mm, apply earthquake resistant brace to the bolt.
- ○ In case the unit is hanged directly from the slab and is installed on the ceiling plane which has enough strength.
  When suspension bolt length is over 1000mm, apply the earthquake resistant brace to the bolt.

● Prepare four (4) sets of suspension bolt, nut and spring washer (M10) on site.

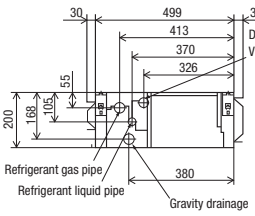
Suspension bolt location



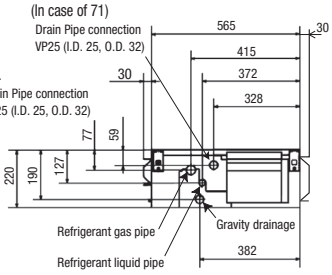
	A	B
15, 22, 28, 36	790	457
45, 56	990	457
71	1190	518

Pipe locations

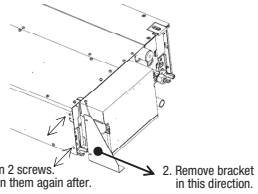
(In case of 15-56)



(In case of 71)



● Remove bracket from the unit after unpacking according to process as shown below. (in case of 15-56 only)



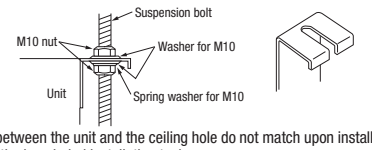
④ Installation of indoor unit

Work procedure

1. Prepare a hole of specified size on the ceiling.
2. Install suspension bolts at specified positions.
3. Make sure to use four suspension bolts.
4. Adjust the indoor unit position in order to fit with it.
5. Make sure to install the indoor unit horizontally. Confirm the levelness of the indoor unit with a level gauge or transparent hose filled with water. Keep the height difference at both ends of the indoor unit within 3mm.
6. Tighten four upper nuts and fix the unit after height and levelness adjustment.

Installation

[Hanging]
Hang the unit up.



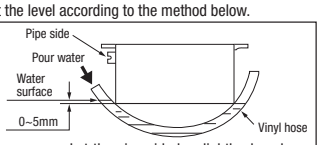
If the measurements between the unit and the ceiling hole do not match upon installation, it may be adjusted with the long holed installation tool.

④ Installation of indoor unit

Adjustment for horizontality

○ Either use a level vial, or adjust the level according to the method below.

● Adjust so the bottom side of the unit will be leveled with the water surface as illustrated below.



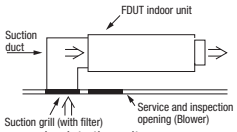
Let the pipe side be slightly sloped.

○ If the unit is not leveled, it may cause malfunctions or inoperation of the float switch.

⑤ Duct Work

Caution

- To prevent fire accident caused by dust or trouble of water leakage, install a filter provided at site at a place convenient for maintenance.
- When employing the ceiling return configuration, instead, install the suction guard (optional) specified by us to prevent dust or small living things in the ceiling coming into the unit.
- Indoor unit for small rooms of house, hotel or office, such as reception room, meeting room, etc.
- Where air is inhaled from the back of indoor unit and the air intake opening on the ceiling is disposed under the bottom face of blower, the suction duct is not used.

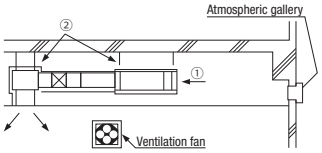


Where the air inhaling space is open to a large space or outdoor air, FDUT and the suction grill on the ceiling are connected to ducts. In this case, it is necessary to provide respectively the suction grill at the back of unit on the ceiling, and the service and inspection opening at the bottom face of FDUT. (One for both purposes is not allowed.)

(a) Suction grill is one of important parts for the air-conditioner. Install it in front of the suction duct. Make sure to install an air filter on it.
(b) Air outlet duct: Make it short as practicable as possible. Reduce the number of bends as less as possible.
Radius of bend on the duct must be as large as possible.
(c) Inhale section (Larger noises generate if air is inhaled from the underside). Install the suction inlet in front of the suction duct in a manner that the air filter can be brought down.
(d) Insulation must be performed for the duct to prevent water condensation on the duct.
(e) For the blowing outlet, select a shape and location where air may circulate, and a strucure where airflow may be controlled.
(f) An inspection hole must be made in the ceiling surface. This is necessary for the repair and maintenance of the electrical parts, motor and functional parts, as well as for cleaning the heat exchanger.
(g) Make sure to insulate ducts, in order to prevent dewing on them.
(h) Connect the duct with care not to touch the blower (fan motor) with fingers. Or, when inhaling air directly from the suction side, install an air filter at the air suction inlet.

A bad example of duct work

① If the suction duct is not used, and the attic is used as a suction duct, the attic will become extremely humid depending on the performance of the ventilation fan, the strength of wind blowing to the atmospheric gallery and the climate (e.g., rainy days).



a. Condensation occurs on the outer board of the unit and water may fall on the ceiling. Use the unit according to the air c onditions in the above table and airflow limits. In concrete constructions, high humidity can occur in new constructions even when the attic is not used as a suction duct. In this case, insulate the entire unit with glass wool (25 mm) (use a metal net to hold the wool.)

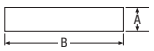
b. Operation of the unit may exceed its limits (for example, when the temperature of the suction air is 24 °C with the outdoor temperature of 35 °C DB). In such a cases, problems such as an overload of the compressor may occur.

c. The volume of the air blowing in may increase due to the performance of the ventilation fan and the wind strength blowing against the atmospheric gallery. The air usage limit may be exceeded, and the water from the heat exchanger will not be able to drain to the drain pan. Instead it will drain outside and cause a water leak (to the ceiling).

② If vibration damping is not conducted between the unit and the duct, and between the unit and the slab, vibration will be transmitted to the duct and vibration noise may occur. Also, vibration may be transmitted from the unit to the slab, Vibration damping must be pergormed.

Adaptation to suction duct (max. length 10 m)

- Size of duct fit to the air blowout duct plate



unit : mm

	A	B
15-36	99	660
45, 56	99	860
71	99	1060

1. When installing air outlet ducts on site, branch the duct near the air outlets and connect them to the air outlets provided on site, with care to achieve the designed blowout wind velocity on site.

15-36	2 or less
45, 56	3 or less
71	4 or less

Note 1) Max. duct length must be 10 m.
2) Number of air outlets provided on site must be as follows.

2. Speed of fan can be increased. Select the high ceiling mode with remote control.

⑥ Refrigerant pipe

Caution

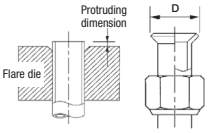
● Be sure to use new pipes for the refrigerant pipes. Use the flare nut attached to the product. Regarding whether existing pipes can be reused or not, and the washing method, refer to the instruction manual of the outdoor unit, catalogue or technical data.

⑥ Refrigerant pipe (continued)

Caution

● Be sure to use new pipes for the refrigerant pipes. Use the flare nut attached to the product. Regarding whether existing pipes can be reused or not, and the washing method, refer to the instruction manual of the outdoor unit, catalogue or technical data.
1) In case of reuse: Do not use old flare nut, but use the nut attached to the unit.
2) In case of reuse: Flare the end of pipe replaced partially for R32 or R410A.

⚠WARNING : When flared joints are reused indoors, the flare part shall be re-fabricated. (only for R32)

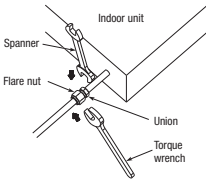


Pipe dia. d mm	Min. pipe wall thickness mm	Protruding dimension for flare, mm		Flare O.D. D mm	Flare nut tightening torque N·m
		Rigid (Clutch type)			
		For R32 For R410A	Conventional tool		
6.35	0.8	0 - 0.5	0.7 - 1.3	8.9 - 9.1	14 - 18
9.52	0.8			12.8 - 13.2	34 - 42
12.7	0.8			16.2 - 16.6	49 - 61
15.88	1			19.3 - 19.7	68 - 82
19.05	1.2			23.6 - 24.0	100 - 120

● Use phosphorus deoxidized copper alloy seamless pipe (C1220T) for refrigeration pipe installation. In addition, make sure there is no damage both inside and outside of the pipe, and no harmful substances such as sulfur, oxide, dust or a contaminant stuck on the pipes.
● Do not use any refrigerant other than the designated refrigerant.
Using other refrigerant except the designated refrigerant, may degrade inside refrigeration oil. And air getting into refrigeration circuit may cause over-pressure and resultant it may result in bursting, etc.
● Store the copper pipes indoors and seal the both end of them until they are brazed in order to avoid any dust, dirt or water getting into pipe. Otherwise it will cause degradation of refrigeration oil and compressor breakdown, etc.
● Use special tools for R32 or R410A refrigerant.

Work procedure

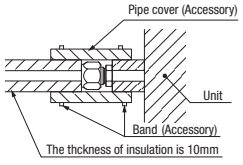
1. Remove the flare nut and blind flanges on the pipe of the indoor unit.
※ Make sure to loosen the flare nut with holding the nut on pipe side with a spanner and giving torque to the nut with another spanner in order to avoid unexpected stress to the copper pipe, and then remove them.
(Gas may come out at this time, but it is not abnormal.)
● Pay attention whether the flare nut pops out. (as the indoor unit is sometimes pressured.)
2. Make a flare on liquid pipe and gas pipe, and connect the refrigeration pipes on the indoor unit.
※Bend radius of pipe must be 4D or larger. Once a pipe is bent, do not readjust the bending. Do not twist a pipe or collapse to 2/3D or smaller.
● Make sure to use flare nuts assembled on the unions. Usage of other flare nuts could cause refrigerant leakage.
※Do a flare connection as follows:
● Make sure to hold the nut on indoor unit pipe side using double spanner method as indicated when fastening / loosening flare nuts in order to prevent unintentional twisting of the copper pipe.
● When fastening the flare nut, align the refrigeration pipe with the center of flare nut, screw the nut for 3-4 times by hand and then tighten it by spanner with the specified torque mentioned in the table above.



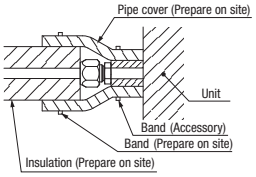
3. Cover the flare connection part of the indoor unit with attached insulation material after a gas leakage inspection, and tighten both ends with attached straps.
● Make sure to insulate both gas pipes and liquid pipes completely.
※Incomplete insulation may cause dew condensation or water dropping.
● Use heat-resistant (120 °C or more) insulations on the gas side pipes.
● In case of using at high humidity condition, reinforce insulation of refrigerant pipes.
Surface of insulation may cause dew condition or water dropping, if insulations are not reinfoced.
4. Refrigerant is charged in the outdoor unit.
As for the additional refrigerant charge for the indoor unit and piping, refer to the installation manual attached to the outdoor unit.

Caution:
Refrigerating machine oil should not be applied to the threads of union or external surface of flare. It is because, even if the same tightening torque is applied, the oil is likely to decrease the slide friction force on the threads and increase, in turn, the axial component force so that it could crack the flare by the stress corrosion.
Refrigerating machine oil may be applied to the internal surface of flare only.

〈The case of using thicness of insulation is 10mm〉



〈The case of using reinfoced insulation〉



⑦ Drain pipe

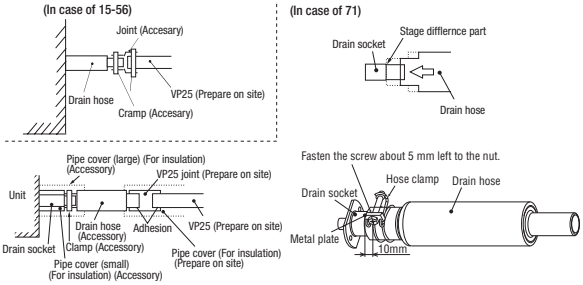
Caution

● Install the drain pipe according to the installation manual in order to drain properly. Imperfection in draining may cause flood indoors and wetting the household goods, etc.
● Do not put the drain pipe directly into the ditch where toxic gas such as sulfur, the other harmful and inflammable gas is generated. Toxic gas would flow into the room and it would cause serious damage to user's health and safety (some poisoning or deficiency of oxygen). In addition, it may cause corrosion of heat exchanger and bad smell.
● Connect the pipe securely to avoid water leakage from the joint.
● Insulate the pipe properly to avoid condensation drop.
● Check if the water can flow out properly from both the drain outlet on the indoor unit and the end of the drain pipe after installation.
● Make sure to make descending slope of greater than 1/100 and do not make up-down bend and/or trap in the midway. In addition, do not put air vent on the drain pipe. Check if water is drained out properly from the pipe during commissioning. Also, keep sufficient space for inspection and maintenance.

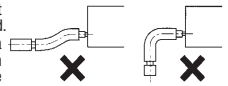
⑦ Drain pipe (continued)

Work procedure

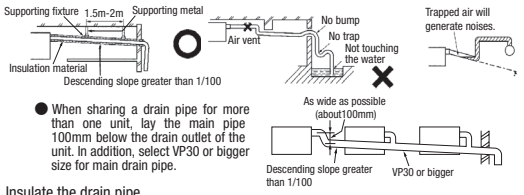
1. Insert the supplied drain hose (the end made of soft PVC) to the step of the drain socket on the indoor unit and fix it securely with the clamp.
   ● Do not apply adhesives on this end.



2. Prepare a joint for connecting VP25 (O.D.32) pipe, adhere and connect the joint to the drain hose (the end made of rigid PVC), and adhere and connect VP25 (O.D.32) pipe (prepare on site).
   ※As for drain pipe, apply VP25 (O.D.32) made of rigid PVC which is on the market.
   ● Make sure that the adhesive will not get into the supplied drain hose. It may cause the flexible part broken after the adhesive is dried up and gets rigid.
   ● The flexible drain hose is intended to absorb a small difference at the unit or installation of drain pipes. Intentional bending, expanding may cause the flexible hose broken and water leakage.



3. Make sure to make descending slope of greater than 1/100 and do not make up-down bend and/or trap in the midway.
   ● Pay attention not to give stress on the pipe on the indoor unit side, and support and fix the pipe as close place to the unit as possible when connecting the drain pipe.
   ● Do not set up air vent.

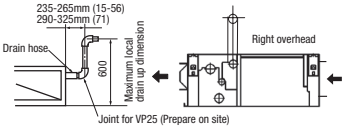


   ● When sharing a drain pipe for more than one unit, lay the main pipe 100mm below the drain outlet of the unit. In addition, select VP30 or bigger size for main drain pipe.

4. Insulate the drain pipe.
   ● Be sure to insulate the drain socket and rigid PVC pipe installed indoors otherwise it may cause dew condensation and water leakage.
   ※ After drainage test implementation, cover the drain socket part with pipe cover (small size), then use the pipe cover (big size) to cover the pipe cover (small size), clamps and part of the drain hose, and fix and wrap it with tapes to wrap and make joint part gapless.

Drain up

● The position for drain pipe outlet can be raised up to 600mm above the ceiling. Use elbows for installation to avoid obstacles inside ceiling. If the horizontal drain pipe is too long before vertical pipe, the backflow of water will increase when the unit is stopped, and it may cause overflow of water from the drain pan on the indoor unit. In order to avoid overflow, keep the horizontal pipe length and offset of the pipe within the limit shown in the figure below.

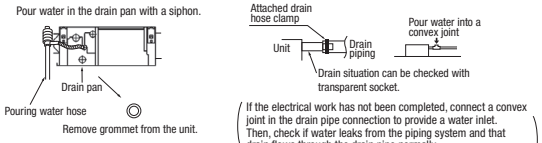


Drain test

1. Conduct a drainage test after completion of the electrical work.
2. During the trial, make sure that drain flows properly through the piping and that no water leaks from connections.
3. In case of a new building, conduct the test before it is furnished with the ceiling.
4. Be sure to conduct this test even when the unit is installed in the heating season.

Procedures

1. Supply about 1000 cc of water to the unit through the air outlet by using a feed water pump.
2. Check the drain while cooling operation.



If the electrical work has not been completed, connect a convex joint in the drain pipe connection to provide a water inlet. Then, check if water leaks from the piping system and that drain flows through the drain pipe normally.

Drain pump operation

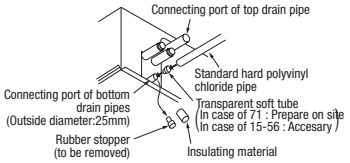
○ In case electrical wiring work finished
Drain pump can be operated by remote control (wired).
For the operation method, refer to Operation for drain pump in the installation manual for wiring work.

○ In case electrical wiring work not finished
Drain pump will run continuously when the DIP switch"SW7-1" on the indoor unit PCB is turned ON, the connector CNB is disconnected, and then the power source (230VAC on the terminal block ① and ②) is turned ON.
Make sure to turn OFF "SW7-1" and reconnect the connector CNB after the test.

⑦ Drain pipe (continued)

Outline of bottom drain piping work

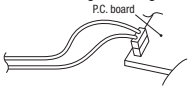
● If the bottom drain piping can be done with a descending gradient (1/50-1/100), it is possible to connect the pipes as shown in the drawing below.



Uncoupling the drain motor connector

● Uncouple the connector CNR for the drain motor as illustrated in the drawing on the right.

(Note: If the unit is run with the connector coupled, drain water will be discharged from the upper drain pipe joint, causing a water leak.)

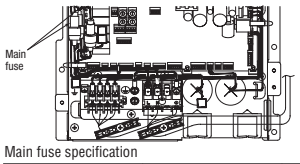


⑧ Wiring-out position and wiring connection

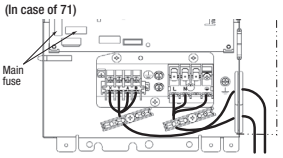
● Electrical installation work must be performed according to the installation manual by an electrical installation service provider qualified by a power provider of the country, and be executed according to the technical standards and other regulations applicable to electrical installation in the country.
Be sure to use an exclusive circuit.
● Use specified cord, fasten the wiring to the terminal securely, and hold the cord securely in order not to apply unexpected stress on the terminal.
● Do not put both power source line and signal line on the same route. It may cause miscommunication and malfunction.
● Be sure to do D type grounding work.
● For the details of electrical wiring work, see attached instruction manual for electrical wiring work.

1. Remove control LID from control box which is attaced to the side of control box.
2. Pass each wiring through circle shaped grommet as shown in attached file.
3. Hold each wiring inside the unit and fasten them to therminal block securely.
4. Fix the wirings with cramps.
5. Install the LID back to original position.

(In case of 15-56)



(In case of 71)



Main fuse specification

Model	Specification	Part No.
15-56	T3.15A L250V	SSA564A116G
71	T3.15A L250V	SSA564A149AF

⑨ External static pressure setting

Notice

This setting is valid for model 71 only.
You can set External Static Pressure (E.S.P.) by either method of MANUAL SETTING by remote control.
Indoor unit will control fan-speed to keep rated air flow volume at each fan speed setting (Lo-Hi)

1. MANUAL SETTING
   You can set required E.S.P. by wired remote control that calculated with the set air flow rate and pressure loss of the duct connected.
   Select No.1-5 (10Pa-50Pa) from following table according to calculation result.
   Refer to technical manual for details of air flow characteristic.

Setting No.	1	2	3	4	5
External Static Pressure (Pa)	10	20	30	40	50

   ※ When you set No.6-19 by remote control, unit will control fan-speed with setting of No.5. Factory default is at No.1.

● How to set E.S.P by wired remote control
   ① Push "◆" marked button(E.S.P button).
   ② Select indoor unit No. by using ▲▼ button.
   ③ Select setting No. by using ▲▼ button and set E.S.P. by ⟲ button.
   See detailed procedure in technical manual.



Notice
You can NOT set E.S.P by wireless remote control.

Caution
Be sure to set E.S.P. according to actual duct connected.
Wrong settings causes excessive air flow volume or water drop blown out.

⑩ Check list after installation

● Check the following items after all installation work completed.

Check if	Expected trouble	Check
The indoor and outdoor units are fixed securely?	Falling, vibration, noise	
Inspection for leakage is done?	Insufficient capacity	
Insulation work is properly done?	Water leakage	
Water is drained properly?	Water leakage	
Power source voltage is same as mentioned in the model name plate?	PCB burnt out, not working at all	
There is mis-wiring or mis-connection of piping?	PCB burnt out, not working at all	
Earth wiring is connected properly?	Electric shock	
Cable size comply with specified size?	PCB burnt out, not working at all	
Any obstacle blocks airflow on air inlet and outlet?	Insufficient capacity	

(8) Wall mounted type (FDK)

PHA012D403

This manual is for the installation of an indoor unit. For electrical wiring work (Indoor), refer to page 238. For wired remote control installation, refer to page 242. For wireless kit installation, refer to page 358. For electrical wiring work (Outdoor) and refrigerant pipe work installation for outdoor unit, refer to the installation manual attached to an outdoor unit. For motion sensor kit installation, refer to page 397.

SAFETY PRECAUTIONS

- Read the "SAFETY PRECAUTIONS" carefully first of all and then strictly follow it during the installation work in order to protect yourself.
- The precautionary items mentioned below are distinguished into two levels, ⚠WARNING and ⚠CAUTION .
  ⚠WARNING : Wrong installation would cause serious consequences such as injuries or death.
  ⚠CAUTION : Wrong installation might cause serious consequences depending on circumstances.
  Both mentions the important items to protect your health and safety so strictly follow them by any means.
- The meanings of "Marks" used here are as shown as follows:
  ⃠ Never do it under any circumstances. | ❗ Always do it according to the instruction.
- After completing the installation, do commissioning to confirm there are no abnormalities, and explain to the customers about "SAFETY PRECAUTIONS", correct operation method and maintenance method (air filter cleaning, operation method and temperature setting method) with user's manual of this unit.
  Ask your customers to keep this installation manual together with the user's manual. Also, ask them to hand over the user's manual to the new user when the owner is changed.

⚠ WARNING

- **Installation should be performed by the specialist.**
  If you install the unit by yourself, it may lead to serious trouble such as water leakage, electric shock, fire, and injury due to overturn of the unit.
- **Install the system correctly according to these installation manuals.**
  Improper installation may cause explosion, injury, water leakage, electric shock, and fire.
- **When installing in small rooms, take prevention measures not to exceed the density limit of refrigerant in the event of leakage, referred by the formula (accordance with ISO5149).**
  If the density of refrigerant exceeds the limit, please consult the dealer and install the ventilation system, otherwise lack of oxygen can occur, which can cause serious accidents.
- **Use the genuine accessories and the specified parts for installation.**
  If parts unspecified by our company are used it could cause water leakage, electric shock, fire, and injury due to overturn of the unit.
- **Ventilate the working area well in case the refrigerant leaks during installation.**
  If the refrigerant contacts the fire, toxic gas is produced.
  In case of R32, the refrigerant could be ignited because of its flammability.
- **Install the unit in a location that can hold heavy weight.**
  Improper installation may cause the unit to fall leading to accidents.
- **Install the unit properly in order to be able to withstand strong winds such as typhoons, and earthquakes.**
  Improper installation may cause the unit to fall leading to accidents.
- **Do not mix air in to the cooling cycle on installation or removal of the air conditioner.**
  If air is mixed in, the pressure in the cooling cycle will rise abnormally and may cause explosion and injuries.
- **Be sure to have the electrical wiring work done by qualified electrical installer, and use exclusive circuit.**
  Power source with insufficient capacity and improper work can cause electric shock and fire.
- **Use specified wire for electrical wiring, fasten the wiring to the terminal securely, and hold the cable securely in order not to apply unexpected stress on the terminal.**
  Loose connections or hold could result in abnormal heat generation or fire.
- **Arrange the electrical wires in the control box properly to prevent them from rising. Fit the lid of the services panel property.**
  Improper fitting may cause abnormal heat and fire.
- **Check for refrigerant gas leakage after installation is completed.**
  If the refrigerant gas leaks into the house and comes in contact with a fan heater, a stove, or an oven, toxic gas is produced.
- **Use the specified pipe, flare nut, and tools for R32 or R410A.**
  Using existing parts (R22) could cause the unit failure and serious accident due to explosion of the cooling cycle.
- **Tighten the flare nut according to the specified method by with torque wrench.**
  If the flare nut were tightened with excess torque, it could cause burst and refrigerant leakage after a long period.
- **Do not put the drainage pipe directly into drainage channels where poisonous gases such as sulfide gas can occur.**
  Poisonous gases will flow into the room through drainage pipe and seriously affect the user's health and safety. This can also cause the corrosion of the indoor unit and a resultant unit failure or refrigerant leak.
- **Connect the pipes for refrigeration circuit securely in installation work before compressor is operated.**
  If the compressor is operated when the service valve is open without connecting the pipe, it could cause explosion and injuries due to abnormal high pressure in the system.
- **Stop the compressor before removing the pipe after shutting the service valve on pump down work.**
  If the pipe is removed when the compressor is in operation with the service valve open, air would be mixed in the refrigeration circuit and it could cause explosion and injuries due to abnormal high pressure in the cooling cycle.
- **Only use prescribed option parts. The installation must be carried out by the qualified installer.**
  If you install the system by yourself, it can cause serious trouble such as water leaks, electric shocks, fire.
- **Do not repair by yourself. And consult with the dealer about repair.**
  Improper repair may cause water leakage, electric shock or fire.
- **Consult the dealer or a specialist about removal of the air-conditioner.**
  Improper installation may cause water leakage, electric shock or fire.
- **Turn off the power source during servicing or inspection work.**
  If the power is supplied during servicing or inspection work, it could cause electric shock and injury by the operating fan.
- **Do not run the unit when the panel or protection guard are taken off.**
  Touching the rotating equipment, hot surface, or high voltage section could cause an injury to be caught in the machine, to get burned, or electric shock.
- **Shut off the power before electrical wiring work.**
  It could cause electric shock, unit failure and improper running.

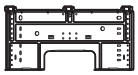
⚠ CAUTION

- **Perform earth wiring surely.**
  Do not connect the earth wiring to the gas pipe, water pipe, lightning rod and telephone earth wiring. Improper earth could cause unit failure, electric shock and fire due to a short circuit.
- **Earth leakage breaker must be installed.**
  If the earth leakage breaker is not installed, it can cause fire and electric shocks.
- **Use the circuit breaker of correct capacity. Circuit breaker should be the one that disconnect all poles under over current.**
  Using the incorrect one could cause the system failure and fire.
- **Do not use any materials other than a fuse of correct capacity where a fuse should be used.**
  Connecting the circuit by wire or copper wire could cause unit failure and fire.
- **Do not install the indoor unit near the location where there is possibility of flammable gas leakages.**
  If the gas leaks and gathers around the unit, it could cause fire.
- **Do not install and use the unit where corrosive gas (such as sulfurous acid gas etc.) or flammable gas (such as thinner, petroleum etc.) may be generated or accumulated, or volatile flammable substances are handled.**
  It could cause the corrosion of heat exchanger, breakage of plastic parts etc. And inflammable gas could cause fire.
- **Secure a space for installation, inspection and maintenance specified in the manual.**
  Insufficient space can result in accident such as personal injury due to falling from the installation place.
- **Do not use the indoor unit at the place where water splashes such as laundry.**
  Indoor unit is not waterproof. It could cause electric shock and fire.
- **Do not use the indoor unit for a special purpose such as food storage, cooling for precision instrument, preservation of animals, plants, and a work of art.**
  It could cause the damage of the items.
- **Do not install nor use the system near equipments which generate electromagnetic wave or high harmonics.**
  Equipments like inverter equipment, private power generator, high-frequency medical equipment, or telecommunication equipment might influence the air conditioner and cause a malfunction and breakdown. Or the air conditioner might influence medical equipments or telecommunication equipments, and obstruct their medical activity or cause jamming.
- **Do not install the remote control at the direct sunlight.**
  It could cause breakdown or deformation of the remote control.
- **Do not install the indoor unit at the place listed below.**
  · Places where flammable gas could leak.
  · Places where carbon fiber, metal powder or any powder is floated.
  · Place where the substances which affect the air conditioner are generated such as sulfide gas, chloride gas, acid, alkali or ammonic atmospheres.
  · Places exposed to oil mist or steam directly.
  · On vehicles and ships
  · Places where machinery which generates high harmonics is used.
  · Places where cosmetics or special sprays are frequently used.
  · Highly salted area such as beach.
  · Heavy snow area
  · Places where the system is affected by smoke from a chimney.
  · Altitude over 1000m
- **Do not install the indoor unit in the locations listed below (Be sure to install the indoor unit according to the installation manual for each model because each indoor unit has each limitation)**
  · Locations with any obstacles which can prevent inlet and outlet air of the unit
  · Locations where vibration can be amplified due to insufficient strength of structure.
  · Locations where the infrared receiver is exposed to the direct sunlight or the strong light beam. (in case of the infrared specification unit)
  · Locations where an equipment affected by high harmonics is placed. (TV set or radio receiver is placed within 5m)
  · Locations where drainage cannot run off safely.
  It can affect performance or function and etc.
  Do not install the motion sensor mounting panel at following places. It could cause detection error, incapacity of detection, or characteristic degradation.
  · Place where vibration is applied to it for a long period of time.
  · Place where static electricity or electromagnetic wave generates.
  · Place where it is exposed to high temperature or humidity for a long period of time.
  · Dusty place or where the lens face could be fouled or damaged.
- **Do not put any valuables which will break down by getting wet under the air-conditioner.**
  Condensation could drop when the relative humidity is higher than 80% or drain pipe is clogged, and it damages user's belongings.
- **Do not use the base frame for the outdoor unit which is corroded or damaged after a long period of use.**
  It could cause the unit falling down and injury.
- **Pay attention not to damage the drain pan by weld sputter when brazing work is done near the unit.**
  If sputter entered into the unit during brazing work, it could cause damage (pinhole) of drain pan and leakage of water. To avoid damaging, keep the indoor unit packed or cover the indoor unit.
- **Install the drain pipe to drain the water surely according to the installation manual.**
  Improper connection of the drain pipe may cause dropping water into room and damaging user's belongings.
- **Do not share the drain pipe for indoor unit and GHP (Gas Heat Pump system) outdoor unit.**
  Toxic exhaust gas would flow into room and it might cause serious damage (some poisoning or deficiency of oxygen) to user's health and safety.
- **Be sure to perform air tightness test by pressurizing with nitrogen gas after completed refrigerant piping work.**
  If the density of refrigerant exceeds the limit in the event of refrigerant leakage in the small room, lack of oxygen can occur, which can cause serious accidents.
- **For drain pipe installation, be sure to make descending slope of greater than 1/100, not to make traps, and not to make air-bleeding.**
  Check if the drainage is correctly done during commissioning and ensure the space for inspection and maintenance.
- **Ensure the insulation on the pipes for refrigeration circuit so as not to condense water.**
  Incomplete insulation could cause condensation and it would wet ceiling, floor, and any other valuables.
- **Do not install the outdoor unit where is likely to be a nest for insects and small animals.**
  Insects and small animals could come into the electronic components and cause breakdown and fire. Instruct the user to keep the surroundings clean.
- **Pay extra attention, carrying the unit by hand.**
  Carry the unit with 2 people if it is heavier than 20kg. Do not use the plastic straps but the grabbing place, moving the unit by hand. Use protective gloves in order to avoid injury by the aluminum fin.
- **Make sure to dispose of the packaging material.**
  Leaving the materials may cause injury as metals like nail and woods are used in the package.
- **Do not operate the system without the air filter.**
  It may cause the breakdown of the system due to clogging of the heat exchanger.
- **Do not touch any button with wet hands.**
  It could cause electric shock.
- **Do not touch the refrigerant piping with bare hands when in operation.**
  The pipe during operation would become very hot or cold according to the operating condition, and it could cause a burn or frostbite.
- **Do not clean up the air-conditioner with water.**
  It could cause electric shock.
- **Do not turn off the power source immediately after stopping the operation.**
  Be sure to wait for more than 5 minutes. Otherwise it could cause water leakage or breakdown.
- **Do not control the operation with the circuit breaker.**
  It could cause fire or water leakage. In addition, the fan may start operation unexpectedly and it may cause injury.

① Before installation

●Install correctly according to the installation manual.
●Confirm the following points:
○Unit type/Power source specification ○Pipes/Wires/Small parts ○Accessory items

Accessory item

Installation board	Tapping screw	Insulation
		
1	10	1
Attached to the rear of the indoor unit.	For the mounting plate, 4mm (dia.) x 25mm (length)	For heat insulation, 50mm x 100mm

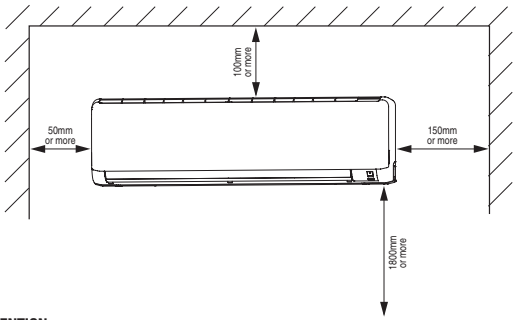
② Selection of installation location for the indoor unit

① Select the suitable areas to install the unit under approval of the user.
- Areas where the indoor unit can deliver hot and cold wind sufficiently. Suggest to the user to use a circulator if the ceiling height is over 3m to avoid warm air being accumulated on the ceiling.
- In case of the panel having the motion sensor, the installation height must be no higher than 4 m. It could reduce the sensitivity of motion sensor, disabling the detection.
- Areas where there is enough space to install and service.
- Areas where it can be drained properly. Areas where drain pipe descending slope can be taken.
- Areas where there is no obstruction of airflow on both air return grille and air supply port.
- Areas where fire alarm will not be accidentally activated by the air-conditioner.
- Areas where the supply air does not short-circuit.
- Areas where it is not influenced by draft air.
- Areas not exposed to direct sunlight.
- Areas where dew point is lower than around 23°C and relative humidity is lower than 80%.
  This indoor unit is tested under the condition of JIS (Japan Industrial Standard) high humidity condition (27˚C / 78%RH) and confirmed there is no problem. However, there is some risk of condensation drop if the air-conditioner is operated under the severer condition than mentioned above.
  If there is a possibility to use it under such a condition, attach additional insulation of 10 to 20mm thick for entire surface of indoor unit, refrigeration pipe and drain pipe.
- Areas where TV and radio stays away more than 1m. (It could cause jamming and noise.)
- Areas where any items which will be damaged by getting wet are not placed such as food, table wares, server, or medical equipment under the unit.
- Areas where there is no influence by the heat which cookware generates.
- Areas where not exposed to oil mist, powder and/or steam directly such as above fryer.
- Areas where lighting device such as fluorescent light or incandescent light doesn't affect the operation.
  (A beam from lighting device sometimes affects the infrared receiver for the wireless remote control and the air-conditioner might not work properly.)

② Check if the place where the air-conditioner is installed can hold the weight of the unit. If it is not able to hold, reinforce the structure with boards and beams strong enough to hold it. If the strength is not enough, it could cause injury due to unit falling.

③ If there are 2 units of wireless type, keep them away for more than 6m to avoid malfunction due to cross communication.

Space for installation and service

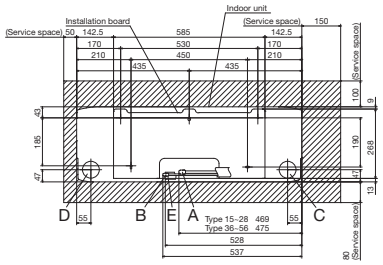


ATTENTION
● Secure a working space for inspection and maintenance.

③ Preparation before installation

Front view for installing position and installing space UNIT: mm

Type 15~56



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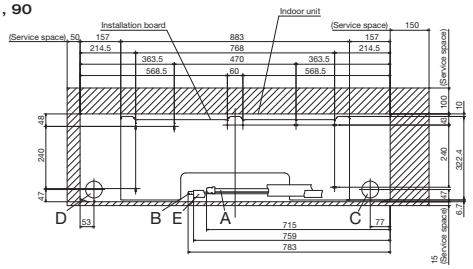


Symbol		Symbol	
A	Gas piping	D	Wall pulling hole for left rear piping
B	Liquid piping	E	Drain piping
C	Wall pulling hole for right rear piping		

④ Installation of indoor unit

Haulage

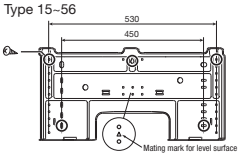


ATTENTION
● Move the box as close to the installation area as possible packed.
● If it must be unpacked, wrap the unit with a nylon sling, and be careful not to damage the unit.
※ Do not hold fragile plastic parts, such as the side panel, blow louver, etc.
● If you need to lay the unit on a floor after unpacking, always put it with the intake grille facing upward.

Installing installation board

ATTENTION
● This unit cannot be installed directly onto a wall surface. Regardless of the surface it is to be installed onto, you should use installation board with the unit.
○Adjustment of the installation board in the horizontal direction is to be conducted with five to nine screws in a temporary tightened state.

Type 15~56



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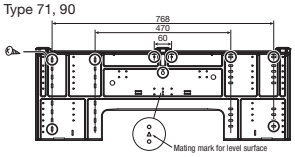

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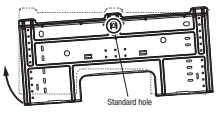

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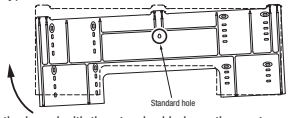
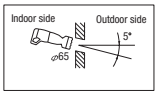


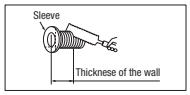
○Adjust so the board will be level by turning the board with the standard hole as the center.

Drilling of holes and fixture of sleeve (Option parts)

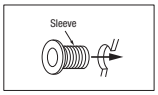
When drilling the wall that contains a metal lath, wire lath or metal plate, be sure to use pipe hole sleeve sold separately.



○Drill a hole with whole core drill.



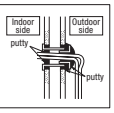
○ In case of right rear piping draw out, cut off the lower and the right side portions of the sleeve collar.





⚠ WARNING
Completely seal the hole in the wall with putty. If not sealed properly, dust, insects, small animals, and highly humid air may enter the room from outside, which could result in fire or other hazards.

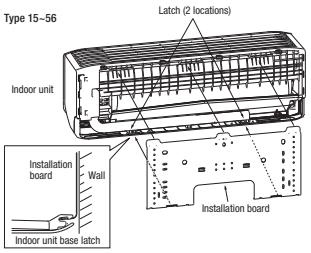
⚠ CAUTION
Completely seal the hole in the wall with putty.
If not sealed properly, furniture and other fixtures may be damaged by water leakage or condensation.



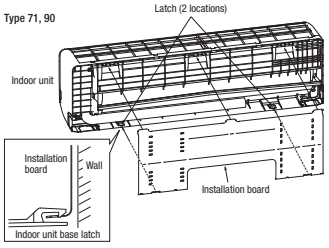
④ Installation of indoor unit (continued)

Fixing of indoor unit

Type 15~56



Type 71, 90



Installation Steps

① Pass the pipe through the hole in the wall, and hook the upper part of the indoor unit to the installation board.



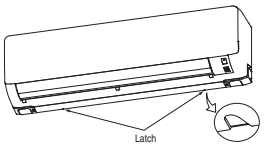
② Gently push the lower part to secure the unit.



• How to remove the indoor unit from the installation board

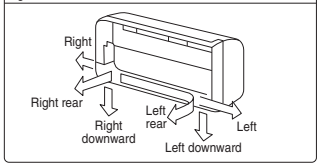
① Push up at the marked portion of the indoor unit base lower latch, and slightly pull it toward you. (both right and left hand sides) (The indoor unit base lower latch can be removed from the installation board)

② Push up the indoor unit upward so that it can be removed from installation board.

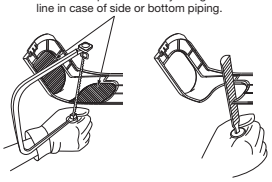


⑤ Shaping of pipes and drain hoses

Piping is possible in the rear, left, left rear, left downward, right or downward direction.

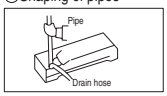


Cut out the panel smoothly along the line in case of side or bottom piping.

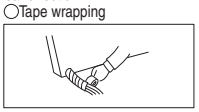


<In case of piping in the right rear direction>

○Shaping of pipes



○Tape wrapping

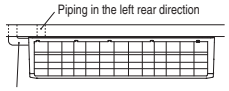
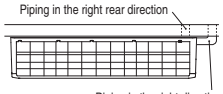


Make sure that wires are connected securely onto the terminal block, before you wrap them with a tape after shaping the pipe.

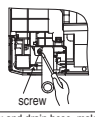
- ●Hold the bottom of the piping and fix direction before stretching it and shaping it.
- ●Tape only the portion that goes through the wall.
- ●Always tape the wiring with the piping.
- ●The connecting wires must be wrapped together with the pipe.

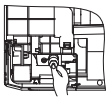
• Matters of special notice when piping from left or central/rear of the unit.

[Top view]

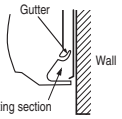
Left-hand-side piping	Right-hand-side piping
Piping in the left rear direction  Piping in the left direction	Piping in the right rear direction  Piping in the right direction

[Drain hose changing procedures]

1. Remove the drain hose	2. Remove the drain cap.
	
∘ Remove the screw and drain hose, making it rotate.	∘ Remove it with hand or pliers.

3. Insert the drain cap.	4. Connect the drain hose.
	
∘ Insert the drain cap which was removed at procedure "2" securely using a hexagonal wrench etc. Note: Be careful that If it is not inserted securely, water leakage may occur.	∘ Insert the drain hose securely, making rotate. And install the screw. Note: Be careful that If it is not inserted securely, water leakage may occur.

Since this air-conditioner has been designed to collect dew drops on the rear surface to the drain pan, do not attach the power cord above the gutter.

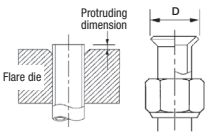


⑥ Refrigerant pipe

Caution

- ●Be sure to use new pipes for the refrigerant pipes. Use the flare nut attached to the product.
  Regarding whether existing pipes can be reused or not, and the washing method, refer to the instruction manual of the outdoor unit, catalogue or technical data.
  1) In case of reuse: Do not use old flare nut, but use the nut attached to the unit.
  2) In case of reuse: Flare the end of pipe replaced partially for R32 or R410A.

⚠WARNING : When flared joints are reused indoors, the flare part shall be re-fabricated. (only for R32)



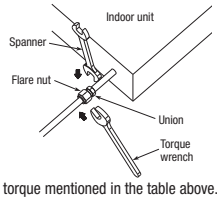
Pipe dia. d mm	Min. pipe wall thickness mm	Protruding dimension for flare, mm		Flare O.D. D mm	Flare nut tightening torque N·m
		Rigid (Clutch type)			
		For R32 For R410A	Conventional tool		
6.35	0.8	0 – 0.5	0.7 – 1.3	8.9 – 9.1	14 – 18
9.52	0.8			12.8 – 13.2	34 – 42
12.7	0.8			16.2 – 16.6	49 – 61
15.88	1			19.3 – 19.7	68 – 82
19.05	1.2			23.6 – 24.0	100 – 120

- ●Use phosphorus deoxidized copper alloy seamless pipe (C1220T) for refrigeration pipe installation. In addition, make sure there is no damage both inside and outside of the pipe, and no harmful substances such as sulfur, oxide, dust or a contaminant stuck on the pipes.
- ●Do not use any refrigerant other than the designated refrigerant.
  Using other refrigerant except the designated refrigerant, may degrade inside refrigeration oil. And air getting into refrigeration circuit may cause over-pressure and resultant it may result in bursting, etc.
- ●Store the copper pipes indoors and seal the both end of them until they are brazed in order to avoid any dust, dirt or water getting into pipe. Otherwise it will cause degradation of refrigeration oil and compressor breakdown, etc.
- ●Use special tools for R32 or R410A refrigerant.

Work procedure

1. Remove the flare nut and blind flanges on the pipe of the indoor unit.
   ※ Make sure to loosen the flare nut with holding the nut on pipe side with a spanner and giving torque to the nut with another spanner in order to avoid unexpected stress to the copper pipe, and then remove them. (Gas may come out at this time, but it is not abnormal.)
   - ●Pay attention whether the flare nut pops out. (as the indoor unit is sometimes pressured.)
2. Make a flare on liquid pipe and gas pipe, and connect the refrigeration pipes on the indoor unit.
   ※Bend radius of pipe must be 4D or larger. Once a pipe is bent, do not readjust the bending. Do not twist a pipe or collapse to 2/3D or smaller.
   - ●Make sure to use flare nuts assembled on the unions. Usage of other flare nuts could cause refrigerant leakage.

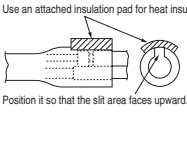
   ※Do a flare connection as follows:
   - ●Make sure to hold the nut on indoor unit pipe side using double spanner method as indicated when fastening / loosening flare nuts in order to prevent unintentional twisting of the copper pipe.
   - ●When fastening the flare nut, align the refrigeration pipe with the center of flare nut, screw the nut for 3-4 times by hand and then tighten it by spanner with the specified torque mentioned in the table above.



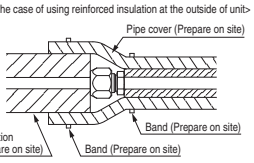
3. Cover the indoor unit's flare-connected joints, after they are checked for a gas leak, with an indoor unit heat insulating material and then wrap them with a tape with an attached insulation pad placed over the heat insulating material's slit area.
   - ●Make sure to insulate both gas pipes and liquid pipes completely.
     ※Incomplete insulation may cause dew condensation or water dropping.
   - ●Use heat-resistant (120 °C or more) insulations on the gas side pipes.
   - ●In case of using at high humidity condition, reinforce insulation of refrigerant pipes. Surface of insulation may cause dew condition or water dropping, if insulations are not reinfoced.
4. Refrigerant is charged in the outdoor unit.
   As for the additional refrigerant charge for the indoor unit and piping, refer to the installation manual attached to the outdoor unit.

Caution:
Refrigerating machine oil should not be applied to the threads of union or external surface of flare. It is because, even if the same tightening torque is applied, the oil is likely to decrease the slide friction force on the threads and increase, in turn, the axial component force so that it could crack the flare by the stress corrosion.
Refrigerating machine oil may be applied to the internal surface of flare only.

Use an attached insulation pad for heat insulation.



<The case of using reinforced insulation at the outside of unit>



⑦ Drain pipe

Caution

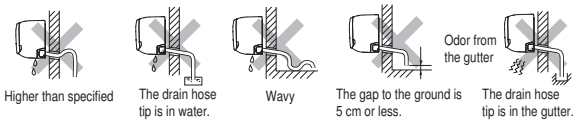
- ● Install the drain pipe according to the installation manual in order to drain properly. Imperfection in draining may cause flood indoors and wetting the household goods,etc.
- ● Do not put the drain pipe directly into the ditch where toxic gas such as sulfur, the other harmful and inflammable gas is generated. Toxic gas would flow into the room and it would cause serious damage to user's health and safety (some poisoning or deficiency of oxygen). In addition, it may cause corrosion of heat exchanger and bad smell.
- ● Connect the pipe securely to avoid water leakage from the joint.
- ● Insulate the pipe properly to avoid condensation drop.
- ● Check if the water can flow out properly from both the drain outlet on the indoor unit and the end of the drain pipe after installation.
- ● Make sure to make descending slope of greater than 1/100 and do not make up-down bend and/or trap in the midway. In addition, do not put air vent on the drain pipe. Check if water is drained out properly from the pipe during commissioning. Also, keep sufficient space for inspection and maintenance.

⑦ Drain pipe (continued)

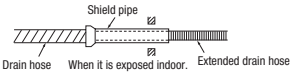
1. A general-purpose hard PVC pipe VP16 can be connected to the drain hose tip as a part of drain piping.
2. Drain piping must be given a descending grade so that drain water may flow smoothly and it must not have any trap or bump within the system.
   (The pipe can be routed through the left, right, rear or bottom of the unit)
   Hard PVC pipes (VP16) laid indoors must be kept warm.

3 Pour water to the drain pan located under the heat exchanger, and ensure that water is discharged the outdoor.
(For removal of the front panel, refer to ⑧ Wiring-out position and wiring connection in this manual.

○Arrange the drain hose in a downward angle
○Avoid the following drain piping.



○When the extended drain hose is present inside the room, always use a shield pipe (prepare on site) and ensure it is thermally insulated

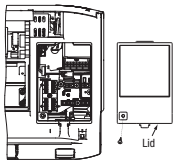


⑧ Wiring-out position and wiring connection

- Electrical installation work must be performed according to the installation manual by an electrical installation service provider qualified by a power provider of the country, and be executed according to the technical standards and other regulations applicable to electrical installation in the country.
  Be sure to use an exclusive circuit.
- Use specified cord, fasten the wiring to the terminal securely, and hold the cord securely in order not to apply unexpected stress on the terminal.
- Do not put both power source line and signal line on the same route. It may cause miscommunication and malfunction.
- Be sure to do D type earth work.
- For the details of electrical wiring work, see attached instruction manual for electrical wiring work.

① Pull the air inlet panel at both ends of lower part and release latches, then pull up the panel until you feel resistance. (The panel stops at approx 60 - 70 ° open position.)
② Remove the screw and the lid.
③ Connect wiring securely to the terminal block.
④ Fix wiring the clamp securely, in order not to transmit unexpected stress on the terminal.
⑤ Fix the lid and the screw.
⑥ Close the air inlet panel.
(Note)
Connect wiring to the terminal block, check number on label of the terminal block.

Type 15-56



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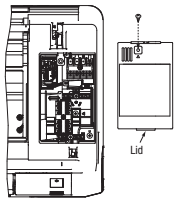

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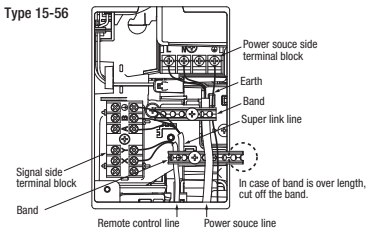

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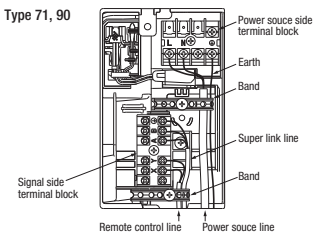
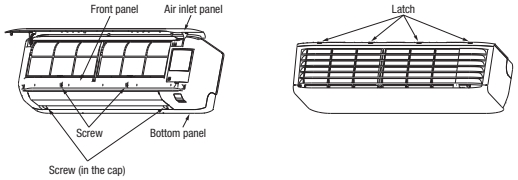


⑧ Wiring-out position and wiring connection (continued)

●Address setting
Remove the front panel of indoor unit and the control cover, it is possible to change address setting.

1. Remove the front panel
   ① Remove the air inlet panel.
   ② Remove the 2 screws in the cap of bottom panel. (Type 15 - 56 only)
   ③ Remove the 2 hooks of left and right side and then bottom panel can be removed. (Type 15 - 56 only)
   ④ Remove the screws (Type 15 - 56: 2 screws, Type 71, 90: 5 screws + 3 screws (in the cap))
   ⑤ Remove the upper latches and then front panel can be removed. (Type 15 - 56: 4 latches, Type 71, 90: 5 latches)
2. Install the front panel
   ① Cover the unit with the front panel and fix upper latches (Type 15 - 56: 4 latches, Type 71, 90: 5 latches)
   ② Fix the front panel with the screws (Type 15 - 56: 2 screws, Type 71, 90: 5 screws + 3 screws (in the cap))
   ③ Install the 2 hooks of left and right side and then bottom panel can be installed. (Type 15 - 56 only)
   ④ Fix the bottom panel with 2 screws in the cap. (Type 15 - 56 only)
   ⑤ Install the air inlet panel.

Type 15-56



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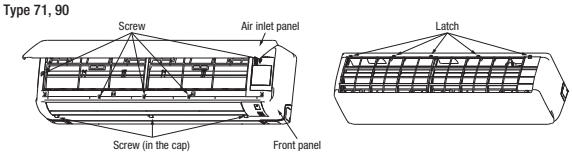

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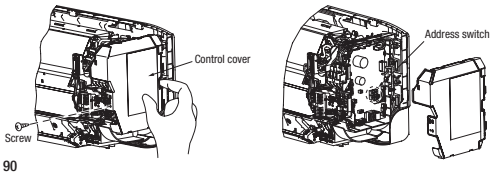

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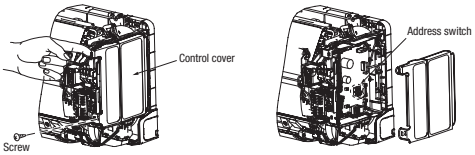


⑨ Check list after installation

●Check the following items after all installation work completed.

Check if;	Expected trouble	Check
The indoor and outdoor units are fixed securely?	Falling, vibration, noise	
Inspection for leakage is done?	Insufficient capacity	
Insulation work is properly done?	Water leakage	
Water is drained properly?	Water leakage	
Power source voltage is same as mentioned in the model name plate ?	PCB burnt out, not working at all	
There is mis-wiring or mis-connection of piping?	PCB burnt out, not working at all	
Earth wiring is connected properly?	Electric shock	
Cable size comply with specified size?	PCB burnt out, not working at all	
Any obstacle blocks airflow on air inlet and outlet?	Insufficient capacity	

(9) Ceiling suspended type (FDE)

PFA012D636

This manual is for the installation of an indoor unit.
For electrical wiring work (Indoor), refer to page 238. For wired remote control installation, refer to page 242. For wireless kit installation, refer to page 366.
For electrical wiring work (Outdoor) and refrigerant pipe work installation for outdoor unit, refer to the installation manual attached to an outdoor unit.
For motion sensor kit installation, refer to page 393.

SAFETY PRECAUTIONS

- Read the "SAFETY PRECAUTIONS" carefully first of all and then strictly follow it during the installation work in order to protect yourself.
- The precautionary items mentioned below are distinguished into two levels, ⚠WARNING and ⚠CAUTION .
  ⚠WARNING : Wrong installation would cause serious consequences such as injuries or death.
  ⚠CAUTION : Wrong installation might cause serious consequences depending on circumstances.
  Both mentions the important items to protect your health and safety so strictly follow them by any means.
- The meanings of "Marks" used here are as shown as follows:
  ⃠ Never do it under any circumstances. ❗ Always do it according to the instruction.
- After completing the installation, do commissioning to confirm there are no abnormalities, and explain to the customers about "SAFETY PRECAUTIONS", correct operation method and maintenance method (air filter cleaning, operation method and temperature setting method) with user's manual of this unit.
  Ask your customers to keep this installation manual together with the user's manual. Also, ask them to hand over the user's manual to the new user when the owner is changed.

⚠WARNING

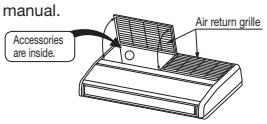
- **Installation should be performed by the specialist.**
  If you install the unit by yourself, it may lead to serious trouble such as water leakage, electric shock, fire, and injury due to overturn of the unit.
- **Install the system correctly according to these installation manuals.**
  Improper installation may cause explosion, injury, water leakage, electric shock, and fire.
- **When installing in small rooms, take prevention measures not to exceed the density limit of refrigerant in the event of leakage, referred by the formula (accordance with ISO5149).**
  If the density of refrigerant exceeds the limit, please consult the dealer and install the ventilation system, otherwise lack of oxygen can occur, which can cause serious accidents.
- **Use the genuine accessories and the specified parts for installation.**
  If parts unspecified by our company are used it could cause water leakage, electric shock, fire, and injury due to overturn of the unit.
- **Ventilate the working area well in case the refrigerant leaks during installation.**
  If the refrigerant contacts the fire, toxic gas is produced.
  In case of R32, the refrigerant could be ignited because of its flammability.
- **Install the unit in a location that can hold heavy weight.**
  Improper installation may cause the unit to fall leading to accidents.
- **Install the unit properly in order to be able to withstand strong winds such as typhoons, and earthquakes.**
  Improper installation may cause the unit to fall leading to accidents.
- **Do not mix air in to the cooling cycle on installation or removal of the air-conditioner.**
  If air is mixed in, the pressure in the cooling cycle will rise abnormally and may cause explosion and injuries.
- **Be sure to have the electrical wiring work done by qualified electrical installer, and use exclusive circuit.**
  Power source with insufficient capacity and improper work can cause electric shock and fire.
- **Use specified wire for electrical wiring, fasten the wiring to the terminal securely, and hold the cable securely in order not to apply unexpected stress on the terminal.**
  Loose connections or hold could result in abnormal heat generation or fire.
- **Arrange the electrical wires in the control box properly to prevent them from rising. Fit the lid of the services panel property.**
  Improper fitting may cause abnormal heat and fire.
- **Check for refrigerant gas leakage after installation is completed.**
  If the refrigerant gas leaks into the house and comes in contact with a fan heater, a stove, or an oven, toxic gas is produced.
- **Use the specified pipe, flare nut, and tools for R32 or R410A.**
  Using existing parts (R22) could cause the unit failure and serious accident due to explosion of the cooling cycle.
- **Tighten the flare nut according to the specified method by with torque wrench.**
  If the flare nut were tightened with excess torque, it could cause burst and refrigerant leakage after a long period.
- **Do not put the drainage pipe directly into drainage channels where poisonous gases such as sulfide gas can occur.**
  Poisonous gases will flow into the room through drainage pipe and seriously affect the user's health and safety. This can also cause the corrosion of the indoor unit and a resultant unit failure or refrigerant leak.
- **Connect the pipes for refrigeration circuit securely in installation work before compressor is operated.**
  If the compressor is operated when the service valve is open without connecting the pipe, it could cause explosion and injuries due to abnormal high pressure in the system.
- **Stop the compressor before removing the pipe after shutting the service valve on pump down work.**
  If the pipe is removed when the compressor is in operation with the service valve open, air would be mixed in the refrigeration circuit and it could cause explosion and injuries due to abnormal high pressure in the cooling cycle.
- **Only use prescribed option parts. The installation must be carried out by the qualified installer.**
  If you install the system by yourself, it can cause serious trouble such as water leaks, electric shocks, fire.
- **Do not repair by yourself. And consult with the dealer about repair.**
  Improper repair may cause water leakage, electric shock or fire.
- **Consult the dealer or a specialist about removal of the air-conditioner.**
  Improper installation may cause water leakage, electric shock or fire.
- **Turn off the power source during servicing or inspection work.**
  If the power is supplied during servicing or inspection work, it could cause electric shock and injury by the operating fan.
- **Do not run the unit when the panel or protection guard are taken off.**
  Touching the rotating equipment, hot surface, or high voltage section could cause an injury to be caught in the machine, to get burned, or electric shock.
- **Shut off the power before electrical wiring work.**
  It could cause electric shock, unit failure and improper running.

⚠ CAUTION

- **Perform earth wiring surely.**
  Do not connect the earth wiring to the gas pipe, water pipe, lightning rod and telephone earth wiring. Improper earth could cause unit failure, electric shock and fire due to a short circuit.
- **Earth leakage breaker must be installed.**
  If the earth leakage breaker is not installed, it can cause fire and electric shocks.
- **Use the circuit breaker of correct capacity. Circuit breaker should be the one that disconnect all poles under over current.**
  Using the incorrect one could cause the system failure and fire.
- **Do not use any materials other than a fuse of correct capacity where a fuse should be used.**
  Connecting the circuit by wire or copper wire could cause unit failure and fire.
- **Do not install the indoor unit near the location where there is possibility of flammable gas leakages.**
  If the gas leaks and gathers around the unit, it could cause fire.
- **Do not install and use the unit where corrosive gas (such as sulfurous acid gas etc.) or flammable gas (such as thinner, petroleum etc.) may be generated or accumulated, or volatile flammable substances are handled.**
  It could cause the corrosion of heat exchanger, breakage of plastic parts etc. And inflammable gas could cause fire.
- **Secure a space for installation, inspection and maintenance specified in the manual.**
  Insufficient space can result in accident such as personal injury due to falling from the installation place.
- **Do not use the indoor unit at the place where water splashes such as laundry.**
  Indoor unit is not waterproof. It could cause electric shock and fire.
- **Do not use the indoor unit for a special purpose such as food storage, cooling for precision instrument, preservation of animals, plants, and a work of art.**
  It could cause the damage of the items.
- **Do not install nor use the system near equipments which generate electromagnetic wave or high harmonics.**
  Equipments like inverter equipment, private power generator, high-frequency medical equipment, or telecommunication equipment might influence the air-conditioner and cause a malfunction and breakdown. Or the air-conditioner might influence medical equipments or telecommunication equipments, and obstruct their medical activity or cause jamming.
- **Do not install the remote control at the direct sunlight.**
  It could cause breakdown or deformation of the remote control.
- **Do not install the indoor unit at the place listed below.**
  · Places where flammable gas could leak.
  · Places where carbon fiber, metal powder or any powder is floated.
  · Place where the substances which affect the air-conditioner are generated such as sulfide gas, chloride gas, acid, alkali or ammonic atmospheres.
  · Places exposed to oil mist or steam directly.
  · On vehicles and ships
  · Places where machinery which generates high harmonics is used.
  · Places where cosmetics or special sprays are frequently used.
  · Highly salted area such as beach.
  · Heavy snow area
  · Places where the system is affected by smoke from a chimney.
  · Altitude over 1000m
- **Do not install the indoor unit in the locations listed below (Be sure to install the indoor unit according to the installation manual for each model because each indoor unit has each limitation)**
  · Locations with any obstacles which can prevent inlet and outlet air of the unit
  · Locations where vibration can be amplified due to insufficient strength of structure.
  · Locations where the infrared receiver is exposed to the direct sunlight or the strong light beam. (in case of the infrared specification unit)
  · Locations where an equipment affected by high harmonics is placed. (TV set or radio receiver is placed within 5m)
  · Locations where drainage cannot run off safely.
  It can affect performance or function and etc.
  Do not install the motion sensor at following places. It could cause detection error, incapacity of detection, or characteristic degradation.
  · Place where vibration is applied to it for a long period of time.
  · Place where static electricity or electromagnetic wave generates.
  · Place where it is exposed to high temperature or humidity for a long period of time.
  · Dusty place or where the lens face could be fouled or damaged.
- **Do not put any valuables which will break down by getting wet under the air-conditioner.**
  Condensation could drop when the relative humidity is higher than 80% or drain pipe is clogged, and it damages user's belongings.
- **Do not use the base frame for the outdoor unit which is corroded or damaged after a long period of use.**
  It could cause the unit falling down and injury.
- **Pay attention not to damage the drain pan by weld sputter when brazing work is done near the unit.**
  If sputter entered into the unit during brazing work, it could cause damage (pinhole) of drain pan and leakage of water. To avoid damaging, keep the indoor unit packed or cover the indoor unit.
- **Install the drain pipe to drain the water surely according to the installation manual.**
  Improper connection of the drain pipe may cause dropping water into room and damaging user's belongings.
- **Do not share the drain pipe for indoor unit and GHP (Gas Heat Pump system) outdoor unit.**
  Toxic exhaust gas would flow into room and it might cause serious damage (some poisoning or deficiency of oxygen) to user's health and safety.
- **Be sure to perform air tightness test by pressurizing with nitrogen gas after completed refrigerant piping work.**
  If the density of refrigerant exceeds the limit in the event of refrigerant leakage in the small room, lack of oxygen can occur, which can cause serious accidents.
- **For drain pipe installation, be sure to make descending slope of greater than 1/100, not to make traps, and not to make air-bleeding.**
  Check if the drainage is correctly done during commissioning and ensure the space for inspection and maintenance.
- **Ensure the insulation on the pipes for refrigeration circuit so as not to condense water.**
  Incomplete insulation could cause condensation and it would wet ceiling, floor, and any other valuables.
- **Do not install the outdoor unit where is likely to be a nest for insects and small animals.**
  Insects and small animals could come into the electronic components and cause breakdown and fire. Instruct the user to keep the surroundings clean.
- **Pay extra attention, carrying the unit by hand.**
  Carry the unit with 2 people if it is heavier than 20kg. Do not use the plastic straps but the grabbing place, moving the unit by hand. Use protective gloves in order to avoid injury by the aluminum fin.
- **Make sure to dispose of the packaging material.**
  Leaving the materials may cause injury as metals like nail and woods are used in the package.
- **Do not operate the system without the air filter.**
  It may cause the breakdown of the system due to clogging of the heat exchanger.
- **Do not touch any button with wet hands.**
  It could cause electric shock.
- **Do not touch the refrigerant piping with bare hands when in operation.**
  The pipe during operation would become very hot or cold according to the operating condition, and it could cause a burn or frostbite.
- **Do not clean up the air-conditioner with water.**
  It could cause electric shock.
- **Do not turn off the power source immediately after stopping the operation.**
  Be sure to wait for more than 5 minutes. Otherwise it could cause water leakage or breakdown.
- **Do not control the operation with the circuit breaker.**
  It could cause fire or water leakage. In addition, the fan may start operation unexpectedly and it may cause injury.

①Before installation

- Install correctly according to the installation manual.
- Confirm the following points:
  - ○Unit type/Power source specification
  - ○Pipes/Wires/Small parts ○Accessory items



Accessory item

For unit hanging		For refrigerant pipe			For drain pipe					For air return grille
Flat washer (M10)	Paper pattern	Pipe cover (large)	Pipe cover (small)	Strap	Drain hose (with clamp)	Hose clamp	Fixing bracket	Screw	Heavy insulation	Screw
8	1	1	1	4	1	1	1	2	1	4
For unit hanging	For unit hanging and adjustment	For heat insulation of gas pipe	For heat insulation of liquid pipe	For fixing of pipe cover	For drain pipe connection	For drain hose mounting	For fixing of drain hose	For installing of fixing bracket	For drain hose	For fixing air return grille

②Selection of installation location for the indoor unit

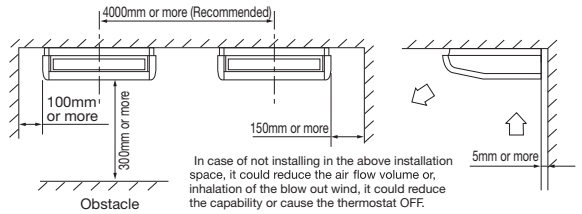
① Select the suitable areas to install the unit under approval of the user.
- Areas where the indoor unit can deliver hot and cold wind sufficiently. Suggest to the user to use a circulator if the ceiling height is over 3m to avoid warm air being accumulated on the ceiling.
- In case of having the motion sensor, the installation height must be no higher than 4 m. It could reduce the sensitivity of motion sensor, disabling the detection.
- Areas where there is enough space to install and service.
- Areas where it can be drained properly. Areas where drain pipe descending slope can be taken.
- Areas where there is no obstruction of air flow on both air return grille and air supply port.
- Areas where fire alarm will not be accidentally activated by the air-conditioner.
- Areas where the supply air does not short-circuit.
- Areas where it is not influenced by draft air.
- Areas not exposed to direct sunlight.
- Areas where dew point is lower than around 28°C and relative humidity is lower than 80%.
  This indoor unit is tested under the condition of JIS (Japan Industrial Standard) high humidity condition and confirmed there is no problem. However, there is some risk of condensation drop if the air-conditioner is operated under the severer condition than mentioned above.
  If there is a possibility to use it under such a condition, attach additional insulation of 10 to 20mm thick for entire surface of indoor unit, refrigeration pipe and drain pipe.
- Areas where TV and radio stays away more than 1m. (It could cause jamming and noise.)
- Areas where any items which will be damaged by getting wet are not placed such as food, table wares, server, or medical equipment under the unit.
- Areas where there is no influence by the heat which cookware generates.
- Areas where not exposed to oil mist, powder and/or steam directly such as above fryer.
- Areas where lighting device such as fluorescent light or incandescent light doesn't affect the operation.
  (A beam from lighting device sometimes affects the infrared receiver for the wireless remote control and the air-conditioner might not work properly.)

② Check if the place where the air-conditioner is installed can hold the weight of the unit. If it is not able to hold, reinforce the structure with boards and beams strong enough to hold it. If the strength is not enough, it could cause injury due to unit falling.

③ If there are 2 units of wireless type, keep them away for more than 6m to avoid malfunction due to cross communication.

④ When plural indoor units are installed nearby, it is recommended to separate each other more than 4m.

Space for installation and service



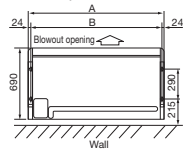
In case of not installing in the above installation space, it could reduce the air flow volume or, inhalation of the blow out wind, it could reduce the capability or cause the thermostat OFF.

③Preparation before installation

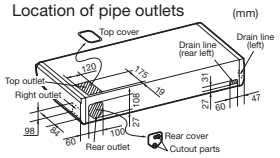
- If suspension bolt becomes longer, do reinforcement of earthquake resistant.
  - ○For grid ceiling
    When suspension bolt length is over 500mm, or the gap between the ceiling and roof is over 700mm, apply earthquake resistant brace to the bolt.
  - ○In case the unit is hanged directly from the slab and is installed on the ceiling plane which has enough strength.
    When suspension bolt length is over 1000mm, apply the earthquake resistant brace to the bolt.
- Prepare four (4) sets of suspension bolt, nut and spring washer (M10) on site.

Pitch of suspension bolts and pipe position

Pitch of suspension bolts (mm)



Location of pipe outlets (mm)



③Preparation before installation (continued)

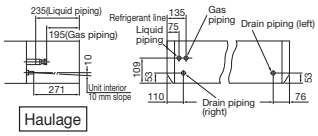
(mm)

Series	type	A	B
Single split (PAC) series	40 to 50type	1070	1022
	60 to 71type	1320	1272
	100 to 140type	1620	1572
VRF (KX) series	36 to 56type	1070	1022
	71type	1320	1272
	112 to 140type	1620	1572

※Pipes can be taken out in 3 directions (rear, right or top).
- Cut out holes using nippers, etc.
- Cut out holes to take out pipes along the cutoff line on the rear cover.
- Cut out the top face cover aligning to the piping position.
- When taking pipe out to right-hand side, cut out a hole along the groove at the inside of side panel.
- After installing pipes and wires, seal clearances around pipes and wires with putty, etc. to shut off dust.

Make sure to install the covers at rear and top in order to protect the inside of unit from intrusion of dust or protect wires from damages by sharp edges. When taking them out to the right-hand side, remove burrs or sharp edges from the cutout.

Pipe position (mm)



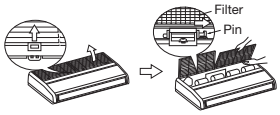
Haulage



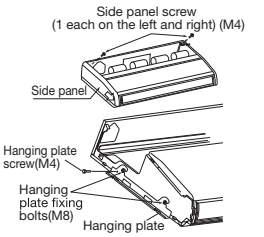
- Move the box as close to the installation area as possible packed.
- If it must be unpacked, wrap the unit with a nylon sling, and be careful not to damage the unit.
  ※Do not hold fragile plastic parts, such as the side panel, blow louver, etc.
- If you need to lay the unit on a floor after unpacking, always put it with the intake grille facing upward.

Preparation before instalation

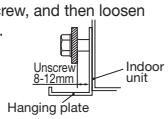
1. Remove the air return grille.
Slide stoppers (4 places) of the catches, then pull out the pins (4 or 6 places).



2. Remove the side panel.
Remove the screw and detach the side panel by sliding it toward the direction indicated by the arrow mark.



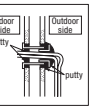
3. Remove the hanging plate.
Remove the screw, and then loosen the fixing bolts.



④Installation of indoor unit

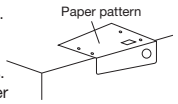
⚠ WARNING
Completely seal the hole in the wall with putty. If not sealed properly, dust, insects, small animals, and highly humid air may enter the room from outside, which could result in fire or other hazards.

⚠ CAUTION
Completely seal the hole in the wall with putty. If not sealed properly, furniture and other fixtures may be damaged by water leakage or condensation.

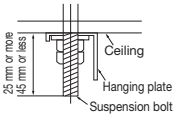


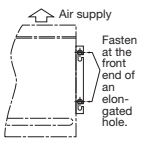
Work procedure

1. Select the suspension bolt locations and the pipe hole location.
   (1) Use enclosed paper pattern as a reference, and drill the holes for the suspension bolts and pipe.
   ※Decide the locations based on direct measurements.
   (2) Once the locations are properly placed, the paper pattern can be removed.

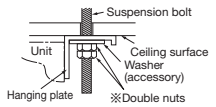


2. Install the suspension bolts in place.
3. Fix with 4 suspension bolts, which can endure load of 500N.
4. Check the measurements given at the right figure for the length of the suspension bolts.
5. Fasten the hanging plate onto the suspension bolts.



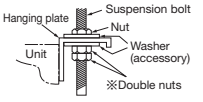


<When installed against a ceiling material,>

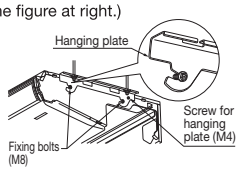


※Please fasten firmly with double nuts.

<No ceiling material to install against,>

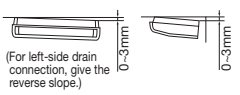


6. Install the unit to the hanging plate. (See the figure at right.)
   (1) Slide the unit in from front side to get it hanged on the hanging plate with the bolts.
   (2) Fasten the four fixing bolts (M8: 2 each on the left and right sides) firmly.
   (3) Fasten the two screws (M4: 1 each on the left and right sides).



⚠**WARNINIG** : Hang a side panel on from the panel side to the rear side and then fasten it securely onto the indoor unit with screws.

※To ensure smooth drain flow, install the unit with a descending slope toward the drain outlet.

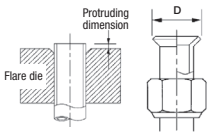


⚠ **CAUTION** : Do not give the reversed slope, which may cause water leaks.

⑤Refrigerant pipe

Caution

●Be sure to use new pipes for the refrigerant pipes. Use the flare nut attached to the product.
Regarding whether existing pipes can be reused or not, and the washing method, refer to the instruction manual of the outdoor unit, catalogue or technical data.
1) In case of reuse: Do not use old flare nut, but use the one attached to the unit.
2) In case of reuse: Flare the end of pipe replaced partially for R32 or R410A.
⚠WARNING : When flared joints are reused indoors, the flare part shall be re-fabricated. (only for R32)

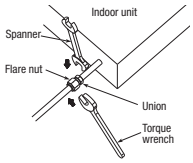


Pipe dia. d mm	Min. pipe wall thickness mm	Protruding dimension for flare, mm		Flare O.D. D mm	Flare nut tightening torque N·m
		Rigid (Clutch type)			
		For R32 For R410A	Conventional tool		
6.35	0.8	0 – 0.5	0.7 – 1.3	8.9 – 9.1	14 – 18
9.52	0.8			12.8 – 13.2	34 – 42
12.7	0.8			16.2 – 16.6	49 – 61
15.88	1			19.3 – 19.7	68 – 82
19.05	1.2			23.6 – 24.0	100 – 120

●Use phosphorus deoxidized copper alloy seamless pipe (C1220T) for refrigeration pipe installation. In addition, make sure there is no damage both inside and outside of the pipe, and no harmful substances such as sulfur, oxide, dust or a contaminant stuck on the pipes.
●Do not use any refrigerant other than R32 or R410A.
Using other refrigerant except R32 or R410A (R22 etc.) may degrade inside refrigeration oil. And air getting into refrigeration circuit may cause over-pressure and resultant it may result in bursting, etc.
●Store the copper pipes indoors and seal the both end of them until they are brazed in order to avoid any dust, dirt or water getting into pipe. Otherwise it will cause degradation of refrigeration oil and compressor breakdown, etc.
●Use special tools for R32 or R410A refrigerant.

Work procedure

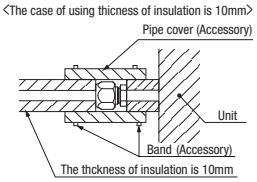
1. Remove the flare nut and blind flanges on the pipe of the indoor unit.
※ Make sure to loosen the flare nut with holding the nut on pipe side with a spanner and giving torque to the nut with another spanner in order to avoid unexpected stress to the copper pipe, and then remove them. (Gas may come out at this time, but it is not abnormal.)
● Pay attention whether the flare nut pops out. (as the indoor unit is sometimes pressured.)
2. Make a flare on liquid pipe and gas pipe, and connect the refrigeration pipes on the indoor unit.
●When pulling out pipes backward or upward, install them passing through the attached cover together with the electrical cabling.
●Seal the gap with putty, or other, to protect from dust, etc.
※Bend radius of pipe must be 4D or larger. Once a pipe is bent, do not readjust the bending. Do not twist a pipe or collapse to 2/3D or smaller.
● Make sure to use flare nuts assembled on the unions. Usage of other flare nuts could cause refrigerant leakage.
※Do a flare connection as follows:
● Make sure to hold the nut on indoor unit pipe side using double spanner method as indicated when fastening / loosening flare nuts in order to prevent unintentional twisting of the copper pipe.
● When fastening the flare nut, align the refrigeration pipe with the center of flare nut, screw the nut for 3-4 times by hand and then tighten it by spanner with the specified torque mentioned in the table above.



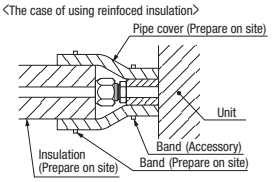
3. Cover the flare connection part of the indoor unit with attached insulation material after a gas leakage inspection, and tighten both ends with attached straps.
● Make sure to insulate both gas pipes and liquid pipes completely.
※Incomplete insulation may cause dew condensation or water dropping.
●Use heat-resistant (120 °C or more) insulations on the gas side pipes.
●In case of using at high humidity condition, reinforce insulation of refrigerant pipes.
Surface of insulation may cause dew condition or water dropping, if insulations are not reinfoced.
4. Refrigerant is charged in the outdoor unit.
As for the additional refrigerant charge for the indoor unit and piping, refer to the installation manual attached to the outdoor unit.

Caution:
Refrigerating machine oil should not be applied to the threads of union or external surface of flare. It is because, even if the same tightening torque is applied, the oil is likely to decrease the slide friction force on the threads and increase, in turn, the axial component force so that it could crack the flare by the stress corrosion.
Refrigerating machine oil may be applied to the internal surface of flare only.

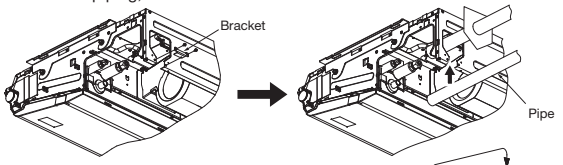
<The case of using thicness of insulation is 10mm>



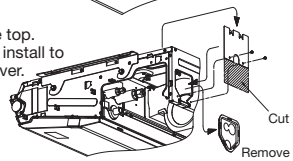
<The case of using reinfoced insulation>



The pipe can be connected from three different directions. (back, reight, top)
● When the pipe is routed through the back.
If the bracket is removed, piping work will become easy.
※After piping, reinstall the removed bracket.



● When the pipe is routed through the top.
Cut the removed top cover, and install to the rear panel instead of rear cover.



⑥Drain pipe

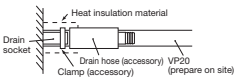
●The drain pipes may pull out either from back, right or left side.

Caution

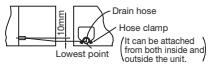
- Install the drain pipe according to the installation manual in order to drain properly. Imperfection in draining may cause flood indoors and wetting the household goods, etc.
- Do not put the drain pipe directly into the ditch where toxic gas such as sulfur, the other harmful andinflammable gas is generated. Toxic gas would flow into the room and it would cause serious damage to user's health and safety (some poisoning or deficiency of oxygen). In addition, it may cause corrosion of heat exchanger and bad smell.
- Connect the pipe securely to avoid water leakage from the joint.
- Insulate the pipe properly to avoid condensation drop.
- Check if the water can flow out properly from both the drain outlet on the indoor unit and the end of the drain pipe after installation.
- Make sure to make descending slope of greater than 1/100 and do not make up-down bend and/or trap in the midway. In addition, do not put air vent on the drain pipe. Check if water is drained out properly from the pipe during commissioning. Also, keep sufficient space for inspection and maintenance.

Work procedure

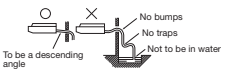
1. Insert drain hose completely to the base, and tighten the drain hose clamp securely. (adhesive must not be used.)
※When plumbing on the left side, move the rubber plug and the cylindrical insulating materials by the pipe connecting hole on the left side of the unit to the right side.



⚠ Beware of a possible outflow of water that may occur upon removal of a drain plug.



2. Fix the drain hose at the lowest point with a hose clamp supplied as an accessory.
※Give a drain hose a gradient of 10mm as illustrated in the right drawing by laying it without leaving a slack.



● Take head of electrical cables so that they may not run beneath the drain hose.
⚠ A drain hose must be clamped down with a hose clamp.
There is a possibility that drain water overflows.
3. Connect VP20(prepare on site) to drain hose. (Adhesive must not be used.)
※ Use commercially available rigid PVC general pipe VP20 for drain pipe.
4. Do not to make the up-down bending and trap in the mid-way while assuming that the drain pipes is downhill. (more than 1/100)
● Never set up air vent.
5. Insulate the drain pipe.
● Insulate the drain hose clamp with the heat insulation supplied as accessories.
● When the unit is installed in a humid place, consider precautions against dew condensation such as heat insulation for the drain pipe.

Drain test

●After installation of drain pipe, make sure that drain system work in good condition and no water leakage from joint and drain pan.
●Do drain test even if installation of heating season.

⑦Wiring-out position and wiring connection

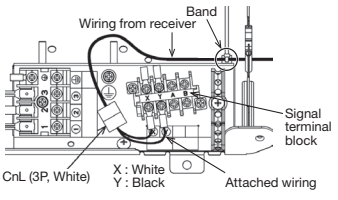
- Electrical installation work must be performed according to the installation manual by an electrical installation service provider qualified by a power provider of the country, and be executed according to the technical standards and other regulations applicable to electrical installation in the country. Be sure to use an exclusive circuit.
- Use specified cord, fasten the wiring to the terminal securely, and hold the cord securely in order not to apply unexpected stress on the terminal.
- Do not put both power source line and signal line on the same route. It may cause miscommunication and malfunction.
- Be sure to do D type earth work.
- For the details of electrical wiring work, see attached instruction manual for electrical wiring work.

1. Remove wiring from clips.
2. Remove the control box (Screw ①, 2pcs).
3. Pull out the control box by sliding along the groove on the bracket (Direction Ⓐ→Ⓑ).
4. Remove the lid of control box (Screw ②, 2pcs).
5. Hold each wiring inside the unit and connect to the terminal block surely.
6. Fix the wiring by clamp.
7. Install the lid of control box (Screw ②, 2pcs).
8. Return the control box to the original place by sliding along the groove on the bracket (Direction Ⓑ→Ⓐ).
9. Install the removed parts at their original places.

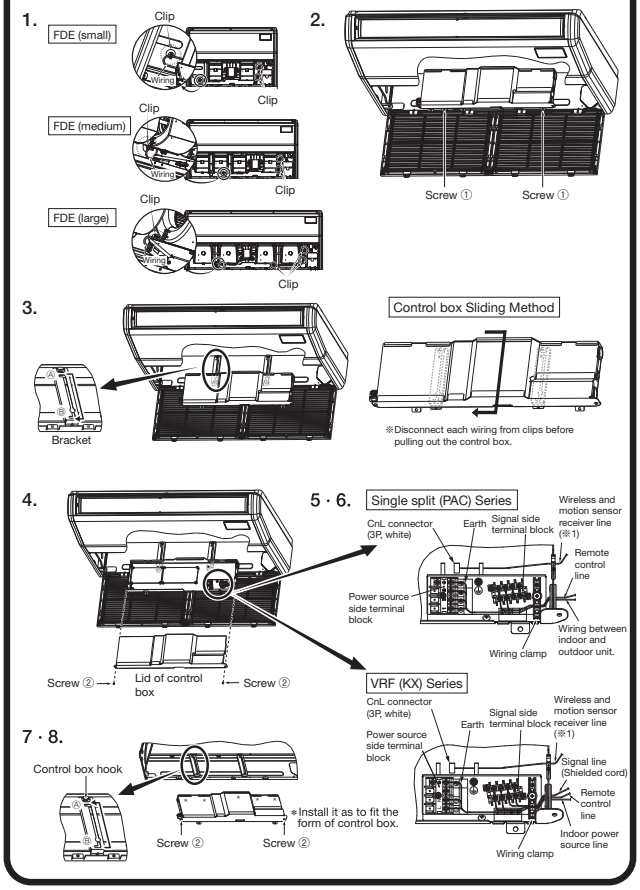
※1 Wiring for the signal receiving section of wireless kit (Option) and motion sensor kit (Option) are connected at the time of shipping from the factory. It is not necessary to disconnect these wiring when wired remote control is connected. When the wired/wireless kits are used together, it becomes necessary to set the slaves and remote control. For the methods of installing the wireless kit and the motion sensor kit, refer to the attached installation manuals.

NOTICE

When installing the Superlink adapter, remove the band fixed the wiring from receiver.



⑦Wiring-out position and wiring connection (continued)



⑧Control mode switching

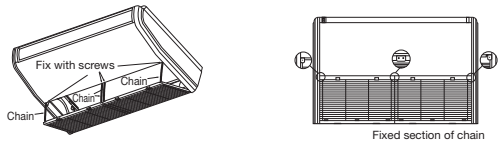
● The control content of indoor units can be switched in following way. (▭ is the default setting)

Switch No.	Control Content	
SW8-4	ON	Indoor unit silent mode
	OFF	Normal operation

⑨Attaching the air return grille

● The air return grille must be attached when electrical cabling work is completed.

1. Fix the chains tied to the air return grille onto the indoor unit with screws supplied as accessories (4 pieces).
2. Close the air return grille. This completes the unit installtion work.



⑩Check list after installation

● Check the following items after all installation work completed.

Check if	Expected trouble	Check
The indoor and outdoor units are fixed securely?	Falling, vibration, noise	
Inspection for leakage is done?	Insufficient capacity	
Insulation work is properly done?	Water leakage	
Water is drained properly?	Water leakage	
Power source voltage is same as mentioned in the model name plate?	PCB burnt out, not working at all	
There is mis-wiring or mis-connection of piping?	PCB burnt out, not working at all	
Earth wiring is connected properly?	Electric shock	
Cable size comply with specified size?	PCB burnt out, not working at all	
Any obstacle blocks air flow on air inlet and outlet?	Insufficient capacity	

9.2 Electric wiring work instruction

PSC012D118

Electrical wiring work must be performed by an electrician qualified by a local power provider according to the electrical installation technical standards and interior wiring regulations applicable to the installation site.

Security instructions

- **Read the "SAFETY PRECAUTIONS" carefully first of all and then strictly follow it during the installation work in order to protect yourself.**
- **The precautionary items mentioned below are distinguished into two levels, ⚠WARNING and ⚠CAUTION .**
  ⚠WARNING : Wrong installation would cause serious consequences such as injuries or death.
  ⚠CAUTION : Wrong installation might cause serious consequences depending on circumstances.
  Both mentions the important items to protect your health and safety so strictly follow them by any means.
- **The meanings of "Marks" used here are as shown on the right:**
  ⃠ Never do it under any circumstances. | ❗ Always do it according to the instruction.
- **Accord with following items. Otherwise, there will be the risks of electric shock and fire caused by overheating or short circuit.**

⚠ WARNING

- **Be sure to have the electrical wiring work done by qualified electrical installer, and use exclusive circuit.**
  Power source with insufficient capacity and improper work can cause electric shock and fire.
- **Use specified wire for electrical wiring, fasten the wiring to the terminal securely, and hold the cable securely in order not to apply unexpected stress on the terminal.**
  Loose connections or hold could result in abnormal heat generation or fire.
- **Arrange the electrical wires in the control box properly to prevent them from rising. Fit the lid of the services panel property.**
  Improper fitting may cause abnormal heat and fire.
- **Use the genuine optional parts. And installation should be performed by a specialist.**
  If you install the unit by yourself, it could cause water leakage, electric shock and fire.
- **Do not repair by yourself. And consult with the dealer about repair.**
  Improper repair may cause water leakage, electric shock or fire.
- **Consult the dealer or a specialist about removal of the air-conditioner.**
  Improper installation may cause water leakage, electric shock or fire.
- **Turn off the power source during servicing or inspection work.**
  If the power is supplied during servicing or inspection work, it could cause electric shock and injury by the operating fan.
- **Shut off the power before electrical wiring work.**
  It could cause electric shock, unit failure and improper running.

⚠ CAUTION

- **Perform earth wiring surely.**
  Do not connect the earth wiring to the gas pipe, water pipe, lightning rod and telephone earth wiring. Improper earth could cause unit failure and electric shock due to a short circuit.
- **Earth leakage breaker must be installed.**
  If the earth leakage breaker is not installed, it can cause electric shocks.
- **Make sure to install earth leakage breaker on power source line. (countermeasure thing to high harmonics.)**
  Absence of breaker could cause electric shock.
- **Use the circuit breaker of correct capacity. Circuit breaker should be the one that disconnect all poles under over current.**
  Using the incorrect one could cause the system failure and fire.
- **Do not use any materials other than a fuse of correct capacity where a fuse should be used.**
  Connecting the circuit by wire or copper wire could cause unit failure and fire.
- **Use power source line of correct capacity.**
  Using incorrect capacity one could cause electric leak, abnormal heat generation and fire.
- **Do not mingle solid cord and stranded cord on power source and signal side terminal block.**
  In addition, do not mingle difference capacity solid or stranded cord.
  Inappropriate cord setting could cause loosing screw on terminal block, bad electrical contact, smoke and fire.
- **Do not turn off the power source immediately after stopping the operation.**
  Be sure to wait for more than 5 minutes. Otherwise it could cause water leakage or breakdown.
- **Do not control the operation with the circuit breaker.**
  It could cause fire or water leakage. In addition, the fan may start operation unexpectedly and it may cause injury.

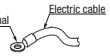
Control mode switching

- The control content of indoor units can be switched in following way.
  (☐ is the default setting)

Switch No.	control content	
SW1	Indoor unit address (tens place)	
SW2	Indoor unit address (ones place)	
SW3	Outdoor unit address (tens place)	
SW4	Outdoor unit address (ones place)	
SW5－1	ON	Fixed previous version of Superlink protocol
	OFF	Automatic adjustment of Superlink protocol
SW5－2	Indoor unit address (hundreds place)	
SW6－1 ~ 4	Model capacity setting	
SW7－1	ON	Operation check, Drain motor test run
	OFF	Normal operation

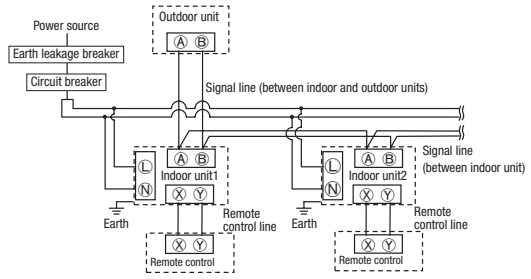
① Electrical Wiring Connection

- Electrical wiring work must be performed by an electrician an qualified by a local power provider. These wiring specifications are determined on the assumption that the following instructions are observed:
  ① Do not use cords other than copper ones.
  Do not use any supply line lighter than one specified in parentheses for each type below.
  – braided cord (code designation 60245 IEC 51), if allowed in the relevant part 2;
  – ordinary tough rubber sheathed cord (code designation 60245 IEC 53);
  – flat twin tinsel cord (code designation 60227 IEC 41);
  – ordinary polyvinyl chloride sheathed cord (code designation 60227 IEC 53);
  ② Provide a separate power outlet for each outdoor or indoor unit.
  ③ All indoor units grouped in one system must have power source that can be turned on or off simultaneously.
  ④ Pay extra attention so as not to confuse signal line and power source line connection, because an error in their connection can be burn all the boards at once.
- Connect ground wires before connecting wires between the indoor and outdoor units and between indoor units. The ground wires need to be longer than the wires between the indoor and outdoor units, and protected from undue stress.
- Do not turn on the power source before completing the work.
- The ground wires must be connected by the Class D grounding connection.
- Use the round crimp terminals for connections to the terminal block.



- Use dedicated branch circuits, avoiding combination with other devices. Otherwise, it could trip the power source breaker, resulting in secondary accidents.
- Install the overcurrent and earth leakage breakers specified to respective models.
- Do not connect indoor and outdoor signal cables to extension cables on the way. If the joint is wetted with intruding water, it could cause a ground insulation failure or poor connection, resulting in communication errors. (If it is inevitable to connect cables on the way, make sure to prevent the water intrusion completely.)
- When running wires (wires for power supply, remote control, connecting between indoor and outdoor units, or other) behind the ceiling, protect them using copper or other pipes against assault by rat, or other.
- It is up to 3.5 mm² the size of power source cables connected to indoor units. When using cables of 5.5 mm² or larger, provide a dedicated pull box for branching connection to indoor units.
- If signal and power source cables are connected mistakenly, it could burn down all PCBs.
  ① Even if the power source of 220/240/380/415 V is connected mistakenly to A-B signal cable, it is protected at initial occasion only.
  ② If the remote control fails to detect the unit No. (address) at 15 minutes after turning the power on, check and repair all signal cables for misconnection.
  ③ Cut the jumper wire J10SL1 of burnt PCB, and reconnect connectors CnK (yellow) and CnK1 (white) to CnK2 (black).
  ④ If any anomaly is found on wires between the A-B terminal block and the PCB, replace them.
- At the outside of indoor and outdoor units, take care to avoid direct contacts between remote control and power source cables.
- In no event connect the power source of 220/240/380/415 V to the remote control terminal block. It could cause failures.
- Connections of wiring between units, ground wire and remote controller cable
  ① When connecting wires between units, ground wire or remote control wire, connect them according to the number of terminals on the power source terminal block or signal terminal block in the control box. Connect the ground wire to the ground terminal on the power source terminal block.
  ② Make sure to install an earth leakage breaker for the power source. Select a breaker for inverter circuit.
  ③ When the earth leakage breaker is exclusive for the earth leakage protection, it is necessary to connect also an isolating switch (Switch + Class B fuse) or wiring circuit breaker in series to the earth leakage breaker.
  ④ Install the isolating switch close to the unit.
- Connect wires securing by tightening screws firmly. Confirm also no connector or wire (from terminal) is disconnected in the control box.
- When installing an auxiliary electric heater, consult the electric heater manual or technical data.

Cabling system diagram (Outdoor/indoor unit connection procedure)



Power source specifications

- When connecting indoor units to the power source individually:

① Use of indoor unit's power source (Models other than ② – ③)								
Model capacity	Leakage breaker rating	Switch capacity	Fuse	Power source wire size	Wire length	Signal cable	Remote control cable	Ground wire
22-36 types	15A 30mA 0.1sec	30A	15A	2.0mm²×2	298m	0.75~1.25mm² ×2	0.3mm²×2-core	2.0mm²
45-56 types					275m			
71-90 types					179m			
112-160 types					123m			
② High static pressure duct, suction air processing unit, outdoor air processing unit with humidifier								
45-90 types	15A 30mA 0.1sec	30A	15A	2.0mm²×2	149m	0.75~1.25mm² ×2	0.3mm²×2-core	2.0mm²
112-160 types					85m			
224, 280 types					28m			
③ Floor type system package								
112 types	15A 30mA 0.1sec	30A	15A	2.0mm²×2	51m	0.75~1.25mm² ×2	0.3mm²×2-core	2.0mm²
140, 160 types					34m			
224, 280 types	20A 30mA 0.1sec		20A	3.5mm²×2	32m			

Note 1. The wire length is calculated with a voltage drop of 2%. If the wire length should exceed the above data, review the wire size to use in accordance with extension wire regulations in your country.
Note 2. When total length of remote control cable is longer than 100 m, review the cable size according to ③ Remote control installation .

- When connecting multiple indoor units to one power source:

Total current of indoor units	Wire size (mm²)	Wire length (m)	Rated current of wiring leakage breaker
< 7A	2	21	20A
< 11A	3.5	21	20A
< 12A	5.5	33	20A
< 16A	5.5	24	30A
< 19A	5.5	20	40A
< 22A	8	27	40A
< 28A	8	21	50A

Note 1. Wire length in the able is applicable when indoor units are connected in series. Wire size and length for each range of total current of indoor units are calculated with a voltage drop of less than 2%. If the current should exceed values in the left table, review the wire size to use in accordance with extension wire regulations in your country.
Note 2. During servicing (when the power source is turned off), refrain from taking power for indoor units in other refrigerant pipe system from the same power source.

① Electrical Wiring Connection (continued)

For the rated sensitivity current of leakage breaker, refer to the following equation and judgment method.

Note 3. Following equation is a guide which could vary depending on the equipment at site and contents of installation work. When the leakage breaker trips frequently, select a breaker suitable to these conditions.

<Equation> Necessary sensitivity current =
Total value of (Model coefficient of each indoor unit × Number of units) + (Wire coefficient × Wire length [km])

<Model coefficient>

Model	Coefficient
FDT, FDTC	3.5
FDTW, FDTS, FDR, FDU, FDE, FDK, FDU-F	2.5
Other	1

<Wire coefficient>

Power source wire size	Coefficient
2.0mm^2	50
3.5mm^2	60
5.5mm^2	60
8.0mm^2	60

<Judgment method> * Following judgment method is for reference. Allowance of leakage current and capacity of rated sensitivity current should be selected according to applicable standards in your country.

(i) Necessary sensitivity current ≦ 30	Use a product of rated sensitivity current at 30 mA (0.1 s or less).
(ii) 30 < Necessary sensitivity current ≦ 100	Divide the leakage breaker system, in principle, so that the necessary sensitivity current will become less than 30 mA. Depending on the situation of installation (according to standards in respective countries), it may be possible to use a product of rated sensitivity current at 100 mA (0.15 or less).
(iii) 100 < Necessary sensitivity current	It is necessary to divide (add) the leakage breaker system.

In case of Heat recovery 3-pipe systems

Branching controller of heat recovery 3-pipe systems wiring

- When this unit is used as a "Heat Recovery 3-pipe Systems", refer to the installation manual of a branching controller (option).

② Address setting

Address setting is done by (1) Manual address setting or (2) Automatic address setting.
In the case of (2) "Automatic address setting", it is possible to change address setting by wired remote control after once complete setting.
As for details of setting procedure, refer to instructions attached to the outdoor unit for details.

③ Remote Control, Wiring and functions

- Do not install it on the following places.

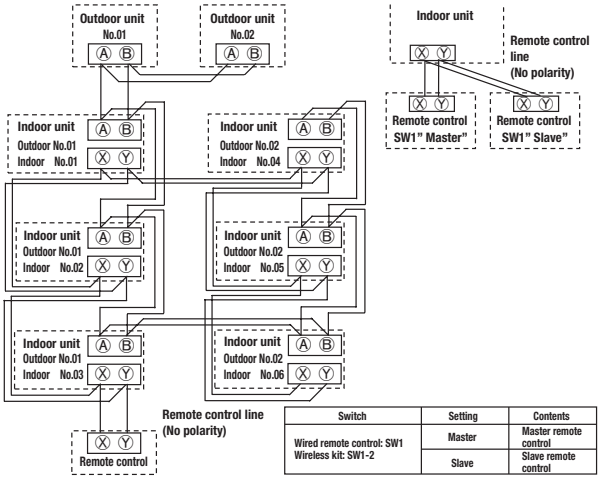
(1) Place exposed to direct sunlight
(2) Places near heat devices
(3) High humidity places
(4) Hot surface or cold surface enough to generate condensation
(5) Place exposed to oil mist or steam directly.
(6) Uneven surface

Installation and wiring of remote control

① Install remote control referring to the attached manual.
② Wiring of remote control should use 0.3mm^2 x2 core wires or cables.
The insulation thickness is 1mm or more. (on-site configuration)
③ Maximum prolongation of remote control wiring is 600 m.
If the prolongation is over 100m, change to the size below.
But, wiring in the remote control case should be under 0.5mm^2. Change the wire size outside of the case according to wire connecting. Waterproof treatment is necessary at the wire connecting section. Be careful about contact failure.
100-200m .....0.5mm^2×2 core
Under 300m.....0.75mm^2 × 2 core
Under 400m.....1.25mm^2 × 2 core
Under 500m.....2.0mm^2 × 2 core
④ Avoid using multi-core cables to prevent malfunction.
⑤ Keep remote control line away from earth (frame or any metal of building).
⑥ Make sure to connect remote control line to the remote control and terminal block of indoor unit. (No polarity)

Control plural indoor units by a single remote control

① A remote control can control plural indoor units (up to 16)
In above setting, all plural indoor units will operate under same mode and temperature setting.
② Connect all indoor units with 2 core remote control line for group control.
③ Use the function of manual address setting to set the indoor and outdoor address number.
○Do not forget to set the number for the outdoor units.
④ As shown in the following figure, the remote control can be used to control multiple outdoor units.
⑤ One remote control is able to perform group control for multiple units (maximum 16 units).
○Use the rotary SW1 and SW2 provided on the indoor unit PCB (Printed circuit board) to set unique remote control communication address avoiding duplication.



Switch	Setting	Contents
Wired remote control: SW1 Wireless kit: SW1-2	Master	Master remote control
	Slave	Slave remote control

Master/slave setting when more than one remote control unit are used

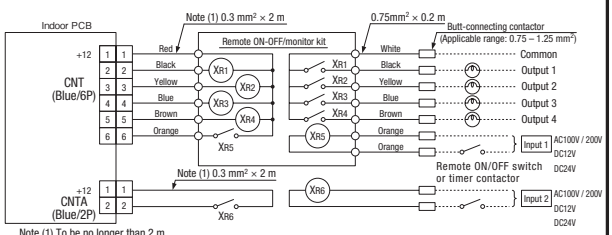
A maximum of two remote control units can be connected to one indoor unit (or one group of indoor units.)
Latest "function setting" is superior than previous one.
Acceptable combination is "two (2) wired remote controls", "one (1) wired remote control and one (1) wireless kit" or "two (2) wireless kits".
Set one to "Master" and the other to "Slave".
Note:The setting "Remote control unit sensor enabled" is only selectable with the master remote control unit in the position where you want to check room temperature.

③④ Operation and confirmation from remote control

No.	Item	Operation from the eco touch remote control (RC-EX series)	Operation from the standard remote control (RC-E4, RC-E series)
1	Check the number of units connected in the multi remote control system.	[Menu] ⇒ [Service setting] ⇒ [Service & Maintenance] ⇒ [Service password] ⇒ [IU address]	① Press the AIR CON NO button to display the IU address. ② Press the ▲ or ▼ button and check addresses of connected indoor units one by one.
2	Check if each unit is connected properly in the remote control system.	[Menu] ⇒ [Service setting] ⇒ [Service & Maintenance] ⇒ [Service password] ⇒ [IU address] ⇒ [Check run mode]	① Press the AIR CON NO button to display the IU address. ② Press the ▲ or ▼ button and select one of IU addresses. ③ Press the (MODE) button. The unit starts to blow air.
3	Setting main/sub remote controls	[Menu] ⇒ [Service setting] ⇒ [R/C function settings] ⇒ [Service password] ⇒ [Main/Sub of R/C]	Set SW1 to "Sub" for the sub remote control unit.
4	Checking operation data	[Menu] ⇒ [Service setting] ⇒ [Service & Maintenance] ⇒ [Service password] ⇒ [Operation data]	Press the CHECK button. ⇒ "OPER DATA ▼" is displayed. ⇒ Press the (SET) button. ⇒ "DATA LOADING" is displayed. ⇒ Select one of addresses for connected indoor units by pressing the ▲ or ▼ button. ⇒ Press the (SET) button. ⇒ "DATA LOADING" is displayed. ⇒ Select data by pressing the ▲ or ▼ button.
5	Checking inspection display	[Menu] ⇒ [Service setting] ⇒ [Service & Maintenance] ⇒ [Service password] ⇒ [Error display]	Press the CHECK button. ⇒ "OPER DATA ▼" is displayed. ⇒ Press the ▼ button. ⇒ "ERROR DATA ▲" is displayed. ⇒ Press the (SET) button. ⇒ "DATA LOADING" is displayed. ⇒ Data is displayed.
6	Cooling test run from remote control	[Menu] ⇒ [Service setting] ⇒ [Installation settings] ⇒ [Service password] ⇒ [Test run] ⇒ [Cooling test run] ⇒ [Start]	① Start the system by pressing the ON/OFF button. ② Select "❄ (Cool)" with the (MODE) button. ③ Press the TEST button for 3 seconds or longer. The screen display will switch to "❄ TEST RUN ▼". ④ Pressing the (SET) button, while the "❄ TEST RUN ▼" is displayed, starts the cooling test run. The screen display will switch to "❄ TEST RUN".
7	Trial operation of drain pump from remote control	[Menu] ⇒ [Service setting] ⇒ [Installation settings] ⇒ [Service password] ⇒ [Test run] ⇒ [Drain pump test run] ⇒ [Run]	① Start the system by pressing the ON/OFF button. The display will change to "❄ TEST RUN ▼". ② Press the ▼ button once to display "DRAIN PUMP ▲▼". ③ Pressing the (SET) button starts the drain pump operation. The display will show "TO STOP".

The menu configuration may vary depending on models of the remote control. If the model of your remote control is different, refer to the installation manual attached to the remote control.

⑤ Function of CnT connector of indoor printed circuit board



Note (1) To be no longer than 2 m.

- XR1-4 are DC 12 V relays. (Equivalent to Omron's LY2F)
- XR5 is a DC 12 V, 24 V or 100 V relay. (Equivalent to Omron's MY2F)
- Maker and model of CnT connector (Site side)
  Connector : Molex 5264-06
  Terminal : Molex 5263T
- CnTA connector is used on FDT, or other. <Check with the specifications.> (Site side) Maker and model
  Connector : J.S.T. Mfg. XAP02V-1-E
  Terminal : J.S.T. Mfg. SXA-01T-P0.6
- Output 1 – 4 and input1/2 can be selected/set as required from following items.
  Factory default is set as shown below.

Output

①	RUN output	⑧	Fan ON output 3
②	Heating output	⑨	Defrost/oil return output
③	Compressor ON output	⑩	Ventilation output
④	Inspection (error) output	⑪	Heater output
⑤	Cooling output	⑫	Free cleaning output
⑥	Fan ON output 1	⑬	Indoor overload error output
⑦	Fan ON output 2		

Input

①	RUN/STOP	⑤	Setting temp. shift
②	RUN permit prohibition	⑥	Compulsory thermostat OFF
③	Emergency stop	⑦	Temporary stop
④	Cooling/Heating	⑧	Silent mode

Factory default setting

CnT-2	Output 1	RUN output	CnT-5	Output 4	Inspection (error) output
CnT-3	Output 2	Heating output	CnT-6	Input 1	RUN/STOP
CnT-4	Output 3	Compressor ON output	CnTA	Input 2	RUN/STOP

- For the setting method, refer to the technical data.

⑥ Operation and setting from remote control

<Note of "eco-Touch Remote Control">
A : Refer to the instruction manual for RC-EX series C : Loading a utility software vie Internet
B : Refer to the installation manual for RC-EX series

<Availability of setting/operation on standard remote controls>
○ : Nearly same function setting and operations are possible.
△ : Similar function setting and opperations are possible.
Blank column: Standard remote controls have not this function.

Setting & display item			Description	RC-EX series	RC-E series
1.Remote Control network					
1	Control plural indoor units by a single remote control		A remote control can control plural indoor units up to 16 (in one group of remote control network). An address is set to each indoor unit.		○
2	Main/sub setting of remote controls		A pair of remote controls (including optional wireless remote control) can be connected within the remote control network. Set one to "Main" and the other to "Sub".	B	○
2.TOP scrren, Switch manipulation					
1	Menu		"Control","State", or "Details" can be selected. (3-8)	A	
2	Operation mode		"Cooling","Heating","Fan","Dry" or "Auto" can be set.	A	○
3	Set temp.		"Set temperature" can be set by 0.5˚C interval.	A	○
4	Air flow direction		"Air flow direction" [Individual flap control] can be set. Select Enable or Disable for the "3D AUTO" (in case of FDK). *1	A	△
5	Fan speed		"Fan speed" can be set.	A	○
6	Timer setting		"Timer operation" can be set.	A	○
7	ON/OFF		"On/Off operation of the system" can be done.	A	○
8	F1 SW *1		The system operates and is controlled according to the function specified to the F1 switch.	A	
9	F2 SW *1		The system operates and is controlled according to the function specified to the F2 switch.	A	
10	Select the language *2		Select the language to display on the remote control. ・Select from English, German, French, Spanish, Italian, Dutch, Turkish, Portuguese, Russian,Polish, Japanese and Chinese.	A	
3.Useful functions					
1	Individual flap control		The moving range (the positions of upper limit and lower limit) of the flap for individual flap can be set. Set also the left and right limit positions for FDK. *1	A	△
2	Anti draft setting *1 When the panel with the anti-draft function is assembled.		・Details .....You can set Enable or Disable for anti draft motion performed at each blow outlet in each operation mode. ・ON/OFF setting .....You can set ON/OFF (operation/stop) of anti draft function for the enabled blow outlet set in Details. *2	A	
3	Timer settings	Set On timer by hour	The period of time to start operation after stopping can be set. ・The period of set time can be set within range of 1hour-12houres (1hr interval). ・The operation mode, set temp and fan speed at starting operation can be set.	A	△
		Set Off timer by hour	The period of time to stop operation after starting can be set. ・The period of set time can be set within range of 1hour-12houres (1hr interval).	A	△
		Set On timer by clock	The clock time to start operation can be set. ・The set clock time can be set by 5 minutes interval. ・[Once (one time only)] or [Everyday] operation can be switched. ・The operation mode, set temp and fan speed at starting operation can be set.	A	△
		Set Off timer by clock	The clock time to stop operation can be set. ・The set clock time can be set by 5 minutes interval. ・[Once (one time only)] or [Everyday] operation can be switched.	A	△
		Confirmation of timer settings	Status of timer settings can be seen.	A	
4	Favorite setting *1 [Administrator password]		Set the operation mode, setting temperature, air flow capacity and air flow direction for the choice setting operations. Set them for the Favorite set 1 and the Favorite set 2 respectively.	A	
5	Weekly timer		On timer and Off timer on weekly basis can be set. ・8-operation patterns per day can be set at a maximum. ・The setting clock time can be set by 5 minutes interval. ・Holiday setting is available. ・The operation mode, set temp and fan speed at starting operation can be set.	A	△
6	Home leave mode [Administrator password]		When leaving home for a long period like a vaction leave, the unit can be operated to maintain the room temperature not to be hotter in summer or not to be colder in winter. ・The judgment to switch the operation mode (Cooring ⇔ Heating) is done by the both factors of the set temp. and outdoor air temp. ・The set temp. and fan speed can be set.	A	
7	External Ventilation When the ventilator is combined.		On/Off operation of the external ventilator can be done. It is necessary to set from [Menu] ⇒ [Service setting] ⇒ [R/C function settings] ⇒ [Ventilation setting]. ・If the "Independent" is selected for the ventilation setting, the ventilator can be operated or stopped.	A	○
8	Select the language		Select the language to display on the remote control. ・Select from English, German, French, Spanish, Italian, Dutch, Turkish, Portuguese, Russian, Polish, Japanese and Chinese.*1	A	
9	Silent mode control *2		The period of time to operate the unit by prioritizing the quietness can be set. ・Start and end can be set for the silent mode	A	
4.Energy-saving setting			Administrator password		
1	Sleep timer		To prevent the timer from keeping ON, set hours to stop operation automatically with this timer. ・The selectable range of setting time is from 30 to 240 minutes. (10 miuutes interval) ・When setting is "Enable", this timer will activate whenever the ON timer is set.	A	△
2	Peak-cut timer		Power consumption can be reduced by restructing the maximum capacity. Set the [Start time], the [End time] and the capacity limit % (Peak-cut %). ・4-operation patterns per day can be set at maximum. ・The setting time can be changed by 5-minutes interval. ・The selectable range of capacity limit % (Peak-cut %) is from 0% to 40-80% (20% interval) ・Holiday setting is available.	A	
3	Automatic temp set back		After the elapse of the set time period, the current set temp. will be set back to the [Set back time.] ・The setting can be done in cooling and heating mode respectively. ・Selectable range of the set time is from 20 min. to 120 min. (10 min. interval). ・Set the [Set back temp.] by 1˚C interval.	A	△
4	Motion sensor control *1 When the panel with the motion sensor is assembled.		When the motion sensor is used, it is necessary to set Enable or Disable for the "Power control" and the "Auto-off".	A	
5.Filter					
1	Filter sign reset	Filter sign reset	The filter sign can be reset.	A	
		Setting next cleaning date	The next cleaning date can be set.	A	
6.User setting					
1	Internal settings	Clock setting	The current date and time can be set or revised. ・If a power failure continues no longer than 80 hours, the clock continues to tick by the built-in power source.	A	△
		Date and time display	[Display] or [Hide] the date and/or time can be set, and [12H] or [24H] display can be set.	A	
		Summer time	When select [Enable], the +1hour adjustment of current time can be set. When select [Disable], the [Summer time] adjustment can be reset.	A	
		Contrast	The contrast of LCD can be adjusted higher or lower.	A	
		Backlight	Switching on/off a light can be set and period of the lighting time can be set within the range of 5sec-90 sec (5sec interval).	A	
		Controller sound	It can set with or without [Controller sound (beep sound)] at touch panel.	A	
		Operation lamp luminance *1	This is used to adjust the luminance of operation lamp.	A	
2	Administrator settings [Administrator password]	Permission/Prohibition setting	・Permission/Prohibition setting of operation can be set. [On/Off] [Change set temp] [Change operation mode] [Change flap direction] [Change fan speed] [High power operation] [Energy-saving operation] [Timer] Request for administrator can be set. [Individual flap control] [Weekly timer] [Select the language] [Anti draft setting *3] *1	A	△
		Outdoor unit silent mode timer	The period of time to operate the outdoor unit by prioritizing the quiteness can be set. ・The [Start time] and the [End time] for operating outdoor unit in silent mode can be set. ・The period of the operation time can be set once aday by 5 minutes interal.	A	△
		Setting temp range	The upper/lower limit of temp. setting range can be set. ・The limitation of indoor temp. setting range can be set for each operation mode in cooling and heating.	A	△

*1: Remote controls before RC-EX1A don't have this function. *2: Remote controls before RC-EX3 don't have this function. *3: RC-E series products don't have this function.

⑥ Operation and setting from remote control (continued)

Setting & display item			Description	RC-EX series	RC-E series
		Temp increment setting	The temp increment setting can be changed by 0.5˚C or 1.0˚C.	A	
		Set temp display	Ways of displaying setting temperatures can be selected.	A	
2	Administrator settings [Administrator password]	R/C display setting	Register [Room name] [Name of I/U] Display [Indoor temp display] or not. Display [Error code display] or not. Display [Heating stand-by display] [Defrost operation display] [Auto cooling/heating display] [Display temp of R/C, Room, Outdoor] or not	A	△
		Change administrator password	The administrator password can be changed. (Default setting is "0000")	A	
			The administrator password can be reset.	B	
		F1/F2 function setting *1	Functions can be set for F1 and F2. Selectable functions: [Anti draft ON/OFF] *2 [High power operation], [Energy-saving operation], [Silent mode cont.], [Home leave mode], [Favorite set 1], [Favorite set 2] and [Filter sign reset].	A	
7.Service setting					
1	Installer settings [Service password]	Installation date	The [Installation date] can be registed. ・When registering the [Instaration date], the [Next service date] is displayed automatically. (For changing the [Next service date], please refer the item of [Service & Maintenance])	B	
		Company information	The [Company information] can be registed and can be displayed on the R/C. ・The [Company] can be registered within 26 characters. ・The [Phone No.] can be registed within 13 digits.	B	
		Test run	On/Off operation of the test run can be done.	B	○
		Cooling test run	The [Cooling test run] can be done at 5˚C of set temp. for 30 minutes.		
		Drain pump test run	Only drain pump can be operated.		
		Staric pressure adjustment	In case of combination with only the ducted indoor unit which has a function of static pressure adjustment, the static pressure is adjustable. ・It can be set for each indoor unit individually.	B	
		Change auto-address	The set address of each indoor unit decided by auto-address setting method can be changed to any other address. (For multiple KX units only)	B	△
		Address setting of main IU	Main indoor unit address can be set. ・Only the Main indoor unit can change operation mode and the Sub indoor units dominated by the Main indoor shall follow. ・The Main indoor unit can domain 10 indoor units at a maximum.	B	△
		IU back-up function	When a pair of indoor units (2 groups) is connected to one unit of remote control, it can be set Enable or Disable for the [IU rotation], [IU capacity back-up] and [IU fault back-up]	B	
		Motion sensor setting *1 When the panel with the motion sensor is assembled.	Set Enable or Disable for the infrared sensor detectors of indoor units connected to the remote control. If Disable is selected, it cannot be control the motion sensor control for the energy-saving setting.	B	
2	R/C function setting [Service password]	Main/Sub R/C	The R/C setting of [Main/Sub] can be changed.	B	○
		Return air temp	When two or more indoor units are connected to one unit of remote control, suction sensors, which are used for the judgement by thermostat, can be selected. ・It can be selected from [Individual], [Master IU] and [Average temp].	B	
		R/C sensor	It can be set the mode to switch to the remote control sensor. It can be selected from cooling and heating.	B	△
		R/C sensor adjustment	The offset value of [R/C sensor] sensing temp. can be set respectively in heating and cooling.	B	△
		Operation mode	Enable or Disable can be set for each operation mode.	B	△
		ºC / ºF	Set the unit for setting temperatures. ・°C or °F can be selected.	B	
		Fan speed	Fan speeds can be selected.	B	○
		External input	When two or more indoor units are connected to one unit of remote control, the range to apply CNT inputs can be set.	B	○
		Upper/lower flap control	[Stop at fixed position] or [Stop at any position] can be selected for the upper and lower louvers.	B	○
		Left/right flap control *1	[Fixed position stop] or [Stop at any position] can be selected for the right and left louvers.	B	
		Ventilation setting	Combination control for ventilator can be set.	B	○
		Auto-restart	The operation control method after recovery of power failure happened during operation can be set.	B	○
		Auto temp setting	[Enable] or [Disable] of [Auto temp setting] can be selected.	B	
		Auto fan speed	[Enable] or [Disable] of [Auto fan speed] can be selected.	B	
3	IU settings [Service password]	Fan speed setting	The fan speed for indoor units can be set.	B	○
		Filter sign	The setting of filter sign display timer can be done from following patterns.	B	○
		External input 1	The connect of control by external input 1 can be changed.	B	○
		External input 1 signal	The type of external input 1 signal can be changed.	B	○
		External input 2	The connect of control by external input 2 can be changed.	B	
		External input 2 signal	The type of external input 2 signal can be changed.	B	
		Heating thermo-OFF temp adjustment	The judgement temp. of heating themo-off can be adjusted within the range from 0 to +3˚C (1˚C interval)	B	△
		Return temperature adjustment	The sensing temp. of return air temp. sensor built in the indoor unit can be adjusted within the range of ±2˚C.	B	△
		Fan control in cooling thermo-OFF	Fan control, when the cooling thermostat is turned OFF, can be changed.	B	○
		Fan control in heating thermo-OFF	Fan control, when the heating thermostat is turned OFF, can be changed.	B	○
		Anti-frost temp	Judgment temperature for the anti-frost control during cooling can be changed.	B	○
		Anti-frost control	When the anti-frost control of indoor unit in cooling is activated, the fan speed can be changed.	B	○
		Drain pump operation	In any operation mode in addition to cooling and dry mode, the setting of drain pump operation can be done.	B	○
		Keep fan operating after cooling is stopped	The time period residual fan operation after stopping or thermo-off in cooling mode can be set.	B	○
		Keep fan operating after heating is stopped	The time period residual fan operation after stopping or thermo-off in heating mode can be set.	B	○
		Intermittent fan operation in heating	The fan operation rule following the residual fan operation after stopping or themo-off in heating mode can be set.	B	○
		Fan circulator operation	In case that the fan is operated as the circulator, the fan control rule can be set.	B	
		Control pressure adjust	When only the OA processing units are operated, control pressure value can be changed.	B	
		Auto operation mode	The [Auto rule selection] for switching the operation mode automatically can be selected from 3 patterns.	B	
		Thermo. rule setting	When selecting [Outdoor air temp. control], the judgment temp can be offset by outdoor temp..	B	
		Auto fan speed control	Auto switching range for the auto fan speed control can be set.	B	
		IU overload alarm	If the difference between the setting temperature and the suction temperature becomes larger than the temperature difference set for the overload alarm, at 30 minutes after the start of operation, the overload alarm signal is transmitted from the external output (CNT-5).	B	
		External output setting *1	Functions assigned to the external outputs 1 to 4 can be changed.	B	
4	Service & Maintenance [Service password]	IU address	Max 16 indoor units can be connected to one remote control, and all address No. of the connected indoor units can be display ed. ・The indoor unit conforming to the address No. can be identified by selecting the address No. and tapping [Check] to operate the indoor fan.	B	○
		Next service date	The [Next service date] can be registered. ・The [Next service date] and [Company information] is displayed on the message screen.	A B	○
		Operation data	The [Operation data] for indoor unit and outdoor unit can be displayed.	B	○
		Error display		B	△
		Error history	The error history can be displayed.		
		Display anomaly data	The operation data just before the latest error stop can be displayed.		
		Erase anomaly data	Anomaly operation data can be erased.		
		Reset periodical check	The timer for the periodical check can be reset.		
		Saving IU settings	The I/U settings memorized in the indoor PCB connected to the remote control can be saved in the memory of the remote control.	B	
		Special settings	[Erase IU address] [CPU reset] [Restore of default setting] [Touch panel calibration]	B	△
		Indoor unit capacity display *1	Address No. and capacities of indoor units connected to the remote control are displayed.	B	
8.Contact company			Shows registered [Contact company] and [Contact phone].		
9.Inspection					
	Confirmation of Inspection		This is displayed when any error occurs.	A	△
10.PC connection					
	USB connection		Weekly timer setting and etc., can be set from PC.	C	

◆ Listed items may not function depending on the specifications of indoor and outdoor units which are combined.
*1: Remote controls before RC-EX1A don't have this function. *2: Remote controls before RC-EX3 don't have this function. *3: RC-E series products don't have this function.

9.3 Installation of wired remote control (Option parts)

PJZ012A171

(1) Model RC-EX3A

1. Safety precautions

●Please read this manual carefully before starting installation work to install the unit properly.
Every one of the followings is important information to be observed strictly.

⚠WARNING	Failure to follow these instructions properly may result in serious consequences such as death, severe injury, etc.
⚠CAUTION	Failure to follow these instructions properly may cause injury or property damage.

It could have serious consequences depending on the circumstances.

●The following pictograms are used in the text.

⃠	Never do.	❗	Always follow the instructions given.

●Keep this manual at a safe place where you can consult with whenever necessary. Show this manual to installers when moving or repairing the unit. When the ownership of the unit is transferred, this manual should be given to a new owner.

⚠WARNING

Consult your dealer or a professional contractor to install the unit.
Improper installation made on your own may cause electric shocks, fire or dropping of the unit.

Installation work should be performed properly according to this installation manual.
Improper installation work may result in electric shocks, fire or break-down.

Be sure to use accessories and specified parts for installation work.
Use of unspecified parts may result in drop, fire or electric shocks.

Install the unit properly to a place with sufficient strength to hold the weight.
If the place is not strong enough, the unit may drop and cause injury.

Be sure to have the electrical wiring work done by qualified electrical installer, and use exclusive circuit.
Power source with insufficient and improper work can cause electric shock and fire.

Shut OFF the main power source before starting electrical work.
Otherwise, it could result in electric shocks, break-down or malfunction.

Do not modify the unit.
It could cause electric shocks, fire, or break-down.

Be sure to turn OFF the power circuit breaker before repairing/ inspecting the unit.
Repairing/inspecting the unit with the power circuit breaker turned ON could cause electric shocks or injury.

⚠WARNING

Do not install the unit in appropriate environment or where inflammable gas could generate, flow in, accumulate or leak.

If the unit is used at places where air contains dense oil mist, steam, organic solvent vapor, corrosive gas (ammonium, sulfuric compound, acid, etc) or where acidic or alkaline solution, special spray, etc. are used, it could cause electric shocks, break-down, smoke or fire as a result of significant deterioration of its performance or corrosion.

Do not install the unit where water vapor is generated excessively or condensation occurs.

It could cause electric shocks, fire, or break-down.

Do not use the unit in a place where it gets wet, such as laundry room.

It could cause electric shocks, fire, or break-down.

Do not operate the unit with wet hands.

It could cause electric shocks.

Do not wash the unit with water.

It could cause electric shocks, fire, or break-down.

Use the specified cables for wiring, and connect them securely with care to protect electronic parts from external forces.

Improper connections or fixing could cause heat generation, fire, etc.

Seal the inlet hole for remote control cable with putty.

If dew, water, insect, etc. enters through the hole, it could cause electric shocks, fire or break-down.

If dew or water enters the unit, it may cause screen display anomalies.

When installing the unit at a hospital, telecommunication facility, etc., take measures to suppress electric noises.

It could cause malfunction or break-down due to hazardous effects on the inverter, private power generator, high frequency medical equipment, radio communication equipment, etc.

The influences transmitted from the remote control to medical or communication equipment could disrupt medical activities, video broadcasting or cause noise interference.

Do not leave the remote control with its upper case removed.

If dew, water, insect, etc. enters through the hole, it could cause electric shocks, fire or break-down.

⚠CAUTION

Do not install the remote control at following places.

(1) It could cause break-down or deformation of remote control.
- Where it is exposed to direct sunlight
- Where the ambient temperature becomes 0 ˚C or below, or 40 ˚C or above
- Where the surface is not flat
- Where the strength of installation area is insufficient

(2) Moisture may be attached to internal parts of the remote control, resulting in a display failure.
- Place with high humidity where condensation occurs on the remote control
- Where the remote control gets wet

(3) Accurate room temperature may not be detected using the temperature sensor of the remote control.
- Where the average room temperature cannot be detected
- Place near the equipment to generate heat
- Place affected by outside air in opening/closing the door
- Place exposed to direct sunlight or wind from air-conditioner
- Where the difference between wall and room temperature is large

To connect to a personal computer via USB, use the dedicated software.
Do not connect other USB devices and the remote control at the same time.

It could cause malfunction or break-down of the remote control/personal computer.

2 . Accessories & Prepare on site

Following parts are provided.

Accessories	R/C main unit, wood screw (ϕ 3.5 x 16) 2 pcs, Quick reference

Following parts are arranged at site. Prepare them according to the respective installation procedures.

Item name	Q'ty	Remark
Switch box For 1 piece or 2 pieces (JIS C 8340 or equivalent)	1	These are not required when installing directly on a wall.
Thin wall steel pipe for electric appliance directly on a wall. (JIS C 8305 or equivalent)	As required	
Lock nut, bushing (JIS C 8330 or equivalent)	As required	
Lacing (JIS C 8425 or equivalent)	As required	Necessary to run R/C cable on the wall.
Putty	Suitably	For sealing gaps
Molly anchor	As required	
R/C cable (0.3 mm^2 x 2 pcs)	As required	See right table when longer than 100 m

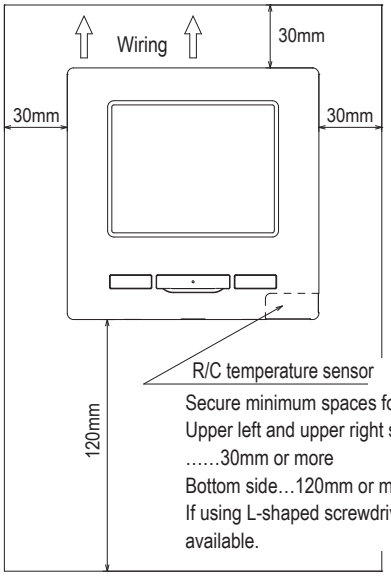
When the cable length is longer than 100 m, the max size for wires used in the R/C case is 0.5 mm^2 . Connect them to wires of larger size near the outside of R/C. When wires are connected, take measures to prevent water, etc. from entering inside.

≦ 200 m	0.5 mm^2 x 2 cores
≦ 300m	0.75 mm^2 x 2 cores
≦ 400m	1.25 mm^2 x 2 cores
≦ 600m	2.0 mm^2 x 2 cores

3 . Installation place

Secure the installation space shown in the figure.
For the installation method, “embedding wiring” or “exposing wiring” can be selected.
For the wiring direction, “Backward”, “Upper center” or “Upper left” can be selected.
Determine the installation place in consideration of the installation method and wiring direction.

Installation space

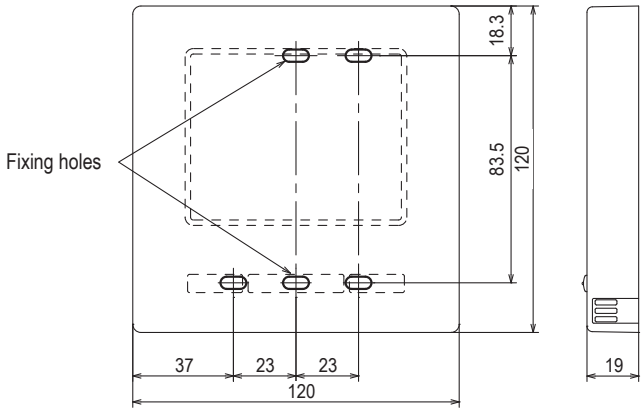


Secure minimum spaces for disassembling the case.
Upper left and upper right sides
……30mm or more
Bottom side…120mm or more
If using L-shaped screwdriver, 50mm or more is available.

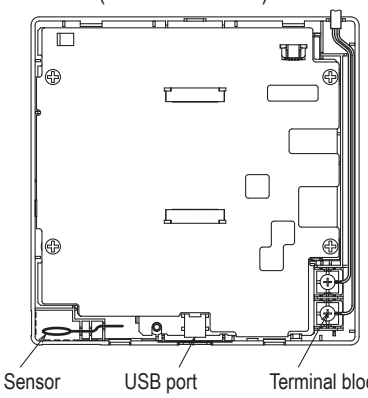
4 . Installation procedure

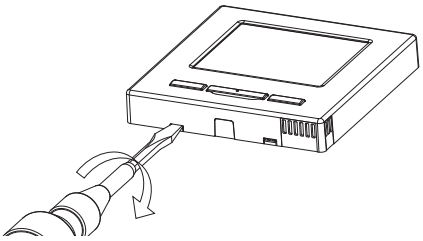
Perform installation and wiring work for the remote control according to the following procedure.

Dimensions (Viewed from front)



PCB side (Viewed from rear)





To disassemble the R/C case into the upper and lower pieces after assembling them once

· Insert the tip of flat head screwdriver or the like in the recess at the lower part of R/C and twist it lightly to remove. It is recommended that the tip of the screwdriver be wrapped with tape to avoid damaging the case.

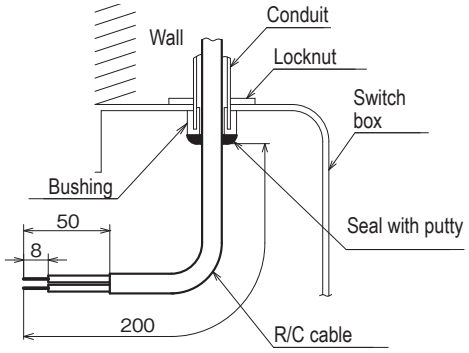
Take care to protect the removed upper case from moisture or dust.

In case of embedding wiring

(When the wiring is retrieved “Backward”)

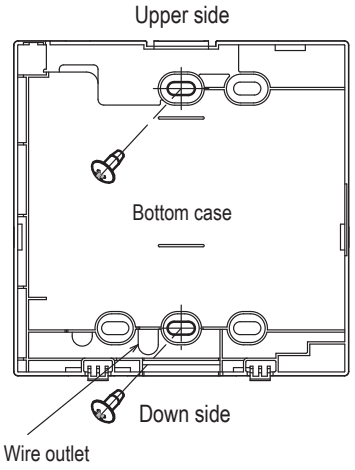
① Embed the switch box and the R/C wires beforehand.

Seal the inlet hole for the R/C wiring with putty.

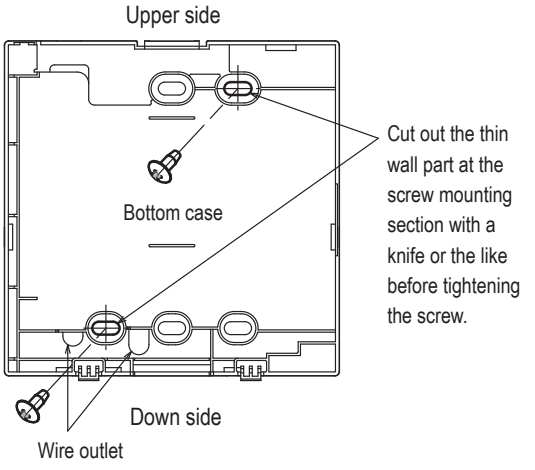


② When wires are passed through the bottom case, fix the bottom case at 2 places on the switch box.

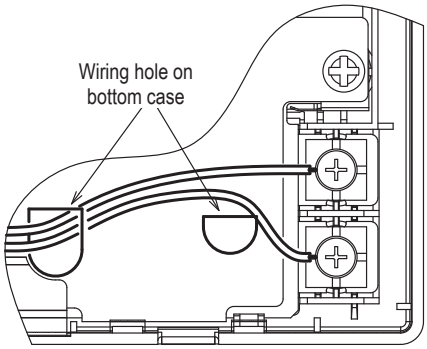
Switch box for 1 pcs



Switch box for 2 pcs

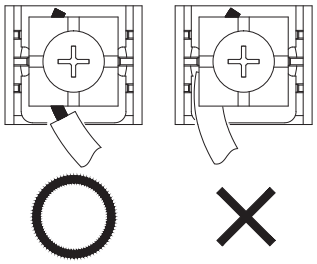


③ Connect wires from X and Y terminals of R/C to X and Y terminals of indoor unit. R/C wires (X, Y) have no polarity. Fix wires such that the wires will run around the terminal screws on the top case of R/C.
④ Install the upper case with care not to pinch wires of R/C.



Cautions for wire connection

Use wires of no larger than 0.5 mm^2 for wiring running through the remote control case. Take care not to pinch the sheath.
Tighten by hand (0.7 N·m or less) the wire connection. If the wire is connected using an electric driver, it may cause failure or deformation.

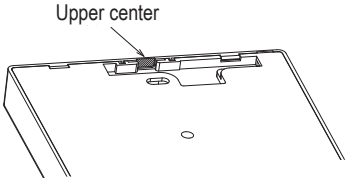


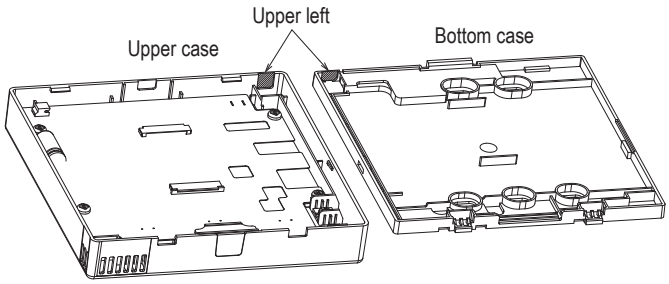
In case of exposing wiring

(When the wiring is taken out from the "upper center" or "upper left" of R/C)

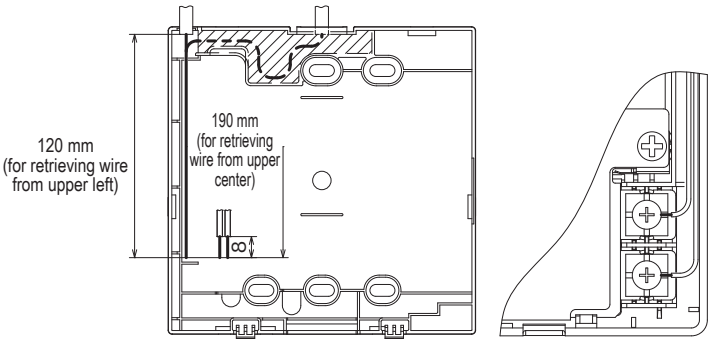
① Cut out the thin wall sections on the cases for the size of wire.

When taking the wiring out from the upper center, open a hole before separating the upper and bottom cases. This will reduce risk of damaging the PCB and facilitate subsequent work.
When taking the wiring out from the upper left, take care not to damage the PCB and not to leave any chips of cut thin wall inside.



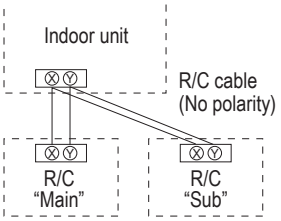


② Fix the bottom R/C case on a flat surface with two wood screws.
③ In case of the upper center, pass the wiring behind the bottom case. (Hatched section)
④ Connect wires from X and Y terminals of R/C to X and Y terminals of indoor unit. R/C wires (X, Y) have no polarity. Fix wires such that the wires will run around the terminal screws on the top case of R/C.
⑤ Install the top case with care not to pinch wires of R/C.
⑥ Seal the area cut in ① with putty.



5 . Main/Sub setting when more than one remote control are used

Up to two units of R/C can be used at the maximum for 1 indoor unit or 1 group.
One is main R/C and the other is sub R/C.
Operating range is different depending on the main or sub R/C.



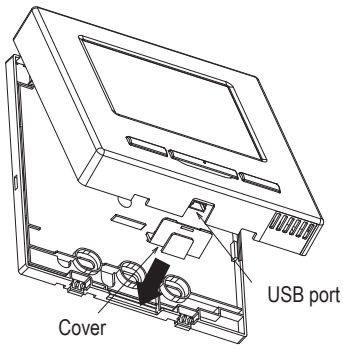
○: operable ×: not operable

R/C operations			Main	Sub
Run/Stop, Change set temp., Change flap direction, Auto swing, Change fan speed operations			○	○
High power operation, Energy-saving operation			○	○
Silent mode control			○	×
Useful functions	Individual flap control		○	×
	Anti draft setting		○	×
	Timer		○	○
	Favorite setting		○	○
	Weekly timer		○	×
	Home leave mode		○	×
	External ventilation		○	○
	Select the language		○	○
	Silent mode control		○	×
Energy-saving setting			○	×
Filter	Filter sign reset		○	○
User setting	Initial settings		○	○
	Administrator settings	Permission/ Prohibition setting	○	×
		Outdoor unit silent mode timer	○	×
		Setting temp. range	○	×
		Temp increment setting	○	×
		Set temp. display	○	○
		R/C display setting	○	○
		Change administrator password	○	○
		F1/F2 function setting	○	○

R/C operations				Main	Sub
Service setting	Installation settings	Installation date		○	×
		Company information		○	○
		Test run		○	×
		Static pressure adjustment		○	×
		Change auto-address		○	×
		Address setting of main IU		○	×
		IU back-up function		○	×
		Motion sensor setting		○	×
	R/C function settings	Main/Sub of R/C		○	○
		Return air temp.		○	×
		R/C sensor		○	×
		R/C sensor adjustment		○	×
		Operation mode		○	×
		ºC / ºF		○	×
		Fan speed		○	×
		External input		○	×
		Upper/lower flap control		○	×
		Left/right flap control		○	×
		Ventilation setting		○	×
		Auto-restart		○	×
		Auto temp. setting		○	×
		Auto fan speed		○	×
	IU settings			○	×
	Service & Maintenance	IU address		○	○
		Next service date		○	×
		Operation data		○	×
		Error display	Error history	○	○
			Display/erase anomaly data	○	×
			Reset periodical check	○	○
		Saving IU settings		○	×
		Special settings	Erase IU address	○	×
			CPU reset	○	○
			Restore of default setting	○	×
			Touch panel calibration	○	○
		Indoor unit capacity display		○	×

Advice: Connection to personal computer

It can be set from a personal computer via the USB port (mini-B).
Connect after removing the cover for USB port of upper case.
Replace the cover after use.
Special software is necessary for the connection.
For details, view the web site.

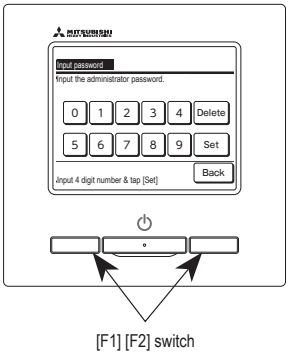


Advice: Initializing of password

Administrator password (for daily setting items) and
service password (for installation, test run and maintenance) are used.

○ The administrator password at factory default is "0000". This setting can be changed (Refer to User's Manual).
If the administrator password is forgotten, it can be initialized by holding down the [F1] and [F2] switches together for five seconds on the administrator password input screen.

○ Service password is "9999", which cannot be changed.
When the administrator password is input, the service password is also accepted.



Advice

When connecting two or more FDT/FDTC to one R/C, unify the panel type either to a panel with anti draft function or a standard panel.

PJA012D730B

(2) Model RC-E5

Read together with indoor unit's installation manual.

⚠WARNING

- Fasten the wiring to the terminal securely and hold the cable securely so as not to apply unexpected stress on the terminal.
  Loose connection or hold will cause abnormal heat generation or fire.
- Make sure the power source is turned off when electric wiring work.
  Otherwise, electric shock, malfunction and improper running may occur.

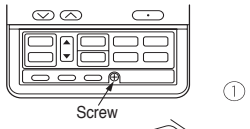
⚠CAUTION

- Do not install the remote control at the following places in order to avoid malfunction.
  (1) Places exposed to direct sunlight
  (2) Places near heat devices
  (3) High humidity places
  (4) Hot surface or cold surface enough to generate condensation
  (5) Places exposed to oil mist or steam directly
  (6) Uneven surface
- Do not leave the remote control without the upper case.
  In case the upper cace needs to be detached, protect the remote control with a packaging box or bag in order to keep it away from water and dust.

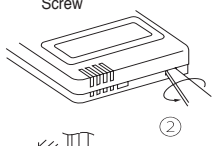
Accessories	Remote control, wood screw (ϕ3.5×16) 2 pieces
Prepare on site	Remote control cord (2 cores) the insulated thickness in 1mm or more. [In case of embedding cord] Erectrical box, M4 screw (2 pieces) [In case of exposing cord] Cord clamp (if needed)

Installation procedure

① Open the cover of remote control, and remove the screw under the buttons without fail.

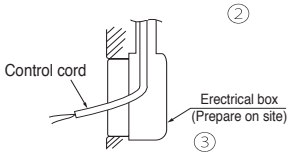


② Remove the upper case of remote control.
Insert a flat-blade screwdriver into the dented part of the upper part of the remote control, and wrench slightly.

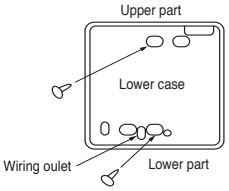


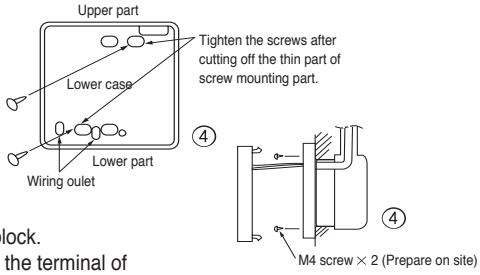
[In case of embedding cord]

③ Embed the erectrical box and remote control cord beforehand.



④ Prepare two M4 screws (recommended length is 12-16mm) on site, and install the lower case to erectrical box.
Choose either of the following two positions in fixing it with screws.



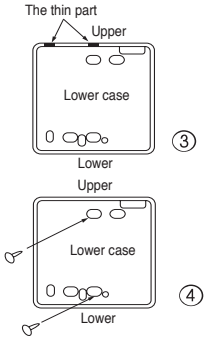


⑤ Connect the remote control cord to the terminal block.
Connect the terminal of remote control (X,Y) with the terminal of indoor unit (X,Y). (X and Y are no polarity)

⑥ Install the upper case as before so as not to catch up the remote control cord, and tighten with the screws.

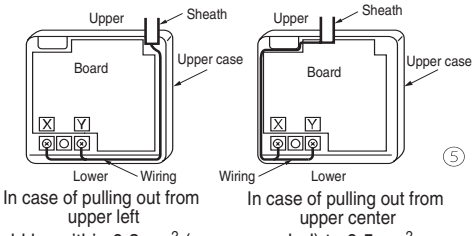
[In case of exposing cord]

③ You can pull out the remote control cord from left upper part or center upper part.
Cut off the upper thin part of remote control lower case with a nipper or knife, and grind burrs with a file etc.



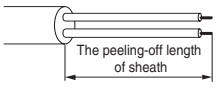
④ Install the lower case to the flat wall with attached two wooden screws.

⑤ Connect the remote control cord to the terminal block.
Connect the terminal of remote control (X,Y) with the terminal of indoor unit (X,Y).
(X and Y are no polarity)
Wiring route is as shown in the right diagram depending on the pulling out direction.



The wiring inside the remote control case should be within 0.3mm^2 (recommended) to 0.5mm^2.
The sheath should be peeled off inside the remote control case.
The peeling-off length of each wire is as below.

Pulling out from upper left	Pulling out from upper center
X wiring : 215mm Y wiring : 195mm	X wiring : 170mm Y wiring : 190mm



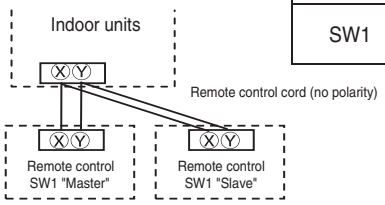
⑥ Install the upper case as before so as not to catch up the remote control cord, and tighten with the screws.
⑦ In case of exposing cord, fix the cord on the wall with cord clamp so as not to slack.

Installation and wiring of remote control

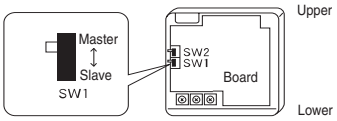
① Wiring of remote control should use 0.3mm^2 × 2 cores wires or cables. (on-site configuration)
② Maximum prolongation of remote control wiring is 600 m.
If the prolongation is over 100m, change to the size below.
But, wiring in the remote control case should be under 0.5mm^2 . Change the wire size outside of the case according to wire connecting. Waterproof treatment is necessary at the wire connecting section. Be careful about contact failure.
100 - 200m·····0.5mm^2 × 2 cores
Under 300m·····0.75mm^2 × 2 cores
Under 400m·····1.25mm^2 × 2 cores
Under 600m·····2.0mm^2 × 2 cores

Master/ slave setting when more than one remote controls are used

A maximum of two remote controls can be connected to one indoor unit (or one group of indoor units.)



Switch	Setting	Contents
SW1	M	Master remote control
	S	Slave remote control

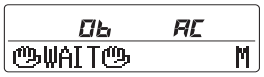


Set SW1 to "Slave" for the slave remote control. It was factory set to "Master" for shipment.
Note: The setting "Remote control sensor enabled" is only selectable with the master remote control in the position where you want to check room temperature.
The air-conditioner operation follows the last operation of the remote control regardless of the master/ slave setting of it.

The indication when power source is supplied

When power source is turned on, the following is displayed on the remote control until the communication between the remote control and indoor unit settled.
Master remote control : " WAIT M"
Slave remote control : " WAIT S"

At the same time, a mark or a number will be displayed for two seconds first.
This is the software's administration number of the remote control, not an error cord.



※ The left mark is only an example. Other marks may appear.

When remote control cannot communicate with the indoor unit for half an hour, the below indication will appear.
Check wiring of the indoor unit and the outdoor unit etc.



The range of temperature setting

When shipped, the range of set temperature differs depending on the operation mode as below.

Heating : 16-30˚C (55-86˚F)

Except heating (cooling, fan, dry, automatic) : 18-30˚C (62-86˚F)

●Upper limit and lower limit of set temperature can be changed with remote control.

Upper limit setting: valid during heating operation. Possible to set in the range of 20 to 30˚C (68 to 86˚F).

Lower limit setting: valid except heating (automatic, cooling, fan, dry) Possible to set in the range of 18 to 26˚C (62 to 79˚F).

When you set upper and lower limit by this function, control as below.

1. When ⑫TEMP RANGE SET, remote control function of function setting mode is "INDN CHANGE" (factory setting),
   【If upper limit value is set】
   During heating, you cannot set the value exceeding the upper limit.

   【If lower limit value is set 】
   During operation mode except heating, you cannot set the value below the lower limit.

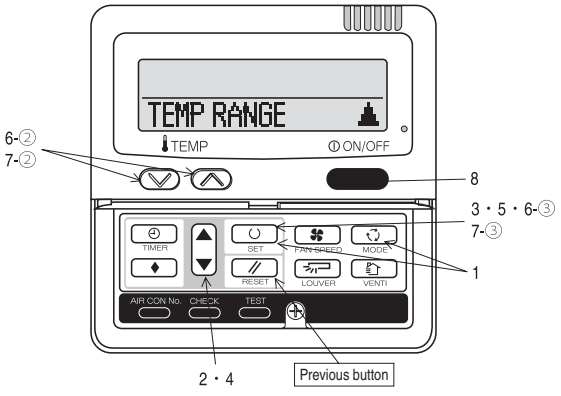
2. When ⑫TEMP RANGE SET, remote control function of function setting mode is "NO INDN CHANGE"
   【If upper limit value is set】
   During heating, even if the value exceeding the upper limit is set, upper limit value will be sent to the indoor unit. But, the indication is the same as the temperature set.

   【If lower limit value is set 】
   During except heating, even if the value lower than the lower limit is set, lower limit value will be sent to the indoor unit. But, the indication is the same as the temperature set.

●How to set upper and lower limit value

1. Stop the air-conditioner, and press (SET) and (MODE) button at the same time for over three seconds .
   The indication changes to "FUNCTION SET ▼".
2. Press ▼ button once, and change to the "TEMP RANGE ▲ " indication.
3. Press (SET) button, and enter the temperature range setting mode.
4. Select "UPPER LIMIT ▼" or "LOWER LIMIT ▲" by using ▲ ▼ button.
5. Press (SET) button to fix.
6. When "UPPER LIMIT ▼" is selected (valid during heating)
   ① Indication: "☝ ∨ ∧ SET UP" → "UPPER 30˚C ∨"
   ② Select the upper limit value with temperature setting button ▽ △. Indication example: "UPPER 26˚C ∨ ∧" (blinking)
   ③ Press (SET) button to fix. Indication example: "UPPER 26˚C" (Displayed for two seconds)
   After the fixed upper limit value displayed for two seconds, the indication will return to "UPPER LIMIT ▼".
7. When "LOWER LIMIT ▲" is selected (valid during cooling, dry, fan, automatic)
   ① Indication: "☝ ∨ ∧ SET UP" → "LOWER 18˚C ∧"
   ② Select the lower limit value with temperature setting button ▽ △. Indication example: "LOWER 24˚C ∨ ∧" (blinking)
   ③ Press (SET) button to fix. Indication for example: "LOWER 24˚C" (Displayed for two seconds)
   After the fixed lower limit value displayed for two seconds, the indication will return to "LOWER LIMIT ▼".
8. Press ON/OFF button to finish.

- It is possible to finish by pressing ON/OFF button on the way, but unfinished change of setting is unavailable.
- During setting, if you press (RESET) button, you return to the previous screen.



The functional setting

●The initial function setting for typical using is performed automatically by the indoor unit connected, when remote control and indoor unit are connected.
As long as they are used in a typical manner, there will be no need to change the initial settings.
If you would like to change the initial setting marked "○", set your desired setting as for the selected item.
The procedure of functional setting is shown as the following diagram.

[Flow of function setting]

Start : Stop air-conditioner and press "(SET)" and "(MODE)" buttons at the same time for over three seconds.
Finalize : Press "(SET)" button.
Reset : Press "(RESET)" button.
Select : Press ▲ ▼ button.
End : Press ON/OFF button.
It is possible to finish above setting on the way, and unfinished change of setting is unavailable.
"○" : Initial settings
"※" : Automatic criterion

Record and keep the setting

Consult the technical data etc. for each control details

Note 1: The initial setting marked "※" is decided by connected indoor and outdoor unit, and is automatically defined as following table.

Function No.	Item	Default	Model
Remote control function02	AUTO RUN SET	AUTO RUN ON	"Auto-RUN" mode selectable indoor unit.
		AUTO RUN OFF	Indoor unit without "Auto-RUN" mode
Remote control function06	FAN SPEED SW	VALID	Indoor unit with two or three step of air flow setting
		INVALID	Indoor unit with only one of air flow setting
Remote control function07	LOUVER SW	VALID	Indoor unit with automatically swing louver
		INVALID	Indoor unit without automatically swing louver
Remote control function13	I/U FAN	HI-MID-LO	Indoor unit with three step of air flow setting
		HI-LO	Indoor unit with two step of air flow setting
		HI-MID	
		1 FAN SPEED	Indoor unit with only one of air flow setting
Remote control function15	MODEL TYPE	HEAT PUMP	Heat pump unit
		COOLING ONLY	Exclusive cooling unit

Note 3: As for plural indoor unit, set indoor functions to each master and slave indoor unit.
But only master indoor unit is received the setting change of indoor unit function "05 EXTERNAL INPUT" and "06 PERMISSION / PROHIBISHION".

Note2: Fan setting of "HIGH SPEED"

Fan tap		Indoor unit air flow setting			
FAN SPEED SET	STANDARD	UH - Hi - Me - Lo	Hi - Me - Lo	Hi - Lo	Hi - Me
	HIGH SPEED1, 2	UH - UH - Hi - Me	UH - Hi - Me	UH - Me	UH - Hi

Initial function setting of some indoor unit is "HIGH SPEED".

Stop air-conditioner and press (SET) + (MODE) buttons at the same time for over three seconds.
→ FUNCTION SET ▼

FUNCTION ▼ (Remote control function)

Function	setting		
01 ESP SET	ESP VALID	○	Validate setting of ESP:External Static Pressure
	ESP INVALID		Invalidate setting of ESP
02 AUTO RUN SET	AUTO RUN ON	※	
	AUTO RUN OFF	※	Automatical operation is impossible
03 TEMP SW	VALID	○	
	INVALID		Temperature setting button is not working
04 MODE SW	VALID	○	
	INVALID		Mode button is not working
05 ON/OFF SW	VALID	○	
	INVALID		On/Off button is not working
06 FAN SPEED SW	VALID	※	
	INVALID	※	Fan speed button is not working
07 LOUVER SW	VALID	※	
	INVALID	※	Louver button is not working
08 TIMER SW	VALID	○	
	INVALID		Timer button is not working
09 SENSOR SET	SENSOR OFF	○	Remote thermistor is not working.
	SENSOR ON		Remote thermistor is working.
	SENSOR +3.0℃		Remote thermistor is working, and to be set for producing +3.0˚C increase in temperature.
	SENSOR +2.0℃		Remote thermistor is working, and to be set for producing +2.0˚C increase in temperature.
	SENSOR +1.0℃		Remote thermistor is working, and to be set for producing +1.0˚C increase in temperature.
	SENSOR −1.0℃		Remote thermistor is working, and to be set for producing -1.0˚C increase in temperature.
	SENSOR −2.0℃		Remote thermistor is working, and to be set for producing -2.0˚C increase in temperature.
	SENSOR −3.0℃		Remote thermistor is working, and to be set for producing -3.0˚C increase in temperature.
10 AUTO RESTART	INVALID	○	
	VALID		
11 VENT LINK SET	NO VENT	○	
	VENT LINK		In case of Single split series, by connecting ventilation device to CNT of the indoor printed circuit board (in case of VRF series, by connecting it to CND of the indoor printed circuit board), the operation of ventilation device is linked with the operation of indoor unit.
	NO VENT LINK		In case of Single split series, by connecting ventilation device to CNT of the indoor printed circuit board (in case of VRF series, by connecting it to CND of the indoor printed circuit board), you can operate /stop the ventilation device independently by (VENT) button.
12 TEMP RANGE SET	INDN CHANGE	○	If you change the range of set temperature, the indication of set temperature will vary following the control.
	NO INDN CHANGE		If you change the range of set temperature, the indication of set temperature will not vary following the control, and keep the set temperature.
13 I/U FAN	HI-MID-LO	※	Air flow of fan becomes the three speed of - - or - - - .
	HI-LO	※	Air flow of fan becomes the two speed of - .
	HI-MID		Air flow of fan becomes the two speed of - .
	1 FAN SPEED	※	Air flow of fan is fixed at one speed.
14 POSITION			If you change the remote control function "14 POSITION", you must change the indoor function "04 POSITION" accordingly.
	4POSITION STOP	○	You can select the louver stop position in the four.
	FREE STOP		The louver can stop at any position.
15 MODEL TYPE	HEAT PUMP	※	
	COOLING ONLY	※	
16 EXTERNAL CONTROL SET	INDIVIDUAL	○	If you input signal into CnT of the indoor printed circuit board from external, the indoor unit will be operated independently according to the input from external.
	FOR ALL UNITS		If you input into CNT of the indoor printed circuit board from external, all units which connect to the same remote control are operated according to the input from external.
17 ROOM TEMP INDICATION SET	INDICATION OFF	○	
	INDICATION ON		In normal working indication, indoor unit temperature is indicated instead of air flow. (Only the master remote control can be indicated.)
18 INDICATION	INDICATION ON	○	
	INDICATION OFF		Heating preparation indication should not be indicated.
19 ℃/˚F SET	℃	○	Temperature indication is by degree C.
	˚F		Temperature indication is by degree F.

(Indoor unit function) I/U FUNCTION ▲

Indoor unit No. are indicated only when plural indoor units are connected.
I/U000 ▲, I/U001 ◆, I/U002 ◆, I/U003 ◆, I/U004 ◆

To set other indoor unit, press AIR CON No. button, which allows you to go back to the indoor unit selection screen (for example: I/U 000 ▲).

Function	setting		
02 FAN SPEED SET	STANDARD	※	
	HIGH SPEED 1	※	
	HIGH SPEED 2		
03 FILTER SIGN SET	INDICATION OFF		
	TYPE 1	○	The filter sign is indicated after running for 180 hours.
	TYPE 2		The filter sign is indicated after running for 600 hours.
	TYPE 3		The filter sign is indicated after running for 1000 hours.
	TYPE 4		The filter sign is indicated after running for 1000 hours, then the indoor unit will be stopped by compulsion after 24 hours.
04 POSITION			If you change the indoor function "04 POSITION", you must change the remote control function "14 POSITION" accordingly.
	4POSITION STOP	○	You can select the louver stop position in the four.
	FREE STOP		The louver can stop at any position.
05 EXTERNAL INPUT	LEVEL INPUT	○	
	PULSE INPUT		
06 OPERATION PERMISSION/PROHIBITION	INVALID	○	
	VALID		Permission/prohibition control of operation will be valid.
07 EMERGENCY STOP	INVALID	○	
	VALID		With the VRF series, it is used to stop all indoor units connected with the same outdoor unit immediately. When stop signal is inputed from remote on-off terminal "CNT-6", all indoor units are stopped immediately.
08 SP OFFSET	OFFSET +3.0℃		To be reset for producing +3.0˚C increase in temperature during heating.
	OFFSET +2.0℃		To be reset for producing +2.0˚C increase in temperature during heating.
	OFFSET +1.0℃		To be reset for producing +1.0˚C increase in temperature during heating.
	NO OFFSET	○	
09 RETURN AIR TEMP	OFFSET +2.0℃		To be reset producing +2.0˚C increase in return air temperature of indoor unit.
	OFFSET +1.5℃		To be reset producing +1.5˚C increase in return air temperature of indoor unit.
	OFFSET +1.0℃		To be reset producing +1.0˚C increase in return air temperature of indoor unit.
	NO OFFSET	○	
	OFFSET −1.0℃		To be reset producing -1.0˚C increase in return air temperature of indoor unit.
	OFFSET −1.5℃		To be reset producing -1.5˚C increase in return air temperature of indoor unit.
	OFFSET −2.0℃		To be reset producing -2.0˚C increase in return air temperature of indoor unit.
10 FAN CONTROL	LOW FAN SPEED	○	When heating thermostat is OFF, fan speed is low speed.
	SET FAN SPEED		When heating thermostat is OFF, fan speed is set speed.
	INTERMITTENCE		When heating thermostat is OFF, fan speed is operated intermittently.
	FAN OFF		When heating thermostat is OFF, the fan is stopped. When the remote thermistor is working, "FAN OFF" is set automatically. Do not set "FAN OFF" when the indoor unit's thermistor is working.
11 FROST PREVENTION TEMP			Change of indoor heat exchanger temperature to start frost prevention control.
	TEMP HIGH		
	TEMP LOW	○	
12 FROST PREVENTION CONTROL			Working only with the Single split series.
	FAN CONTROL ON	○	To control frost prevention, the indoor fan tap is raised.
	FAN CONTROL OFF		
13 DRAIN PUMP LINK	(cooling)(dry)	○	Drain pump is run during cooling and dry.
	(cooling)(dry) AND (heating)		Drain pump is run during cooling, dry and heating.
	(cooling)(dry) AND (heating) AND (fan)		Drain pump is run during cooling, dry, heating and fan.
	(cooling)(dry) AND (fan)		Drain pump is run during cooling, dry and fan.
14 FAN REMAINING	NO REMAINING	○	After cooling is stopped is OFF, the fan does not perform extra operation.
	0.5 HOUR		After cooling is stopped is OFF, the fan perform extra operation for half an hour.
	1 HOUR		After cooling is stopped is OFF, the fan perform extra operation for an hour.
	6 HOUR		After cooling is stopped is OFF, the fan perform extra operation for six hours.
15 FAN REMAINING	NO REMAINING	○	After heating is stopped or heating thermostat is OFF, the fan does not perform extra operation.
	0.5 HOUR		After heating is stopped or heating thermostat is OFF,the fan perform extra operation for half an hour.
	2 HOUR		After heating is stopped or heating thermostat is OFF,the fan perform extra operation for two hours.
	6 HOUR		After heating is stopped or heating thermostat is OFF, the fan perform extra operation for six hours.
16 FAN INTERMITTENCE	NO REMAINING	○	
	20minOFF 5minON		During heating is stopped or heating thermostat is OFF, the fan perform intermittent operation for five minutes with low fan speed after twenty minutes' OFF.
	5minOFF 5minON		During heating is stopped or heating thermostat is OFF, the fan perform intermittent operation for five minutes with low fan speed after five minutes' OFF.
17 PRESSURE CONTROL	STANDARD	※	
	TYPE1	※	Connected "OA Processing" type indoor unit, and is automatically defined.

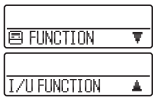
ON/OFF button (finished)

How to set function

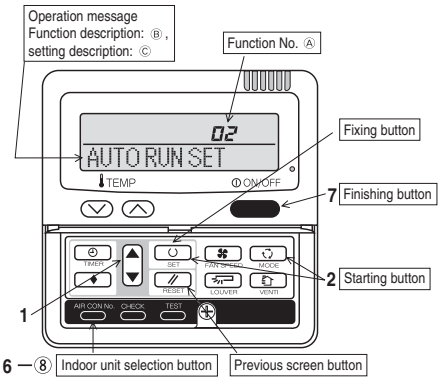
1. **Stop air-conditioner and press (SET) (MODE) buttons at the same time for over three seconds, and the "FUNCTION SET ▼" will be displayed.**



2. **Press (SET) button.**
3. **Make sure which do you want to set, "FUNCTION ▼" (remote control function) or "I/U FUNCTION ▲" (indoor unit function).**
4. **Press ▲ or ▼ button.**
   Selecct "FUNCTION ▼" (remote control function) or "I/U FUNCTION ▲" (indoor unit function).



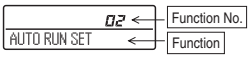
5. **Press (SET) button.**



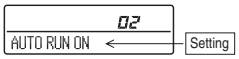
6. **【On the occasion of remote control function selection】**

① "DATA LOADING" (Indication with blinking)
↓
Display is changed to "01 ESP SET".

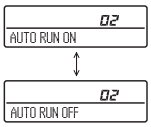
② Press ▲ or ▼ button.
"No. and function"are indicated by turns on the remote control function table, then you can select from them.
(For example)



③ Press (SET) button.
The current setting of selected function is indicated.
(for example) "AUTO RUN ON" ← If "02 AUTO RUN SET" is selected



④ Press ▲ or ▼ button.
Select the setting.



⑤ Press (SET)
"SET COMPLETE" will be indicated, and the setting will be completed.
Then after "No. and function" indication returns, Set as the same procedure if you want to set continuously ,and if to finish, go to 7.



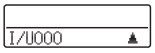
7. **Press ON/OFF button.**
   Setting is finished.

【On the occasion of indoor unit function selection】

① "DATA LOADING" (Blinking for 2 to 23 seconds to read the data)
↓
Indication is changed to "02 FAN SPEED SET".
Go to ②.

[Note]

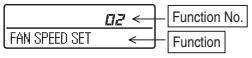
(1) If plural indoor units are connected to a remote control, the indication is "I/U 000" (blinking) ← The lowest number of the indoor unit connected is indicated.



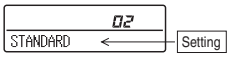
(2) Press ▲ or ▼ button.
Select the number of the indoor unit you are to set
If you select "ALL UNIT ▼", you can set the same setting with all unites.

(3) Press (SET) button.

② Press ▲ or ▼ button.
"No. and function" are indicated by turns on the indoor unit function table, then you can select from them.
(For example)



③ Press (SET) button.
The current setting of selected function is indicated.
(For example) "STANDARD" ← If "02 FAN SPEED SET" is selected.



④ Press ▲ or ▼ button.
Select the setting.

⑤ Press (SET) button.
"SET COMPLETE" will be indicated, and the setting will be completed.
Then after "No. and function" indication returns, set as the same procedure if you want to set continuously , and if to finish, go to 7.



※ When plural indoor units are connected to a remote control, press the AIR CON No. button, which allows you to go back to the indoor unit selection screen. (example "I/U 000 ▲")

- It is possible to finish by pressing ON/OFF button on the way, but unfinished change of setting is unavailable.
- During setting, if you press (RESET) button, you return to the previous screen.
- Setting is memorized in the control and it is saved independently of power failure.

【How to check the current setting】

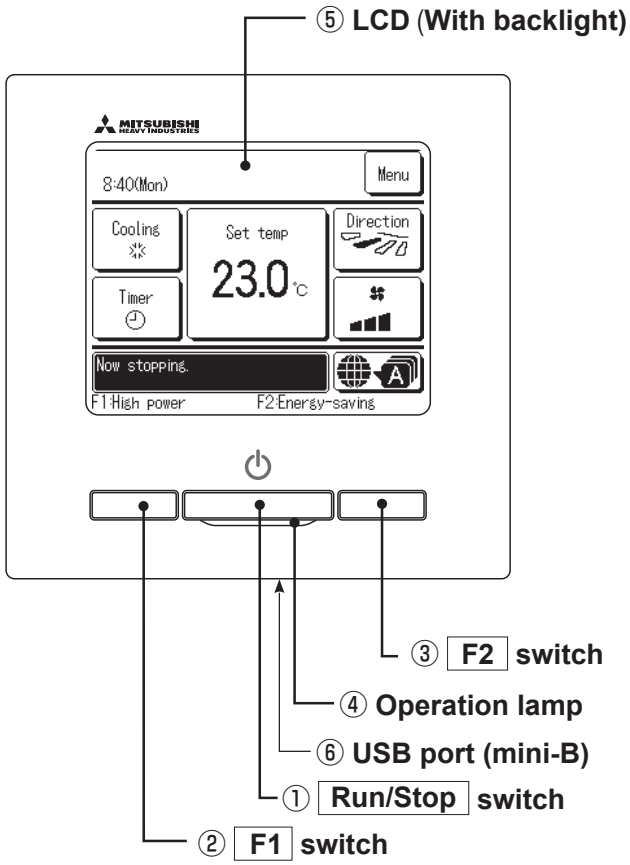
When you select from "No. and funcion" and press set button by the previous operation, the "Setting" displayed first is the current setting.
(But, if you select "ALL UNIT ▼", the setting of the lowest number indoor unit is displayed.)

10. OUTLINE OF OPERATION CONTROL BY MICROCOMPUTER

10.1 Remote control (Option parts)

(1) Wired remote control

Model RC-EX3A



Touch panel system, which is operated by tapping the LCD screen with a finger, is employed for any operations other than the ①Run/Stop, ②F1 and ③F2 switches.

① Run/Stop switch

One push on the button starts operation and another push stops operation.

② F1 switch③ F2 switch

This switch starts operation that is set in F1/F2 function change.

④ Operation lamp

This lamp lights in green(yellow-green) during operation. It changes to red(orange) if any error occurs.
Operation lamp luminance can be changed.

⑤ LCD (With backlight)

A tap on the LCD lights the backlight.
The backlight turns off automatically if there is no operation for certain period of time.
Lighting period of the backlight lighting can be changed.

If the backlight is ON setting, when the screen is tapped while the backlight is turned off,the backlight only is turned on.(Operations with switches ①,② and ③are excluded.)

⑥ USB port

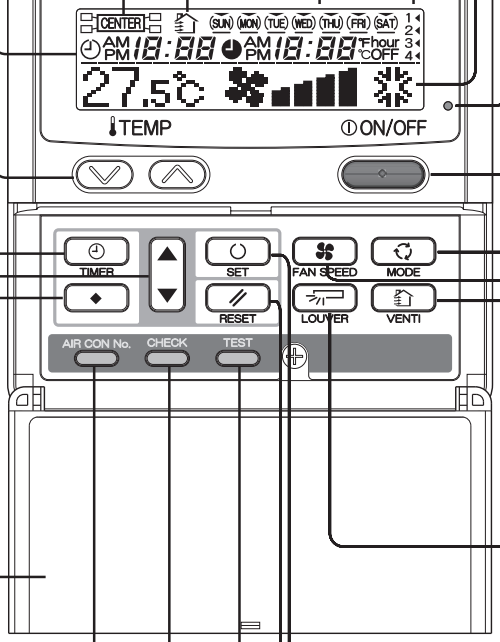
USB connector (mini-B) allows connecting to a personal computer.
For operating methods, refer to the instruction manual attached to the software for personal computer (remote control utility software).

Note(1) When connecting to a personal computer, do not connect simultaneously with other USB devices.
Please be sure to connect to the computer directly,without going through a hub, etc.

Model RC-E5

The figure below shows the remote control with the cover opened. Note that all the items that may be displayed in the liquid crystal display area are shown in the figure for the sake of explanation
Characters displayed with dots in the liquid crystal display area are abbreviated.

The figure below shows the remote control with the cover opened.



Ventilaion display
Displayed during ventilation operation

Central control display
Displayed when the air-conditioning system is controlled by central control.

Timer operation display
Displays the timer operation setting.

Temperature setting buttons
These buttons are used to set the temperature of the room.

Timer button
This button is used to set the timer mode.

Timer setting buttons
These buttons are used to set the timer mode and the time.

ESP button
This button is used to select the auto static pressure adjustment mode.

Cover

AIR CON No. button
Display the indoor unit number connected to this remote control.

CHECK button
This button is used at servicing.

TEST button
This button is used during test operation.

Weekly timer display
Displays the settings of the weekly timer.

Operation setting display area
Displays setting temperature, air flow volume, operation mode and oparation message.

Operation/check indicator light
During operation: Lit in green
In case of error: Flashing in red

Operation/stop button
This button is used to operate and stop the air-conditioning system.
Press the button once to operate the system and press it once again to stop the system.

MODE button
This button is used to change the operation mode.

FAN SPEED button
This button is used to set the air flow volume.

VENT button
This button is used to operate external ventilator.

LOUVER button
This button is used to operate/stop the swing louver.

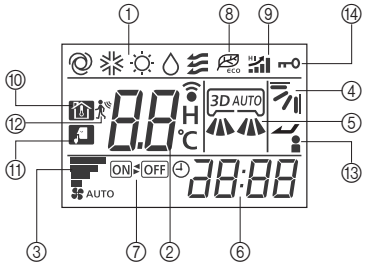
SET button
•This button is used to fix the setting.
•This button is used to set the silent mode.

RESET button
•If you press this button while making settings, you can go back to the previous operation.
•This button is also used to reset the "**FILTER CLEANING**" display. (Press it after cleaning the air filter)

∗ All displays are described in the liquid crystal display for explanation.

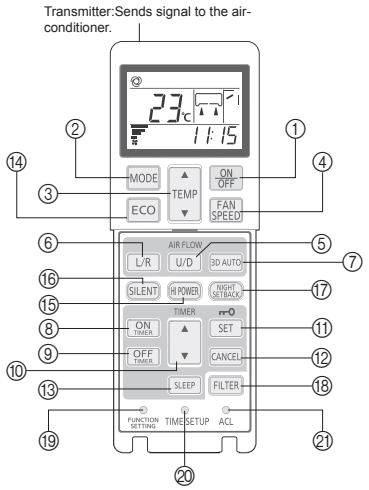
(2) Wireless remote control
Models RCN-E2, RCN-EK2

Indication section



①	OPERATION MODE display	Indicates selected operation mode.
②	SET TEMP display	Indicates set temperature.
	SLEEP TIMER time display	Indicates the amount of time remaining on the sleep timer.
	Indoor function setting number display	Indicates the setting number of the indoor function setting.
③	FAN SPEED display	Indicates the selected air flow volume.
④	UP/DOWN AIR FLOW display	Indicates the up/down louver position.
⑤	LEFT/RIGHT AIR FLOW display	Indicates the left/right louver position.
⑥	Clock display	Indicates the current time. If the timer is set, the ON TIMER and OFF TIMER setting times are indicated.
⑦	ON/OFF TIMER display	Displayed when the timer is set.
⑧	ECO mode display	Displayed when the energy-saving operation is active.
⑨	HI POWER display	Displayed when the high power operation is active.
⑩	NIGHT SETBACK display	Displayed when the home leave mode is active.
⑪	SILENT display	Displayed when the silent mode control is active.
⑫	Motion sensor display	Displayed when the infrared sensor control(motion sensor control) is enabled.
⑬	Anti draft setting display	Displayed when anti draft setting is enabled.
⑭	Child lock display	Displayed when child lock is enabled.

Operation section



①	ON/OFF button	When this is pressed once, the air-conditioner starts to operate and when this is pressed once again, it stops operating.
②	MODE button	Every time this button is pressed, displays switch as below (AUTO) → (COOL) → (HEAT) → (DRY) → (FAN) → (AUTO)
③	TEMP button	Change the set temperature by pressing ▲ or ▼ button.
④	FAN SPEED button	The fan speed is switched in the following order: 1-speed → 2-speed → 3-speed → 4-speed → AUTO → 1-speed.
⑤	U/D button	Used to determine the up/down louver position.
⑥	L/R button	Used to determine the left/right louver position. ※
⑦	3D AUTO button	Used to switch whether or not to enable or disable 3D AUTO mode. ※
⑧	ON TIMER button	Used to set the ON TIMER.
⑨	OFF TIMER button	Used to set the OFF TIMER.
⑩	SELECT button	Used to switch the time when setting the timer or adjusting the time. Used to switch the settings of the indoor function.
⑪	SET button	Used to determine the setting when setting the timer or adjusting the time. Used to determine the settings of the indoor function. When press and hold SET button ,Child Lock is enabled.
⑫	CANCEL button	Used to cancel the timer setting.
⑬	SLEEP button	Used to set the sleep timer.
⑭	ECO button	Pressing this button starts the energy-saving operation. Pressing this button again cancels it.
⑮	HI POWER button	Pressing this button starts the high power operation. Pressing this button again cancels it.
⑯	SILENT button	Pressing this button starts the silent mode control. Pressing this button again cancels it.
⑰	NIGHT SETBACK button	Pressing this button starts the home leave mode. Pressing this button again cancels it.
⑱	FILTER button	Pressing this button resets FILTER SIGN.
⑲	FUNCTION SETTING switch	Used to set the indoor function.
⑳	TIME SETUP switch	Used to set the current time.
㉑	ACL switch	Used to reset the microcomputer.

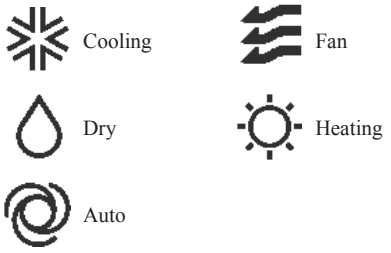
※:RCN-EK2 only

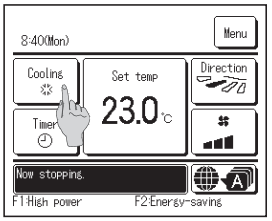
10.2 Operation control function by the wired remote control

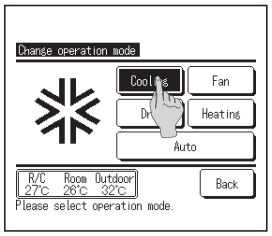
●Model RC-EX3A

(1) Switching sequence of the operation mode switches of remote control

(a) Tap the change operation mode button on the TOP screen.
(b) When the change operation mode screen is displayed, tap the button of desired mode.
(c) When the operation mode is selected, the display returns to the TOP screen.
Icons displayed have the following meanings.







Notes(1) Operation modes which cannot be selected depending on combinations of indoor unit and outdoor unit are not displayed.
(2) When the Auto is selected,the cooling and heating switching operation is performed automatically according to indoor and outdoor temperatures.

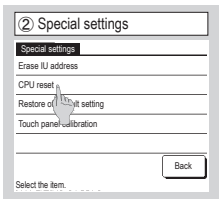
(2) CPU reset

Reset CPU from the remote control as follows.

TOP screen [Menu] ⇒ [Service setting] ⇒ [Service & Maintenance] ⇒ [Service password]



The selected screen is displayed.



The selected screen is displayed.

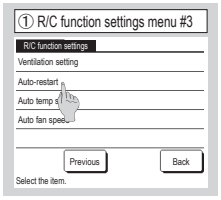
[CPU reset]

Microcomputers of indoor unit and outdoor unit connected are reset (State of restoration after power failure).

(3) Power failure compensation function (Electric power source failure)

Enable the Auto-restart function from the remote control as follows.

TOP screen [Menu] ⇒ [Service setting] ⇒ [R/C function settings] ⇒ [Service password]





If the unit stops during operation,

[Enable]

It returns to the state before the power failure as soon as the power source is restored (After the end of the primary control at the power on).

[Disable]

It stops after the restoration of power source.

●Since the status of remote control is retained in memory always, it restarts operations according to the contents of memory as soon as the power source is restored. Although the timer mode is cancelled, the weekly timer, peak cut timer and silent mode timer operate according to the following contents:

- When the clock setting is valid : These timer settings are also valid.
- When the clock setting is invalid : These timer settings become “Invalid” since the clock setting is invalid. These timer settings have to be changed to “Valid” after the timer setting.

●Content memorized with the power failure compensation are as follows.

Note(1) Items (f) and (g) are memorized regardless whether the power failure compensation is effective or not while the setting of silent mode is cancelled regardless whether the power failure compensation is effective or not.

(a) At power failure – Operating/stopped
If it had been operating under the off timer mode, sleep timer mode, the state of stop is memorized.

(b) Operation mode

(c) Air flow volume mode

(d) Room temperature setting

(e) Louver auto swing/stop
However, the stop position (4-position) is cancelled so that it returns to Position (1).

(f) "Remote control function items" which have been set with the administrator or installation function settings ("Indoor function items" are saved in the memory of indoor unit.)

(g) Weekly timer, peak-cut timer or silent mode timer settings

(h) Remote control function setting

(4) Alert displays

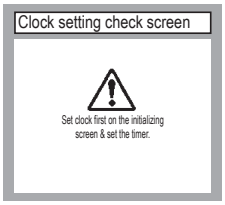
If the following (a) to (c) appear, check and repair as follows.

(a) Communication check between indoor unit and remote control



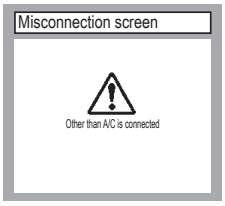
●This appears if communications cannot be established between the remote control and the indoor unit.
Check whether the system is correctly connected (indoor unit, outdoor unit, remote control) and whether the power source for the outdoor unit is connected.

(b) Clock setting check



●This appears when the timer settings are done without clock setting.
Set the clock setting before the timer settings.

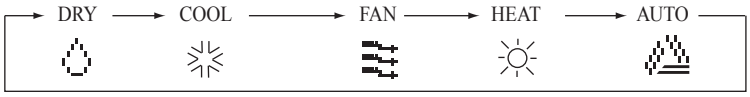
(c) Misconnection



●This appears when something other than the air-conditioner has been connected to the remote control.
Check the location to which the remote control is connected.

Model RC-E5

(1) Switching sequence of the operation mode switches of remote control



(2) CPU reset

This functions when "CHECK" and "ESP" buttons on the remote control are pressed simultaneously. Operation is same as that of the power source reset.

(3) Power failure compensation function (Electric power source failure)

- This becomes effective if "Power failure compensation effective" is selected with the setting of remote control function.
- Since it memorizes always the condition of remote control, it starts operation according to the contents of memory no sooner than normal state is recovered after the power failure. Although the auto swing stop position and the timer mode are cancelled, the weekly timer setting is restored with the holiday setting for all weekdays.
  After recovering from the power failure, it readjusts the clock and resets the holiday setting for each weekday so that the setting of weekly timer becomes effective.
- Content memorized with the power failure compensation are as follows.

Note (1) Items (f), (g) and (h) are memorized regardless whether the power failure compensation is effective or not while the setting of silent mode is cancelled regardless whether the power failure compensation is effective or not.

(a) At power failure – Operating/stopped
If it had been operating under the off timer mode, sleep timer mode, the state of stop is memorized. (Although the timer mode is cancelled at the recovery from power failure, the setting of weekly timer is changed to the holiday setting for all weekdays.)

(b) Operation mode

(c) Air flow volume mode

(d) Room temperature setting

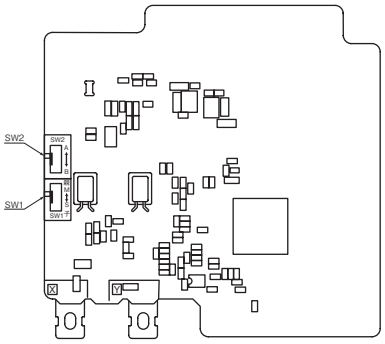
(e) Louver auto swing/stop
However, the stop position (4-position) is cancelled so that it returns to Position (1).

(f) "Remote control function items" which have been set with the remote control function setting ("Indoor function items" are saved in the memory of indoor unit.)

(g) Upper limit value and lower limit value which have been set with the temperature setting control

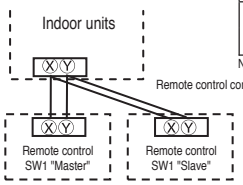
(h) Sleep timer and weekly timer settings (Other timer settings are not memorized.)

[Parts layout on remote control PCB]



Master/ slave setting when more than one remote controls are used

A maximum of two remote controls can be connected to one indoor unit (or one group of indoor units).



Switch	Setting	Content
SW1	M	Master remote control
	S	Slave remote control

Note (1) Don't change SW2 because it is not used normally.

Caution

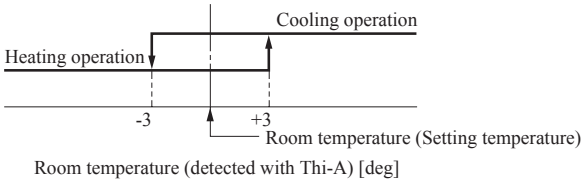
When using multiple remote controls, the following dispiays or settings cannot be done with the slave remote control. It is available only with the master remote control.

①Louver position setting (set upper or lower limit of swinging range)
②Setting indoor unit functions
③Setting temperature range
④Operation data display
⑤Error data display
⑥Silent mode setting
⑦Test operation of drain pump
⑧Remote control sensor setting

10.3 Operation control function by the indoor control

(1) Auto operation (Heat recovery 3-pipe combination systems only)

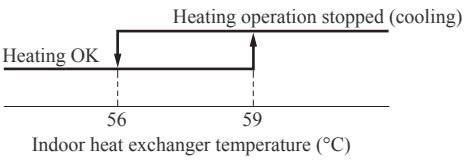
(a) If "Auto" mode is selected by the remote control, the heating and the cooling are automatically switched according to the difference between outdoor air temperature and setting temperature and the difference between setting temperature and return air temperature. (When the switching of cooling mode ↔ heating mode takes place within 3 minutes, the compressor does not operate for 3 minutes by the control of 3-minute timer.) This will facilitate the cooling/heating switching operation in intermediate seasons and the adaptation to unmanned operation at stores, etc (ATM corner of bank).



Notes (1) Temperature range of switching cooling/heating mode can be changed by RC-EX3A from ±1.0 – ±4.0.

(2) Room temperature control during auto cooling/auto heating is performed according to the room temperature setting temperature. (DIFF: ±1 deg)

(3) If the indoor heat exchanger temperature rises to 59°C or higher during heating operation, it is switched automatically to cooling operation. In addition, for 1 hour after this switching, the heating operation is not performed, regardless of the temperature shown at right.



(b) The following automatic controls are performed other than (a) above.

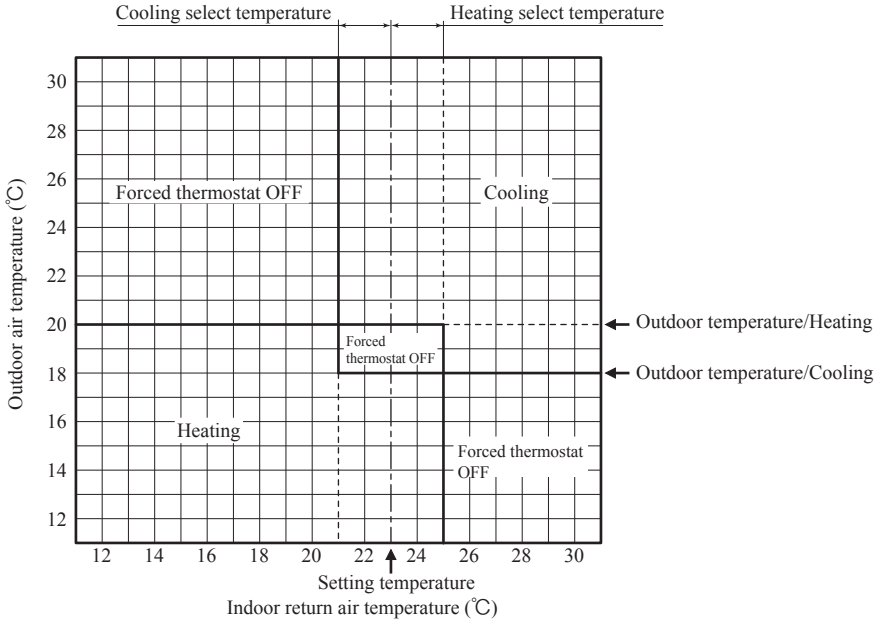
(i) Cooling or heating operation mode is judged according to the conditions of the "Judgment based on Setting temperature + Cooling select temperature and Indoor return air temperature" and the "Judgment based on Outdoor temperature".

1) In "Setting temperature - Cooling select temperature < Indoor return air temperature" and "Outdoor temperature/Cooling < Outdoor return air temperature" ⇒ Operation mode: Cooling

2) "Setting temperature + Heating select temperature > Indoor return air temperature" and "Outdoor temperature/Heating > Outdoor air temperature" ⇒ Operation mode: Heating

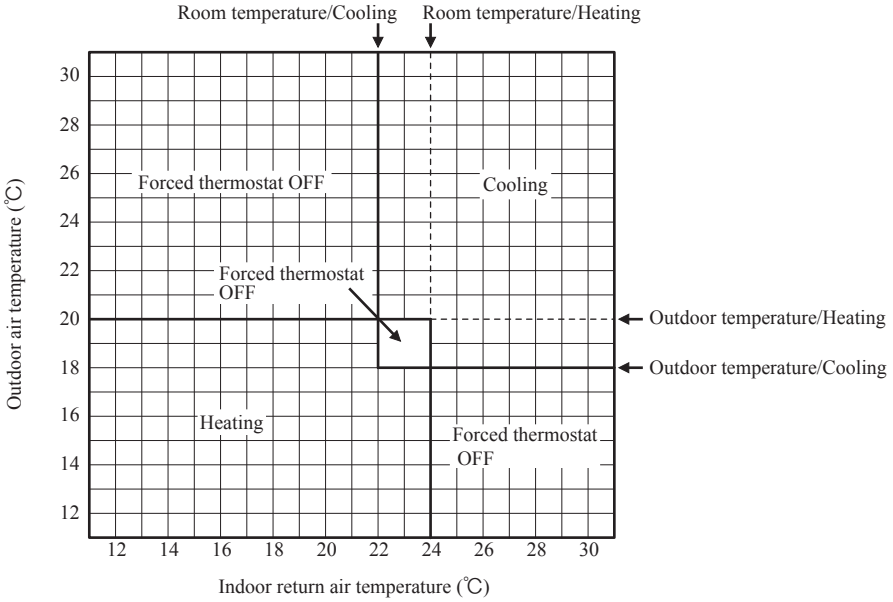
3) The outdoor air temperature of the above judgment conditions is sampled at every 10 minutes.

4) In the range where the above cooling and heating zones are overlapped Forced thermostat OFF



(ii) Regardless of the setting temperature, the cooling or heating operation mode is judged according to the "Judgment based on Room temperature/Cooling or Heating and Outdoor temperature/Cooling or Heating".

1) In case of "Room temperature/Cooling < Indoor return air temperature" and "Outdoor temperature/Cooling < Outdoor air tem perature" ⇒ Operation mode: Cooling
2) In case of "Room temperature/Heating > Indoor return air temperature" and "Outdoor temperature /Heating > Outdoor air tem perature" ⇒ Operation mode: Heating
3) The outdoor air temperature of the above judgment conditions is sampled at every 10 minutes.
4) In the range where the above cooling and heating zones are overlapped ⇒ Forced thermostat OFF



(2) Operations of functional items during cooling/heating

Operation / Functional item	Cooling		Fan	Heating			Dehumidifying
	Thermostat ON	Thermostat OFF		Thermostat ON	Thermostat OFF	Hot start (Defrost)	
Compressor	○	×	×	○	×	○	○/×
4-way valve	×	×	×	○	○	○(×)	×
Outdoor unit fan	○	×	×	○	×	○(×)	○/×
Indoor unit fan	○	○	○	○/×	○/×	○/×	○/×
Drain pump (3)	○	×(2)	×(2)	○/×(2)			Thermostat ON: ○ Thermostat OFF: ×(2)

Notes (1) ○: Operation ×: Stop ○/×: Turned ON/OFF by the control other than the room temperature control.
(2) ON during the drain motor delay control.
(3) Drain pump ON setting may be selected with the indoor unit function setting of the wired remote control.

(3) Dehumidifying (DRY) operation

Indoor ambient temperatures and humidity are controlled simultaneously with the relative humidity sensor (HS) and the suction temperature sensor [Thi-A (or the remote control sensor when it is activated)], which are installed at the suction inlet.

(a) When the operation has been started with cooling, if there is a difference of 2°C or less between the suction and setting temperatures, the tap of indoor fan is lowered by one tap. This tap is retained for 3 minutes after changing the tap.

(b) After the above condition, when a difference between suction and setting temperature is lower than 3°C, and the relative humidity is high, the tap of indoor unit fan is lowered by one tap.
When the difference between suction and setting temperature is larger than 3°C, the fan of indoor unit fan is raised by one tap. This tap is retained for 3 minutes after changing the tap.

(c) When relative humidity becomes lower, the indoor unit fan tap is retained.

(d) In case of the thermostat OFF, the indoor unit fan tap at the thermostat ON is retained.

(4) Timer operation

(a) RC-EX3A

(i) Sleep timer

Set the time from the start to stop of operation. The time can be selected in the range from 30 to 240 minutes (in the unit of 10-minute).

Note (1) Enable the "Sleep timer" setting from the remote control. If the setting is enabled, the timer operates at every time.

(ii) Set OFF timer by hour

Set the time to stop the unit after operation, in the range from 1 to 12 hours (in the unit of hour).

(iii) Set ON timer by hour

Set the time to start the unit after the stop of operation, in the range from 1 to 12 hours (in the unit of hour). It is allowed also to set simultaneously the indoor temperature, operation mode, air flow rate and warm-up enabled/disabled.

(iv) Set ON timer by clock

Set the time to start operation. The time can be set in the unit of 5-minute. This setting can be activated only once or at every time. It is allowed also to set simultaneously the indoor temperature, operation mode, air low rate and warm-up enabled/disabled.

Note (1) It is necessary to set the clock to use this timer.

(v) Set OFF timer by clock

Set the time to stop operation. The time can be set in the unit of 5-minute. This setting can be activated only once or at every time.

Note (1) It is necessary to set the clock to use this timer.

(vi) Weekly timer

Set the ON or OFF timer for a week. Up to 8 patterns can be set for a day. The day-off setting is provided for holidays and non-business days.

Note (1) It is necessary to set the clock to use the weekly timer.

(vii) **Combination of patterns which can be set for the timer operations**

	Sleep time	Set OFF timer by hour	Set ON timer by hour	Set OFF timer by clock	Set ON timer by clock	Weekly timer
Sleep time		×	×	○	○	○
Set OFF timer by hour	×		×	×	×	×
Set ON timer by hour	×	×		×	×	×
Set OFF timer by clock	○	×	×		○	×
Set ON timer by clock	○	×	×	○		×
Weekly timer	○	×	×	×	×	

Note (1) ○: Allowed ×: Not

(b) RC-E5

(i) Sleep timer

Set the duration of time from the present to the time to turn off the air-conditioner.

It can be selected from 10 steps in the range from "OFF 1 hour later" to "OFF 10 hours later". After the sleep timer setting, the remaining time is displayed with progress of time in the unit of hour.

(ii) OFF timer

Time to turn OFF the air-conditioner can be set in the unit of 10 minutes.

(iii) ON timer

Time to turn ON the air-conditioner can be set. Indoor temperature can be set simultaneously.

(iv) Weekly timer

Timer operation (ON timer, OFF timer) can be set up to 4 times a day for each weekday.

(v) Timer operations which can be set in combination

Item / Item	Timer	OFF timer	ON timer	Weekly timer
Timer		×	○	×
OFF timer	×		○	×
ON timer	○	○		×
Weekly timer	×	×	×	

Note (1) ○: Allowed ×: Not

(2) Since the ON timer, sleep timer and OFF timer are set in parallel, when the times to turn ON and OFF the air-conditioner are duplicated, the setting of the OFF timer has priority.

(5) Hot start (Cold draft prevention at heating)

(a) Operating conditions

When either one of following conditions is satisfied, the hot start control is performed.

(i) From stop to heating operation

(ii) From cooling to heating operation

(iii) From heating thermostat OFF to ON

(iv) After completing the defrost operation (only on units with thermostat ON)

(b) Contents of operation

(i) Indoor fan motor control at hot start

1) Within 7 minutes after starting heating operation, the fan mode is determined depending on the condition of thermostat (fan control with heating thermostat OFF).

a) Thermostat OFF

i) Operates according to the fan control setting at heating thermostat OFF.

ii) Even if it changes from thermostat OFF to ON, the fan continues to operate with the fan control at thermostat OFF till the heat exchanger thermistor (Thi-R1 or R2, whichever higher) detects 35°C or higher.

iii) When the heat exchanger thermistor (Thi-R1 or R2, whichever higher) detects 35°C or higher, the fan operates with the set air flow volume.

b) Thermostat ON

i) When the heat exchanger thermistor (Thi-R1 or R2, whichever higher) detects 25°C or lower, the fan is turned OFF and does not operate.

ii) When the heat exchanger thermistor (Thi-R1 or R2, whichever higher) detects 25°C or higher, the fan operates with the fan control at heating thermostat OFF.

iii) When the heat exchanger thermistor (Thi-R1 or R2, whichever higher) detects 35°C or higher, the fan operates with the set air flow volume.

c) If the fan control at heating thermostat OFF is set at the “Set air flow volume” (from the remote control), the fan operates with the set air flow volume regardless of the thermostat ON/OFF.

2) Once the fan motor is changed from OFF to ON during the thermostat ON, the indoor fan motor is not turned OFF even if the heat exchanger thermistor detects lower than 25°C.

Note (1) When the defrost operation signal is received, it complies with the fan control during defrost operation.

3) Once the hot start is completed, it will not restart even if the temperature on the heat exchanger thermistor drops.

(ii) During the hot start, the louver is kept at the horizontal position.

(iii) When the fan motor is turned OFF for 7 minutes continuously after defrost operation, the fan motor is turned ON regardless of the temperatures detected with the indoor heat exchanger thermistors (Thi-R1, R2).

(c) Ending condition

(i) If one of following conditions is satisfied during the hot start control, this control is terminated, and the fan is operated with the set air flow volume.

1) Heat exchanger thermistor (Thi-R1 or R2, whichever higher) detects 35°C or higher.

2) It has elapsed 7 minutes after starting the hot start control.

(6) Hot keep

Hot keep control is performed at the start of the defrost operation.

(a) Control

(i) When the indoor heat exchanger temperature (detected with Thi-R1 or R2) drops to less than 35°C the speed of indoor fan follows fan setting at the time of thermostat OFF.

(ii) During the hot keep, the louver is kept at the horizontal position.

(7) Auto swing control

Note **Even if [Auto Swing] is selected, the louver position with anti draft function is fixed to position 1.**

(a) RC-EX3A

(i) Louver control

1) To operate the swing louver when the air-conditioner is operating, press the "Direction" button on the TOP screen of remote control. The wind direction select screen will be displayed.
2) To swing the louver, touch the "Auto swing" button. The lover will move up and down. To fix the swing louver at a position, touch one of [1] - [4] buttons. The swing lover will stop at the selected position.
3) Louver operation at the power on with a unit having the louver 4-position control function
   The louver swings one time automatically (without operating the remote control) at the power on.
   This allows the microcomputer recognizing and inputting the louver motor (LM) position.

(ii) Automatic louver level setting during heating

At the hot start and the heating thermostat OFF, regardless whether the auto swing switch is operated or not (auto swing or louver stop), the louver takes the level position (in order to prevent blowing of cool wind). The louver position display LCD continues to show the display which has been shown before entering this control.

(iii) Louver free stop control

If you touch the "Menu" → "Service setting" → "R/C function settings" buttons one after another on the TOP screen of remote control, the "Upper/lower flap control" screen is displayed. If the free stop is selected on this screen, the louver motor stops upon receipt of the stop signal from the remote control. If the auto swing signal is received from the remote control, the auto swing will start from the position before the stop.

(b) RC-E5

(i) Louver control

1) Press the "LOUVER" button to operate the swing louver when the air-conditioner is operating.
   "SWING" is displayed for 3 seconds and then the swing louver moves up and down continuously.
2) To fix the swing louver at a position, press one time the "LOUVER" button while the swing louver is moving so that four stop positions are displayed one after another per second.
   When a desired stop position is displayed, press the "LOUVER" button again. The display stops, changes to show the "STOP 1" for 5 seconds and then the swing louver stops.
3) Louver operation at the power on with a unit having the louver 4-position control function
   The louver swings one time automatically (without operating the remote control) at the power on.
   This allows inputting the louver motor (LM) position, which is necessary for the microcomputer to recognize the louver position.

   Note (1) If you press the "LOUVER" button, the swing motion is displayed on the louver position LCD for 10 seconds. The display changes to the "SWING" display 3 seconds later.

(ii) Automatic louver level setting during heating

At the hot start with the heating thermostat OFF, regardless whether the auto swing switch is operated or not (auto swing or louver stop), the louver takes the level position (In order to prevent the cold start). The louver position display LCD continues to show the display which has been shown before entering this control.

(iii) Louver-free stop control

When the louver-free stop has been selected with the indoor function of wired remote control "POSITION", the louver motor stops when it receives the stop signal from the remote control. If the auto swing signal is received from the remote control, the auto swing will start from the position where it was before the stop.

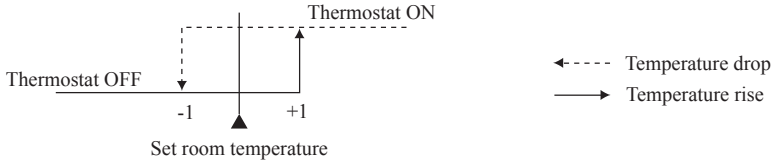
Note (1) When the indoor function of wired remote control "POSITION" has been switched, switch also the remote control function "POSITION" in the same way.

(8) Thermostat operation

(a) Cooling

(i) Thermostat is operated with the room temperature control.

(ii) Thermostat is turned ON or OFF relative to the set room temperature as shown below.

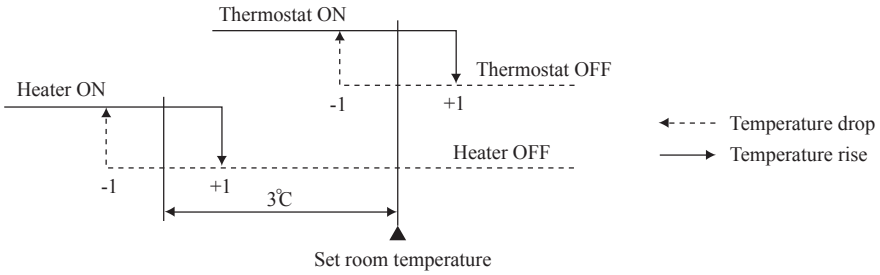


(iii) Thermostat is turned ON when the room temperature is in the range of -1 < Set temperature < +1 at the start of cooling operation (including from heating to cooling).

(b) Heating

(i) Thermostat is operated with the room temperature control.

(ii) Thermostat is turned ON or OFF relative to the set room temperature as shown below.



(iii) Thermostat is turned ON when the room temperature is in the range of -1 < Set point < +1 at the start of heating operation (including from cooling to heating).

(c) Fan control during heating thermostat OFF

(i) Following fan controls during the heating thermostat OFF can be selected with the indoor function setting of the wired remote control.

① Low fan speed (Factory default), ② Set fan speed, ③ Intermittence, ④ Fan OFF

(ii) When the "Low fan speed (Factory default)" is selected, the following taps are used for the indoor fans.

• For DC motor : ULo tap

(iii) When the "Set fan speed" is selected, it is operated with the set fan speed also in the thermostat OFF condition.

(iv) If the "Intermittence" is selected, following controls are performed:

1) If the thermostat is turned OFF during the heating operation, the indoor fan stops.
2) Indoor fan OFF is fixed for 5 minutes. After the 5 minutes, the indoor fan is operated at ULo for 2 minutes. In the meantime the louver is controlled at level.
3) After operating at ULo for 2 minutes, the indoor fan moves to the state of 1) above.
4) If the thermostat is turned ON, it moves to the hot start control.
5) When the heating thermostat is turned OFF, the remote control displays the temperature detected at the fan stop and revises the temperature later when the indoor fan changes from ULo to stop.
   The remote control uses the operation data display function to display temperatures and updates values of temperature even when the indoor fan is turned OFF.
6) When the defrosting starts while the heating thermostat is turned OFF or the thermostat is turned OFF during defrost operation, the indoor fan is turned OFF. (Hot keep or hot start control takes priority.) However, the suction temperature is updated at every 7-minute.
7) When the heating thermostat is turned ON or the operation is changed to another mode (including stop), this control is stopped immediately, and the operating condition is restored.

(v) When the "Fan OFF" is selected, the fan on the indoor unit of which the thermostat has been turned OFF, is turned OFF. The same occurs also when the remote control sensor is effective.

(d) Fan control during cooling thermostat OFF (Except FDTC, FDK)

(i) Following fan controls during the cooling thermostat OFF can be selected with the indoor function setting of the wired remote control.
① Low fan speed, ② Set fan speed (Factory default), ③ Intermittence, ④ Fan OFF

(ii) When the "Low fan speed" is selected, the following taps are used for the indoor fans.
For DC motor : ULo tap

(iii) When the "Set fan speed" is selected, it is operated with the set fan speed also in the thermostat OFF condition.

(iv) If the "Intermittence" is selected, following controls are performed:

1) If the thermostat is turned OFF during the cooling operation, the indoor fan stops.
2) Indoor fan OFF is fixed for 5 minutes. After the 5 minutes, the indoor fan is operated at ULo for 2 minutes.
3) After operating at ULo for 2 minutes, the indoor fan moves to the state of 1) above.
4) If the thermostat is turned ON, the fan starts operation at set fan speed.
5) When the cooling thermostat is turned OFF, the remote control displays the temperature detected at the fan stop and revises the temperature later when the indoor fan changes from ULo to stop.
By using operation data display function at wireless remote control, the temperature as displayad and the value is updated including the fan stops.
6) When the cooling thermostat is turned ON or the operation is changed to another mode (including stop), this control is stopped immediately, and the operating condition is restored.

(v) When the "Fan OFF" is selected, the fan on the indoor unit of which the thermostat has been turned OFF, is turned OFF. The same occurs also when the remote control sensor is effective.

(9) Filter sign

As the operation time (Total ON time of ON/OFF switch) accumulates to 180 hours (1), "FILTER CLEANING" is displayed on the remote control. (This is displayed when the unit is in trouble and under the central control, regardless of ON/OFF)

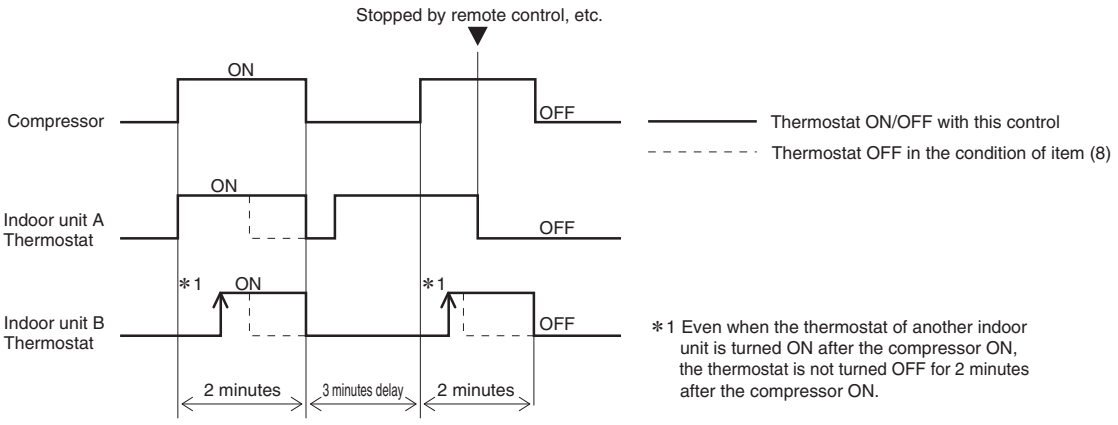
Notes (1) Time setting for the filter sign can be made as shown below using the indoor function of wired remote control "Filter sign". (It is set at Setting 1 at the shipping from factory.)

Filter sign setting	Function
Setting 1	Setting time: 180 h (Factory default)
Setting 2	Setting time: 600 h
Setting 3	Setting time: 1,000 h
Setting 4	Setting time: 1,000 h (Unit stop) (2)

(2) After the setting time has elapsed, the "FILTER CLEANING" is displayed and, after operating for 24 hours further (counted also during the stop), the unit stops.

(10) Compressor inching prevention control

(a) Once the indoor unit thermostat has been turned ON, the thermostat is not turned OFF for 2 minutes (*1) after the compressor ON even if the thermostat is turned OFF at the state of item (8).



(b) When the oil return control has started while the thermostat is turned ON, the thermostat is not turned OFF even if the thermostat OFF condition is satisfied during the oil return control.

(11) Drain pump control (Except FDK)

(a) This control is operated when the inverter frequency is other than 0 Hz during the cooling operation and automatic cooling and dehumidifying operations.

(b) Drain pump ON condition continues for 5 (Models FDU224, 280 • FDU1800F, 2400F : 20) minutes even when it enters the OFF range according to (i) above after turning the drain pump ON, and then stops. The 5 (Models FDU224, 280 • FDU1800F, 2400F : 20) minutes delay continues also in the event of anomalous stop.

(c) The drain pump is operated with the 5 (Models FDU224, 280 • FDU1800F, 2400F : 20) minutes delay operation when the compressor is changed from ON to OFF.

(d) Even in conditions other than the above (such as heating, fan, stop, cooling thermostat OFF), the drain pump control is performed by the drain detection.

(e) Following settings can be made using the indoor function setting of the wired remote control.

(i) ※0〔Standard (in cooling & dry)〕: Drain pump is run during cooling and dry.

(ii) ※0AND※〔Operate in standard & heating〕: Drain pump is run during cooling, dry and heating.

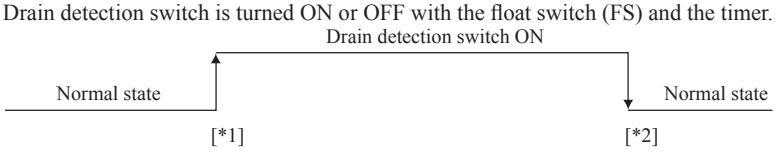
(iii) ※0AND※AND≡〔Operate in heating & fan〕: Drain pump is run during cooling, dry, heating and fan.

(iv) ※0AND≡〔Operate in standard & fan〕: Drain pump is run during cooling, dry and fan.

Note (1) Values in 〔 〕 are for the RC-EX3A model.

(12) Drain pump abnormalities detection (Except FDK)

(a) Drain detection switch is turned ON or OFF with the float switch (FS) and the timer.



[＊1] Drain detection switch is turned “ON” when the float switch “Open” is detected for 3 seconds continuously in the drain detectable space.

[＊2] Drain detection switch is turned “OFF” when the float switch “Close” is detected for 10 seconds continuously.

(i) It detects always from 30 seconds after turning the power ON.

1) There is no detection of anomalous draining for 10 seconds after turning the drain pump OFF.

2) Turning the drain detection switch “ON” causes to turn ON the drain pump forcibly.

3) Turning the drain detection switch “OFF” releases the forced drain pump ON condition.

(b) Indoor unit performs the control A or B depending on each operating condition.

	Indoor unit operation mode				
	Stop (1)	Cooling	Dry	Fan (2)	Heating
Compressor ON		Control A			
Compressor OFF	Control B				

Note (1) Including the stop from the cooling, dehumidifying, fan and heating, and the anomalous stop
(2) Including the “Fan” operation according to the mismatch of operation modes

(i) Control A

1) If the float switch detects any anomalous draining condition, the unit stops with the anomalous stop (displays E9) and the drain pump starts. After detecting the anomalous condition, the drain motor continues to be ON.

2) It keeps operating while the float switch is detecting the anomalous condition.

(ii) Control B

If the float switch detects any anomalous drain condition, the drain motor is turned ON for 5 (Models FDU224, 280 • FDU1800F, 2400F : 20) minutes, and at 10 seconds after the drain motor OFF it checks the float switch. If it is normal, the unit is stopped under the normal mode or, if there is any anomalous condition, E9 is displayed and the drain motor is turned ON. (The ON condition is maintained during the drain detection.)

(13) Operation check/drain pump test run operation mode

(a) If the power is turned on by the DIP switch (SW7-1) on the indoor unit control PCB when electric power source is supplied, it enters the mode of operation check/drain pump test run. It is ineffective (prohibited) to change the switch after turning power on.

(b) When the communication with the remote control has been established within 60 seconds after turning power on by the DIP switch (SW7-1) ON, it enters the operation check mode. Unless the remote control communication is established, it enters the drain pump test run mode.

Note (1) To select the drain pump test run mode, disconnect the remote control connector (CNB) on the indoor control PCB to shut down the remote control communication.

(c) Operation check mode

There is no communication with the outdoor unit but it allows performing operation in respective modes by operating the remote control.

(d) Drain pump test run mode (Except FDK)

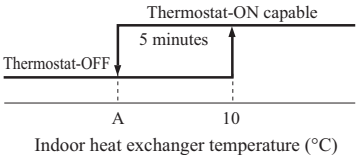
As the drain pump test run is established, the drain pump only operates and during the operation protective functions by the microcomputer of indoor unit become ineffective.

(14) Cooling, dehumidifying frost protection

(a) To prevent frosting during cooling mode or dehumidifying mode operation, the thermostat-OFF if the indoor heat exchanger temperature (detected with Thi-R) drops to 1.0 °C or lower at 4 minutes after the thermostat-ON. If the indoor unit heat exchanger temperature is 1.0 °C or lower after 5 minutes, the indoor unit is controlled thermostat-OFF. If it becomes 10°C or higher, the control terminates. When the indoor heat exchanger temperature has become as show, the indoor unit send outdoor unit the "Anti-frost" signal.

• Frost prevention temperature setting can be selected with the indoor unit function setting of the wired remote control.

Item \ Symbol	A
Temperature - Low (Factory default)	1.0
Temperature - High	2.5



(b) Selection of indoor fan speed

If it enters the frost prevention control during cooling operation (excluding dehumidifying), the indoor fan speed is switched.

(i) When the indoor return air detection temperature (detected with Thi-A) is 18°C or higher and the indoor heat exchanger temperature (detected with Thi-R) detects the compressor frequency drop start temperature A°C+1°C, of indoor fan speed is increased by 20min^{-1}.

(ii) If the phenomenon of (i) above is detected again after the acceleration of indoor fan, indoor fan speed is increased further by 20min^{-1}.

Note (1) Indoor fan speed can be increased by up to 2 taps.

• Compressor frequency drop start temperature

Hs > 50%

Symbol \ Item	Low	High
A	1.0	2.5
B	2.5	4.0

Hs ≦ 50%

Symbol \ Item	Low	High
A	-0.5	1.0
B	1.0	2.5

Note (1) Frost prevention temperature setting can be selected with the indoor unit function setting of the wired remote control.

(15) Anomalous fan motor

(a) After starting the fan motor, if the fan motor speed is 200min^{-1} or less is detected for 30 seconds continuously and 4 times within 60 minutes, then fan motor stops with the anomalous stop (E16).

(b) If the fan motor fails to reach at -50 (FDU : -500) min^{-1} less than the required speed, it stops with the anomalous stop (E20).

(16) Plural unit control – Control of 16 units group by one remote control

(a) Function

One remote control can control a group of multiple number of unit (Max. 16 indoor units). "Operation mode" which is set by the remote control can operate or stop all units in the group one after another in the order of unit. No.(1). Thermostat and protective function of each unit function independently.

Note (1) Unit No. is set by SW1, SW2, and SW5-2 on the indoor control PCB.

(b) Display to the remote control
  (i) Central or each remote control basis, heating preparation: the smallest unit No. among the operating units in the remote mode (or the center mode unless the remote mode is available) is displayed.
  (ii) Inspection display, filter sign: Any of unit that starts initially is displayed.

(c) Confirmation of connected units
  (i) In case of RC-EX3A remote control

  If you touch the buttons in the order of "Menu" →"Service setting"→"Service & Maintenance"→"Service password"→ "IU address" on the TOP screen of remote control, the indoor units which are connected are displayed.

  (ii) In case of RC-E5 remote control

  Pressing "AIR CON No." button on the remote control displays the indoor unit address. If "▲" "▼" button is pressed at the next, it is displayed orderly starting from the unit of smallest No.

(d) In case of anomaly
If any anomaly occurs on a unit in a group (a protective function operates), that unit stops with the anomalous stop but any other normal units continue to run as they are.

(e) Signal wiring procedure
Signal wiring between indoor and outdoor units should be made on each unit same as the normal wiring. For the group control, connect the remote control wiring to each indoor unit via terminal block for the remote control.
Connect the remote control wiring separately from the power source cable or wires of other electric devices (AC220V or higher).

(17) High ceiling control

When sufficient air flow rate cannot be obtained from the indoor unit which is installed at a room with high ceiling, the air flow rate can be increased by changing the fan tap. To change the fan tap, use the indoor unit function "FAN SPEED SET" on the wired remote control.

Fan tap		Indoor unit air flow setting			
FAN SPEED SET	STANDARD	P-Hi1 - Hi - Me - Lo	Hi - Me - Lo	Hi - Lo	Hi - Me
	HIGH SPEED1	P-Hi2 - P-Hi1 - Hi - Me	P-Hi1 - Hi - Me	P-Hi1 - Me	P-Hi1 - Hi
	HIGH SPEED2	P-Hi2 - Hi - Me - Lo	Hi - Me - Lo	Hi - Lo	Hi - Me

Notes (1) Factory default is STANDARD.
(2) At the hot-start and heating thermostat OFF, or other, the indoor fan is operated at the low speed tap of each setting.
(3) This function is not able to be set with wireless remote controls or simple remote control (RCH-E3)

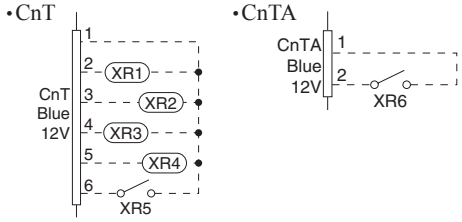
(18) Abnormal temperature thermistor (return air/indoor heat exchanger) broken wire/short-circuit detection

(a) Broken wire detection
If the return air temperature thermistor detects broken wire for 5 seconds continuously, the compressor stops (E7). If the heat exchanger temperature thermistor detects broken wire for 5 seconds continuously at 2 minutes and 20 seconds after the compressor ON, the compressor stops (E6).

(b) Short-circuit detection
If the heat exchanger temperature thermistor detects short-circuit for 5 seconds continuously at 2 minutes and 20 seconds after the compressor ON during cooling operation, the compressor stops (E6).

(19) External input/output control (CnT or CnTA)

External input/output connectors are provided on the indoor unit control PCB, and each input/output is possible to be changed by RC-EX3A. Be sure to connect the wired remote control to the indoor unit. Remote operation with CnT/CnTA only is not possible.



Input/Output	Connector	Factory default setting	RC-EX3A function name
Output	CnT-2 (XR1)	Operation output	External output 1
	CnT-3 (XR2)	Heating output	External output 2
	CnT-4 (XR3)	Thermostat ON output	External output 3
	CnT-5 (XR4)	Inspection (Error) output	External output 4
Input (Volt-free contact)	CnT-6 (XR5)	Remote operation input	External input 1
	CnTA (XR6)	Remote operation input	External input 2

■ Priority order for combinations of CnT and CnTA input.

		CnTA						
		① Operation stop level	② Operation stop pulse	③ Operation permission/prohibition	④ Operation permission/prohibition pulse	⑤ Cooling/heating selection level	⑥ Cooling/heating selection pulse	⑦ Emergency stop
CnT	① Operation stop level	CnT ①	CnT ①	CnT ① +CnTA ②	CnT ①	CnT ① /CnTA ⑤	CnT ① /CnTA ⑥	CnT ① <CnTA ⑦
	② Operation stop pulse	CnT ②	CnT ②	CnT ② +CnTA ③	CnT ②	CnT ② /CnTA ⑤	CnT ② /CnTA ⑥	CnT ② <CnTA ⑦
	③ Operation permission/prohibition level	CnT ③ >CnTA ①	CnT ③ >CnTA ②	CnT ③ +CnTA ③	CnT ③	CnT ③ /CnTA ⑤	CnT ③ /CnTA ⑥	CnT ③ <CnTA ⑦
	④ Operation permission/prohibition pulse	CnT ④	CnT ④	CnT ④ +CnTA ③※	CnT ④	CnT ④ /CnTA ⑤	CnT ④ /CnTA ⑥	CnT ④ <CnTA ⑦
	⑤ Cooling/heating selection level	CnT ⑤ /CnTA ①	CnT ⑤ /CnTA ②	CnT ⑤ /CnTA ③	CnT ⑤ /CnTA ④	CnT ⑤	CnT ⑤	CnT ⑤ /CnTA ⑦
	⑥ Cooling/heating selection pulse	CnT ⑥ /CnTA ①	CnT ⑥ /CnTA ②	CnT ⑥ /CnTA ③	CnT ⑥ /CnTA ④	CnT ⑥	CnT ⑥	CnT ⑥ /CnTA ⑦
	⑦ Emergency stop	CnT ⑦ >CnTA ①	CnT ⑦ >CnTA ②	CnT ⑦ >CnTA ③	CnT ⑦ >CnTA ④	CnT ⑦ /CnTA ⑤	CnT ⑦ /CnTA ⑥	CnT ⑦ +CnTA ⑦

Note (1) Following operation commands are accepted when the operation prohibition is set with CnTA as indicated with *.
Individual operation command from remote control, test run command from outdoor unit and operation command from option device, CnT input.

Reference: Explanation on the codes and the combinations of codes in the table above
1. In case of CnT “Number”, the CnT “Number” is adopted and CnTA is invalidated.
2. In case of CnTA “Number”, the CnTA “Number” is adopted and CnT is invalidated.
3. In case of CnT “Number”/CnTA “Number”, the CnT “Number” and the CnTA “Number” become independent functions each other.
4. In case of CnT “Number” + CnTA “Number”, the CnT “Number” and the CnTA “Number” become competing functions each other.
5. In case of CnT “Number” > CnTA “Number”, the function of CnT “Number” supersedes that of CnTA “Number”.
6. In case of CnT “Number” < CnTA “Number”, the function of CnTA “Number” supersedes that of CnT “Number”.

(The “Number” above means ① - ⑥ in the table.)

(a) Output for external control (remote display)

Indoor unit outputs the following signal for operation status monitoring.

	Output name	Condition
1	Operation output	During operation
2	Heating output	During heating operation
3	Thermostat ON output	During compressor operation
4	Inspection (Error) output	When anomalous condition occurs.
5	Cooling output	During cooling operation
6	Fan operation output 1	When indoor unit's fan is operating
7	Fan operation output 2	When indoor unit's fan is operating, and fan speed is higher than Hi speed.
8	Fan operation output 3	When indoor unit's fan is operating, and fan speed is Lower than Me speed.
9	Defrost/oil return output	When indoor unit receive defrost/oil return signal from the outdoor unit.
10	Ventilation output	When "Venti.ON" is selected from remote control
11	Free cooling output	When the ambient temp. is between 10-18 ℃ in cooling and fan operation
12	Indoor unit overload alrm output	Refer to "IU overload alarm"
13	Heater output	Refer to "(8) Thermostat operation (b) Heating"

(b) Input for external control

The external input for the indoor unit can be selected from the following input by the wired remote control.

The input connectors (CnT-6 and CnTA) are equipped on the indoor unit control PCB.

“LEVEL INPUT(Factory default)” or ”PULSE INPUT” is selectable from the wired remote control.

	Input name	Content
1	Run/Stop (Factory default)	Refer to [(19) (c) Remote operation input]
2	Permission/Prohibition	Refer to [(20) Operation permission/prohibition]
3	Cooling/Heating	Refer to [(22) Selection of cooling/heating external input function]
4	Emergency stop	Refer to [(23) Emergency stop input]
5	Setting temperature shift	Set temperature is shifted by +2/-2℃ in cooling/heating.
6	Forced thermo-OFF	Unit goes thermo off.
7	Temporary stop	Refer to [(21) Temporary stop input]
8	Silent mode	Outdoor unit silent mode is activated.

(c) Remote operation input

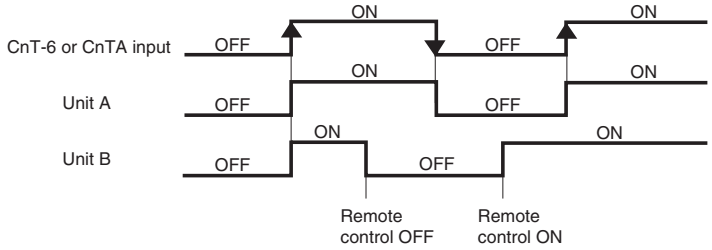
The indoor unit operation can be controlled by external input.

However it is not effective when “Center mode” is selected by central control.

Only the “LEVEL INPUT” is recommended for this input, and operation status is changed as follows.

(i) In case of "Level input" setting (Factory default)

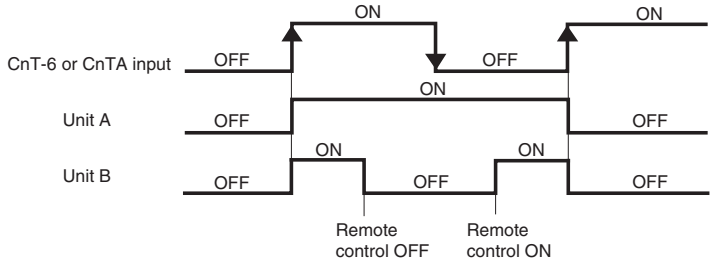
Input signal to CnT-6 or CnTA is OFF→ON …… unit ON
Input signal to CnT-6 or CnTA is ON→OFF …… unit OFF
Operation is not inverted.



Note: The latest operation has priority
It is available to operate/stop by remote control or central control

(ii) In case of "Pulse input" setting (Local setting)

It is effective only when the input signal to CnT-6 or CnTA is changed OFF→ON, and at that time unit operation [ON/OFF] is inverted.



(iii) In case of multiple units (Max. 16 indoor units group) are connected to one wired remote control

When the R/C function setting of wired remote control for "External control set" is changed from "Individual (Factory default)" to " For all units", all units connected in one wired remote control system can be controlled by external operation input.

(20) Operation permission/prohibition

(In case of adopting card key switches or commercially available timers)

When the external input is selected to "Permission/Prohibition", this control becomes effective.
However it is not effective when "Center mode" is selected by central control.

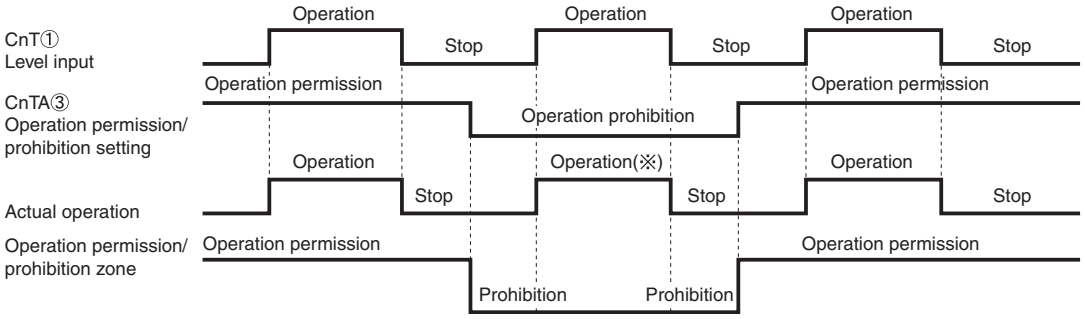
Connector	Indoor function	
	RC-EX3A	RC-E5
CnT	External input 1 : Permission/Prohibition	Operation permission/Prohibition : Valid
CnTA	External input 2 : Permission/Prohibition	No function

Only the "LEVEL INPUT" is recommended for this input, and operation status is changed as follows.

(a) In case of "Level input" setting (Factory default)
  (i) When card key switch is ON (CnT-6 or CnTA ON: Operation permission), start/stop operation of the unit from the wired remote control becomes available.
  (ii) When card key switch is OFF (CnT-6 or CnTA OFF: Operation prohibition), the unit stops operation in conjunction with OFF signal, and start/stop operation of the unit from the wired remote control becomes not available.

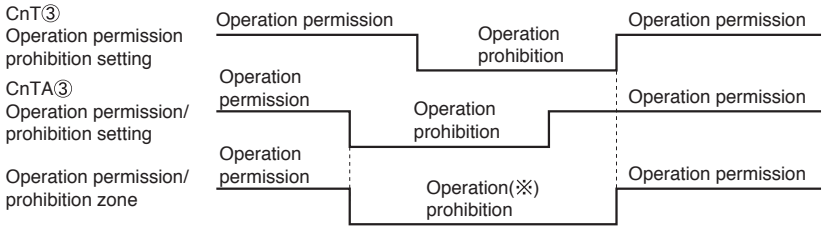
(b) In case of "Pulse input" setting (Local setting)
  (i) When card key switch is ON (Operation permission), the unit starts operation in conjunction with ON signal, and also start/stop operation of the unit from the wired remote control becomes available.
  (ii) When card key switch is OFF (Operation prohibition), the unit stops operation in conjunction with OFF signal, and start/stop operation of the unit from the wired remote control becomes not available.

(c) In case of CnT ① operation stop level > CnTA ③ operation permission/prohibition level



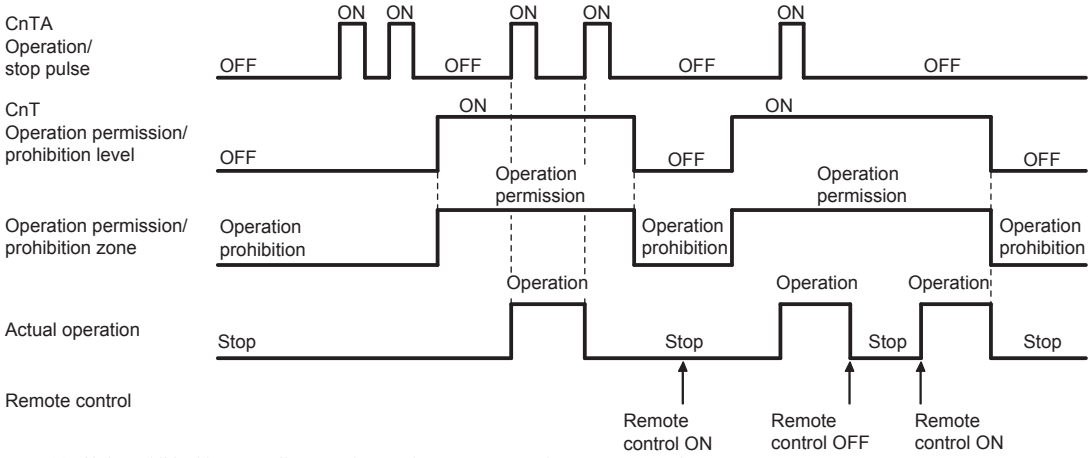
(※) CnT level input supersedes CnTA operation prohibition.

(d) In case of CnT ③ operation permission/prohibition level + CnTA ③ operation permission/prohibition level



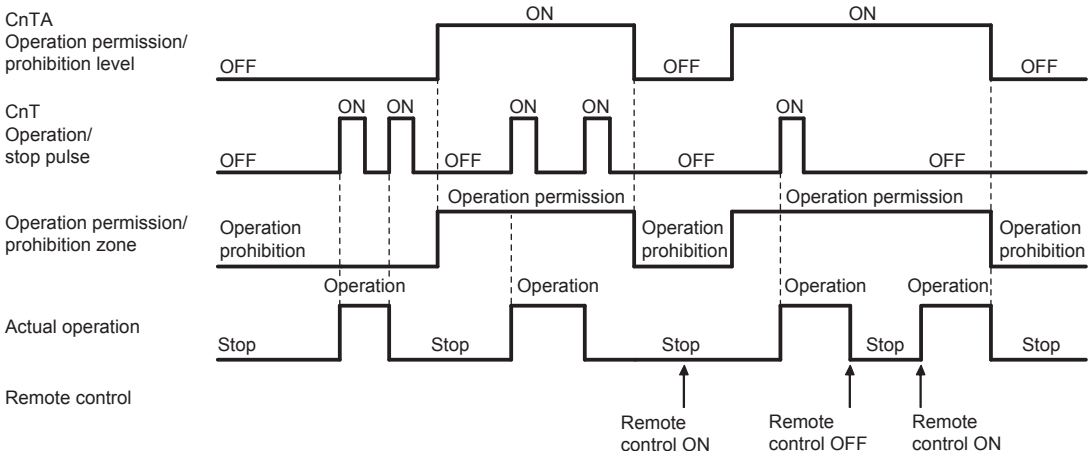
(※) Operation prohibition zone is determined by the OR judgment between CnT operation prohibition zone and CnTA operation prohibition zone.

(e) In case of CnT ③ operation permission/prohibition level > CnTA ② operation/stop pulse



Note (1) If it is prohibited by CnT, all "Operation" and "Stop" commands are not accepted.

(f) In case of CnT② operation/stop pulse + CnTA ③ operation permission/prohibition level



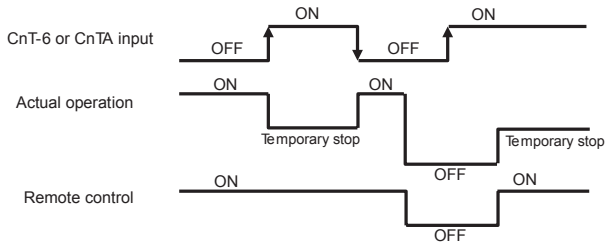
(21) Temporary stop input

In case of temporary stop, operation lamp of remote control lights, but indoor unit stop the operation.

(a) In case of "Level input" setting (Factory default)

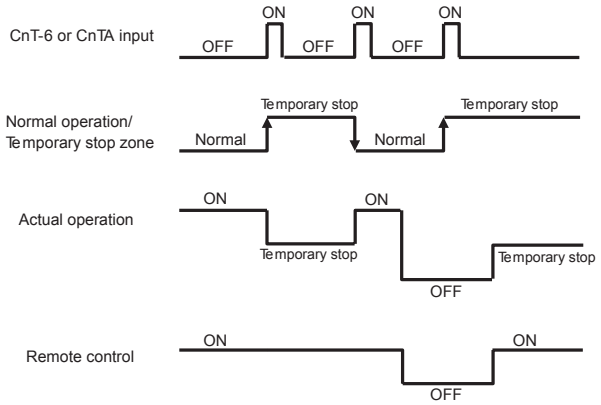
Input signal to CnT-6 or CnTA is OFF → ON : Temporary stop

Input signal to CnT-6 or CnTA is OFF → ON : Normal operation



(b) In case of "Pulse input" setting (Local setting)

It is effective only when the input signal is changed OFF→ON, and "temporary stop/normal operation" is inverted.



(22) Selection of cooling/heating external input function

When "External input 1or 2 setting: Cooling/heating" is set by the indoor unit function from remote control, the cooling or heating is selected with CnT-6 or CnTA.

(a) In case of "Level input" setting (Factory default)

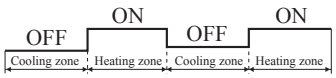
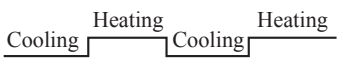
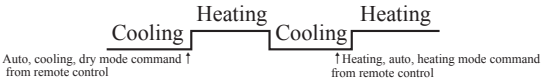
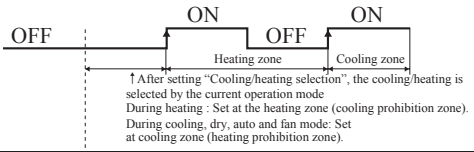
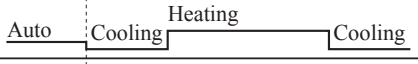
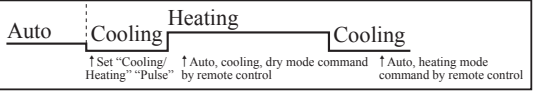
- CnT-6 or CnTA: OPEN → Cooling operation mode
- CnT-6 or CnTA: CLOSE → Heating operation mode

(b) In case of "Pulse input" setting (Local setting)

If the external input is changed OPEN → CLOSE, operation modes are inverted (Cooling → Heating or Heating → Cooling).

(c) If the cooling/heating selection signal is given by the external input, the operation mode is transmitted to the remote control.

■ Selection of cooling/heating external input function

External input selection	External input method	Operation	
Cooling/heating selection	Level	External input (CnT or CnTA)	
		Cooling/heating	
		Cooling/heating (Competitive)	
	Pulse	External input (CnT or CnTA)	
		Cooling/heating	
		Cooling/heating (Competitive)	

(23) Emergency stop input

When the external input is selected to "Emergency strop", it is possible to stop the outdoor unit operation by the external input to the indoor unit.

(a) Function setting

Emergency stop input can be selected by the indoor function of wired remote control.

Connector	Indoor function	
	RC-EX3A	RC-E5
CnT	External input 1 : Emergency stop	Emergency stop : Valid
CnTA	External input 2 : Emergency stop	No function

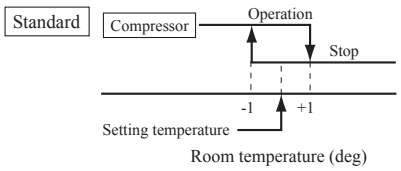
(b) Emergency stop control

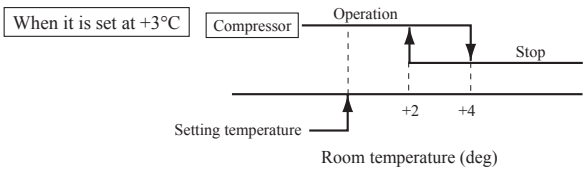
When the external input is OFF, the indoor and outdoor units stop.

The indoor unit receive the external input stops the operation, and the outdoor unit which the stopped indoor unit are connected stops with [E-63].

(24) Room temperature detection temperature compensation during heating

With the standard specification, the compressor is turned ON/OFF with the thermostat setting temperature. When the thermostat is likely to turn OFF earlier because the unit is installed at the ceiling where warm air tends to accumulate, the setting can be changed with the wired remote control indoor unit function "☼ SP OFFSET". The compressor and the heater are turned ON/OFF at one of the setting temperature +3, +2 or +1°C in order to improve the feeling of heating. The setting temperature, however, has the upper limit of 30°C.





(25) Return air temperature compensation

This is the function to compensate the deviation between the detection temperature by the return air temperature sensor and the measured temperature after installing the unit.

(a) It is adjustable in the unit of 0.5°C with the wired remote control indoor unit function "RETURN AIR TEMP".

• +1.0°C, +1.5°C, +2.0°C • -1.0°C, -1.5°C, -2.0°C

(b) Compensated temperature is transmitted to the remote control and the outdoor unit.

Note (1) The detection temperature compensation is effective on the indoor unit thermistor only.

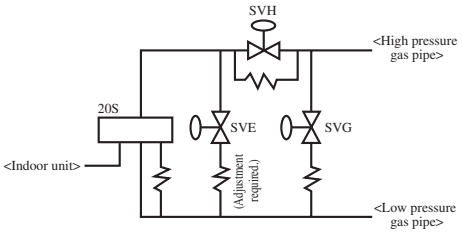
(26) Branching control (Heat recovery 3-pipe combination systems only)

(a) New control with new branching control (New Superlink control)
Control by means of CnT2 (The compressor does not stop at the switching of heating/cooling.)
CnT outputs – XR2: Heating output, XR3: Compressor ON thermostat output

(b) Old control with new branching control (Old Superlink control)
Control by means of CnT2 (The compressor stops at the switching of heating/cooling.)

(c) Control of the branching control when the heating/cooling is switched with the CnT2 output
① 20S control (CnT2-2: XB1)
② SVH control (CnT2-3: XB2)
③ SVG control (CnT2-4: XB3)
④ SVE control (CnT2-5: XB4)
• Combination of XB1 – XB4 outputs (The branching control is controlled in the state of operations (I) – (V).)

State of operation	XB1	XB2	XB3	XB4
(I) Cooling (Full stop, defrosting)	×	×	×	×
(II) Heating	○	○	×	×
(III) Oil return	×	○	○	×
(IV) Equalizing 1 (Cooling→Heating, etc.)	○	×	×	×
(V) Equalizing 2 (Heating→Cooling)	○	×	×	○



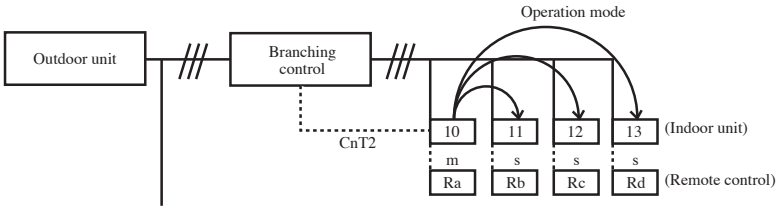
(27) Multiple indoor units control (Heat recovery 3-pipe combination systems only)

(a) The indoor unit that controls the branching control directly is named as the master unit.
(i) Other indoor units that are connected to the same branching control are named as the slave unit.
(ii) Specify the "Main" or "Sub" for the indoor units from the remote control.

(b) Change of operation modes from the remote control, option control or other external device can be made for the master unit only. It cannot be made for slave units.

(c) Operation mode of slave units is always same as that of the master unit.

(d) Any setting other than the operation mode can be made individually for the main and sub units.



(i) Set main indoor unit address 10 to sub units 11-13 by "Address setting of main IU" setting of the wired remote controls Rb-Rd.

(ii) Set the operation mode at cooling for the indoor unit 10 from the remote control Ra.
⇒ The indoor unit 10 commands the cooling for the operation mode of "Sub" indoor units. It commands the cooling in the same way also for the operation mode of "Sub" indoor units which are stopped.
When an operation mode change command for the indoor unit 10 is received from the central control device, the command is released to the "Sub" indoor units in the same way.

(iii) Even if an operation mode change is commanded to the "Sub" indoor units 11, 12 and 13 from the remote control Rb, Rc, Rd or the central control device, the operation mode is not changed.

(28) High power operation (RC-EX3A only)

It operates at with the setting temperature fixed at 16°C for cooling, 30°C for heating and maximum indoor fan speed for 15 minutes maximum.

(29) Energy-saving operation (RC-EX3A only)

It operates with the setting temperature fixed at 28°C for cooling, 22°C for heating or 25°C for auto. When fan control in cooling/heating thermo-OFF setting is "Set fan speed", fan speed during thermo-OFF is changed to "Low". (Maximum capacity is restricted at 80%.)

(30) Warm-up control (RC-EX3A only)

Operation will be started 5 to 60 minutes before use according to the forecast made by the microcomputer which calculates when the operation should be started in order to warm up the indoor temperature near the setting temperature at the setting time of operation start.

(31) Home leave mode (RC-EX3A only)

When the unit is not used for a long period of time, the room temperature is maintained at a moderate leval, avoiding extremely hot or cool temperature.

(a) Cooling or heating is operated according to the outdoor temperature (factory setting 35°C for cooling, 0°C for heating) and the setting temperature. (factory setting 33°C for cooling, 10°C for heating)

(b) Setting temperature and indoor fan speed can be set by RC-EX3A.

(32) Auto temperature setting (RC-EX3A only)

Setting temperature is adjusted automatically at the adequate temperature the center setting temperature is 24°C by correcting the outdoor air temperature.

(33) Fan circulator operation (RC-EX3A only)

When the fan is used for circulation, the unit is operated as follows depending on the setting with the remote control.

(a) If the invalid is selected with the remote control, the fan is operated continuously during the fan operation. (mormal fan mode)

(b) If the valid is selected with the remote control, the fan is operated or stopped when on the difference of the remote control temperature sensor and the return air temperature sensor becomes bigger than 3°C.

(34) The operation judgment is executed every 5 minutes (RC-EX3A only)

Setting temperature Ts is changed according to outdoor temperature.

This control is valid with cooling and heating mode. (Not auto mode)

(a) Operate 5 minutes forcedly.

(b) Setting temperature is adjusted every 10 minutes.

(i) Cooling mode.
Ts = outdoor temperature − offset value

(ii) Heating mode.
Ts = outdoor temperature − offset value

(c) If the return air temperature lower than 18°C in cooling or return air temperature becomes higher than 25°C in heating, unit goes thermostat OFF.

(35) Auto fan speed control (RC-EX3A only)

In order to reach the room temperature to the set temperature as quickly as possible, the air flow rate is increased when the set temperature of thermostat differs largely from the return air temperature. According to temperature difference between set temperature and return air temperature, indoor fan tap are controlled automalically.

• Auto 1: Changes the indoor fan tap within the range of Hi ↔ Me ↔ Lo.

• Auto 2: Changes the indoor fan tap within the range of P-Hi ↔ Hi ↔ Me ↔ Lo.

(36) Indoor unit overload alarm (RC-EX3A only)

If the following condition is satisfied at 30 minutes after starting operation, RC-EX3A shows maintenance code "M07" and the signal is transmitted to the external output (CnT-2-5).

It is necessary to select "Indoor unit overload alarm output" by the external output setting.

• Cooling, Dry, Auto(Cooling) : Indoor air temperature = Set room temperature by remote control + Alarm temperature difference

• Heating, Auto(Heating) : Indoor air temperature = Set room temperature by remote control - Alarm temperature difference

Alarm temperature difference is selectable between 5 to 10°C.

If the following condition is satisfied or unit is stopped, the signal is disappeared.

• Cooling, Dry, Auto(Cooling) : Indoor air temperature = Set room temperature + Alarm temperature difference -2°C

• Heating, Auto(Heating) : Indoor air temperature = Set room temperature - Alarm temperature difference +2°C

(37) Peak-cut timer (RC-EX3A only)

Power consumption can be reduced by restricting the maximum capacity.
Set the [Start time], the [End time] and the capacity limit % (Peak-cut %).

- 4-operation patterns per day can be set at maximum.
- The setting time can be changed by 5-minutes interval.
- The selectable range of capacity limit % (Peak-cut %) is from 0% to 40-80% (20% interval).
- Holiday setting is available.

(38) Motion sensor control (RC-EX3A only)

The sensor determines the presence of people and the amount of activity, and the following controls are done by the motion sensor.

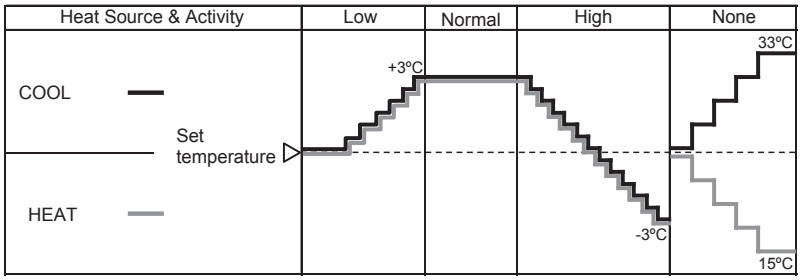
Following settings are necessary to activate motion sensor control.

(a) Infrared (motion) sensor setting: Installation setting of remote control
The indoor unit which is set to "Enable" become valid.

(b) Infrared (motion) sensor control: Energy-saving setting of remote control
The function which is set to "Enable" become valid.

(i) Power saving / comfort control
The set temperature is adjusted according to the presence of people and their amount of activity detected by the infrared (motion) sensor.

MODE:AUTO/COOL/HEAT mode operation



Low	**When the extent of human activity is low**
High	**When the extent of human activity is high**
None	**When there is no one in the room**

- When the "None" continues for 1 hour, the FAN SPEED is set Lo.

Notes (1) When the following operations are set, power saving control will be canceled.
① Energy-saving, Home leave mode, Warm-up control, Cooling operation check.
② When the operation mode is changed DRY or FAN.
(2) Not operable while the air-conditioner is OFF.

(ii) Auto-off control
When no activity is detected for 1 hour, unit will go stand-by mode.※ Unit will re-start operation automatically with the original set temperature by activity detection during the stand-by mode. When stand-by mode continues for 12 hours, unit stops.

※Compressor keeps stopped regardless of the set temperature.

11. SYSTEM TROUBLESHOOTING PROCEDURE

11.1 Basics of troubleshooting

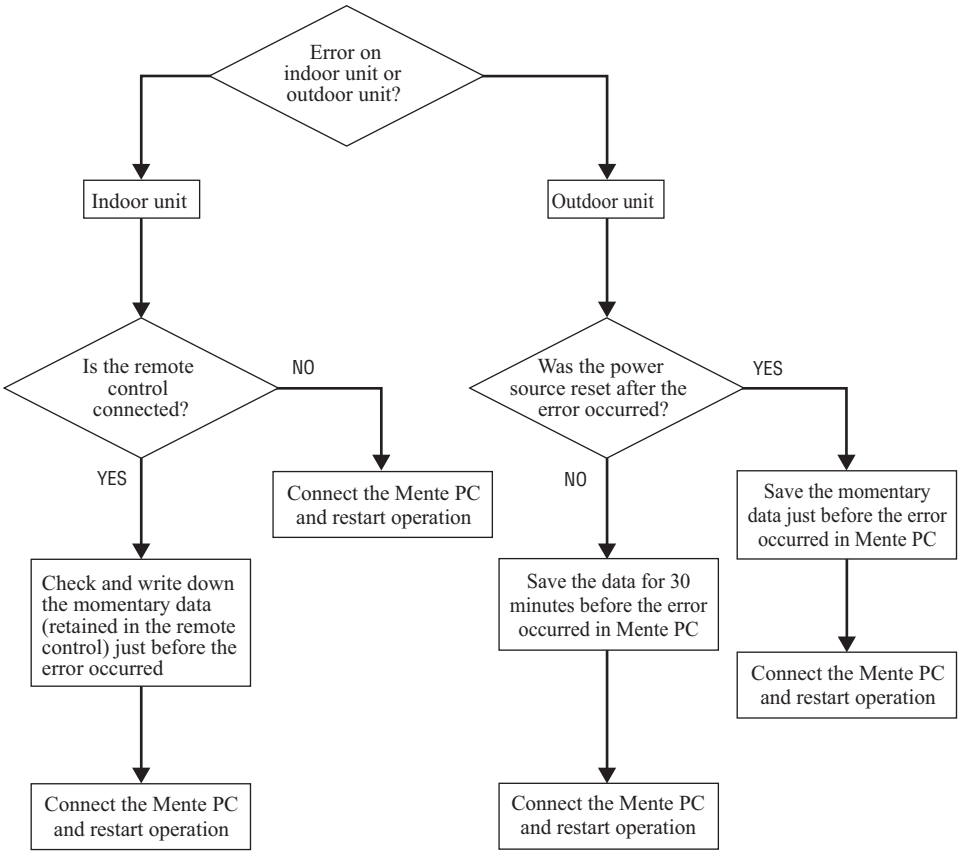
Basic troubleshooting is to check/analyze/save data by connecting the Mente PC.

Whenever arriving at the site, always connect the Mente PC before starting work.

Method of error data analysis (Basic procedure)

- Identify whether particular error occurred during operation or stopping.
- Is it caused by the installation conditions of outdoor/indoor unit? (Refrigerant quantity, pipe length, short-circuit, clogged filter, etc.)
- Isn't there any beginner's mistake at the installation? (Wrong address, mistake in piping or wiring, etc.)
- Is the failure related to any hardware (parts)? (SV main body, coil, capillary, check valve, sensor, etc.)
- Is it a major component?

  Compressor, inverter PCB and outdoor DC fan motor
- Is it a failure of electrical component



(Refer to outdoor unit service manual.)

11.2 Contents of troubleshooting

(1) List of inspection displays (indoor units)

Remote control error code	Name of inspection	Classification	Page
None	Operates but does not cool	System error	280
None	Operates but does not heat	System error	281
None	Excessive noise/vibration	System error	282-284
None	Louver motor failure	System error	285
None	Power source system anomaly (Power source to indoor unit PCB)	System error	286, 287
None	Power source system error (Power source to remote control)	System error	288, 289
✋WAIT✋	✋WAIT✋ (1)	System error	290
✋WAIT✋	✋WAIT✋ (2)	System error	291
✋WAIT✋	✋WAIT✋ (3)	System error	292
✋WAIT✋	✋WAIT✋ (4)	System error	293
✋WAIT✋	✋WAIT✋ (5)	System error	294
✋WAIT✋	✋WAIT✋ (6)	System error	295
[No display]	[No display]	System error	296
E1	Remote control communication error	Communication error	297
E2	Duplicated indoor unit address	Address setting error	298
E3	Outdoor unit signal line error	Address pairing setting error	299
E5	Communication error during operation	Communication error	300
E6	Indoor heat exchanger temperature sensor anomaly (Thi-R)	Temperature sensor wire breakage	301
E7	Indoor return air temperature sensor anomaly (Thi-A)	Temperature sensor wire breakage	302
E9	Drain trouble	System error	303
E10	Excessive number of indoor units (more than 17 units) by controlling one remote control	Communication error	304
E11	Address setting error between master and slave indoor units	Address setting error	305
E12	Address setting error by mixed setting method	Address setting error	306
E16	Indoor DC fan motor anomaly	DC fan motor error	307, 308
E18	Address setting error of master and slave indoor units	Address setting error	309
E19	Indoor unit operation check, drain pump motor check mode anomaly	Setting error	310
E20	Indoor DC fan motor rotation speed anomaly	DC fan motor error	311, 312
E21	Defective panel switch operation (FDT)	Panel switch error	313
E28	Remote control temperature sensor anomaly (Thc)	Temperature sensor wire breakage	314
E63	Emergency stop	Site setting error	315

(2) Troubleshooting

Error code	LED	Green	Red	Content
Remote control: None	Indoor	Keeps flashing	Stays OFF	Operates but does not cool
	Outdoor	Keeps flashing	Stays OFF	

1. Applicable model

All models

2. Error detection method

3. Condition of error displayed

4. Presumable cause

- Poor compression of compressor
- Expansion valve operation anomaly

5. Troubleshooting

Diagnosis	Countermeasure
Check the indoor fan operation. Check the temperature difference between return and suction air of indoor unit.	
Is the temperature difference between return and suction air 10-20°C at cooling? YES → Does the heat load increase after installation? NO →	It is normal. (This unit is designed to start in the soft start mode by detecting the compressor under-dome temperature when it restart after power reset.)
Does the heat load increase after installation? YES → Mistake in model selection. Calculate heat load once more.	It is necessary to replace to higher capacity unit or to install additional unit.
Is the temperature difference between return and suction air 10-20°C at cooling? NO → Is the compressor operating? NO → "WAIT" message is displayed [for 3 seconds] when performing cooling, dehumidifying or heating operation from remote control? YES →	Compressor refrigerant oil protective control at starting is activated. For the contents of control, refer to the compressor start control.
"WAIT" message is displayed [for 3 seconds] when performing cooling, dehumidifying or heating operation from remote control? NO →	Compressor may be stopped by the error detection control. For the contents of control, refer to anomalous stop control by controlling compressor rotation speed of microcomputer control function.
Is the temperature difference between return and suction air 10-20°C at cooling? NO → Is the compressor operating? YES → Is the compressor rotation speed low? NO →	Check the followings. • Minor clogging of filter • Minor fouling of heat exchanger • Minor short-circuit of air flow • Slightly insufficient or excessive refrigerant amount • Poor compression of compressor
Is the compressor rotation speed low? YES → Check following operation control function. · Control for determine compressor rotation speed · Protective control by controlling compressor rotation speed Which control is appropriate to this phenomenon.	Check suspicious points considering appropriate operation control.
Check following operation control function. · Control for determine compressor rotation speed · Protective control by controlling compressor rotation speed Which control is appropriate to this phenomenon. → Is the operating conditions of indoor/outdoor unit under rated condition? YES → Note (1) Outdoor: 35ºC Indoor : 27ºCDB/19ºCWB	Check the followings for reference. • Severe clogging of filter • Severe clogging of heat exchanger • Severe short-circuit of air flow • Severely insufficient or excessive refrigerant amount • Under protective control of compressor • Indoor unit fan tap setting • Valid setting of silent mode
Is the operating conditions of indoor/outdoor unit under rated condition? NO → The unit is operating normally, but is operating under the protective control of compressor or other respective components.	

Note:

Error code	LED	Green	Red	Content
Remote control:None	Indoor	Keeps flashing	Stays OFF	Operates but does not heat
	Outdoor	Keeps flashing	Stays OFF	

1.Applicable model

All models

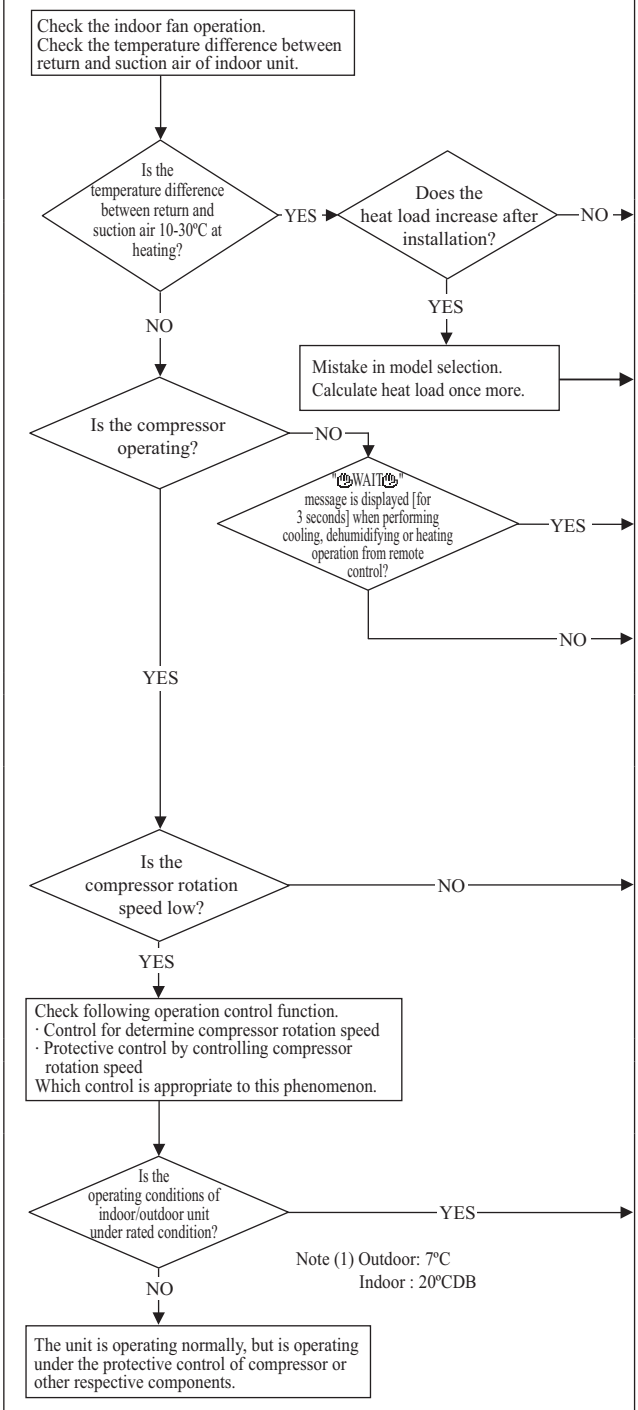
2.Error detection method

3. Condition of error displayed

4.Presumable cause

- 4-way valve anomaly
- Poor compression of compressor
- Expansion valve anomaly operation

5.Troubleshooting



Note:

Error code	LED	Green	Red	Content
Remote control:None	Indoor	–	–	Excessive noise/vibration (1/3)
	Outdoor	–	–	

1.Applicable model

All models

2.Error detection method

3. Condition of error displayed

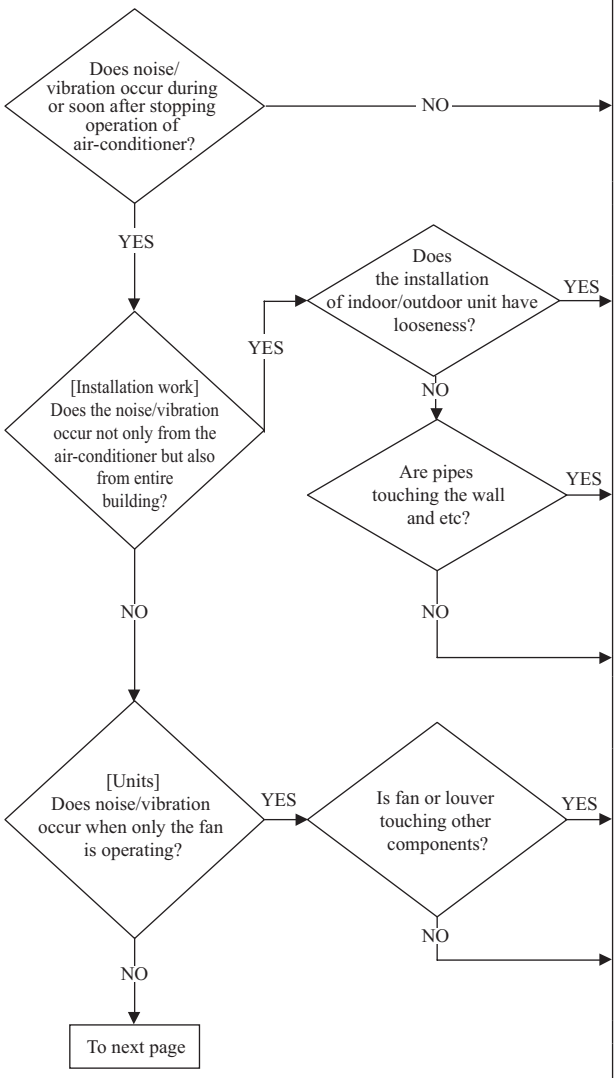
4.Presumable cause

① Improper installation work
- Improper vibration-proof work at installation
- Insufficient strength of mounting surface

② Anomaly of product
- Before/after shipment from factory

③ Improper adjustment during commissioning
- Excessive/insufficient refrigerant.

5.Troubleshooting

Diagnosis	Countermeasure
	If excessive noise/vibration persists when sufficient time has elapsed after stopping the unit, it is considered that the air-conditioner is not the source. Check the installed condition carefully, and correct the installed position or insert rubber cushions into the gap or take other measure in order to eliminate looseness. Prevent the vibration from transmitting to wall and etc by fixing pipes on the wall tightly or wrapping rubber cushion around the pipe which goes through the hole in the wall or applying other appropriate means. Strength of ceiling wall, floor, etc. may be insufficient. Review the installation place or apply reinforcement to increase the strength. Check for leaning of installed unit or incorrect mounting of fan, louver or motor, and then specify the contacting point and correct it. When the heat exchanger or filter is clogged, clean them. In case that the unit is installed at the site where background noise is very low, even the low level noise from indoor unit like as refrigerant flow noise can be heard, but it is normal. Before installation, check for background noise. If background noise is very low, convince client prior to installation.

Note:

Error code	LED	Green	Red	Content
Remote control: None	Indoor	–	–	Excessive noise/vibration (2/3)
	Outdoor	–	–	

1. Applicable model

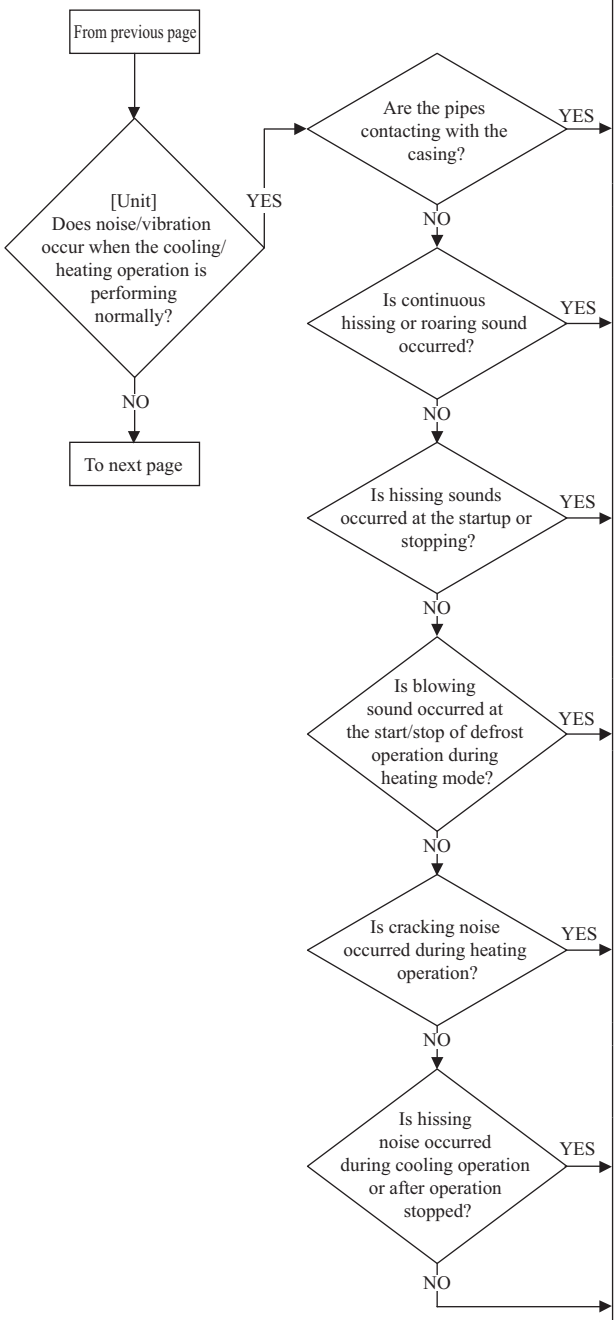
All models

2. Error detection method

3. Condition of error displayed

4. Presumable cause

5. Troubleshooting



Diagnosis	Countermeasure
Are the pipes contacting with the casing? YES	Rearrange the piping to avoid contact with the casing.
Is continuous hissing or roaring sound occurred? YES	Noise/vibration is generated when the refrigerant gas or liquid flows through inside of piping of air-conditioner. It is likely to occur particularly during cooling or defrost operation in the heating mode. It is normal.
Is hissing sounds occurred at the startup or stopping? YES	The noise/vibration occurs when the refrigerant starts or stops flowing. It is normal.
Is blowing sound occurred at the start/stop of defrost operation during heating mode? YES	When the defrost operation starts or stops during heating mode, the refrigerant flow is reversed due to switching 4-way valve. This causes a large change in pressure which produces a blowing sound. It may also accompany the hissing sound as mentioned above. This is normal.
Is cracking noise occurred during heating operation? YES	After the start or stop of heating operation or during defrost operation, abrupt changes in temperature cause resin parts to shrink or expand. This is normal.
Is hissing noise occurred during cooling operation or after operation stopped? YES	It is the sound produced by the drain pump that discharges drain from indoor unit. The pump continues to run for 5 minutes after stopping the cooling operation. This is normal.
NO	Apply the damper sealant at the place considered to be the sources such as the pressure reducing mechanism. (Expansion valve, capillary tube, etc.)

Note:

Error code	LED	Green	Red	Content
Remote control: None	Indoor	–	–	Excessive noise/vibration (3/3)
	Outdoor	–	–	

1. Applicable model

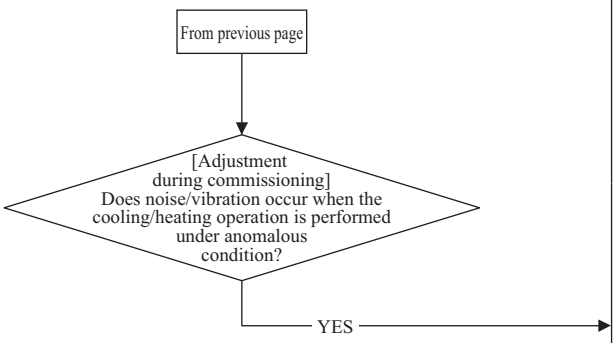
All models

2. Error detection method

3. Condition of error displayed

4. Presumable cause

5. Troubleshooting

Diagnosis	Countermeasure
	If insufficient cooling/ heating problem happens due to anomalous operating conditions at cooling / heating, followings are suspicious. • Excessive charged amount of refrigerant • Insufficient charge amount of refrigerant • Intrusion of air, nitrogen, etc. In such case, it is necessary to recover refrigerant, vacuum-dry and recharge refrigerant. * Since there could be many causes of noise/ vibration, the above may not cover all. In such case, check the conditions when, where, how the noise/vibration occurs according to following check points and ask our consultation. • Indoor/outdoor unit • Cooling/heating/fan mode • Startup/stop/during operation • Operating condition (Indoor/outdoor temperatures and pressures) • Time it occurred • Operation data retained by remote control or Mente PC such as compressor rotation speed, heat exchanger temperature, EEV opening degree and etc. • Tone (If available, record the noise) • Any other anomalies.

Note:

Error code	LED	Green	Red	Content
Remote control: None	Indoor	Keeps flashing	Stays OFF	Louver motor failure
	Outdoor	Keeps flashing	Stays OFF	

1.Applicable model

All models

2.Error detection method

3. Condition of error displayed

4.Presumable cause

- Defective LM
- LM wire breakage
- Indoor unit PCB anomaly

5.Troubleshooting

Diagnosis	Countermeasure
▲ Check at the indoor unit side.	
Operate after waiting for more than 1 minute.	
Does the louver operate at the power on? — NO	
Is LM wiring broken? — NO	
Is LM wiring broken? — YES	Repair wiring.
Is LM locked? — NO	Indoor unit PCB anomaly → Replace it.
Is LM locked? — YES	Replace LM.
Does the louver operate at the power on? — YES	
Is the louver operable with the remote control? — YES	Normal
Is the louver operable with the remote control? — NO	Replace louver motor. (If errors persist even after replacing the louver motor, replace the indoor unit PCB.)

LM: louver motor

Note:

Error code	LED	Green	Red	Content
Remote control: None	Indoor	Stays OFF	Stays OFF	Power source system anomaly (Power source to indoor unit PCB)
	Outdoor	Stays OFF	2-time flash	

1. Applicable model

FDT, FDTC, FDK series only

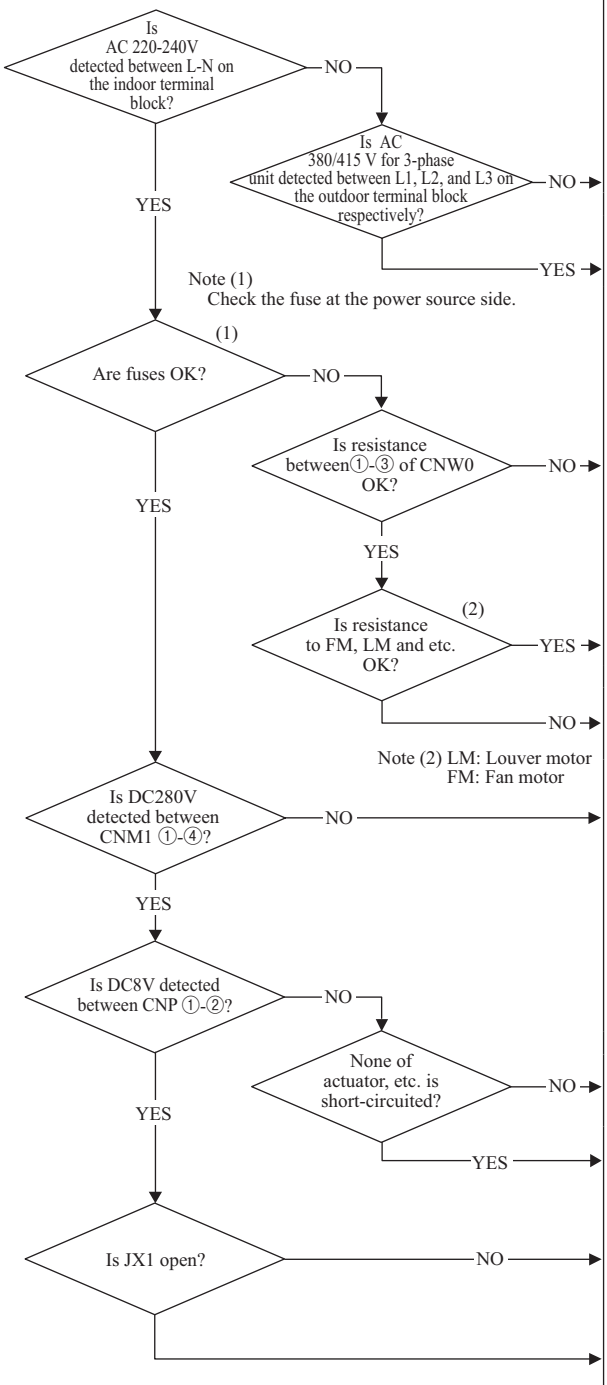
2. Error detection method

3. Condition of error displayed

4. Presumable cause

- Wrong connection or breakage of connecting wires
- Blown fuse
- Transformer anomaly
- Indoor unit PCB anomaly
- Broken harness

5. Troubleshooting



Note:

Error code

Remote control: None

LED	Green	Red
Indoor	Stays OFF	Stays OFF
Outdoor	Stays OFF	2-time flash

Content

Power source system anomaly (Power source to indoor unit PCB)

1. Applicable model

Except FDT, FDTC, FDK series

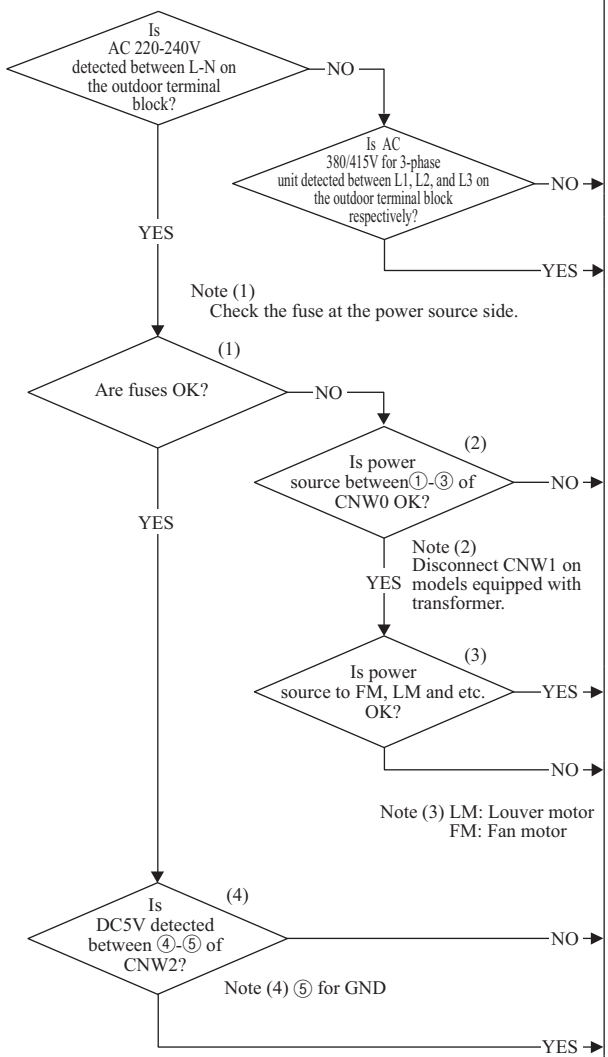
2. Error detection method

3. Condition of error displayed

4. Presumable cause

- Wrong connection or breakage of connecting wires
- Blown fuse
- Transformer anomaly
- Indoor unit power PCB anomaly
- Broken harness
- Indoor unit control PCB anomaly

5. Troubleshooting



Note:

Error code

Remote control: None

LED	Green	Red
Indoor	Keeps flashing	Stays OFF
Outdoor	Keeps flashing	2-time flash

Content

Power source system error (Power source to remote control)

1. Applicable model

FDT, FDTC, FDK series only

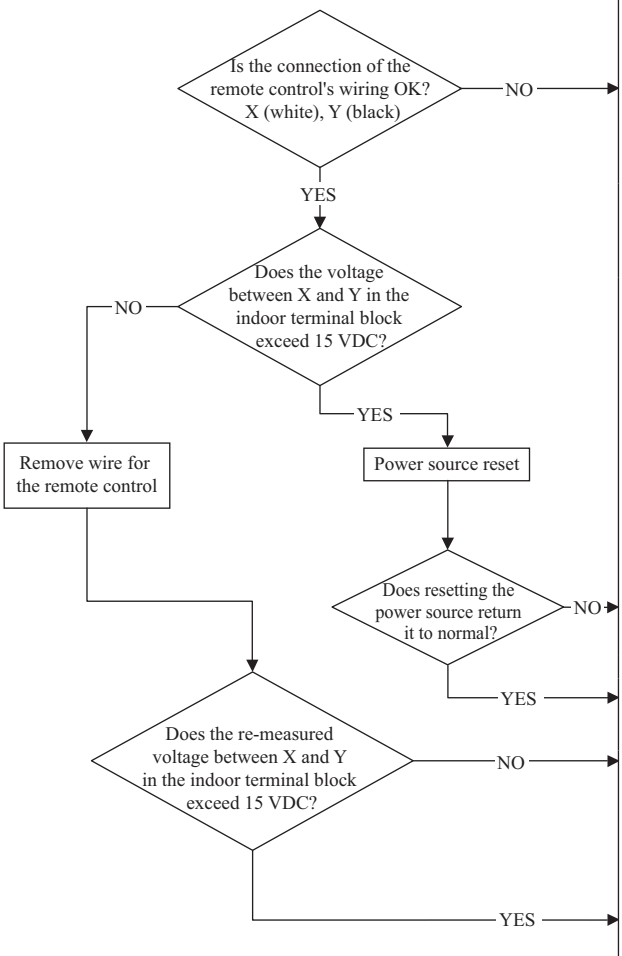
2. Error detection method

3. Condition of error displayed

4. Presumable cause

- Remote control wire breakage/short-circuit
- Defective remote control
- Malfunction by noise
- Broken harness
- Faulty indoor unit PCB

5. Troubleshooting



Note:

Error code	LED	Green	Red	Content
Remote control: None	Indoor	Keeps lighting	Stays OFF	Power source system error (Power source to remote control)
	Outdoor	Keeps lighting	2-time flash	

1. Applicable model

Except FDT, FDTC, FDK series

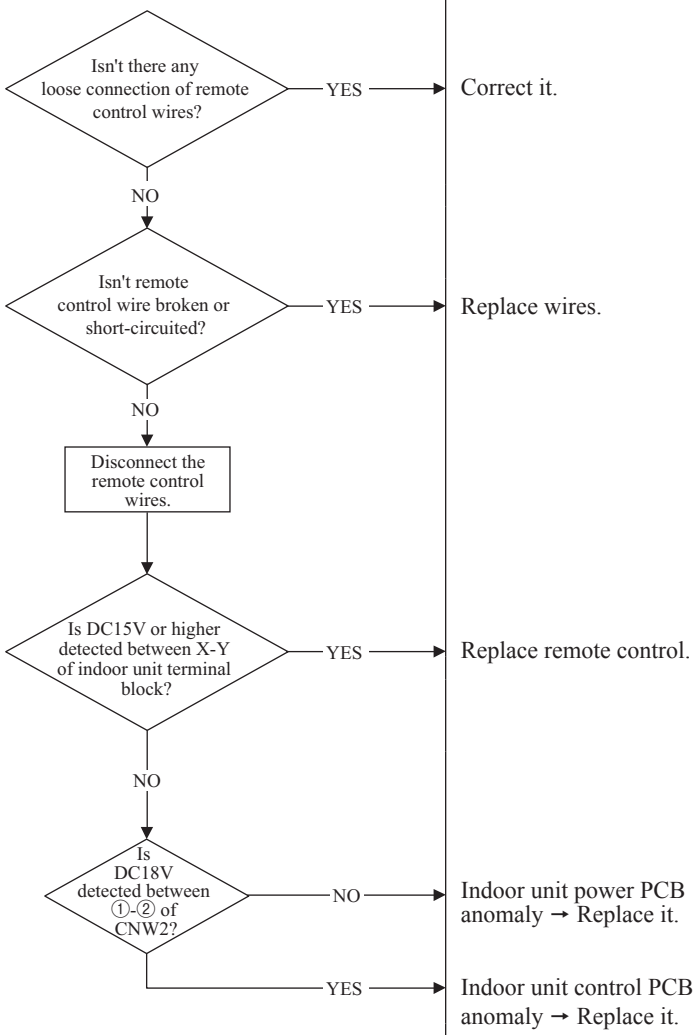
2. Error detection method

3. Condition of error displayed

4. Presumable cause

- Remote control wire breakage/short-circuit
- Remote control anomaly
- Malfunction by noise
- Indoor unit power PCB anomaly
- Broken harness
- Indoor unit control PCB anomaly

5. Troubleshooting



Note:

Error code	LED	Green	Red	Content
Remote control: WAIT	Indoor	Keeps flashing	Stays OFF	WAIT (1)
	Outdoor	Keeps flashing	Keeps flashing	

1. Applicable model

All models

(In case that WAIT is kept on displaying on the remote control for more than 2 minutes after power ON.)

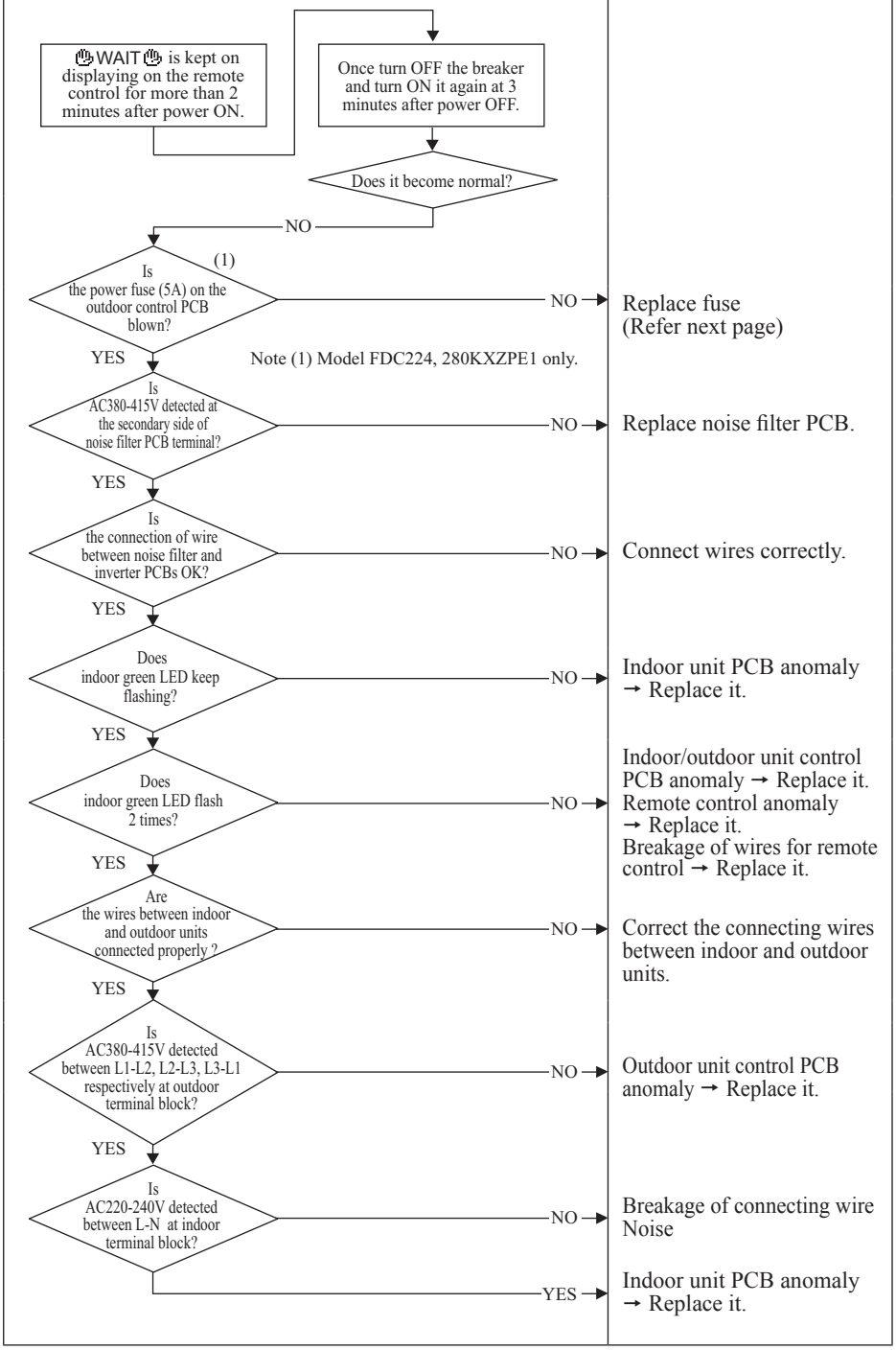
2. Error detection method

3. Condition of error displayed

4. Presumable cause

- Fuse blown
- Noise filter anomaly
- Anomalous connection of wire between PCBs
- Indoor unit PCB anomaly
- Remote control anomaly
- Breakage of connecting wires of remote control
- Outdoor unit control PCB anomaly

5. Troubleshooting



Note: (1) When anomaly occurs during establishing communication between indoor and outdoor unit, error code E5 is displayed (outdoor red LED flash 2-times).
In case of E5, the way of troubleshooting is same as above mentioned (except for checking of connecting wire).
When reset the power after E5 occurs, if this anomaly recurs, WAIT is displayed on remote control. If power ON/OFF is repeated in a short period (within 1 minute), WAIT may be displayed. In such case, please wait for 3 minutes after the power breaker OFF.
(2) If any error is detected 30 minutes after displaying "WAIT" on the remote control, the display changes to "INSPECT I/U".

Error code	LED	Green	Red	Content
Remote control:WAIT	Indoor	Keeps flashing	Stays OFF	WAIT (2)
	Outdoor	Keeps flashing	Keeps flashing	

1.Applicable model

All models

(In case of fuse blown, how to check the unit before replacement of fuse.)

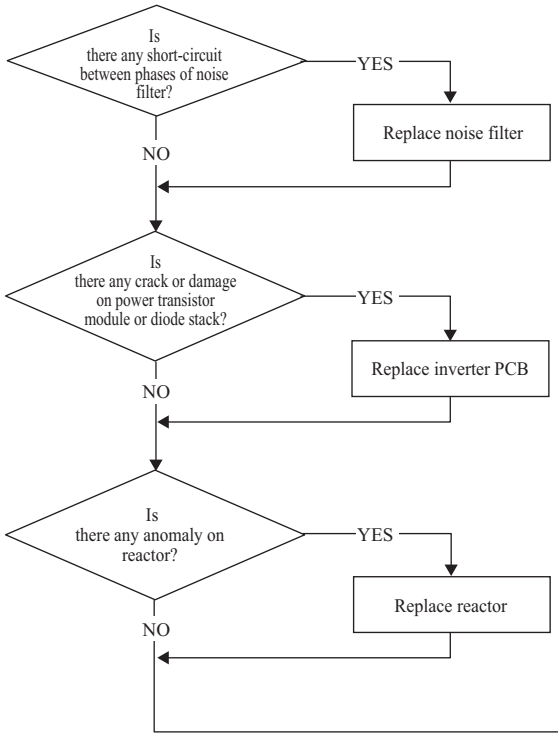
2.Error detection method

3. Condition of error displayed

4.Presumable cause

- Fuse blown
- Noise filter anomaly
- Anomalous connection of wire between PCBs
- Indoor unit PCB anomaly
- Remote control anomaly
- Breakage of connecting wires of remote control
- Outdoor unit control PCB anomaly

5.Troubleshooting

Diagnosis	Countermeasure
	Replace fuse.

Note:

Error code

Remote control: WAIT

LED	Green	Red
Indoor	Keeps flashing	Stays OFF
Outdoor	Keeps flashing	Keeps flashing

Content

WAIT (3)

1. Applicable model

All models

(No display on the remote control after power ON.)

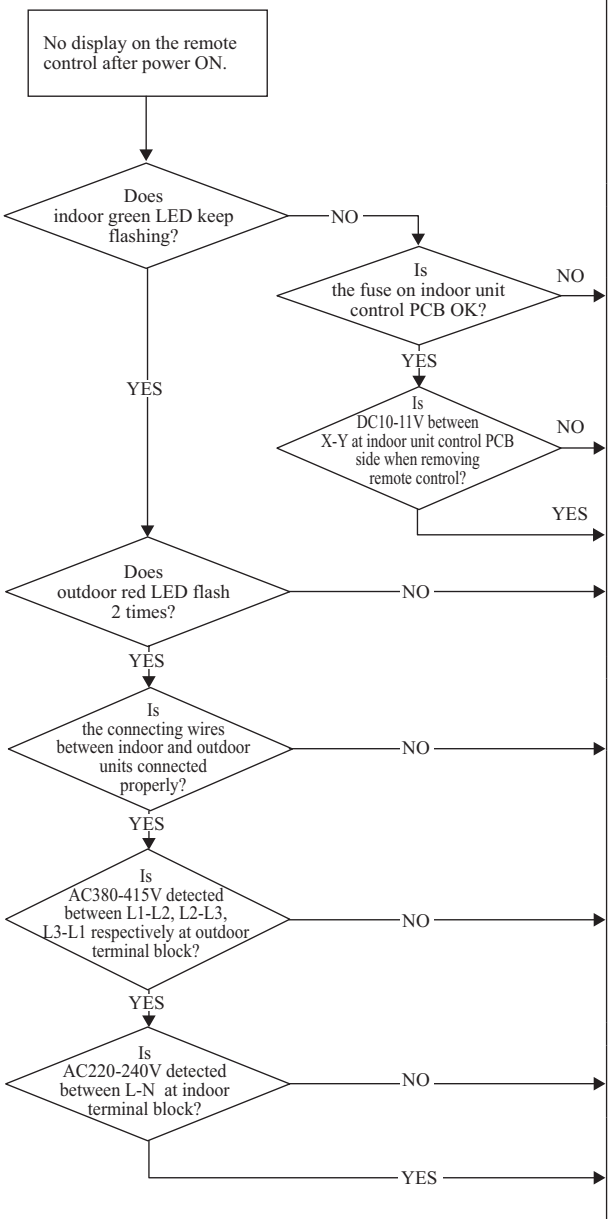
2. Error detection method

3. Condition of error displayed

4. Presumable cause

- Fuse blown
- Noise filter anomaly
- Anomalous connection of wire between PCBs
- Indoor unit PCB anomaly
- Remote control anomaly
- Breakage of connecting wires of remote control
- Outdoor unit control PCB anomaly

5. Troubleshooting



Note:

Error code	LED	Green	Red	Content
Remote control: WAIT	Indoor	Keeps flashing	Stays OFF	WAIT (4)
	Outdoor	Keeps flashing	Keeps flashing	

1. Applicable model

All models

(In case that WAIT is kept on displaying on the remote control for more than 2 minutes after power ON.)

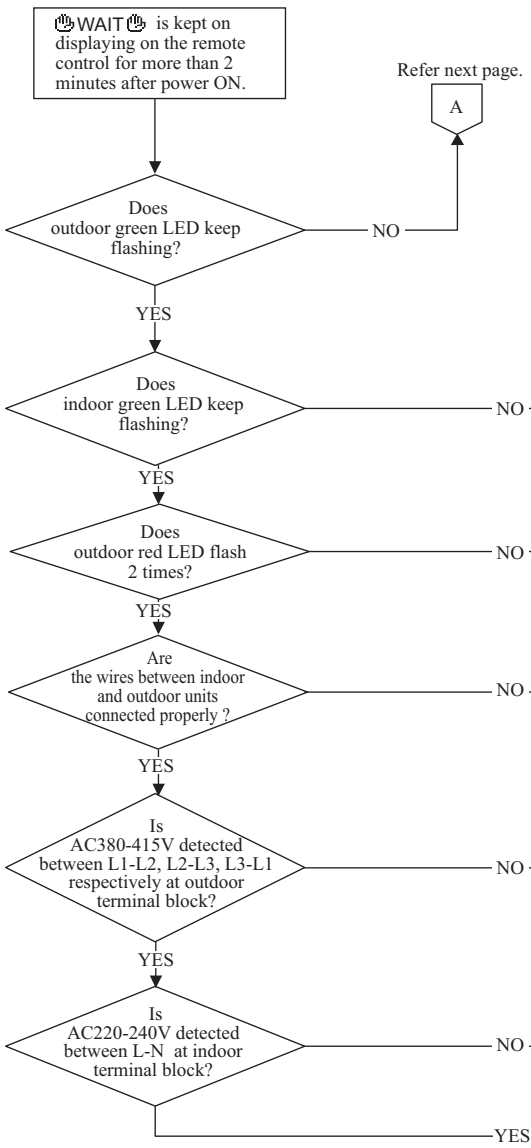
2. Error detection method

3. Condition of error displayed

4. Presumable cause

- Fuse blown
- Noise filter anomaly
- Anomalous connection of wire between PCBs
- Indoor unit PCB anomaly
- Remote control anomaly
- Breakage of connecting wires of remote control
- Outdoor unit control PCB anomaly

5. Troubleshooting



Note:

Error code	LED	Green	Red	Content
Remote control: WAIT	Indoor	Stays OFF	Stays OFF	WAIT (5)
	Outdoor	Stays OFF	Stays OFF	

1. Applicable model

All models

(In case that LED on outdoor unit control PCB stays OFF)

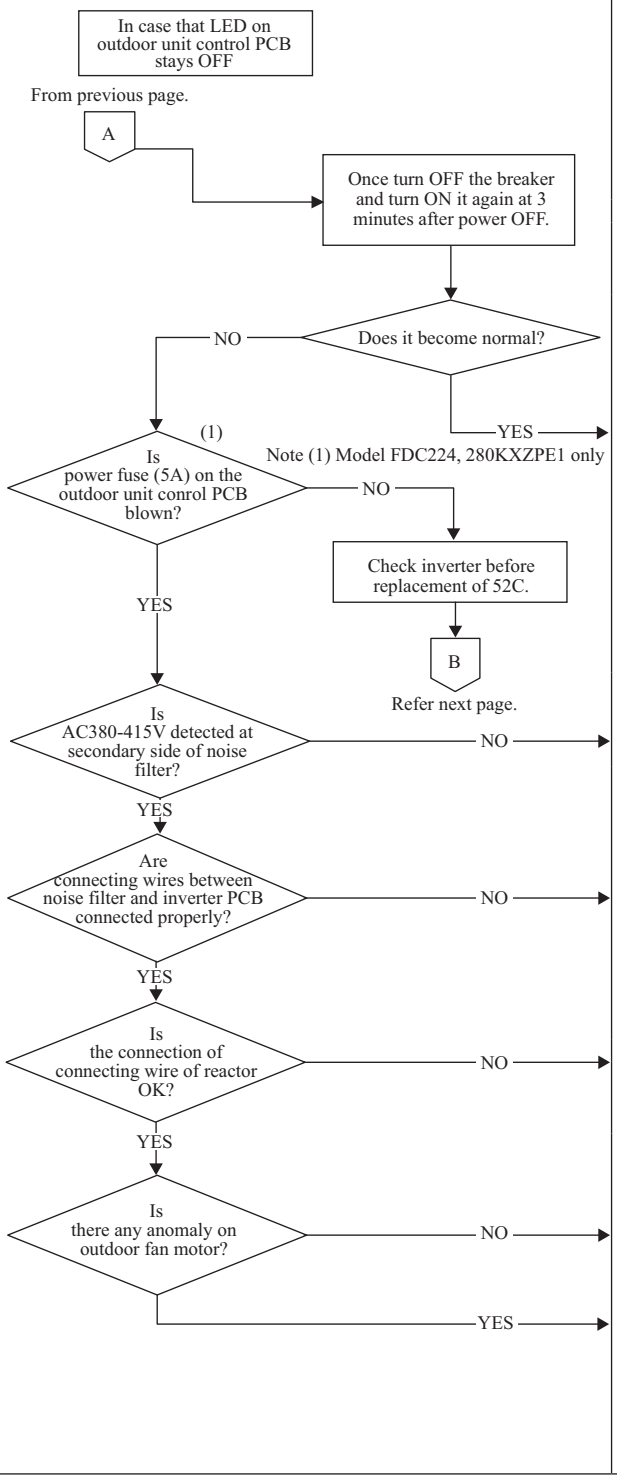
2. Error detection method

3. Condition of error displayed

4. Presumable cause

- Fuse blown
- Noise filter anomaly
- Anomalous connection of wire between PCBs
- Indoor unit PCB anomaly
- Remote control anomaly
- Breakage of connecting wires of remote control
- Outdoor unit control PCB anomaly

5. Troubleshooting



Note:

Error code	LED	Green	Red	Content
Remote control: WAIT	Indoor	Stays OFF	Stays OFF	WAIT (6)
	Outdoor	Stays OFF	Stays OFF	

1. Applicable model

All models

(In case of fuse blown, how to check the unit before replacement of fuse)

2. Error detection method

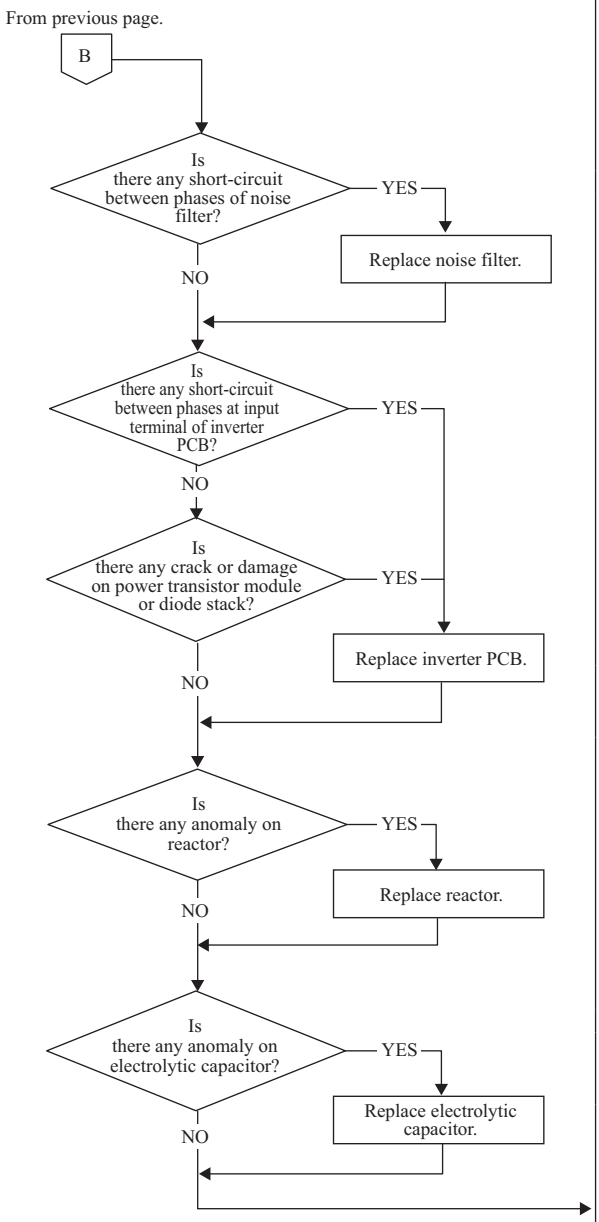
3. Condition of error displayed

4. Presumable cause

- Fuse blown
- Noise filter anomaly
- Anomalous connection of wire between PCBs
- Indoor unit PCB anomaly
- Remote control anomaly
- Breakage of connecting wires of remote control
- Outdoor unit control PCB anomaly

5. Troubleshooting

Diagnosis	Countermeasure



Note:

Error code

Remote control: [No display]

LED	Green	Red
Indoor	Stays OFF	Stays OFF
Outdoor	Stays OFF	Stays OFF

Content

[No display]

1. Applicable model

All models

(No display on the remote control after power ON)

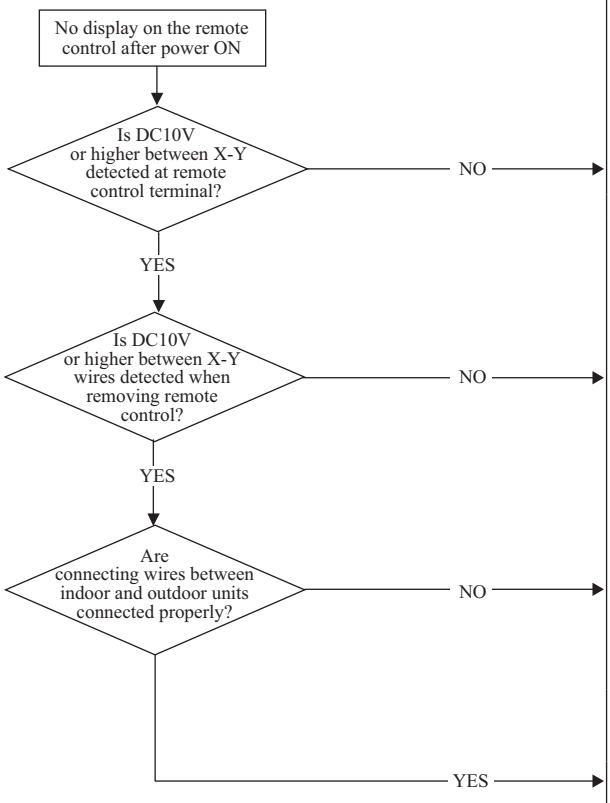
2. Error detection method

3. Condition of error displayed

4. Presumable cause

- Fuse blown
- Noise filter anomaly
- Anomalous connection of wire between PCBs
- Indoor unit PCB anomaly
- Remote control anomaly
- Breakage of connecting wires of remote control
- Outdoor unit control PCB anomaly

5. Troubleshooting



Note:

Error code	LED	Green	Red	Content
Remote control: E1	Indoor	Keeps flashing	Stays OFF	Remote control communication error
	Outdoor	Keeps flashing	Stays OFF	

1. Applicable model

All models

2. Error detection method

When normal communication between remote control and indoor unit is interrupted for more than 2 minutes (Detectable only with the remote control.)

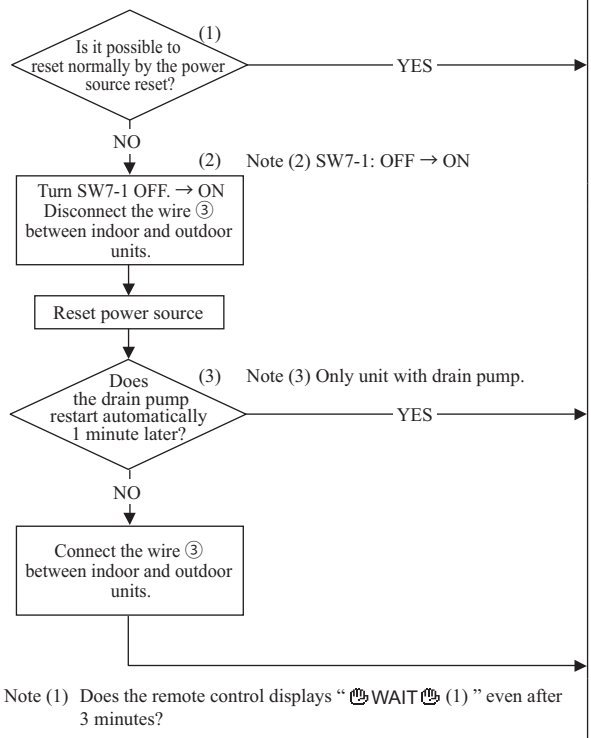
3. Condition of error displayed

Same as above

4. Presumable cause

- Anomalous communication circuit between remote control and indoor unit.
- Noise

5. Troubleshooting

Diagnosis	Countermeasure
	Malfunction by temporary noise. Check peripheral environment. Indoor unit PCB anomaly → Replace it. Move to E5 (Communication error during operation) diagnosis.

Note (1) Does the remote control displays " WAIT (1) " even after 3 minutes?

Note: If the indoor unit cannot communicate normally with the remote control for 180 seconds, the indoor unit PCB starts to reset automatically.

Error code	LED	Green	Red	Content
Remote control: E2	Indoor	Keeps flashing	Keeps flashing	Duplicated indoor unit address
	Outdoor	Keeps flashing	Stays OFF	

1. Applicable model

All models

2. Error detection method

More than 129 indoor units are connected in the same Superlink system.
Duplicated indoor unit address

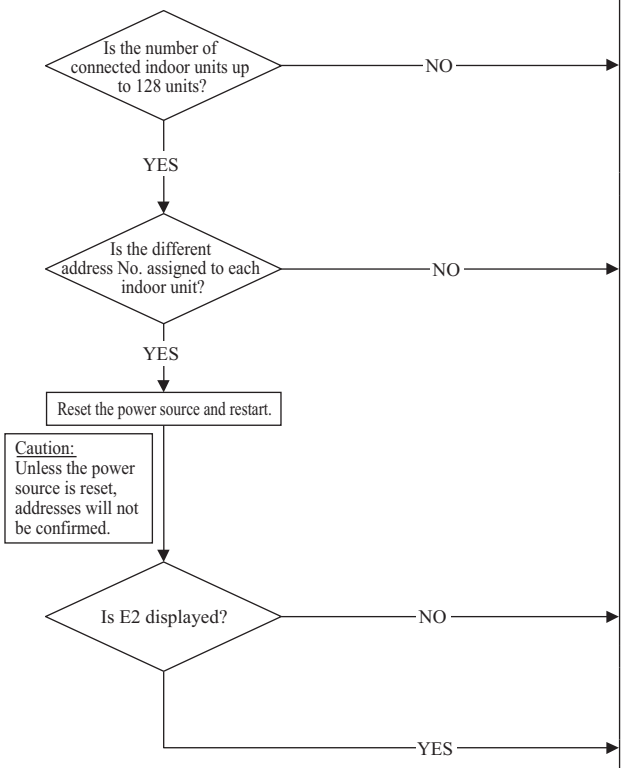
3. Condition of error displayed

Same as above

4. Presumable cause

- Number of connected indoor units exceeds the limitation.
- Duplicated indoor unit address
- Indoor unit PCB anomaly

5. Troubleshooting



Note:

Error code	LED	Green	Red	Content
Remote control: E3/5	Indoor	Keeps flashing	2-time flash	Outdoor unit signal line error
	Outdoor	Keeps flashing	Stays OFF	

1. Applicable model

All models

2. Error detection method

No outdoor unit exists in the same Superlink system.

3. Condition of error displayed

Same as above

4. Presumable cause

- Power is not supplied to the outdoor unit
- Unmatch of pairing between indoor and outdoor units
- Indoor unit PCB anomaly
- Outdoor unit control PCB anomaly
- Missing local wiring

5. Troubleshooting

Diagnosis	Countermeasure
E3 is a communication error that occurs when communication between indoor and outdoor units is not established at all. Once the communication between indoor and outdoor units is established, it changes to E5. In both cases, check signal line wired locally.	
Reset the power source and restart.	
Does E3/E5 occurs? — NO	Temporary malfunction by noise. Identify the source of noise and correct it.
YES	
Is protective fuse for the Superlink circuit blown? — YES	Change to spare circuit.
NO	
Is the LED on indoor unit control PCB OK? — NO	Indoor unit PCB anomaly → Replace it.
YES	
Is the power source to outdoor unit OK? — NO	Correct it.
YES	
Is the outdoor unit address set on the indoor unit OK? — NO	Correct it.
YES	
Is the Superlink communication wire connection OK? — NO	Correct it.
YES	Outdoor unit control PCB anomaly → Replace it.

Note:

Error code	LED	Green	Red	Content
Remote control: E5	Indoor	Keeps flashing	*See below	Communication error during operation
	Outdoor	Keeps flashing	2-time flash	

1. Applicable model

All models

2. Error detection method

When the communication between indoor and outdoor units is interrupted for more than 2 minutes

3. Condition of error displayed

When this anomaly is detected during operation

4. Presumable cause

- Unit address No. setting error
- Remote control wires broken
- Poor connection/disconnection of remote control wires
- Indoor unit PCB anomaly

5. Troubleshooting

Diagnosis	Countermeasure
* In case that indoor red LED flashes 2 times	
Note (1) Check the connection (disconnection, looseness) of signal wires at outdoor terminal block.	
Is the connection of signal wires at the outdoor unit side OK? — NO	Repair signal wires.
YES	
Note (2) Check the connection (disconnection, looseness, breakage) of signal wires between indoor and outdoor units.	
Is the connection of signal wires between indoor and outdoor units OK? — NO	Repair signal wires.
YES	
Reset the power source and restart.	
Does the remote control LCD becomes normal? — NO	Go to the diagnosis of ✋WAIT✋ (1)
YES	Unit is normal. (Malfunction by temporary noise, etc.)
* In case that indoor red LED stays OFF	
Reset the power source and restart.	
Does the remote control LCD becomes normal? — NO	Outdoor unit control PCB anomaly (Network communication circuit anomaly) → Replace it.
YES	Unit is normal. (Malfunction by temporary noise, etc.)

Note: When the pump down switch is turned on, communication between indoor and outdoor units is cancelled so that "Communication error E5" will be displayed on the remote control and indoor unit control PCB, but this is normal.

Error code	LED	Green	Red	Content
Remote control: E6	Indoor	Keeps flashing	1-time flash	Indoor heat exchanger temperature sensor anomaly (Thi-R)
	Outdoor	Keeps flashing	Stays OFF	

1. Applicable model

All models

2. Error detection method

Detection of anomalously low temperature (resistance) of Thi-R1, R2, R3

3. Condition of error displayed

- If -40ºC or lower is detected for 5 seconds continuously, compressor stops. After 3 minutes delay, the compressor is restarted automatically, but if this anomaly occurs again within 60 minutes after the initial detection.
- Or if short-circuit is detected for 5 seconds continuously.

4. Presumable cause

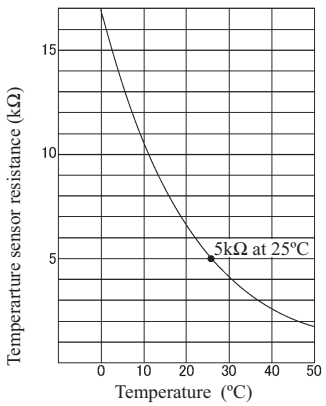
- Anomalous connection of indoor heat exchanger temperature sensor
- Indoor heat exchanger temperature sensor anomaly
- Indoor unit PCB anomaly

5. Troubleshooting

Diagnosis	Countermeasure
Is the connector of temperature sensor connected properly ? — NO	Insert the connector securely.
YES → Regarding the characteristics of the temperature sensor, see the following chart. Are the characteristics of temperature sensor OK? *1 — NO	Replace temperature sensor. (Thi-R)
YES	Replace indoor unit PCB.

*1 Check several times to prove any poor connection

Temperature-resistance characteristics of indoor heat exchanger temperature sensor (Thi-R1, R2, R3)



Note:

Error code	LED	Green	Red	Content
Remote control: E7	Indoor	Keeps flashing	1-time flash	Indoor return air temperature sensor anomaly (Thi-A)
	Outdoor	Keeps flashing	Stays OFF	

1. Applicable model

All models

2. Error detection method

Detection of anomalously low temperature (resistance) of Thi-A.

3. Condition of error displayed

- If -20°C or lower is detected for 5 seconds continuously, compressor stops. After 3 minutes delay the compressor is restarted automatically, but if this anomaly occurs again within 60 minutes after the initial detection.
- Or detected for 5 seconds continuously.

4. Presumable cause

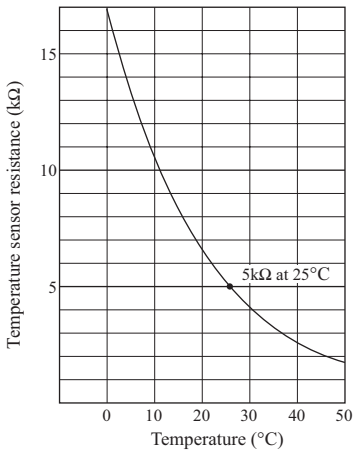
- Anomalous connection of indoor return air temperature sensor
- Indoor return air temperature sensor anomaly
- Indoor unit PCB anomaly

5. Troubleshooting

Diagnosis	Countermeasure
Is the connector of temperature sensor connected properly ? — NO	Insert the connector securely.
YES → Regarding the characteristics of the temperature sensor, see the following chart. Are the characteristics of temperature sensor OK? *1 — NO	Replace temperature sensor (Thi-A).
YES	Replace indoor unit PCB.

*1 Check several times to prove any poor connection

Temperature-resistance characteristics of indoor return air temperature sensor (Thi-A)



Note:

Error code	LED	Green	Red	Content
Remote control: E9	Indoor	Keeps flashing	1-time flash	Drain trouble
	Outdoor	Keeps flashing	Stays OFF	

1. Applicable model

Only unit with drain pump

2. Error detection method

Float switch is activated.

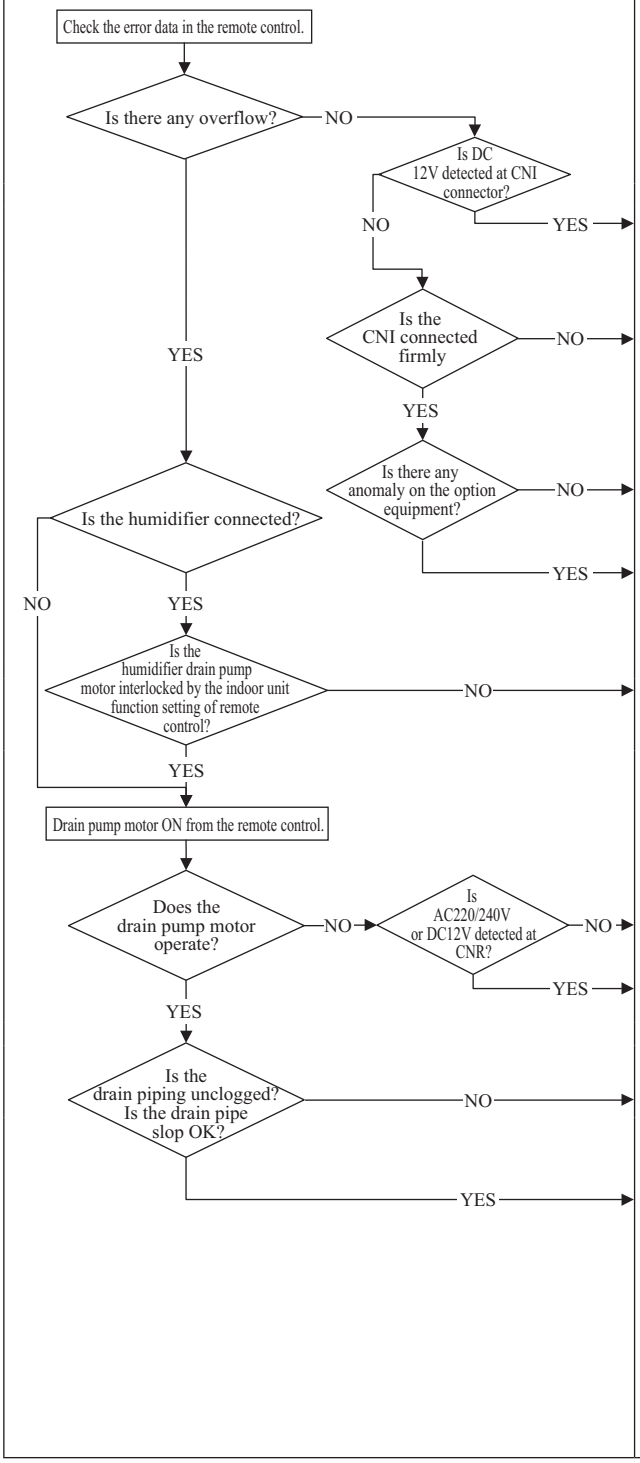
3. Condition of error displayed

If the float switch OPEN is detected for 3 seconds continuously or if float switch connector is disconnected or wire broken.

4. Presumable cause

- Indoor unit PCB anomaly
- Mistake in setting of float switch
- Mistake in setting of humidifier drain pump motor interlock
- Mistake in setting of option equipment
- Mistake in drain piping
- Drain pump motor anomaly
- Disconnection/breakage of drain pump motor wires

5. Troubleshooting



Note: When this anomaly occurs at power ON, disconnection of connector or breakage of wire of float switch is suspected. Check and correct it (or replace it, if necessary).

Error code	LED	Green	Red	Content
Remote control: E10	Indoor	Keeps flashing	Stays OFF	Excessive number of indoor units (more than 17 units) by controlling one remote control
	Outdoor	Keeps flashing	Stays OFF	

1. Applicable model

All models

2. Error detection method

When it detects more than 17 of indoor units connected to one remote control.

3. Condition of error displayed

Same as above

4. Presumable cause

- Excessive number of indoor units connected.
- Remote control anomaly

5. Troubleshooting

Diagnosis	Countermeasure
Are more than 17 indoor units connected to one remote control? — NO	Remote control anomaly → Replace it.
Are more than 17 indoor units connected to one remote control? — YES	Reduce to 16 or less units.

Note:

Error code	LED	Green	Red	Content
Remote control: E11	Indoor	Keeps flashing	Stays OFF	Address setting error between master and slave indoor units
	Outdoor	Keeps flashing	Stays OFF	

1. Applicable model

All models

2. Error detection method

IU address has been set using the "Master IU address set" function of remote control.

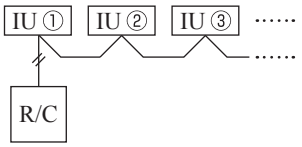
3. Condition of error displayed

Same as above

4. Presumable cause

Same as above

5. Troubleshooting

Diagnosis	Countermeasure
E11 occurs ↓ Is "Master IU address set" function of remote control used? YES →	• In cases of RC-EX3A Menu → Service setting → IU settings → Service password → IU Select • In cases of RC-E5 Return address No. to "IU ···" using [▲] or [▼] button.
In case the wiring is below and "Master IU address set" is used, E11 is appeared. 	

Note:

Error code	LED	Green	Red	Content
Remote control: E12	Indoor	Keeps flashing	Keeps flashing	Address setting error by mixed setting method
	Outdoor	Keeps flashing	Stays OFF	

1. Applicable model

All models

2. Error detection method

Automatic address setting and manual address setting are mixed when setting address of indoor units.

3. Condition of error displayed

Same as above

4. Presumable cause

Mistake in address setting for indoor unit.

5. Troubleshooting

Diagnosis	Countermeasure
Is the automatic setting and manual setting mixed in the address setting method for indoor units? → YES	Review address setting.
Is the automatic setting and manual setting mixed in the address setting method for indoor units? → NO	Replace indoor unit PCB.

Address setting method list (Figures in [ ] are for previous Superlink models)

		Models for new Superlink protocol			Models for previous Superlink protocol		
		Indoor unit address setting		Outdoor unit address setting	Indoor unit address setting		Outdoor unit address setting
		Indoor unit No. SW	Outdoor unit No. SW	Outdoor unit No. SW	Indoor unit No. SW	Outdoor unit No. SW	Outdoor unit No. SW
Manual address setting	(New SL)	000-127	00-31	00-31	00-47	00-47	00-47
	(Previous SL)	[00-47]	[00-47]	[00-47]			
Automatic address setting for single refrigerant system	(New SL)	000	49	49	49	49	49
	(Previous SL)						
Automatic address setting for multiple refrigerant systems	(New SL)	000	49	00-31	Not available		
	(Previous SL)	Not available					

Note:

Error code	LED	Green	Red	Content
Remote control: E16	Indoor	Keeps flashing	1-time flash	Indoor DC fan motor anomaly
	Outdoor	Keeps flashing	Stays OFF	

1. Applicable model

FDT, FDTC, FDK series only

2. Error detection method

Detected by rotation speed of indoor fan motor

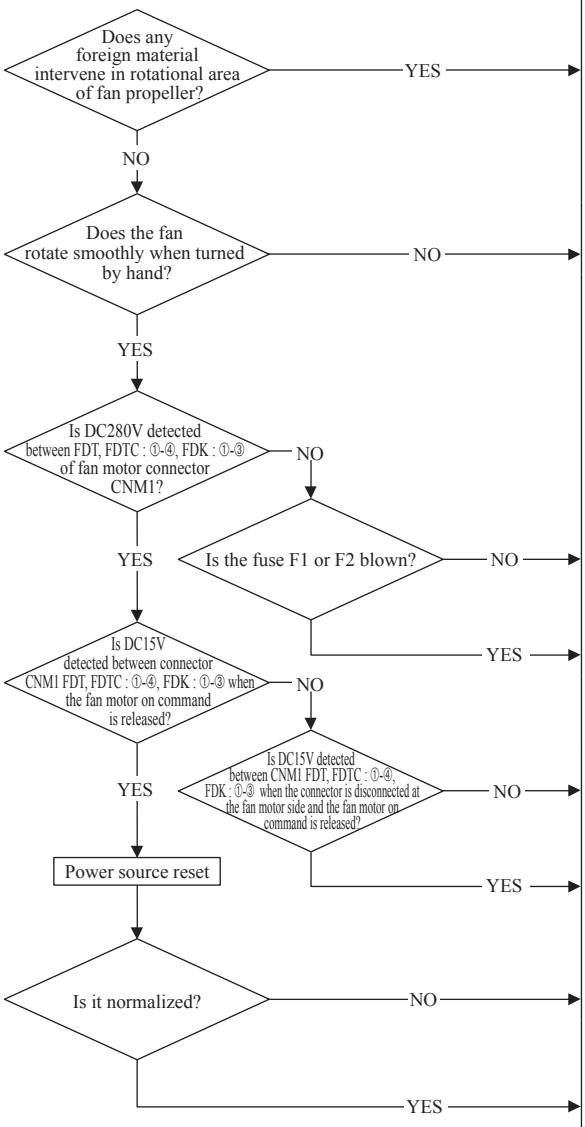
3. Condition of error displayed

- When actual rotation speed of indoor fan motor drops to lower than 200min^{-1} for 30 seconds continuously, the compressor and the indoor fan motor stop.
- After 2 seconds, it starts again automatically, but if this error occurs 4 times within 60 minutes after the initial detection.

4. Presumable cause

- Defective indoor unit PCB
- Foreign material at rotational area of fan propeller
- Defective fan motor
- Dust on PCB
- Blown fuse
- External noise, surge

5. Troubleshooting



Note:

Error code	LED	Green	Red	Content
Remote control: E16	Indoor	Keeps flashing	1-time flash	Indoor DC fan motor anomaly
	Outdoor	Keeps flashing	Stays OFF	

1. Applicable model

Except FDT, FDTC, FDK series

2. Error detection method

Detected by rotation speed of indoor fan motor

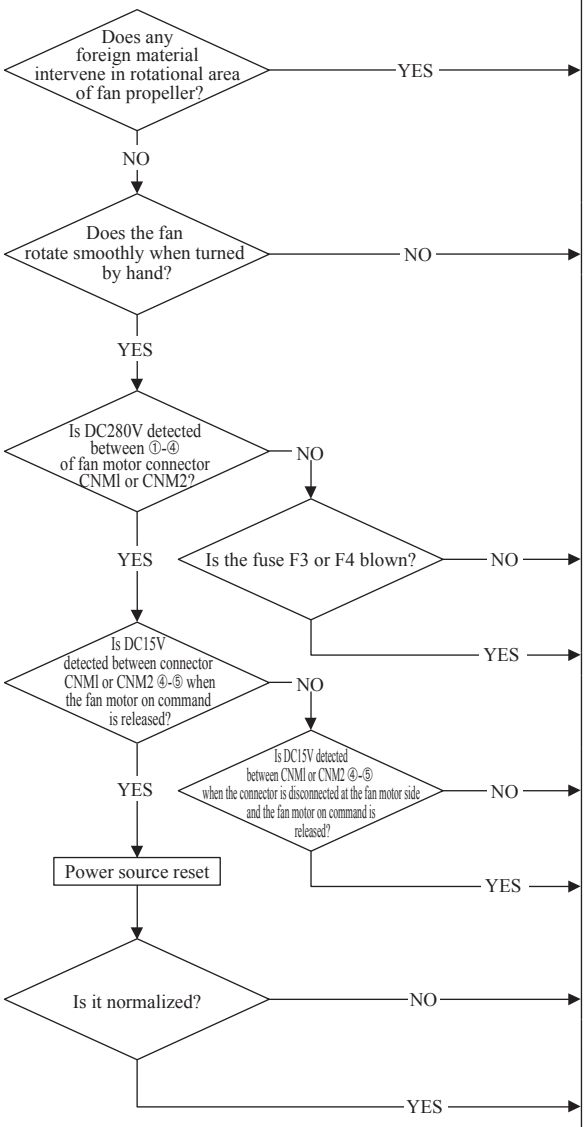
3. Condition of error displayed

- When actual rotation speed of indoor fan motor drops to lower than 200min^{-1} for 30 seconds continuously, the compressor and the indoor fan motor stop.
- After 2 seconds, it starts again automatically, but if this error occurs 4 times within 60 minutes after the initial detection.

4. Presumable cause

- Defective indoor unit power PCB
- Foreign material at rotational area of fan propeller
- Defective fan motor
- Dust on PCB
- Blown fuse
- External noise, surge

5. Troubleshooting



Note:

Error code	LED	Green	Red	Content
Remote control: E18	Indoor	Keeps flashing	1-ime flash	Address setting error of master and slave indoor units
	Outdoor	Keeps flashing	Stays OFF	

1. Applicable model

All models

2. Error detection method

(1) When the address setting for the master indoor unit is not existing in the same Superlink system
(2) When the address setting for the slave indoor unit is set for the master indoor unit redundantly

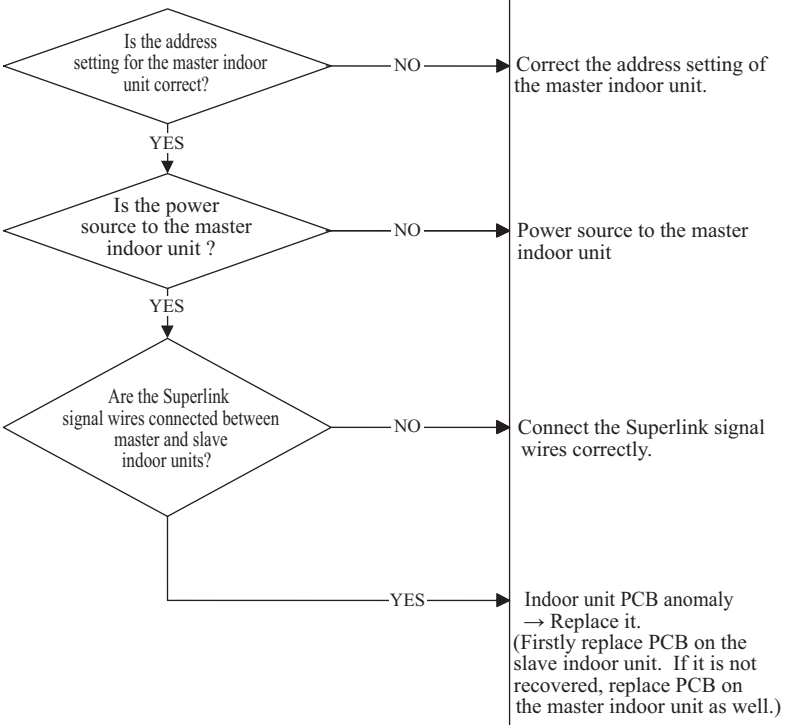
3. Condition of error displayed

Same as above

4. Presumable cause

- Address setting error of the master indoor unit
- No power source to the master indoor unit
- No connection of Superlink signal wires between master and slave indoor unit

5. Troubleshooting



Note:

Error code	LED	Green	Red	Content
Remote control: E19	Indoor	Keeps flashing	1-time flash	Indoor unit operation check, drain pump motor check mode anomaly
	Outdoor	Keeps flashing	Stays OFF	

1. Applicable model

All models

2. Error detection method

E19 occurs

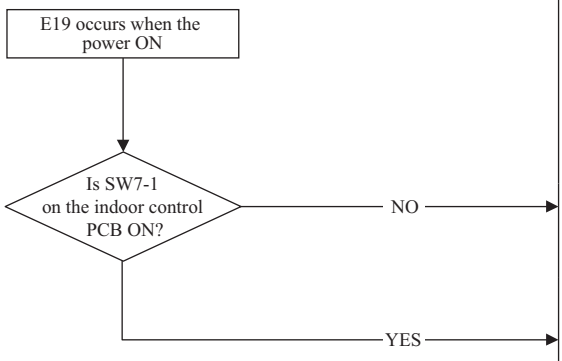
3. Condition of error displayed

Same as above

4. Presumable cause

Mistake in SW7-1 setting
Due to forgetting to turn OFF SW7-1 after indoor operation check)

5. Troubleshooting



Diagnosis	Countermeasure
Is SW7-1 on the indoor control PCB ON? NO	Indoor control PCB anomaly (Anomalous SW7) → Replace.
Is SW7-1 on the indoor control PCB ON? YES	Turn SW7-1 on the indoor control PCB OFF and reset the power.

Note: Indoor operation check/drain pump motor check mode
If the power is ON after SW7-1ON, indoor operation check/drain pump motor check mode can be established.
1) When the communication between remote control and indoor PCB is established 15 seconds after power ON, it goes to indoor operation check.
2) When the communication between remote control and indoor PCB is not established, it goes to drain pump motor check. (CnB connector should be open before power ON.)

Error code	LED	Green	Red	Content
Remote control: E20	Indoor	Keeps flashing	1-time flash	Indoor DC fan motor rotation speed anomaly
	Outdoor	Keeps flashing	Stays OFF	

1. Applicable model

FDT, FDTC, FDK series only

2. Error detection method

Detected by rotation speed of indoor fan motor

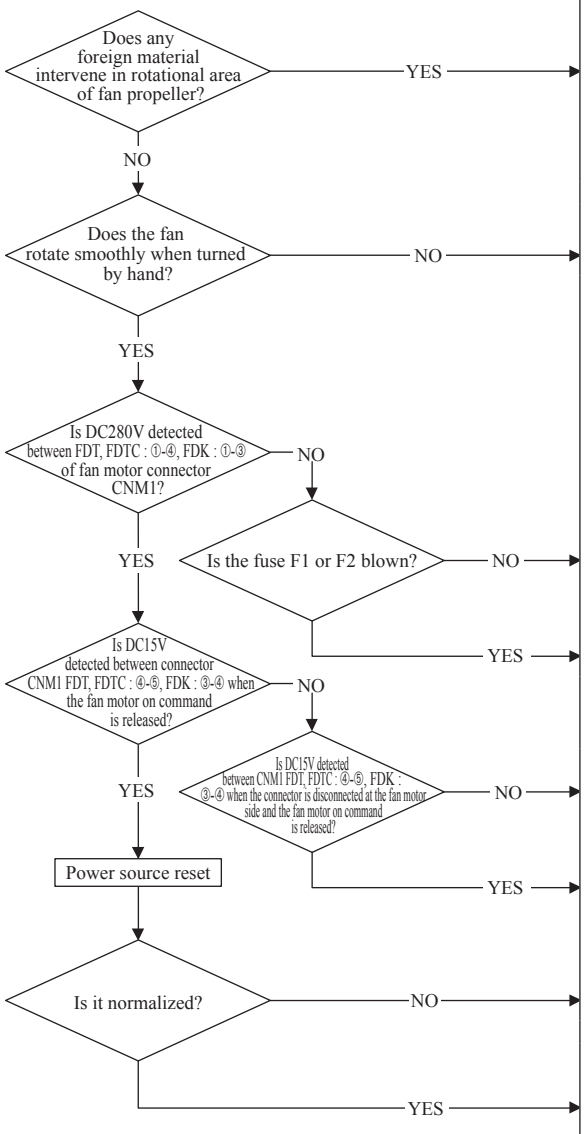
3. Condition of error displayed

When the actual fan rotation speed does not reach to the speed of [required speed -50 min^{-1}] after 2 minutes have been elapsed since the fan motor rotation speed command was output, the unit stops by detecting indoor fan motor anomaly.

4. Presumable cause

- Defective indoor unit PCB
- Foreign material at rotational area of fan propeller
- Defective fan motor
- Dust on PCB
- Blown fuse
- External noise, surge

5. Troubleshooting



Note:

Error code	LED	Green	Red	Content
Remote control: E20	Indoor	Keeps flashing	1(2)-time flash	Indoor DC fan motor rotation speed anomaly
	Outdoor	Keeps flashing	Stays OFF	

Note (1) Value in ( ) is for the FM2 only.

1. Applicable model

Except FDT, FDTC, FDK series

2. Error detection method

Detected by rotation speed of indoor fan motor

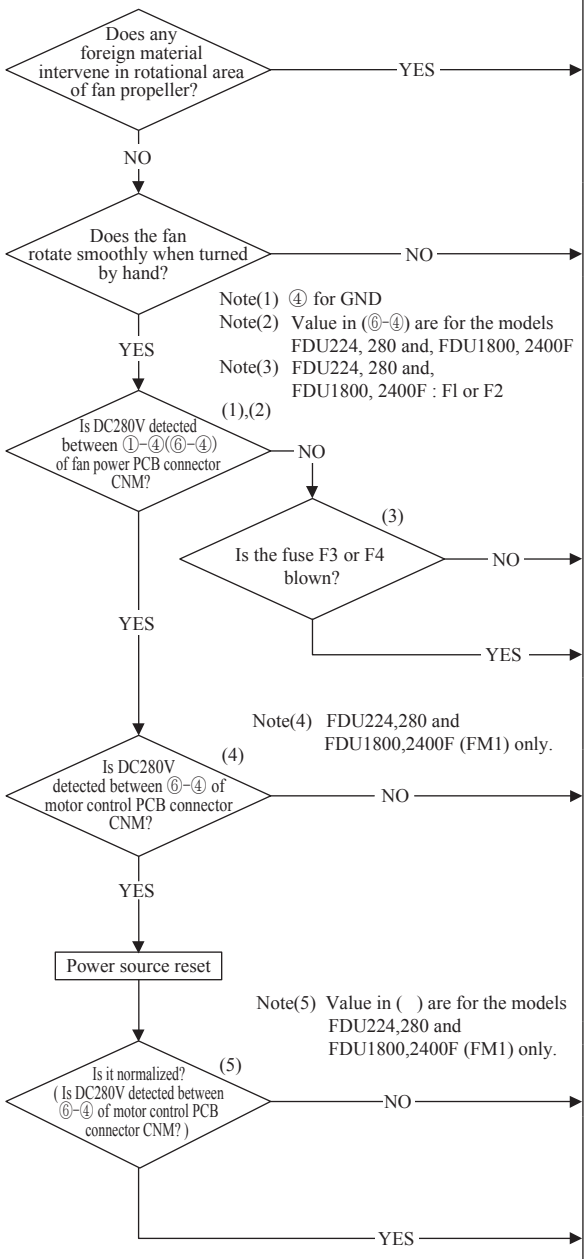
3. Condition of Error displayed

- When the actual fan rotation speed does not reach to the speed of [required speed -50 (FDU: -500) min^{-1}] after 2 minutes have been elapsed since the fan motor rotation speed command was output, the unit stops by detecting indoor fan motor anomaly.

4. Presumable cause

- •Defective indoor power (motor) PCB
- •Defective indoor control PCB
- •Foreign material at rotational area of fan propeller
- •Defective fan motor
- •Dust on control PCB
- •Blown fuse
- •External noise, surge

5. Troubleshooting



Note:

Error code	LED	Green	Red	Content
Remote control: E21	Indoor	Keeps flashing	1-time flash	Defective panel switch operation (FDT)
	Outdoor	Keeps flashing	Stays OFF	

1. Applicable model

FDT series only

2. Error detection method

Panel switch (PS) has detected open for more than 1 second.

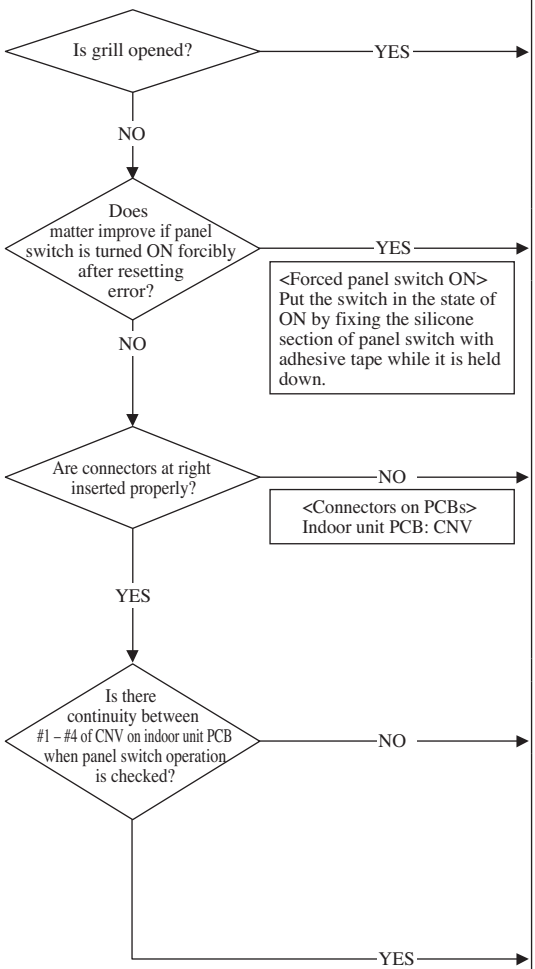
3. Condition of Error displayed

Same as above

4. Presumable cause

- Defective panel switch
- Disconnection of wiring
- Defective indoor unit PCB

5. Troubleshooting



Note:

Error code	LED	Green	Red	Content
Remote control: E28	Indoor	Keeps flashing	Stays OFF	Remote control temperature sensor anomaly (Thc)
	Outdoor	Keeps flashing	Stays OFF	

1. Applicable model

All models

2. Error detection method

Detection of anomalously low temperature (resistance) of Thc.

3. Condition of error displayed

- If -50ºC or lower is detected for 5 seconds continuously, compressor stops. After 3-minute delay, the compressor is restarted automatically, but if this anomaly occurs again within 60 minutes after the initial detection.

4. Presumable cause

- Anomalous connection of remote control temperature sensor
- Remote control temperature sensor anomaly
- Remote control PCB anomaly

5. Troubleshooting

Diagnosis	Countermeasure
Is the connector of temperature sensor connected properly ? → NO	Insert the connector securely.
YES → Regarding the characteristics of the temperature sensor, see the following table. Are the characteristics of temperature sensor OK? Is the temperature sensor wire OK ? *1 → NO	Replace temperature sensor (Thc).
YES	Replace indoor unit PCB.

*1 Check several times to prove any poor connection.

Temperature-resistance characteristics of remote control temperature sensor (Thc).

Temperature (°C)	Resistance (kΩ)	Temperature (°C)	Resistance (kΩ)	Temperature (°C)	Resistance (kΩ)	Temperature (°C)	Resistance (kΩ)
0	65	14	33	30	16	46	8.5
1	62	16	30	32	15	48	7.8
2	59	18	27	34	14	50	7.3
4	53	20	25	36	13	52	6.7
6	48	22	23	38	12	54	6.3
8	44	24	21	40	11	56	5.8
10	40	26	19	42	9.9	58	5.4
12	36	28	18	44	9.2	60	5.0

Note: After 10 seconds has elapsed since remote control temperature sensor was switched from invalid to valid, E28 will not be displayed even if the temperature sensor harness is disconnected or broken. However, in such case, the indoor return air temperature sensor (Thi-A) will be valid instantly instead of the remote control temperature sensor (Thc).
Please note that even though the remote control temperature sensor (Thc) is valid, the displayed return air temperature on the remote control LCD shows the value detected by the indoor return air temperature sensor (Thi-A), not by the remote control temperature sensor (Thc).

Error code	LED	Green	Red	Content
Remote control: E63 7-segment display: E63	Indoor	Keeps flashing	Stays OFF	Emergency stop
	Outdoor	Keeps flashing	1-time flash	

1. Applicable model

All models

2. Error detection method

When ON signal is inputted to the CnT terminal of indoor unit control PCB

3. Condition of error displayed

Same as above

4. Presumable cause

Factors for emergency stop

5. Troubleshooting

Diagnosis	Countermeasure
Save data for 30 minutes before stopping in Mente PC.	Check and save the data of operating conditions. Check the conditions whether it occurs immediately after the power on or during operation.
Is the remote control setting of Emergency Stop "Valid"? — NO	Replace remote control PCB.
YES → Is ON signal inputted to the CnT terminal of indoor unit control PCB? — NO	Replace indoor unit PCB.
YES	Check the cause of emergency stop. (It is better to have the data for 30 minutes before stopping, when instructing the installer.)

Note: Indoor unit detected emergency stop signal gives command "all stop"

11.3 Instruction of how to replace PCB

PSC012D050B C

(1) FDT, FDTC series

SAFETY PRECAUTIONS

- Read the "SAFETY PRECAUTIONS" carefully first of all and then strictly follow it during the replacement in order to protect yourself.
- The precautionary items mentioned below are distinguished into two levels, WARNING and CAUTION.
  Both mentions the important items to protect your health and safety so strictly follow them by any means.

⚠ WARNING	Wrong installation would cause serious consequences such as injuries or death.
⚠ CAUTION	Wrong installation might cause serious consequences depending on circumstances.

- After completing the replacement, do commissioning to confirm there are no abnormalities.

⚠ WARNING

- Replacement should be performed by the specialist.
  If you replace the PCB by yourself, it may lead to serious trouble such as electric shock or fire.
- Replace the PCB correctly according to these instructions.
  Improper replacement may cause electric shock or fire.
- Shut off the power before electrical wiring work.Start the work after elapsing 1 minute or more from power off.
  Replacement during the applying the current would cause the electric shock, unit failure or improper running.
  It would cause the damage of connected equipment such as fan motor,etc.
- Fasten the wiring to the terminal securely, and hold the cable securely so as not to apply unexpected stress on the terminal.
  Loose connections or hold could result in abnormal heat generation or fire.
- Check the connection of wiring to PCB correctly before turning on the power, after replacement.
  Defectiveness of replacement may cause electric shock or fire.

⚠ CAUTION

- In connecting connector onto the PCB, connect not to deform the PCB. It may cause breakage or malfunction.
- Insert connector securely, and hook stopper. It may cause fire or improper running.
- Bundle the cables together so as not to be pinched or be tensioned. It may cause malfunction or electric shock for disconnection or deformation.

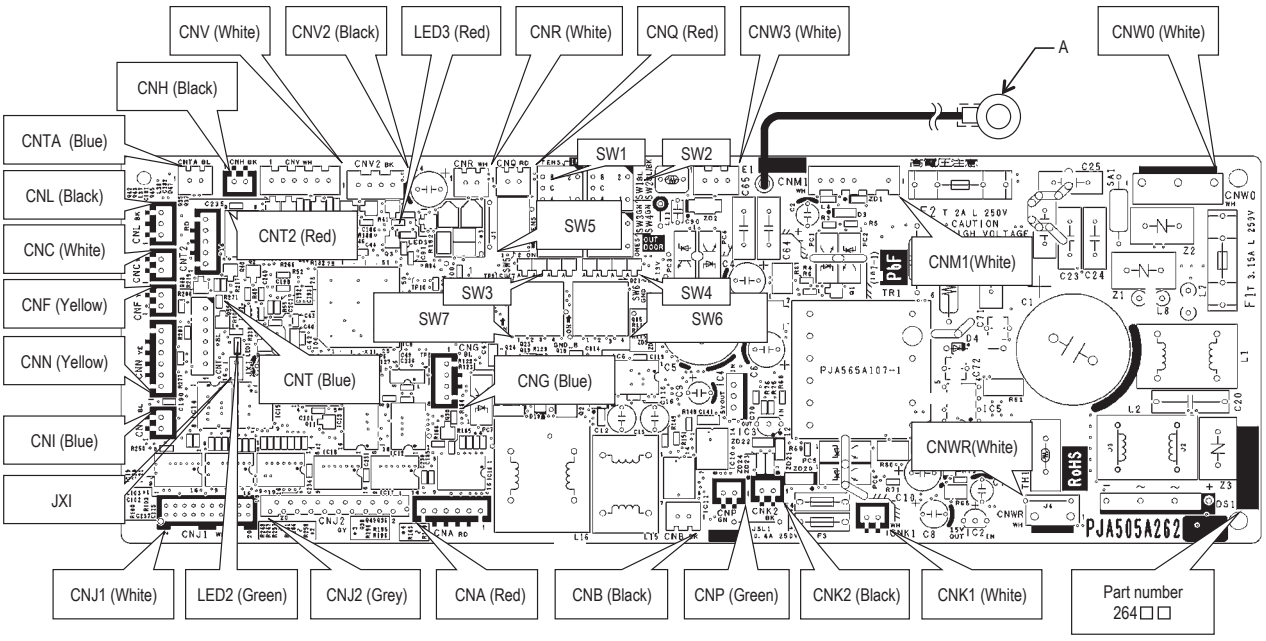
This pwb is a general PCB. Replace the PCB according to this instruction.

(1) Replace the PCB

① Unscrew terminal(Arrow A) of the "E1" wiring(yellow/green) that is connected to PCB.
② Replace the PCB only after all the wirings connected to the connector are removed.
③ Fix the board such that it will not pinch any of the wires.
④ Switch setting must be same setting as that of the removed PCB.
⑤ Reconnect the wirings to the PCB. Wiring connector color should match with the color of connector of the PCB.
⑥ Screw back the terminal(Arrow A) of the "E1" wiring, that was removed in ①.

(2) Control PCB

Parts mounting are different by the kind of PCB.



(2) FDK series

(a) FDK15-56KXZE1

PHA012D050AA

SAFETY PRECAUTIONS

- Read the "SAFETY PRECAUTIONS" carefully first of all and then strictly follow it during the replacement in order to protect yourself.
- The precautionary items mentioned below are distinguished into two levels, WARNING and CAUTION.
  Both mentions the important items to protect your health and safety so strictly follow them by any means.

⚠ WARNING	Wrong installation would cause serious consequences such as injuries or death.
⚠ CAUTION	Wrong installation might cause serious consequences depending on circumstances.

- After completing the replacement, do commissioning to confirm there are no abnormalities.

⚠ WARNING

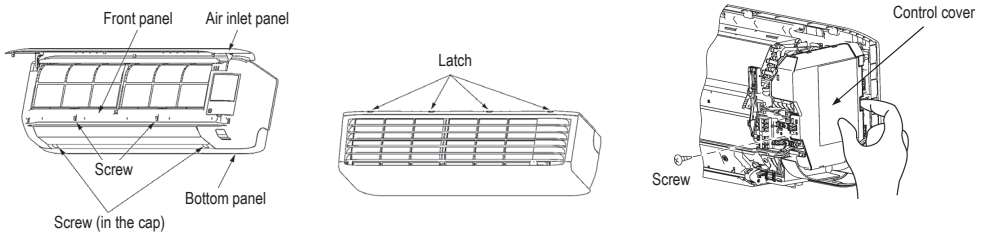
- Replacement should be performed by the specialist.
  If you replace the PCB by yourself, it may lead to serious trouble such as electric shock or fire.
- Replace the PCB correctly according to these instructions.
  Improper replacement may cause electric shock or fire.
- Shut off the power before electrical wiring work.Start the work after elapsing 1 minutes or more from power off.
  Replacement during the applying the current would cause the electric shock, unit failure or improper running.
  It would cause the damage of connected equipment such as fan motor,etc.
- Fasten the wiring to the terminal securely, and hold the cable securely so as not to apply unexpected stress on the terminal.
  Loose connections or hold could result in abnormal heat generation or fire.
- Check the connection of wiring to PCB correctly before turning on the power, after replacement.
  Defectiveness of replacement may cause electric shock or fire.

⚠ CAUTION

- In connecting connector onto the PCB, connect not to deform the PCB. It may cause breakage or malfunction.
- Insert connector securely, and hook stopper. It may cause fire or improper running.
- Bundle the cables together so as not to be pinched or be tensioned. It may cause malfunction or electric shock for disconnection or deformation.

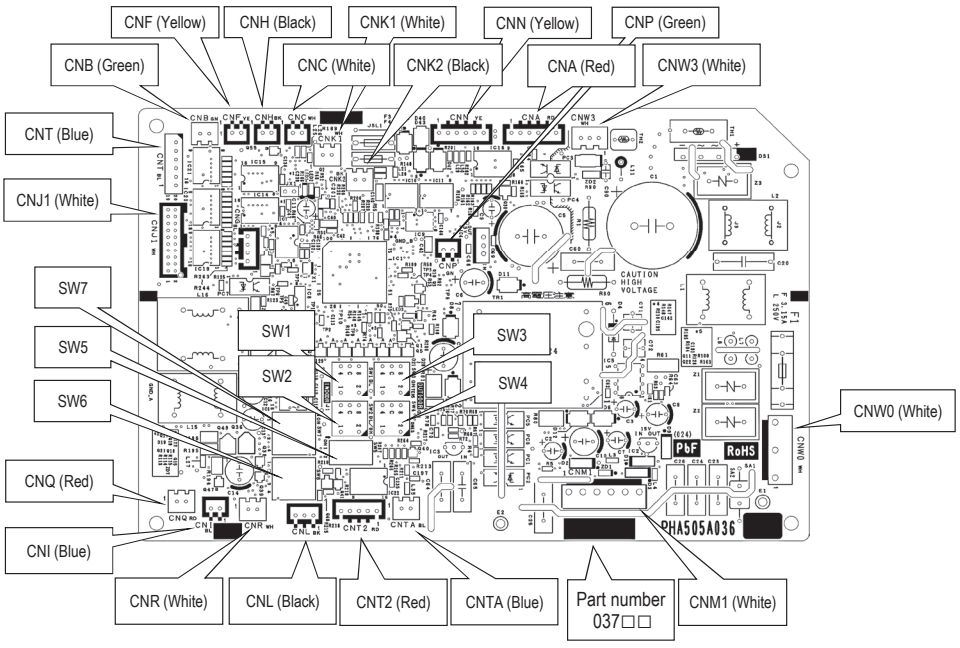
Exchange the PCB according to the following procedure.

① Remove the air inlet panel.
② Remove the 2 screws in the cap of bottom panel.
③ Remove the 2 hooks of left and right side and then bottom panel can be removed.
④ Remove the screws. (2 screws)
⑤ Remove the upper latches and then front panel can be removed.(4 latches)
⑥ Remove the screw and control cover.



⑦ Replace the PCB only after all the wirings connected to the connector are removed.
⑧ Fix the board such that it will not pinch any of the wires.
⑨ Switch setting must be same setting as that of the removed PCB.
⑩ Reconnect the wirings to the PCB. Wiring connector color should match with the color of connector of the PCB.

※Parts mounting are different by the kind of PCB.



(b) FDK71KXZE1 **PHA012D051AA**

SAFETY PRECAUTIONS

- Read the "SAFETY PRECAUTIONS" carefully first of all and then strictly follow it during the replacement in order to protect yourself.
- The precautionary items mentioned below are distinguished into two levels, WARNING and CAUTION.
  Both mentions the important items to protect your health and safety so strictly follow them by any means.

⚠ WARNING	Wrong installation would cause serious consequences such as injuries or death.
⚠ CAUTION	Wrong installation might cause serious consequences depending on circumstances.

- After completing the replacement, do commissioning to confirm there are no abnormalities.

⚠ WARNING

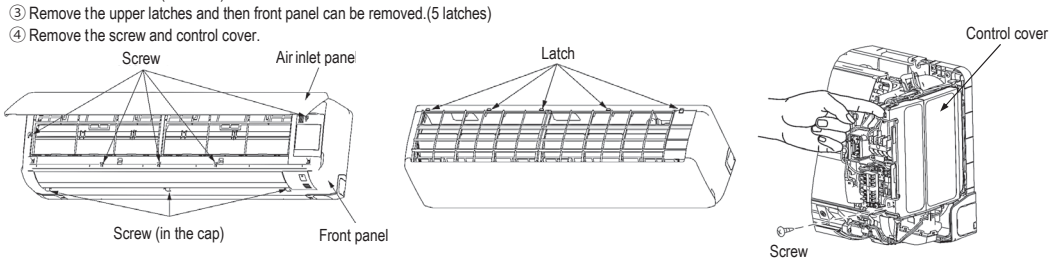
- Replacement should be performed by the specialist.
  If you replace the PCB by yourself, it may lead to serious trouble such as electric shock or fire.
- Replace the PCB correctly according to these instructions.
  Improper replacement may cause electric shock or fire.
- Shut off the power before electrical wiring work.Start the work after elapsing 1 minutes or more from power off.
  Replacement during the applying the current would cause the electric shock, unit failure or improper running.
  It would cause the damage of connected equipment such as fan motor,etc.
- Fasten the wiring to the terminal securely, and hold the cable securely so as not to apply unexpected stress on the terminal.
  Loose connections or hold could result in abnormal heat generation or fire.
- Check the connection of wiring to PCB correctly before turning on the power, after replacement.
  Defectiveness of replacement may cause electric shock or fire.

⚠ CAUTION

- In connecting connector onto the PCB, connect not to deform the PCB. It may cause breakage or malfunction.
- Insert connector securely, and hook stopper. It may cause fire or improper running.
- Bundle the cables together so as not to be pinched or be tensioned. It may cause malfunction or electric shock for disconnection or deformation.

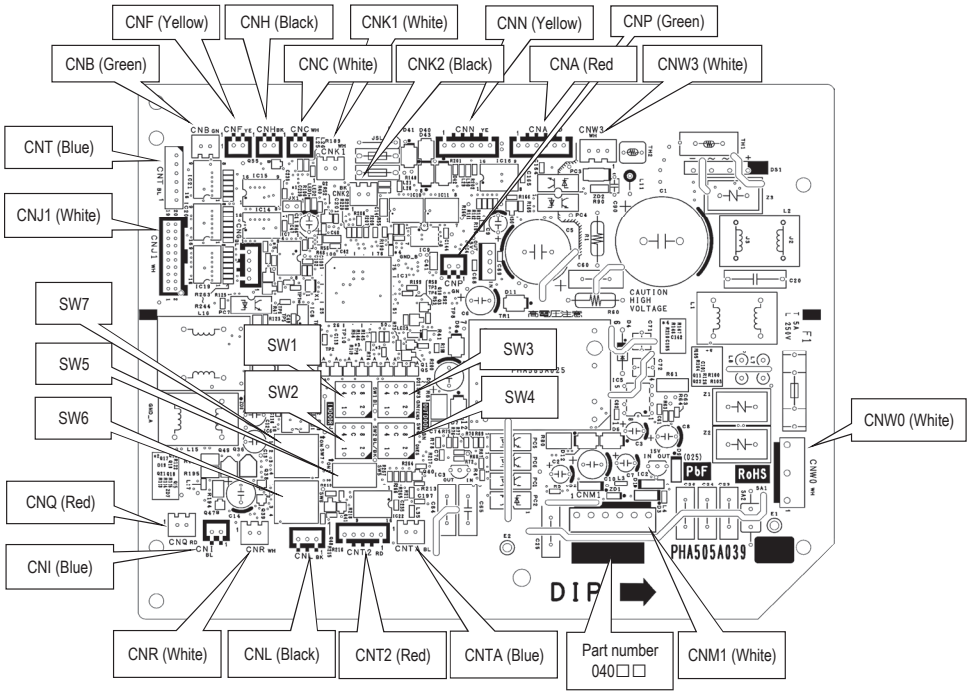
Exchange the PCB according to the following procedure.

① Remove the air inlet panel.
② Remove the screws. (8 screws)
③ Remove the upper latches and then front panel can be removed.(5 latches)
④ Remove the screw and control cover.



⑤ Replace the PCB only after all the wirings connected to the connector are removed.
⑥ Fix the board such that it will not pinch any of the wires.
⑦ Switch setting must be same setting as that of the removed PCB.
⑧ Reconnect the wirings to the PCB. Wiring connector color should match with the color of connector of the PCB.

※Parts mounting are different by the kind of PCB.



(3) Models except for FDT, FDTC, FDK series

(a) Control PCB

(i) FDTW, FDTS, FDU, FDUM, FDUT71, FDE, FDU-F series

PSB012D991B H

SAFETY PRECAUTIONS

- Read the "SAFETY PRECAUTIONS" carefully first of all and then strictly follow it during the replacement in order to protect yourself.
- The precautionary items mentioned below are distinguished into two levels, WARNING and CAUTION.
  Both mentions the important items to protect your health and safety so strictly follow them by any means.
  - **⚠WARNING** Wrong installation would cause serious consequences such as injuries or death.
  - **⚠CAUTION** Wrong installation might cause serious consequences depending on circumstances.
- After completing the replacement, do commissioning to confirm there are no abnormalities.

⚠ WARNING

- Replacement should be performed by the specialist.
  If you replace the PCB by yourself, it may lead to serious trouble such as electric shock or fire.
- Replace the PCB correctly according to these instructions.
  Improper replacement may cause electric shock or fire.
- Shut off the power before electrical wiring work. Start the work after elapsing 1 minutes or more from power off.
  Replacement during the applying the current would cause the electric shock, unit failure or improper running.
  It would cause the damage of connected equipment such as fan motor,etc.
- Fasten the wiring to the terminal securely, and hold the cable securely so as not to apply unexpected stress on the terminal.
  Loose connections or hold could result in abnormal heat generation or fire.
- Check the connection of wiring to PCB correctly before turning on the power, after replacement.
  Defectiveness of replacement may cause electric shock or fire.

⚠ CAUTION

- In connecting connector onto the PCB, connect not to deform the PCB. It may cause breakage or malfunction.
- Insert connector securely, and hook stopper. It may cause fire or improper running.
- Bundle the cables together so as not to be pinched or be tensioned. It may cause malfunction or electric shock for disconnection or deformation.

Replace and set up the PCB according to this instruction.

1) Set to an appropriate address and function using switch on PCB.
   Select the same setting with the removed PCB.

Item	Switch	Content of control	
Address	SW1,2 (Blue)	Indoor unit address : 00-99	
	SW5-2	OFF	Indoor unit address : under 100
		ON	Indoor unit address : 100 or more
	SW3,4 (Green)	Outdoor unit address	

Item	Switch	Content of control	
Superlink setting	SW5-1	OFF	Automatic adjustment
		ON	Fixed previous version of Superlimk protocol
Test run	SW7-1	OFF	Normal
		ON	Operation check/drain motor test run

2) Set to an appropriate capacity using the model selector switches (SW6, 8 and J1).
   Select the same setting with the removed PCB.

Setting model	SW6				SW8	J1
	-1	-2	-3	-4	-1	
15	OFF	OFF	OFF	OFF	ON	OPEN
22	OFF	OFF	OFF	OFF	OFF	OPEN
28	ON	OFF	OFF	OFF	OFF	OPEN
36	OFF	ON	OFF	OFF	OFF	OPEN
45	OFF	OFF	ON	OFF	OFF	OPEN

Setting model	SW6				SW8	J1
	-1	-2	-3	-4	-1	
56	OFF	ON	ON	OFF	OFF	OPEN
71	OFF	OFF	OFF	ON	OFF	OPEN
90	OFF	ON	OFF	ON	OFF	OPEN

Setting model	SW6				SW8	J1
	-1	-2	-3	-4	-1	
112	ON	ON	OFF	ON	OFF	OPEN
140	OFF	OFF	ON	ON	OFF	OPEN
160	ON	OFF	ON	ON	OFF	OPEN
224	OFF	ON	ON	ON	OFF	OPEN
280	ON	ON	ON	ON	OFF	OPEN



Example setting for 56

(b) Power PCB

(i) FDTS, FDUM22-56, FDUT71, FDE series

PSB012D992 C

SAFETY PRECAUTIONS

- Read the "SAFETY PRECAUTIONS" carefully first of all and then strictly follow it during the replacement in order to protect yourself.
- The precautionary items mentioned below are distinguished into two levels, WARNING and CAUTION.
  Both mentions the important items to protect your health and safety so strictly follow them by any means.
  - ⚠WARNING Wrong installation would cause serious consequences such as injuries or death.
  - ⚠CAUTION Wrong installation might cause serious consequences depending on circumstances.
- After completing the replacement, do commissioning to confirm there are no abnormalities.

⚠ WARNING

- Replacement should be performed by the specialist.
  If you replace the PCB by yourself, it may lead to serious trouble such as electric shock or fire.
- Replace the PCB correctly according to these instructions.
  Improper replacement may cause electric shock or fire.
- Shut off the power before electrical wiring work. Start the work after elapsing 1 minutes or more from power off.
  Replacement during the applying the current would cause the electric shock, unit failure or improper running.
  It would cause the damage of connected equipment such as fan motor,etc.
- Fasten the wiring to the terminal securely, and hold the cable securely so as not to apply unexpected stress on the terminal.
  Loose connections or hold could result in abnormal heat generation or fire.
- Check the connection of wiring to PCB correctly before turning on the power, after replacement.
  Defectiveness of replacement may cause electric shock or fire.

⚠ CAUTION

- In connecting connector onto the PCB, connect not to deform the PCB. It may cause breakage or malfunction.
- Insert connector securely, and hook stopper. It may cause fire or improper running.
- Bundle the cables together so as not to be pinched or be tensioned. It may cause malfunction or electric shock for disconnection or deformation.

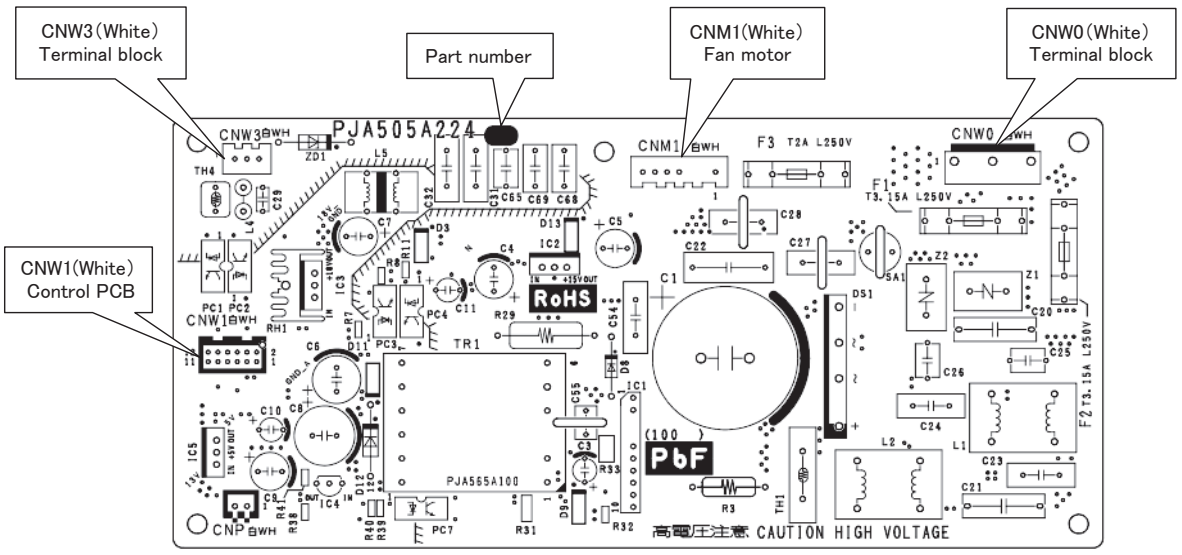
This PCB is a general PCB. Replace the PCB according to this instruction.

1) Replace the PCB

a) Unscrew terminal of the wiring(yellow/green) connected to terminal block (CNWO) from the box.
b) Replace the PCB only after all the wirings connected to the connector are removed.
c) Fix the board such that it will not pinch any of the wires.
d) Reconnect the wirings to the PCB. Wiring connector color should match with the color of connector of the PCB.
e) Screw back the terminal of wiring, that was removed in a).

2) Power PCB

Parts mounting are different by the kind of PCB.



(ii) FDTW, FDUM71-160 series

PSB012D993

SAFETY PRECAUTIONS

- Read the "SAFETY PRECAUTIONS" carefully first of all and then strictly follow it during the replacement in order to protect yourself.
- The precautionary items mentioned below are distinguished into two levels, WARNING and CAUTION.
  Both mentions the important items to protect your health andsafety so strictly follow them by any means.

⚠WARNING	Wrong installation would cause serious consequences such as injuries or death.
⚠CAUTION	Wrong installation might cause serious consequences depending on circumstances.

- After completing the replacement, do commissioning to confirm there are no abnormalities.

⚠ WARNING

- Replacement should be performed by the specialist.
  If you replace the PCB by yourself, it may lead to serious trouble such as electric shock or fire.
- Replace the PCB correctly according to these instructions.
  Improper replacement may cause electric shock or fire.
- Shut off the power before electrical wiring work.
  Replacement during the applying the current would cause the electric shock, unit failure or improper running.
  It would cause the damage of connected equipment such as fan motor,etc.
- Fasten the wiring to the terminal securely, and hold the cable securely so as not to apply unexpected stress on the terminal.
  Loose connections or hold could result in abnormal heat generation or fire.
- Check the connection of wiring to PCB correctly before turning on the power, after replacement.
  Defectiveness of replacement may cause electric shock or fire.

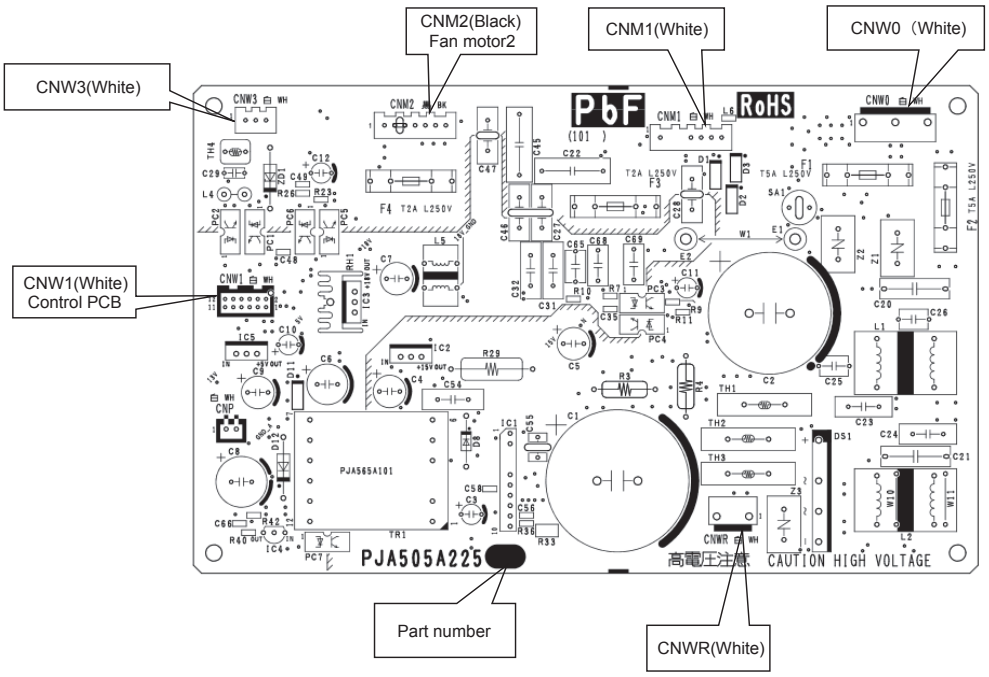
⚠ CAUTION

- In connecting connector onto the PCB, connect not to deform the PCB. It may cause breakage or malfunction.
- Insert connector securely, and hook stopper. It may cause fire or improper running.
- Bundle the cables together so as not to be pinched or be tensioned. It may cause malfunction or electric shock for disconnection or deformation.

This PCB is a general PCB. Replace the PCB according to this instruction.

1) Replace the PCB
   a) Unscrew terminal of the wiring (yellow/green) connected to terminal block（CNW0）from the box.
   b) Replace the PCB only after all the wirings connected to the connector are removed.
   c) Fix the board such that it will not pinch any of the wires.
   d) Reconnect the wirings to the PCB. Wiring connector color should match with the color of connector of the PCB.
   e) Screw back the terminal of wiring, that was removed in a).

2) Power PCB
   Parts mounting are different by the kind of PCB.



(iii) FDU45-160, FDU650, 1100F series

PSC012D021 B

SAFETY PRECAUTIONS

- Read the "SAFETY PRECAUTIONS" carefully first of all and then strictly follow it during the replacement in order to protect yourself.
- The precautionary items mentioned below are distinguished into two levels, WARNING and CAUTION.
  Both mentions the important items to protect your health andsafety so strictly follow them by any means.

⚠WARNING	Wrong installation would cause serious consequences such as injuries or death.
⚠CAUTION	Wrong installation might cause serious consequences depending on circumstances.

- After completing the replacement, do commissioning to confirm there are no abnormalities.

⚠ WARNING

- Replacement should be performed by the specialist.
  If you replace the PCB by yourself, it may lead to serious trouble such as electric shock or fire.
- Replace the PCB correctly according to these instructions.
  Improper replacement may cause electric shock or fire.
- Shut off the power before electrical wiring work.
  Replacement during the applying the current would cause the electric shock, unit failure or improper running.
  It would cause the damage of connected equipment such as fan motor,etc.
- Fasten the wiring to the terminal securely, and hold the cable securely so as not to apply unexpected stress on the terminal.
  Loose connections or hold could result in abnormal heat generation or fire.
- Check the connection of wiring to PCB correctly before turning on the power, after replacement.
  Defectiveness of replacement may cause electric shock or fire.

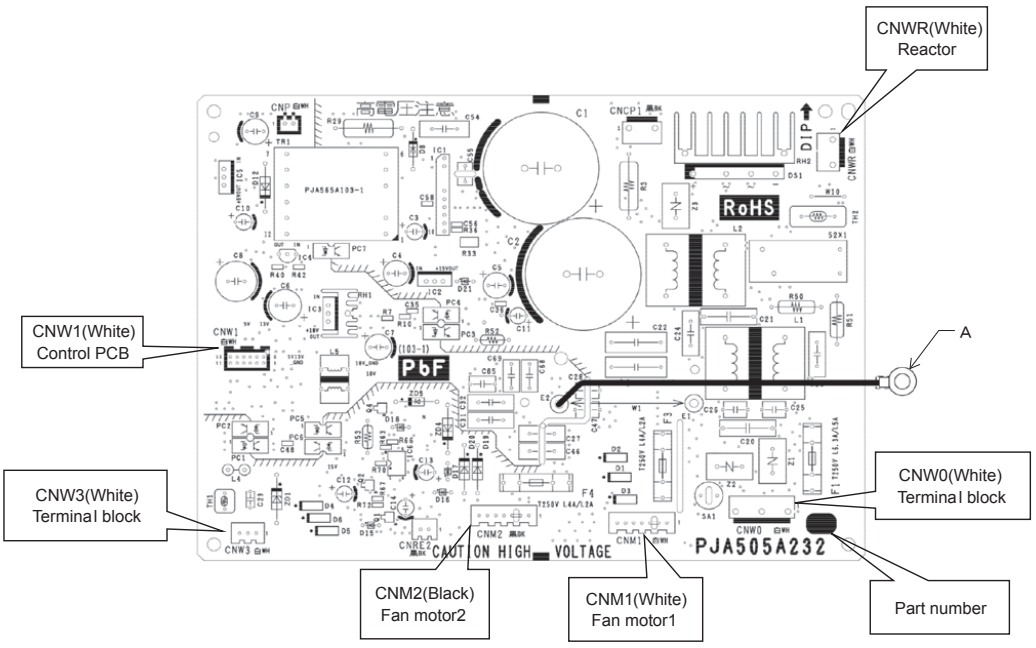
⚠ CAUTION

- In connecting connector onto the PCB, connect not to deform the PCB. It may cause breakage or malfunction.
- Insert connector securely, and hook stopper. It may cause fire or improper running.
- Bundle the cables together so as not to be pinched or be tensioned. It may cause malfunction or electric shock for disconnection or deformation.

This PCB is a general PCB. Replace the PCB according to this instruction.

1) Replace the PCB
   a) Unscrew terminal (Arrow A) of the "E2" wiring (yellow/green) that is connected to PCB.
   b) Replace the PCB only after all the wirings connected to the connector are removed.
   c) Fix the board such that it will not pinch any of the wires.
   d) Reconnect the wirings to the PCB. Wiring connector color should match with the color of connector of the PCB.
   e) Screw back the terminal (Arrow A) of the "E2" wiring, that was removed in a).

2) Power PCB
   Parts mounting are different by the kind of PCB.



(iv) FDU224, 280, FDU1800, 2400F series

PSC012D035

SAFETY PRECAUTIONS

- Read the "SAFETY PRECAUTIONS" carefully first of all and then strictly follow it during the replacement in order to protect yourself.
- The precautionary items mentioned below are distinguished into two levels, WARNING and CAUTION.
  Both mentions the important items to protect your health and safety so strictly follow them by any means.
  - ⚠WARNING Wrong installation would cause serious consequences such as injuries or death.
  - ⚠CAUTION Wrong installation might cause serious consequences depending on circumstances.
- After completing the replacement, do commissioning to confirm there are no abnormalities.

⚠ WARNING

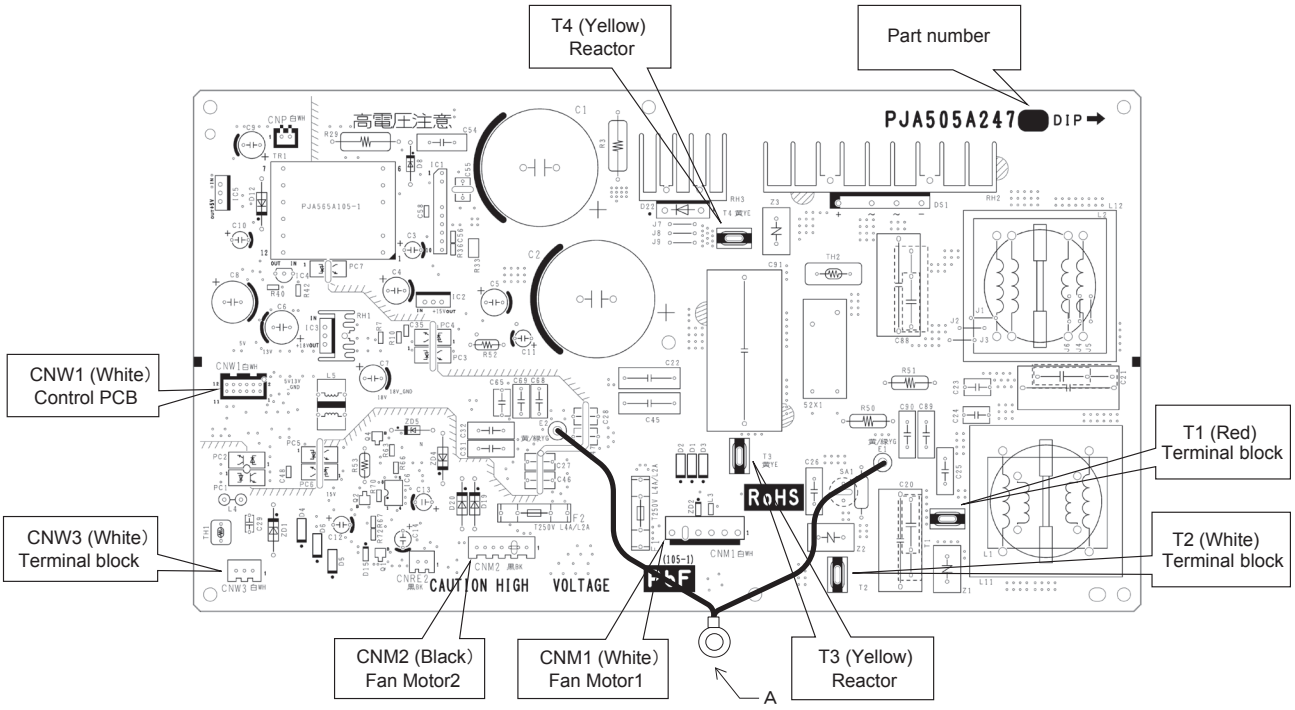
- Replacement should be performed by the specialist.
  If you replace the PCB by yourself, it may lead to serious trouble such as electric shock or fire.
- Replace the PCB correctly according to these instructions.
  Improper replacement may cause electric shock or fire.
- Shut off the power before electrical wiring work. Start the work after elapsing 1 minutes or more from power off.
  Replacement during the applying the current would cause the electric shock, unit failure or improper running.
  It would cause the damage of connected equipment such as fan motor,etc.
- Fasten the wiring to the terminal securely, and hold the cable securely so as not to apply unexpected stress on the terminal.
  Loose connections or hold could result in abnormal heat generation or fire.
- Check the connection of wiring to PCB correctly before turning on the power, after replacement.
  Defectiveness of replacement may cause electric shock or fire.

⚠ CAUTION

- In connecting connector onto the PCB, connect not to deform the PCB. It may cause breakage or malfunction.
- Insert connector securely, and hook stopper. It may cause fire or improper running.
- Bundle the cables together so as not to be pinched or be tensioned. It may cause malfunction or electric shock for disconnection or deformation.

1) Replace the PCB
   a) Unscrew terminal(Arrow A) of the "E1, E2" wiring(yellow/green) that is connected to PCB.
   b) Replace the PCB only after all the wirings connected to the connector are removed.
   c) Fix the board such that it will not pinch any of the wires.
   d) Reconnect the wirings to the PCB. Wiring connector color should match with the color of connector of the PCB.
   e) Screw back the terminal(Arrow A) of the "E1, E2" wiring, that was removed in a).

2) Power PCB
   Parts mounting are different by the kind of PCB.



(c) Fan motor control PCB (FDU224, 280, FDU1800, 2400F only)

PSC012D036

SAFETY PRECAUTIONS

- Read the "SAFETY PRECAUTIONS" carefully first of all and then strictly follow it during the replacement in order to protect yourself.
- The precautionary items mentioned below are distinguished into two levels, WARNING and CAUTION.
  Both mentions the important items to protect your health and safety so strictly follow them by any means.
  - ⚠WARNING Wrong installation would cause serious consequences such as injuries or death.
  - ⚠CAUTION Wrong installation might cause serious consequences depending on circumstances.
- After completing the replacement, do commissioning to confirm there are no abnormalities.

⚠ WARNING

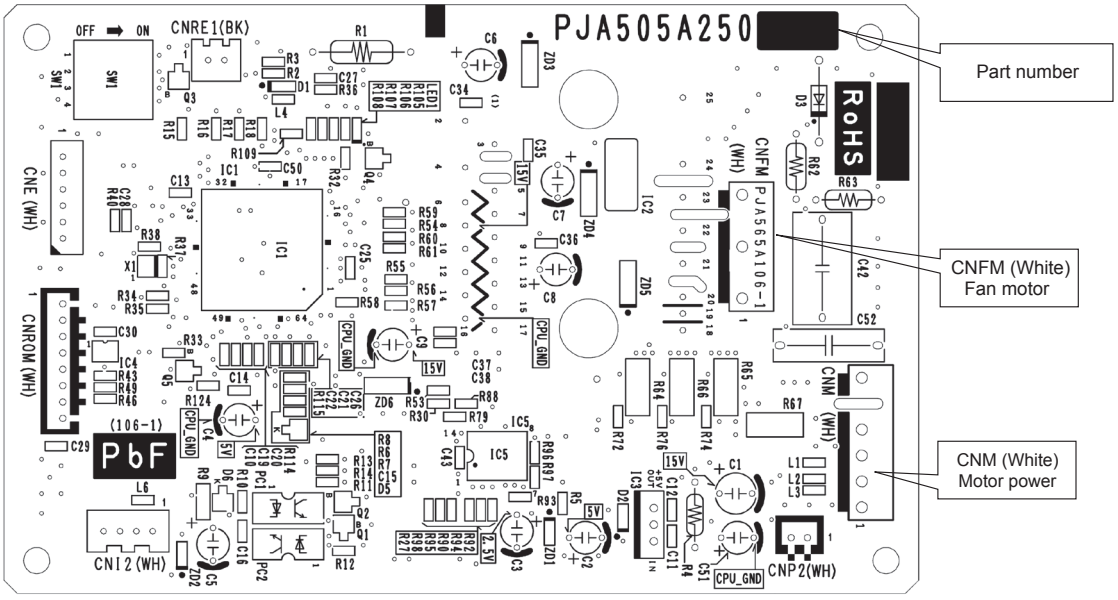
- Replacement should be performed by the specialist.
  If you replace the PCB by yourself, it may lead to serious trouble such as electric shock or fire.
- Replace the PCB correctly according to these instructions.
  Improper replacement may cause electric shock or fire.
- Shut off the power before electrical wiring work. Start the work after elapsing 1 minutes or more from power off.
  Replacement during the applying the current would cause the electric shock, unit failure or improper running.
  It would cause the damage of connected equipment such as fan motor,etc.
- Fasten the wiring to the terminal securely, and hold the cable securely so as not to apply unexpected stress on the terminal.
  Loose connections or hold could result in abnormal heat generation or fire.
- Check the connection of wiring to PCB correctly before turning on the power, after replacement.
  Defectiveness of replacement may cause electric shock or fire.

⚠ CAUTION

- In connecting connector onto the PCB, connect not to deform the PCB. It may cause breakage or malfunction.
- Insert connector securely, and hook stopper. It may cause fire or improper running.
- Bundle the cables together so as not to be pinched or be tensioned. It may cause malfunction or electric shock for disconnection or deformation.

1) Replace the PCB
   a) Take off the connection of connector and remove the screw of power transistor then remove the PCB.
   Wipe off the silicon grease neatly on the controller's radiation heat fins.
   b) Before installing the power transistor on the new PCB, **apply uniformly a bundled of silicon grease** first on the surface of power transistor.
   Make sure it is applied to prevent **damage on power transistor**, and install the PCB not to pinch the wirings.
   c) Tighten the screw of power transistor and reconnect the wirings to the PCB.
   Confirm the connection and don't use soldering in the connection.
   Tighten properly the power transistor with a screw and make sure there is no slack.
   Power transistor can be damage if not properly tighten. (Recommended power transistor tightening torque:0.59-0.78N・m)

2) Fan motor control PCB
   Parts mounting are different by the kind of PCB.



11.4 Indoor PCB setting

Code	Input		Default setting		Remarks
SW1	Indoor unit address No.(Order of 10)		0		0-9
SW2	Indoor unit address No.(Order of 1)		0		0-9
SW3	Outdoor unit address No.(Order of 10)		4		0-9
SW4	Outdoor unit address No.(Order of 1)		9		0-9
SW5-1	Superlink selection	Automatic*/Previous SL	OFF	Automatic	
SW5-2	Indoor unit address No.(Order of 100)		OFF	0	OFF : 0, ON : 1
SW6-1 SW6-2 SW6-3 SW6-4 SW8-1	Model selection		As per model		See table 1
SW7-1	Test run, Drain motor	Normal*/Test run	OFF	Normal	
SW7-2	Reserved		OFF		Keep OFF
SW7-3	Spare		OFF		Keep OFF
SW7-4	Reserved		OFF		Keep OFF
JSL1	Superlink terminal spare	Normal*/switch to spare	With	Normal	

*Default setting

Table 1

■Model selection with SW6-1 - SW6-4 and SW8-1

	P15	P22	P28	P36	P45	P56	P71	P90	P112	P140	P160
SW6-1	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	ON	OFF	ON
SW6-2	OFF	OFF	OFF	ON	OFF	ON	OFF	ON	ON	OFF	OFF
SW6-3	OFF	OFF	OFF	OFF	ON	ON	OFF	OFF	OFF	ON	ON
SW6-4	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	ON	ON
SW8-1	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

	P224	P280
SW6-1	OFF	ON
SW6-2	ON	ON
SW6-3	ON	ON
SW6-4	ON	ON
SW8-1	OFF	OFF

12. OPTION PARTS

12.1 Wireless kit

(1) FDT series (RCN-T-5AW-E2)

Notes:
Following function of FDT indoor unit series are not able to be set with this wireless remote control (RCN-T-5AW-E2).
1. Individual flap control system

PJF012D035 B

Safety precautions

●Please read this manual carefully before starting installation work to install the unit properly.
Every one of the followings is important information to be observed strictly.
⚠WARNING Failure to follow these instructions properly may result in serious consequences such as death, severe injury, etc.
⚠CAUTION Failure to follow these instructions properly may cause injury or property damage. It could have serious consequences depending on the circumstances.
●The following pictograms are used in the text.

⃠	Never do.	❗	Always follow the instructions given.

●Keep this manual at a safe place where you can consult with whenever necessary. Show this manual to installers when moving or repairing the unit. When the ownership of the unit is transferred, this manual should be given to a new owner.

⚠WARNING

- **Consult your dealer or a professional contractor to install the unit.**
  Improper installation made on your own may cause electric shocks, fire or dropping of the unit.
- **Installation work should be performed properly according to this installation manual.**
  Improper installation work may result in electric shocks, fire or break-down.
- **Be sure to use accessories and specified parts for installation work.**
  Use of unspecified parts may result in drop, fire or electric shocks.
- **Install the unit properly to a place with sufficient strength to hold the weight.**
  If the place is not strong enough, the unit may drop and cause injury.
- **Be sure to have the electrical wiring work done by qualified electrical installer, and use exclusive circuit.**
  Power source with insufficient and improper work can cause electric shock and fire.
- **Shut OFF the main power source before starting electrical work.**
  Otherwise, it could result in electric shocks, break-down or malfunction.
- **Do not modify the unit.**
  It could cause electric shocks, fire, or break-down.
- **Be sure to turn OFF the power circuit breaker before repairing/inspecting the unit.**
  Repairing/inspecting the unit with the power circuit breaker turned ON could cause electric shocks or injury.
- **Do not install the unit in appropriate environment or where inflammable gas could generate, flow in, accumulate or leak.**
  If the unit is used at places where air contains dense oil mist, steam, organic solvent vapor, corrosive gas (ammonium, sulfuric compound, acid, etc) or where acidic or alkaline solution, special spray, etc. are used, it could cause electric shocks, break-down, smoke or fire as a result of significant deterioration of its performance or corrosion.
- **Do not install the unit where water vapor is generated excessively or condensation occurs.**
  It could cause electric shocks, fire, or break-down.
- **Do not use the unit in a place where it gets wet, such as laundry room.**
  It could cause electric shocks, fire, or break-down.
- **Do not operate the unit with wet hands.**
  It could cause electric shocks.

⚠WARNING

- **Do not wash the unit with water.**
  It could cause electric shocks, fire, or break-down.
- **Use the specified cables for wiring, and connect them securely with care to protect electronic parts from external forces.**
  Improper connections or fixing could cause heat generation, fire, etc.
- **When installing the unit at a hospital, telecommunication facility, etc., take measures to suppress electric noises.**
  It could cause malfunction or break-down due to hazardous effects on the inverter, private power generator, high frequency medical equipment, radio communication equipment, etc.
  The influences transmitted from the remote control to medical or communication equipment could disrupt medical activities, video broadcasting or cause noise interference.
- **Do not leave the remote control with its PCB case removed.**
  If dew, water, insect, etc. enters through the hole, it could cause electric shocks, fire or break-down.

⚠CAUTION

- Do not install the wireless kit at the following places in order to avoid malfunction.
  It could cause break-down or deformation of remote control.
  (1) Places exposed to direct sunlight
  (2) Places near heat devices
  (3) High humidity places
  (4) Hot surface or cold surface enough to generate condensation
  (5) Places exposed to oil mist or steam directly
  (6) Uneven surface
  (7) Places affected by the direct air flow of the AC unit
  (8) Places where the receiver is influenced by the fluorescent lamp (especially inverter type) or sunlight
  (9) Places where the receiver is affected by infrared rays of any other communication devices
  (10) Places where some object may obstruct the communication with the remote control

①Accessories

Please make sure that you have all of the following accessories.

① Receiver		1
② Parts set (A)		1
③ Installation manual		1

① Wireless remote control (RCN-E2)		1
② Remote control holder		1
③ Screw for holder		2
④ AAA dry cell battery (LR03)		2
⑤ User's manual		1

②Preparation before installation

Setting on site

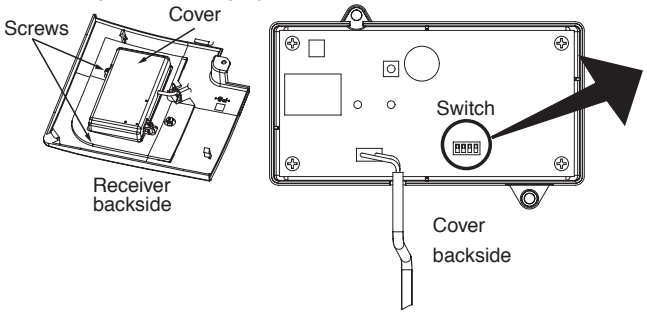
PCB on the receiver has the following switches to set the function.
Default setting is shown with ☐ mark.

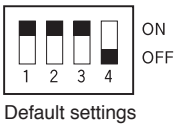
SW1	Prevents interference during plural setting	☐ ON : Normal	OFF : Customized
SW2	Receiver master/ slave setting	☐ ON : Master	OFF : Slave
SW3	Buzzer	☐ ON : Valid	OFF : Invalid
SW4	Auto restart	ON : Valid	☐ OFF : Invalid

② Preparation before installation (continued)

To change setting

1. Remove the cover by unscrewing two screws from the back of receiver.
2. Change the setting by the switch on PCB.





Default settings

Master/Slave setting when using plural remote controls

Up to two receiver or wired remote control can be installed in one indoor unit group.
When two receiver or wired remote control are used, it is necessary to change SW on the PCB to set it as slave.

3. When SW1 is turned to OFF position, change the wireless remote control setting.
   For the method of changing the setting, refer to Setting to avoid mixed communication of ④ Wireless remote control .

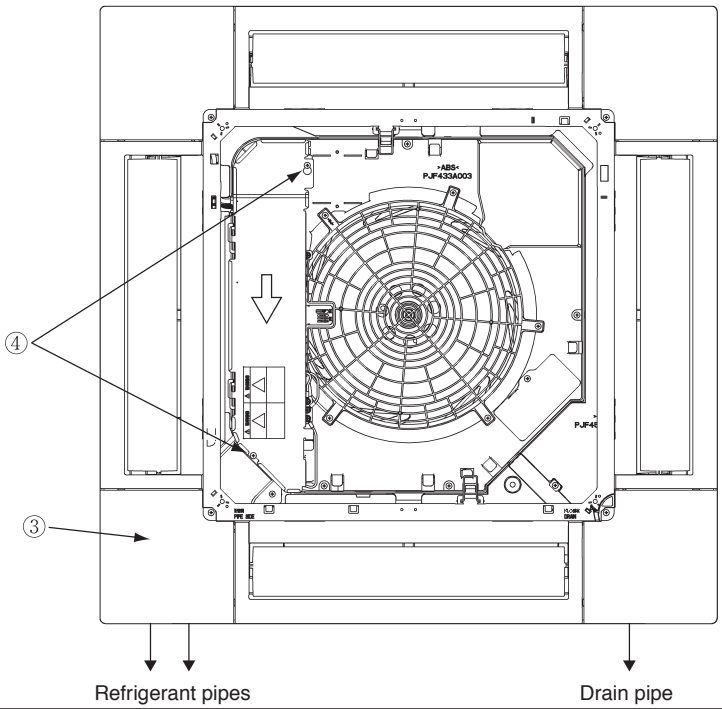
   *The receivable area of the signal refer to ⑤ Receiver .

③ How to install the receiver

The receiver can be installed by replacing with a corner panel on the applicable decorative panel.

Preparation before installation

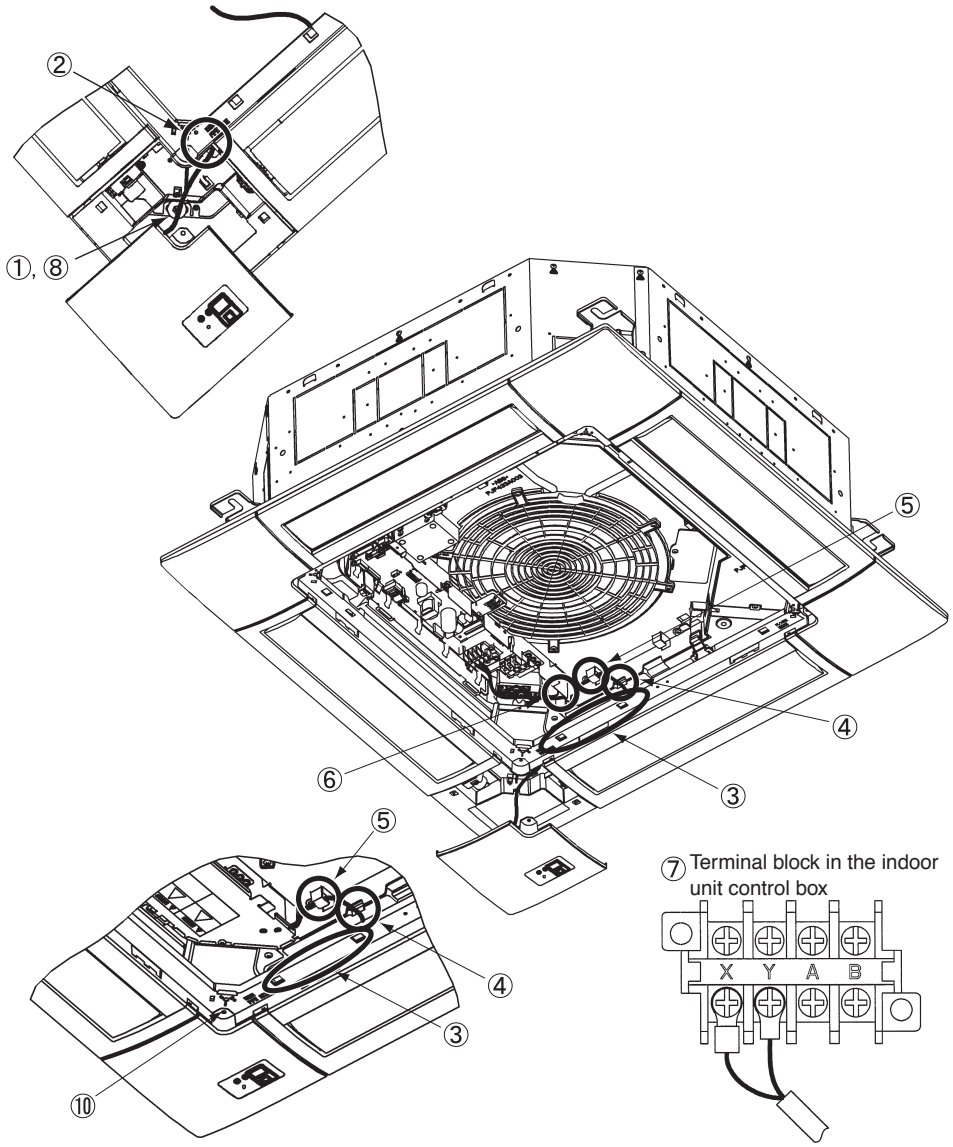
① Attach the decorative panel onto the air-conditioner according to the installation manual for the panel.
② Remove the air return grille.
③ Remove a corner panel located on the refrigerant pipes side.
④ Remove three screws and detach the cover (indicated as shadowed area) from the control box of the air- conditioner.



③ How to install the receiver(continued)

Installation of the receiver

① Loosen the bolts which fix the panel and make a gap between the panel and the indoor unit.
② Put the wiring of the receiver through the opening.
③ Put the wiring on the notch on the control box so as not to be pinched by the control box and lid as shown below.
④ Connect the wiring to the terminal block provided in the control box. (No polarity)
⑤ Attach the receiver to the panel according to the panel installation manual.
⑥ Fix the wiring with the clamp so that the wiring do not contact the edge of control box's metal sheet.
⑦ Reattach the control box lid with 3 screws removed.

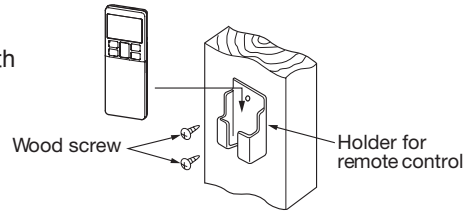


④ Wireless remote control

Installation tips for the remote control holder

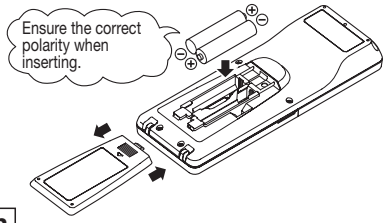
Fix the remote control holder using the screws supplied with this product.

* Precautions for installing the holder
- Adjust the position so that it is upright.
- Ensure that the screw heads are not protruding.
- Do not attach the holder on plaster wall



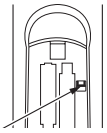
How to insert batteries

1. Detach the back lid.
2. Insert the batteries. (two AAA batteries)
3. Reattach the back lid.



Setting to avoid mixed communication

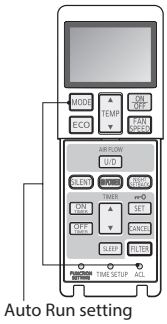
1. Detach the back lid, and remove the batteries.
2. Cut off the switching wire in the battery compartment using nippers.
3. Insert the batteries, and attach the back lid.



Changing the remote control setting

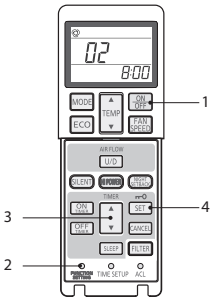
How to change the Auto Run setting
The Auto Run mode is not available on the building air-conditioning and gas heat pump series (excluding the cooling/heating free multi system).
When using the remote control to operate those models, set the remote control to disable the Auto Run mode.
To disable the Auto Run mode, press the ACL switch while holding down the MODE button, or insert batteries while holding down the MODE button.

* Note: Once the batteries are removed, the setting is reset to the factory default.
When the batteries are removed, repeat the steps described above.



Indoor function settings

1. How to set indoor functions
   ① Press the ON/OFF button to stop the unit.
   ② Press the desired one of the buttons shown item **2.** while holding down the FUNCTION SETTING switch.
   ③ Use the selection buttons, ▲ and ▼, to change the setting.
   ④ Press the SET button.
   The buzzer on the remote control signal receiver beeps twice, and the LED lamp flashes four times at two-second intervals.



④ Wireless remote control (continued)

2. Setting details
   The following functions can be set.

Button	Number indicator	Function setting
FAN SPEED	00	Fun speed setting : Standard
	01	Fun speed setting : Setting 1 *
	02	Fun speed setting : Setting 2 *
MODE	00	Room heating temperature adjustment : Disable
	01	Room heating temperature adjustment : +1°C
	02	Room heating temperature adjustment : +2°C
	03	Room heating temperature adjustment : +3°C
FILTER	00	Filter sign display : OFF
	01	Filter sign display : 180 hours
	02	Filter sign display : 600 hours
	03	Filter sign display : 1000 hours
	04	Filter sign display : Operation stop after 1000 hours have elapsed
U/D	00	Anti draft setting : Disable
	01	Anti draft setting : Enable
SILENT	00	Infrared sensor setting (Motion sensor setting) : Disable
	01	Infrared sensor setting (Motion sensor setting) : Enable
HI POWER	00	Infrared sensor control (Motion sensor control) : Disable
	01	Infrared sensor control (Motion sensor control) : Power control only
	02	Infrared sensor control (Motion sensor control) : Auto OFF only
	03	Infrared sensor control (Motion sensor control) : Power control and Auto OFF
ON TIMER	00	Cooling fan residual-period running : Disable
	01	Cooling fan residual-period running : 0.5 hours
	02	Cooling fan residual-period running : 2 hours
	03	Cooling fan residual-period running : 6 hours
OFF TIMER	00	Heating fan residual-period running : Disable
	01	Heating fan residual-period running : 0.5 hours
	02	Heating fan residual-period running : 2 hours
	03	Heating fan residual-period running : 6 hours
NIGHT SETBACK	00	Remote control signal receiver LED : Brightness High
	01	Remote control signal receiver LED : Brightness Low
	02	Remote control signal receiver LED : OFF

* Refer to technical data.

⑤ Receiver

1 Control plural indoor units with one remote control

Up to 16 indoor units can be connected.

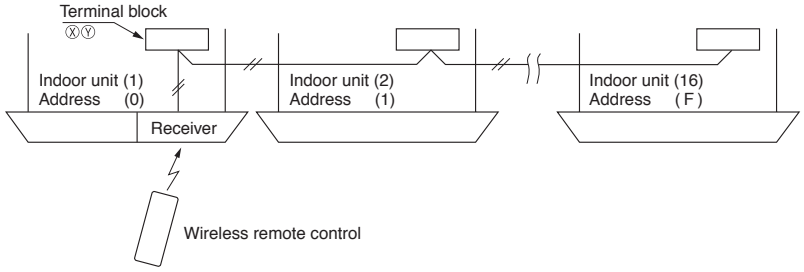
1. Connect the XY terminal with 2 cores wire. As for the size, refer to the following note.
2. For Packaged air-conditioner series, set the indoor unit address with SW2 on the indoor unit PCB from [0] to [F] so as not to duplicate.

Restrictions on the thickness and length of wire (Maximun total extension 600m.)

Standard	Within 0.3 mm² × 100m
	Within 0.5 mm² × 200m
	Within 0.75mm² × 300m
	Within 1.25mm² × 400m
	Within 2.0 mm² × 600m

For the shop series

For VRF series, set the indoor unit address with SW1, SW2 and SW5-2 on the indoor unit PCB from [000] to [127] so as not to duplicate.

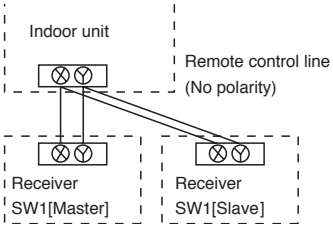


For the building air-conditioning and gas heat pump series

Set the indoor unit and outdoor unit numbers by manually specifying the addresses.
Use the rotary switches SW1 and SW2 provided on the indoor unit PCB (printed circuit board) to set the indoor unit numbers so that they are not duplicated.

Master/Slave setting when using plural remote control

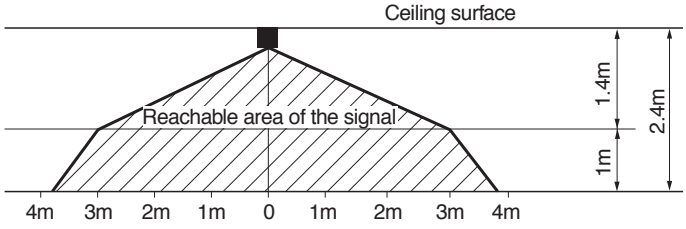
Up to two receivers can be installed in one indoor unit group.



Switch	Setting	Function
SW2	ON	Master
	OFF	Slave

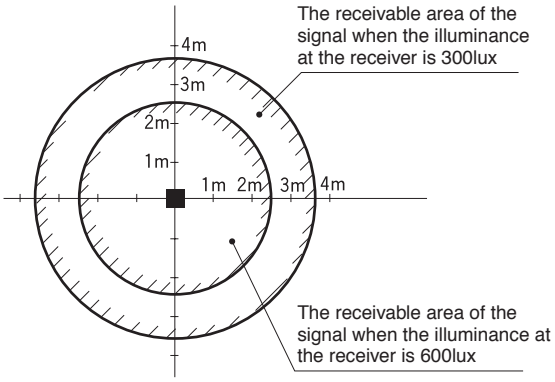
Wireless remote control's operable area

1. Standard reachable area of the signal
   [condition] Illuminance at the receiver: 300lux
   (when no lighting is installed within 1m of the receiver in an ordinary office.)



⑤ Receiver (continued)

2. Correlation between illuminance at the receiver and reachable area of the signal in a plain view. The drawing in the right shows the correlation between the reachable area of the signal and illuminance at the receiver when the remote control is operated at 1.0m high under the condition of ceiling height of 2.4m. When the illuminance becomes double, the area is narrowed down to two thirds.

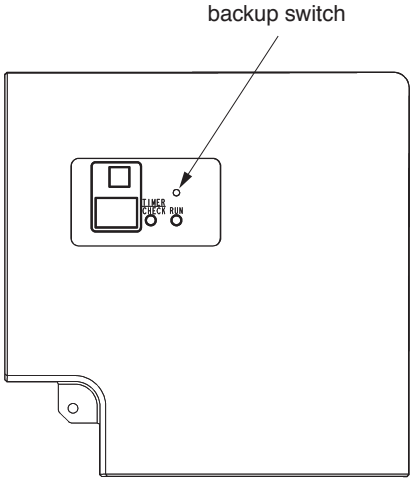


3. Installation tips when several receivers are installed close
   Minimum distance between the indoor units which can avoid cross communication is 5m under the condition of 300lux of illuminance at the receiver.
   (When no lighting is installed within 1m of the receiver in an ordinary office)

Backup switch

A Backup switch is provided on the receiver. Even when the operation from the wireless remote control is not possible (due to flat batteries, control lost, or control failure), still it possible to operate as temporary means. Press the switch directly when operating it.

1. The air-conditioner starts the operation with the condition of Auto mode, 23°C of set point, High fan speed and horizontal louver position.
2. The air-conditioner stops the operation when the switch is pressed when in operation.



Cooling test run operation

- After safety confirmation, turn on the power.
- Transmit a cooling operation command with the wireless remote control, while the backup switch on the receiver is depressed.
- If the backup switch on the receiver is pressed during a test run, it will end the test run.
- If you cannot operate the unit properly during a test run, please check wiring by consulting with inspection guides.

How to read the 2-digit display

On the receiver of a wireless kit, a two-digit (7-segment) display is provided.

1. An indication will be displayed for one hour after power on.
2. An indication will be displayed for 3.5 seconds after transmitting a “STOP” command from the wireless remote control or the operation of the backup switch to stop the unit.
3. An indication appearing in (1) or (2) above will go off as soon as the unit starts operation.
4. When there are no error records to indicate, addresses of all the connected units are displayed.
5. When there are some error records remaining, the error records are displayed.
6. Error records can be cleared by transmitting a "STOP" command from the wireless remote control, while the backup button is pressed.

(2) FDTC series (RCN-TC-5AW-E2)

PJF012D506

Safety precautions

• Please read this manual carefully before starting installation work to install the unit properly.
All of the following are important information to be observed strictly.
⚠WARNING Failure to follow these instructions properly may result in serious consequences such as death, severe injury, etc.
⚠CAUTION Failure to follow these instructions properly may cause injury or property damage. It could have serious consequences depending on the circumstances.
• The following symbols are used in the text.

⃠	Never do.	❗	Always follow the instructions given.

• Keep this manual at a safe place where you can consult with whenever necessary. Show this manual to installers when moving or repairing the unit. When the ownership of the unit is transferred, this manual should be given to the new owner.

⚠WARNING

- **Consult your dealer or a professional contractor to install the unit.**
  Improper installation made on your own may cause electric shocks, fire or dropping of the unit.
- **Installation work should be performed properly according to this installation manual.**
  Improper installation work may result in electric shocks, fire or break-down.
- **Be sure to use accessories and specified parts for installation work.**
  Use of unspecified parts may result in drop, fire or electric shocks.
- **Install the unit properly to a place with sufficient strength to hold the weight.**
  If the place is not strong enough, the unit may drop and cause injury.
- **Be sure to have the electrical wiring work done by qualified electrical installer, and use exclusive circuit.**
  Power source with insufficient and improper work can cause electric shock and fire.
- **Shut OFF the main power source before starting electrical work.**
  Otherwise, it could result in electric shocks, break-down or malfunction.
- **Do not modify the unit.**
  It could cause electric shocks, fire, or break-down.
- **Be sure to turn OFF the power circuit breaker before repairing/inspecting the unit.**
  Repairing/inspecting the unit with the power circuit breaker turned ON could cause electric shocks or injury.
- **Do not install the unit in appropriate environment or where inflammable gas could generate, flow in, accumulate or leak.**
  If the unit is used at places where air contains dense oil mist, steam, organic solvent vapor, corrosive gas (ammonium, sulfuric compound, acid, etc) or where acidic or alkaline solution, special spray, etc. are used, it could cause electric shocks, break-down, smoke or fire as a result of significant deterioration of its performance or corrosion.
- **Do not install the unit where water vapor is generated excessively or condensation occurs.**
  It could cause electric shocks, fire, or break-down.
- **Do not use the unit in a place where it gets wet, such as laundry room.**
  It could cause electric shocks, fire, or break-down.
- **Do not operate the unit with wet hands.**
  It could cause electric shocks.

⚠WARNING

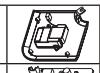
- **Do not wash the unit with water.**
  It could cause electric shocks, fire, or break-down.
- **Use the specified cables for wiring, and connect them securely with care to protect electronic parts from external forces.**
  Improper connections or fixing could cause heat generation, fire, etc.
- **When installing the unit at a hospital, telecommunication facility, etc., take measures to suppress electric noises.**
  It could cause malfunction or break-down due to hazardous effects on the inverter, private power generator, high frequency medical equipment, radio communication equipment, etc.
  The influences transmitted from the remote control to medical or communication equipment could disrupt medical activities, video broadcasting or cause noise interference.
- **Do not leave the remote control with its PCB case removed.**
  If dew, water, insect, etc. enter through the hole, it could cause electric shocks, fire or break-down.

⚠CAUTION

- Do not install the wireless kit at the following places in order to avoid malfunction.
  It could cause break-down or deformation of remote control.
  (1) Places exposed to direct sunlight
  (2) Places near heat-generating devices
  (3) High humidity places
  (4) Hot surface or cold surface enough to generate condensation
  (5) Places exposed to oil mist or steam directly
  (6) Uneven surface
  (7) Places affected by the direct air flow of the AC unit
  (8) Places where the receiver is influenced by fluorescent lamp (especially inverter type) or sunlight
  (9) Places where the receiver is affected by infrared rays of any other communication devices
  (10) Places where some object may obstruct the communication with the remote control

① Accessories

Please make sure that you have all of the following accessories.

① Receiver		1
② PCB		1
③ PCB mounting support		2
④ Bracket (Sheet metal)		1

⑤ Bracket mounting screw		1
⑥ Wiring (For communication)		1
⑦ Wiring (For receiving)		1
⑧ Installation manual		1
⑨ Parts set		1

① Wireless remote control (RCN-E2)		1
② Remote control holder		1
③ Screw for holder		2
④ AAA dry cell battery (LR03)		2
⑤ User's manual		1

② Preparation before installation

Setting of PCB

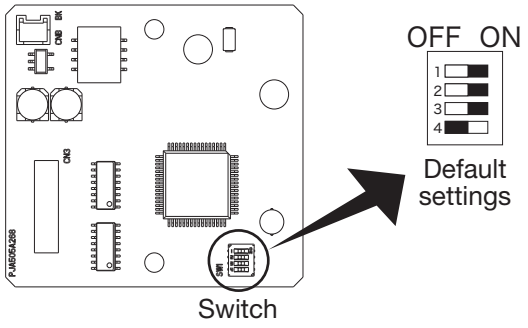
Accessory PCB has the following switches to set the functions. Default setting is shown with ☐ mark.

SW1	Prevents interference during multiple setting	☐ ON : Normal	OFF : Remote
SW2	Receiver master/slave setting	☐ ON : Master	OFF : Slave
SW3	Buzzer	☐ ON : Valid	OFF : Invalid
SW4	Auto restart	ON : Valid	☐ OFF : Invalid

② Preparation before installation (continued)

To change setting

1. Change the setting of switches on the accessory PCB.



Master/Slave setting when using multiple remote controls

Up to two receivers or wired remote controls can be installed on one indoor unit group. In such occasion, it is necessary to change the setting to slave on either one.
To change the setting on the receiver, refer to the instruction manual of the receiver.

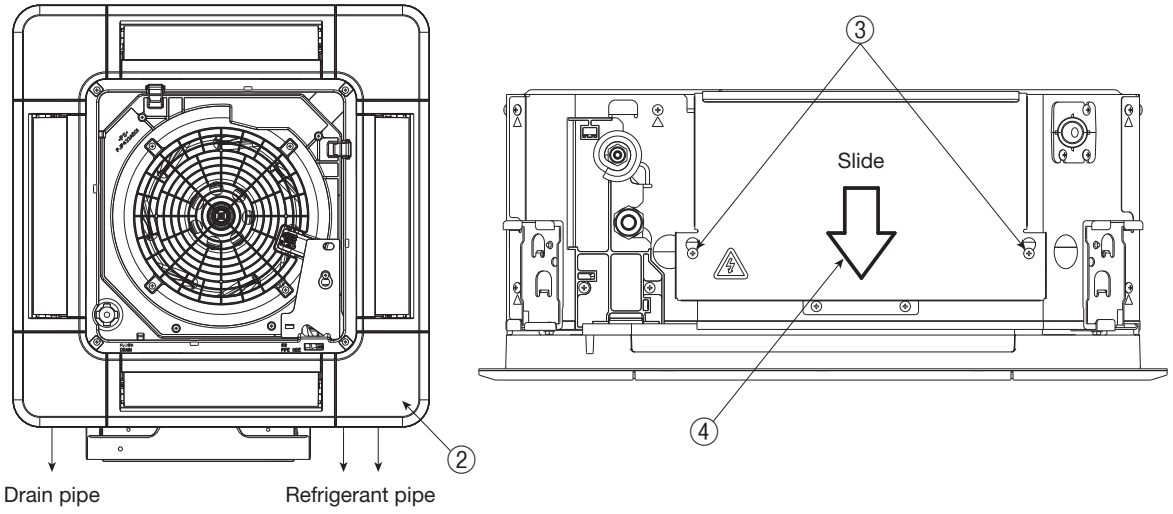
2. When SW1 is turned to OFF position, change the wireless remote control setting.
   For the method of changing the setting, refer to Setting to avoid mixed communication of ④ Wireless remote control.
   *For the receivable area of the signal, refer to ⑤ Receiver.

③ How to install the receiver

It is possible to install the receiver by replacing the corner lid on the panel.

Preparation before installation

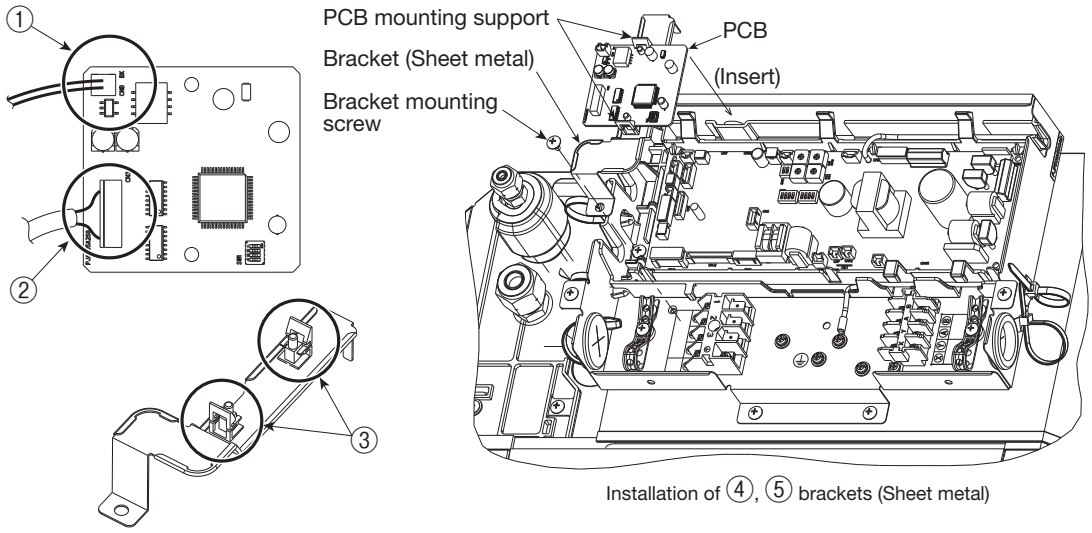
① Remove the inlet grille according to the installation manual of the panel.
② Remove the corner lid at the refrigerant pipe side.
③ Loosen screws (2 pcs) on the control box of the unit.
④ Slide the control lid in the arrow direction, and remove it.



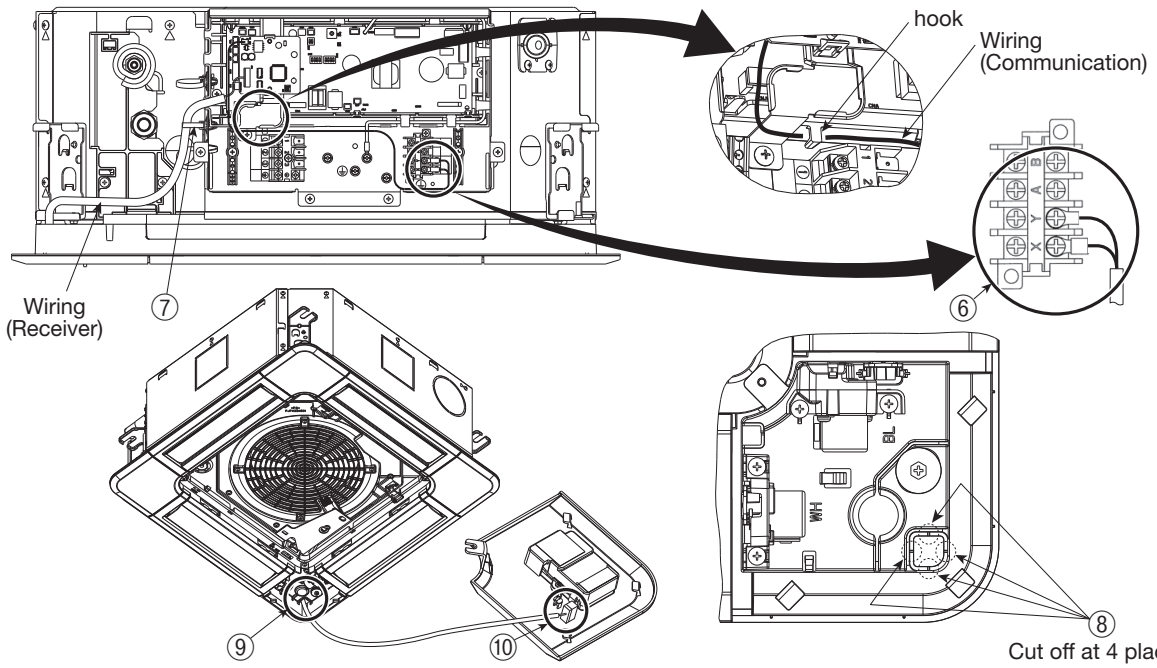
③ How to install the receiver(continued)

Installation of the receiver

① Connect the wire connector (Communication) to CNB on PCB.
② Connect the wire connector (Receiver) to CN3 on PCB.
③ Install the PCB mounting supports on the bracket (Sheet metal).
④ Install PCB on the PCB mounting supports.
⑤ Insert the bracket (Sheet metal) in one side of control box, and fix the other side with screws as shown in the figure.
⑥ Connect round terminals of wires (Communication) to the terminal block (X, Y) in the control box. The wires have no polarity.
⑦ Fix wires with bands as shown in the figure.
⑧ Cut off the half-blanks on the panel (at 4 places) as shown in the figure.
⑨ Pass the wiring (Communication) through the opening on the panel.
⑩ Connect connectors of the wiring (Communication) and the receiver.
⑪ Install the receiver on the panel according to the installation manual of the panel.
⑫ Install the control box lid with care not to pinch wires, and fix with screws (2 pcs).



Installation of ④, ⑤ brackets (Sheet metal)



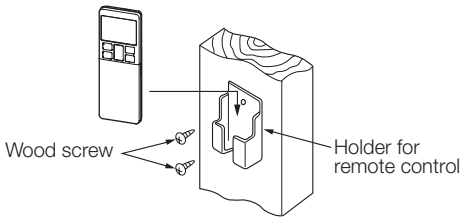
Cut off at 4 places.

④ Wireless remote control

Installation tips for the remote control holder

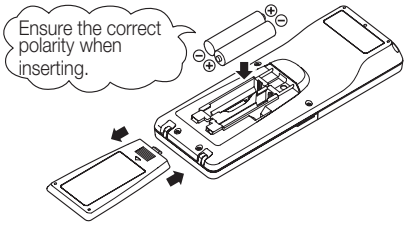
Fix the remote control holder using the screws supplied with this product.

* Precautions for installing the holder
- Adjust the position so that it is upright.
- Ensure that the screw heads are not protruding.
- Do not attach the holder on plaster wall.



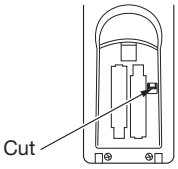
How to insert batteries

1. Detach the back lid.
2. Insert the batteries. (two AAA batteries)
3. Reattach the back lid.



Setting to avoid mixed communication

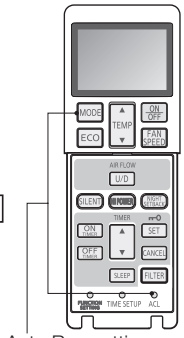
1. Detach the back lid, and remove the batteries.
2. Cut off the switching wire in the battery compartment using nippers.
3. Insert the batteries, and attach the back lid.



Changing the remote control setting

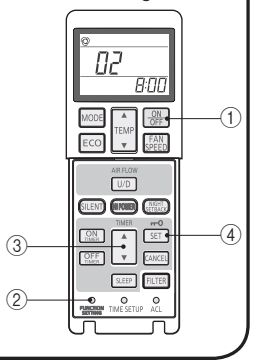
How to change the Auto Run setting
The Auto Run mode is not available on the building air-conditioning and gas heat pump series (excluding the cooling/heating free multi system).
When using the remote control to operate those models, set the remote control to disable the Auto Run mode.
To disable the Auto Run mode, press the ACL switch while holding down the MODE button, or insert batteries while holding down the MODE button.

* Note: Once the batteries are removed, the setting is reset to the factory default.
When the batteries are removed, repeat the steps described above.



Indoor unction settings

1. How to set indoor functions
   ① Press the ON/OFF button to stop the unit.
   ② Press the desired one of the buttons shown item **2.** while holding down the FUNCTION SETTING switch.
   ③ Use the selection buttons ▲ and ▼ to change the setting.
   ④ Press the SET button.
   The buzzer on the remote control signal receiver beeps twice, and the LED lamp flashes four times at two-second intervals.



④ Wireless remote control (continued)

2. Setting details
   The following functions can be set.

Button	Number indicator	Function setting
FAN SPEED	00	Fun speed setting : Standard
	01	Fun speed setting : Setting 1 *
	02	Fun speed setting : Setting 2 *
MODE	00	Room heating temperature adjustment : Disable
	01	Room heating temperature adjustment : +1°C
	02	Room heating temperature adjustment : +2°C
	03	Room heating temperature adjustment : +3°C
FILTER	00	Filter sign display : OFF
	01	Filter sign display : 180 hours
	02	Filter sign display : 600 hours
	03	Filter sign display : 1000 hours
	04	Filter sign display : Operation stop after 1000 hours have elapsed
U/D (Up/Down)	00	Anti draft setting : Disable
	01	Anti draft setting : Enable
SILENT	00	Infrared sensor setting (Motion sensor setting) : Disable
	01	Infrared sensor setting (Motion sensor setting) : Enable
HI POWER	00	Infrared sensor control (Motion sensor control) : Disable
	01	Infrared sensor control (Motion sensor control) : Power control only
	02	Infrared sensor control (Motion sensor control) : Auto OFF only
	03	Infrared sensor control (Motion sensor control) : Power control + Auto OFF
ON TIMER	00	Cooling fan residual-period running : Disable
	01	Cooling fan residual-period running : 0.5 hours
	02	Cooling fan residual-period running : 2 hours
	03	Cooling fan residual-period running : 6 hours
OFF TIMER	00	Heating fan residual-period running : Disable
	01	Heating fan residual-period running : 0.5 hours
	02	Heating fan residual-period running : 2 hours
	03	Heating fan residual-period running : 6 hours
NIGHT SETBACK	00	Remote control signal receiver LED : Brightness High
	01	Remote control signal receiver LED : Brightness Low
	02	Remote control signal receiver LED : OFF

* Refer to technical data.

⑤ Receiver

1 Control multiple indoor units with one remote control

Up to 16 indoor units can be connected.

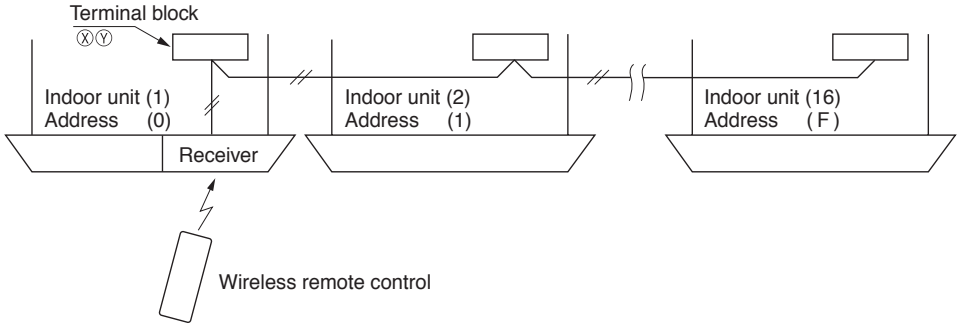
1. Connect the XY terminal with 2 cores wire. As for the size, refer to the note on the right.
2. For Packaged air-conditioner series, set the indoor unit address with SW2 on the indoor unit PCB from [1] to [F] so as not to duplicate.

Restrictions on the thickness and length of wire (Maximum length is 600m.)

Standard	Within	0.3 mm² × 100m
	Within	0.5 mm² × 200m
	Within	0.75mm² × 300m
	Within	1.25mm² × 400m
	Within	2.0 mm² × 600m

For the shop series

For VRF series, set the indoor unit address with SW1, SW2 and SW5-2 on the indoor unit PCB from [000] to [127] so as not to duplicate.

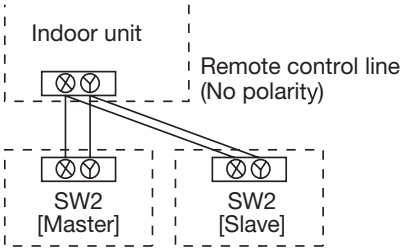


For the building air-conditioning and gas heat pump series

Set the indoor unit and outdoor unit numbers by manually specifying the addresses.
Use the rotary switches SW1 and SW2 provided on the indoor unit PCB (printed circuit board) to set the indoor unit numbers so that they are not duplicated.

Master/Slave setting when using multiple remote control

Up to two receivers can be installed in one indoor unit group.

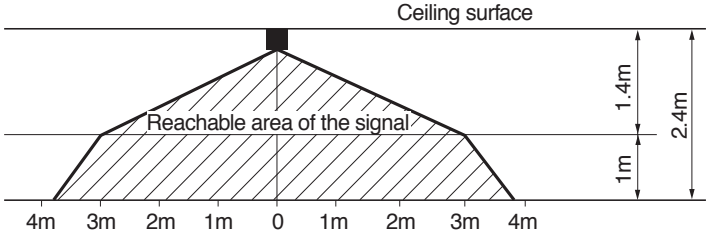


Switch	Setting	Function
SW2	ON	Master
	OFF	Slave

Wireless remote control's operable area

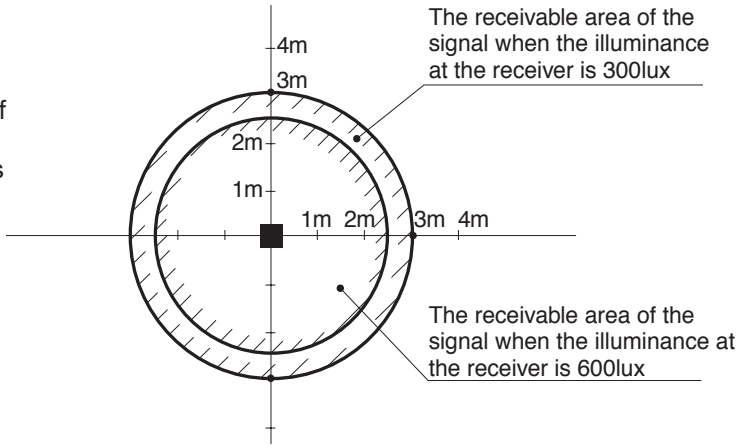
1. Standard reachable area of the signal

[Condition] Illuminance at the receiver: 300lux
(When no lighting is installed within 1m of the receiver in an ordinary office)



⑤ Receiver (continued)

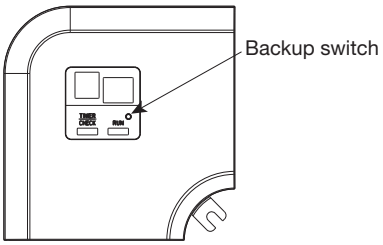
2. Correlation between illuminance at the receiver and reachable area of the signal in a plain view.
   The drawing in the right shows the correlation between the reachable area of the signal and illuminance at the receiver when the remote control is operated at 1m high under the condition of ceiling height of 2.4m.
   When the illuminance becomes double, the area is narrowed down to two thirds.



3. Installation tips when several receivers are installed close to one another.
   Minimum distance between the indoor units which can avoid cross communication is 5m under the condition of 300lux of illuminance at the receiver.
   (When no lighting is installed within 1m of the receiver in an ordinary office)

Backup switch

A backup switch is provided on the receiver section of the panel surface.
When operation from the wireless remote control is not possible (due to flat batteries, a mislaid unit, a unit failure), you can use it as an emergency means. You should operate this switch manually.



1. If pressed while the air-conditioner is in a halt, it will cause the air-conditioner to start operation in the automatic mode (In case of cooling only, it is in the cooling mode).
   Wind speed: Hi fan, Temperature setting: 23°C, Louver: horizontal
2. If pressed while the air-conditioner is in operation, it will stop the air-conditioner.

Cooling test run operation

- After safety confirmation, turn on the power.
- Transmit a cooling operation command with the wireless remote control, while the backup switch on the receiver is pressed.
- If the backup switch on the receiver is pressed during a test run, it will end the test run.
- If you cannot operate the unit properly during a test run, please check wiring by consulting with inspection guides.

How to read the two-digit display

On the receiver of a wireless kit, a two-digit (7-segment) display is provided.

1. An indication will be displayed for one hour after power on.
2. An indication will be displayed for 3.5 seconds after transmitting a “STOP” command from the wireless remote control or the operation of the backup switch to stop the unit.
3. An indication appearing in (1) or (2) above will go off as soon as the unit starts operation.
4. When there are no error records to indicate, addresses of all the connected units are displayed.
5. When there are some error records remaining, the error records are displayed.
6. Error records can be cleared by transmitting a “STOP” command from the wireless remote control, while the backup button is pressed.

(3) FDTW series (RCN-TW-E2)

PJB012D308

Safety precautions

●Please read this manual carefully before starting installation work to install the unit properly. Every one of the followings is important information to be observed strictly.
⚠WARNING Failure to follow these instructions properly may result in serious consequences such as death, severe injury, etc.
⚠CAUTION Failure to follow these instructions properly may cause injury or property damage. It could have serious consequences depending on the circumstances.
●The following pictograms are used in the text.

⃠	Never do.	❗	Always follow the instructions given.

●Keep this manual at a safe place where you can consult with whenever necessary. Show this manual to installers when moving or repairing the unit. When the ownership of the unit is transferred, this manual should be given to a new owner.

⚠WARNING

- **Consult your dealer or a professional contractor to install the unit.**
  Improper installation made on your own may cause electric shocks, fire or dropping of the unit.
- **Installation work should be performed properly according to this installation manual.**
  Improper installation work may result in electric shocks, fire or break-down.
- **Be sure to use accessories and specified parts for installation work.**
  Use of unspecified parts may result in drop, fire or electric shocks.
- **Install the unit properly to a place with sufficient strength to hold the weight.**
  If the place is not strong enough, the unit may drop and cause injury.
- **Be sure to have the electrical wiring work done by qualified electrical installer, and use exclusive circuit.**
  Power source with insufficient and improper work can cause electric shock and fire.
- **Shut OFF the main power source before starting electrical work.**
  Otherwise, it could result in electric shocks, break-down or malfunction.
- **Do not modify the unit.**
  It could cause electric shocks, fire, or break-down.
- **Be sure to turn OFF the power circuit breaker before repairing/inspecting the unit.**
  Repairing/inspecting the unit with the power circuit breaker turned ON could cause electric shocks or injury.
- **Do not install the unit in appropriate environment or where inflammable gas could generate, flow in, accumulate or leak.**
  If the unit is used at places where air contains dense oil mist, steam, organic solvent vapor, corrosive gas (ammonium, sulfuric compound, acid, etc) or where acidic or alkaline solution, special spray, etc. are used, it could cause electric shocks, break-down, smoke or fire as a result of significant deterioration of its performance or corrosion.
- **Do not install the unit where water vapor is generated excessively or condensation occurs.**
  It could cause electric shocks, fire, or break-down.
- **Do not use the unit in a place where it gets wet, such as laundry room.**
  It could cause electric shocks, fire, or break-down.
- **Do not operate the unit with wet hands.**
  It could cause electric shocks.

⚠WARNING

- **Do not wash the unit with water.**
  It could cause electric shocks, fire, or break-down.
- **Use the specified cables for wiring, and connect them securely with care to protect electronic parts from external forces.**
  Improper connections or fixing could cause heat generation, fire, etc.
- **When installing the unit at a hospital, telecommunication facility, etc., take measures to suppress electric noises.**
  It could cause malfunction or break-down due to hazardous effects on the inverter, private power generator, high frequency medical equipment, radio communication equipment, etc.
  The influences transmitted from the remote control to medical or communication equipment could disrupt medical activities, video broadcasting or cause noise interference.
- **Do not leave the remote control with its PCB case removed.**
  If dew, water, insect, etc. enters through the hole, it could cause electric shocks, fire or break-down.

⚠CAUTION

- DO NOT install the wireless kit at the following places in order to avoid malfunction.
  It could cause break-down or deformation of remote control.
  (1) Places exposed to direct sunlight
  (2) Places near heat devices
  (3) High humidity places
  (4) Hot surface or cold surface enough to generate condensation
  (5) Places exposed to oil mist or steam directly
  (6) Uneven surface
  (7) Places affected by the direct airflow of the AC unit.
  (8) Places where the receiver is influenced by the fluorescent lamp (especially inverter type) or sunlight.
  (9) Places where the receiver is affected by infrared rays of any other communication devices.
  (10) Places where some object may obstruct the communication with the remote control.

① Accessories

Please make sure that you have all of the following accessories.

① Receiver		1
② Parts set (A)		1
③ Parts set (B)		1
④ Installation manual		1

① Wireless remote control (RCN-E2)		1
② Remote control holder		1
③ Screw for holder		2
④ AAA dry cell battery (LR03)		2
⑤ User's manual		1

① Wire clamp		2
② Tapping screw		2
③ Grommet		1

② Preparation before installation

Setting on site

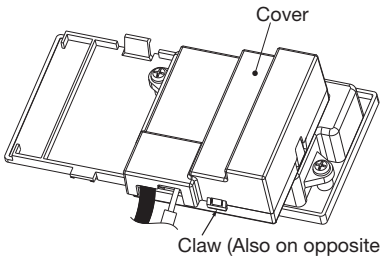
The interface PCB has the receiver has the following switches to set the function. Default setting is shown with ☐ mark.

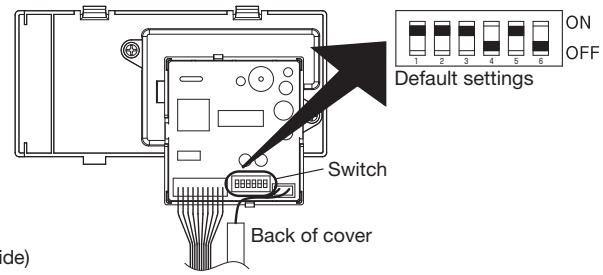
SW1	Prevents interference during plural setting	[ON : Normal] OFF : Customized
SW2	Receiver master/slave setting	[ON : Master] OFF : Slave
SW3	Buzzer	[ON : Valid] OFF : Invalid
SW4	Auto restart	ON : Valid [OFF : Invalid]
SW5	Indication for error	[ON : Valid] OFF : Invalid
SW6	Unit Type	ON : FDK [OFF : FDTW, FDFW]

② Preparation before installation (continued)

To change setting

1. Remove the cover by unscrewing two screws from the back of receiver.
2. Change the setting by the switch on PCB.





3. When SW1 is turned to OFF position, change the corresponding remote control setting. For the method of changing the setting, refer to Setting to avoid mixed communication of ④ Wireless remote control.

*The receivable area of the signal refer to ⑤ Receiver.

Master/Slave setting when using plural remote controls

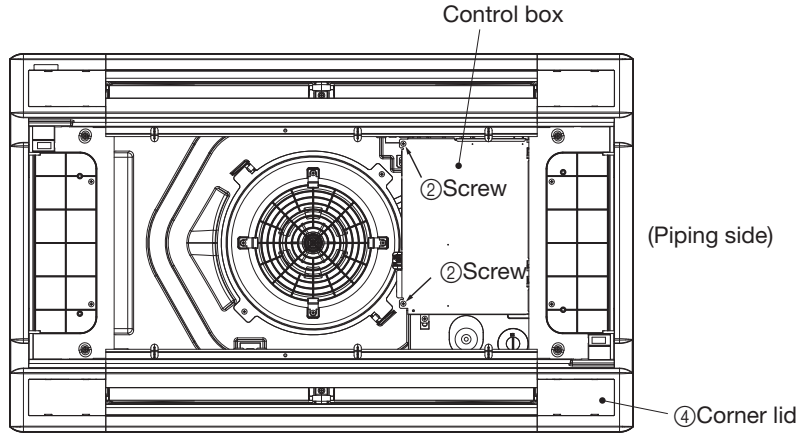
Up to two receiver or wired remote control can be installed in one indoor unit group. When two receiver or wired remote control are used, it is necessary to change SW on the PCB to set it as slave.

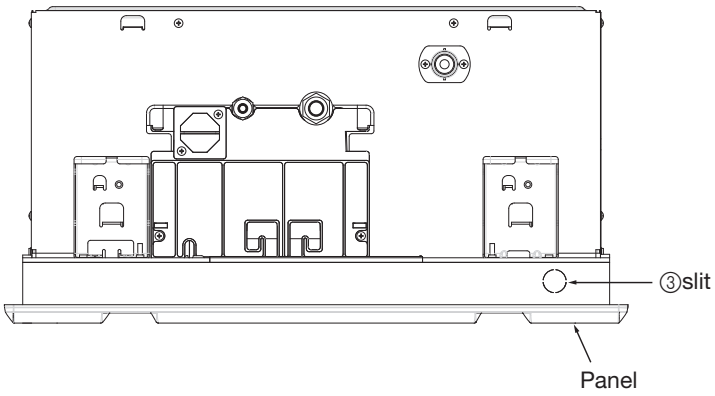
③ How to install the receiver

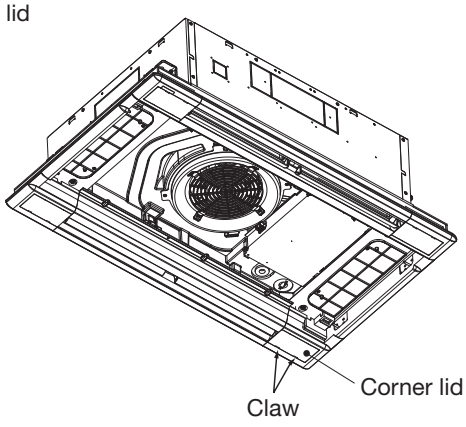
The receiver can be installed by replacing with a corner panel on the applicable decorative panel.

Preparation before installation

① Remove the service panel and the air filter.
② Remove the control box lid (fixed with 2 screws) on the main unit of air-conditioner.
③ Cut off the insulator slit attached to the side face of panel.
④ Release the hooks of corner lid using the tip of flat head screwdriver, or the like.





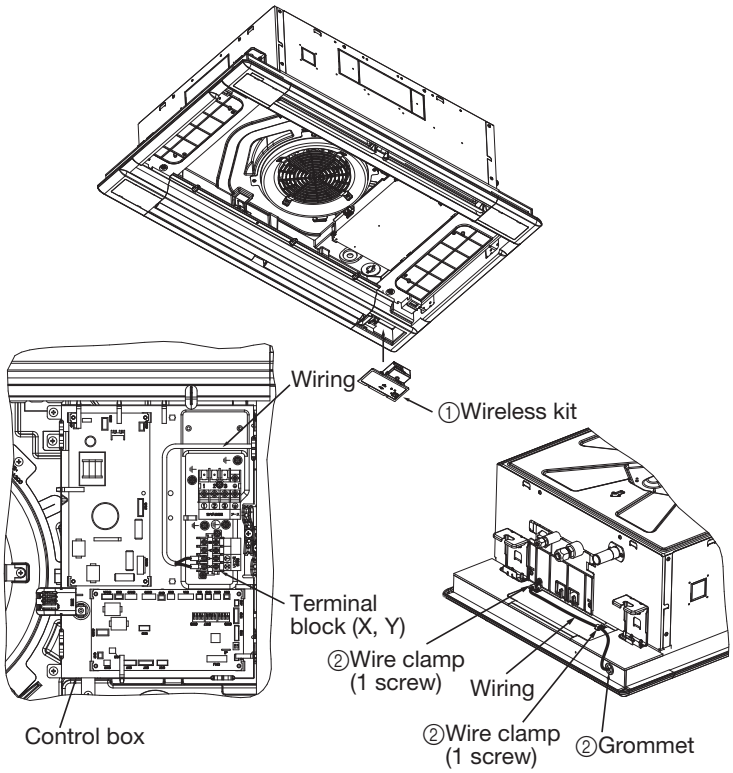


③ How to install the receiver(continued)

Installation of the receiver

① Attach the wireless kit on the panel as shown below.
② Install the grommet and wire clamps.
③ Introduce the wires of wireless kit in the control box as shown below.
④ Connect the wiring to the terminal block (X,Y) provided in the control box.(No polarity)
⑤ Reinstall the control box lid with 2 screws.

*Note: Make sure wires not to be pinched by any other parts like panel and control box.

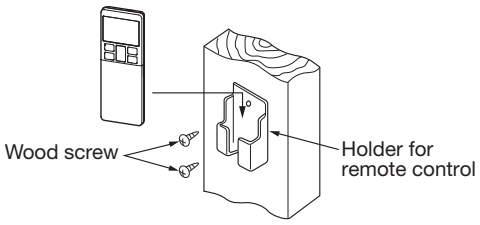


④ Wireless remote control

Installation tips for the remote control holder

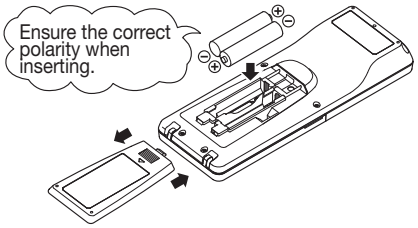
Fix the remote control holder using the screws supplied with this product.

* Precautions for installing the holder
- Adjust the position so that it is upright.
- Ensure that the screw heads are not protruding.
- DO NOT attach the holder on plaster wall



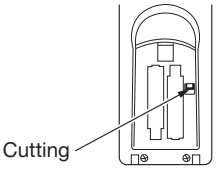
How to insert batteries

1. Detach the back lid.
2. Insert the batteries. (two AAA batteries)
3. Reattach the back lid.



Setting to avoid mixed communication

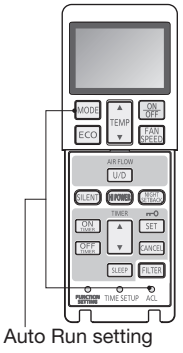
1. Detach the back lid, and remove the batteries.
2. Cut off the switching wire in the battery compartment using nippers.
3. Insert the batteries, and attach the back lid.



Changing the remote control setting

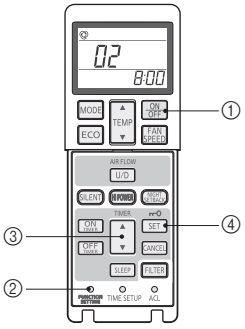
How to change the Auto Run setting
The Auto Run mode is not available on the building air conditioning and gas heat pump series (excluding the cooling/heating free multi system).
When using the remote control to operate those models, set the remote control to disable the Auto Run mode.
To disable the Auto Run mode, press the ACL switch while holding down the MODE button, or insert batteries while holding down the MODE button.

* Note: Once the batteries are removed, the setting is reset to the factory default. When the batteries are removed, repeat the steps described above.



Indoor function settings

1. How to set indoor functions
   ① Press the ON/OFF button to stop the unit.
   ② Press the desired one of the buttons shown item **2.** while holding down the FUNCTION SETTING switch.
   ③ Use the selection buttons, ▲ and ▼, to change the setting.
   ④ Press the SET button.
   The buzzer on the remote control signal receiver beeps twice, and the LED lamp flashes four times at two-second intervals.



④ Wireless remote control (continued)

2. Setting details
   The following functions can be set.

Button	Number indicator	Function setting
FAN SPEED	00	Fun speed setting : Standard
	01	Fun speed setting : Setting 1 *
	02	Fun speed setting : Setting 2 *
MODE	00	Room heating temperature adjustment : Disable
	01	Room heating temperature adjustment : +1°C
	02	Room heating temperature adjustment : +2°C
	03	Room heating temperature adjustment : +3°C
FILTER	00	Filter sign display : OFF
	01	Filter sign display : 180 hours
	02	Filter sign display : 600 hours
	03	Filter sign display : 1000 hours
	04	Filter sign display : Operation stop after 1000 hours have elapsed
U/D (Up/Down)	00	Anti draft setting : Disable
	01	Anti draft setting : Enable
SILENT	00	Infrared sensor setting (Motion sensor setting) : Disable
	01	Infrared sensor setting (Motion sensor setting) : Enable
HI POWER	00	Infrared sensor control (Motion sensor control) : Disable
	01	Infrared sensor control (Motion sensor control) : Power control only
	02	Infrared sensor control (Motion sensor control) : Auto OFF only
	03	Infrared sensor control (Motion sensor control) : Power control + Auto OFF
ON TIMER	00	Cooling fan residual-period running : Disable
	01	Cooling fan residual-period running : 0.5 hours
	02	Cooling fan residual-period running : 2 hours
	03	Cooling fan residual-period running : 6 hours
OFF TIMER	00	Heating fan residual-period running : Disable
	01	Heating fan residual-period running : 0.5 hours
	02	Heating fan residual-period running : 2 hours
	03	Heating fan residual-period running : 6 hours
NIGHT SETBACK	00	Remote control signal receiver LED : Brightness High
	01	Remote control signal receiver LED : Brightness Low
	02	Remote control signal receiver LED : OFF

* Refer to technical data.

⑤ Receiver

1 Control plural indoor units with one remote control

Up to 16 indoor units can be connected.

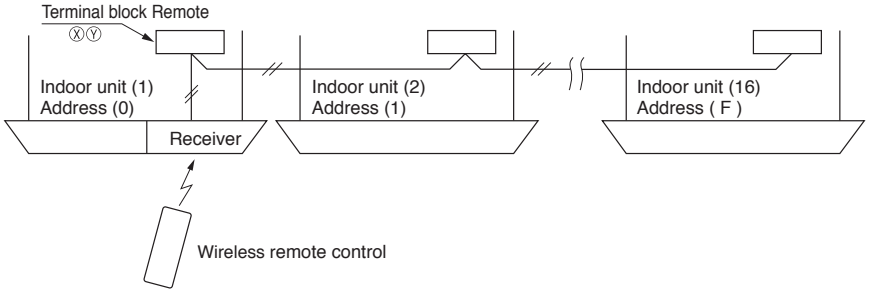
1. Connect the XY terminal with 2-core wire. As for the size, refer to the following note.
2. For Packaged air-conditioner series, set the indoor unit address with SW2 on the indoor unit PCB from [1] to [F] so as not to duplicate.

Restrictions on the thickness and length of wire (Maximun total extension 600m.)

Standard	Within 0.3 mm² × 100m
	Within 0.5 mm² × 200m
	Within 0.75mm² × 300m
	Within 1.25mm² × 400m
	Within 2.0 mm² × 600m

For the shop series

For VRF series, set the indoor unit address with SW1, SW2 and SW5-2 on the indoor unit PCB from [000] to [127] so as not to duplicate.

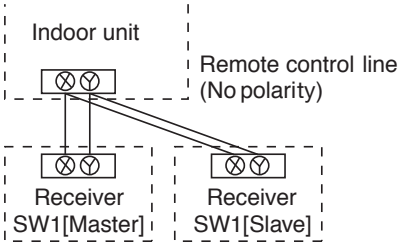


For the building air-conditioning and gas heat pump series

Set the indoor unit and outdoor unit numbers by manually specifying the addresses.
Use the rotary SW1 and SW2 provided on the indoor unit PCB (printed circuit board) to set the indoor unit numbers so that they are not duplicated.

Master/Slave setting when using plural remote control

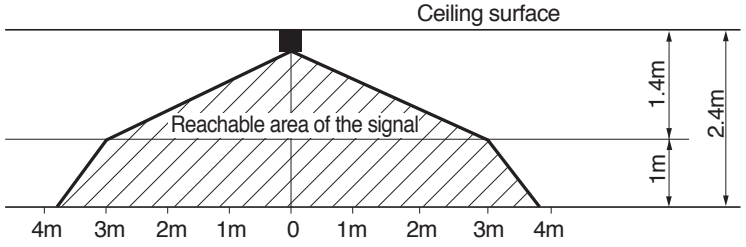
Up to two receivers can be installed in one indoor unit group.



Switch	Setting	Function
SW2	ON	Master
	OFF	Slave

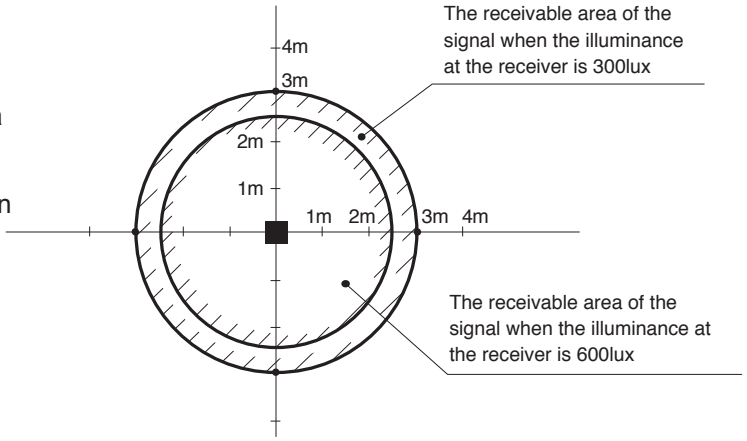
Wireless remote control's operable area

1. Standard reachable area of the signal
   [Condition] Illuminance at the receiver: 300lux
   (when no lighting is installed within 1m of the receiver in an ordinary office.)



⑤ Receiver (continued)

2. Correlation between illuminance at the receiver and reachable area of the signal in a plain view.
   The drawing in the right shows the correlation between the reachable area of the signal and illuminance at the receiver when the remote control is operated at 1m high under the condition of ceiling height of 2.4m.

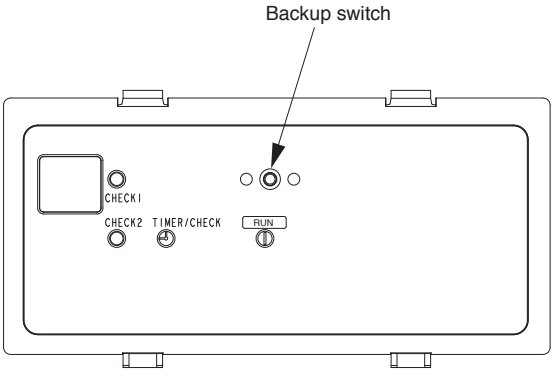


3. Installation tips when several receivers are installed close Minimum distance between the indoor units which can avoid cross communication is 5m under the condition of 300lux of illuminance at the receiver. (When no lighting is installed within 1m of the receiver in an ordinary office)

Backup switch

A Backup switch is provided on the receiver. Even when the operation from the wireless remote control is not possible (due to flat batteries, controller lost, or controller failure), still it possible to operate as temporary means. Press the button directly when operating it.

1. The air-conditioner starts the operation with the condition of Auto mode, 23°C of set point, High fan speed and horizontal louver position.
2. The air-conditioner stops the operation when the button is pressed when in operation.



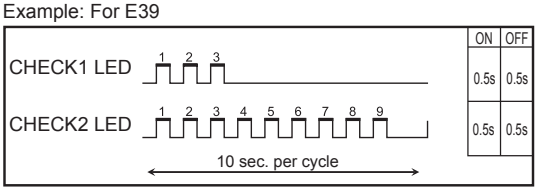
Cooling test run operation

- After safety con rmation, turn on the power.
- Transmit a cooling operation command with the wireless remote control, while the backup switch on the receiver is depressed.
- If the backup switch on the receiver is pressed during a test run, it will end the test run.
- If you cannot operate the unit properly during a test run, please check wiring by consulting with inspection guides.

How to read the check display

- “CHECK1”/“CHECK2” LEDs of the inspection LED display flicker for the times indicated with the numbers shown at the “tens place”/“ones place” of error code.

Example: For E39



(4) FDTS series (RCN-TS-E2)

PJC012D310

Safety precautions

●Please read this manual carefully before starting installation work to install the unit properly. Every one of the followings is important information to be observed strictly.
⚠WARNING Failure to follow these instructions properly may result in serious consequences such as death, severe injury, etc.
⚠CAUTION Failure to follow these instructions properly may cause injury or property damage. It could have serious consequences depending on the circumstances.
●The following pictograms are used in the text.

⃠	Never do.	❗	Always follow the instructions given.

●Keep this manual at a safe place where you can consult with whenever necessary. Show this manual to installers when moving or repairing the unit. When the ownership of the unit is transferred, this manual should be given to a new owner.

⚠WARNING

- **Consult your dealer or a professional contractor to install the unit.**
  Improper installation made on your own may cause electric shocks, fire or dropping of the unit.
- **Installation work should be performed properly according to this installation manual.**
  Improper installation work may result in electric shocks, fire or break-down.
- **Be sure to use accessories and specified parts for installation work.**
  Use of unspecified parts may result in drop, fire or electric shocks.
- **Install the unit properly to a place with sufficient strength to hold the weight.**
  If the place is not strong enough, the unit may drop and cause injury.
- **Be sure to have the electrical wiring work done by qualified electrical installer, and use exclusive circuit.**
  Power source with insufficient and improper work can cause electric shock and fire.
- **Shut OFF the main power source before starting electrical work.**
  Otherwise, it could result in electric shocks, break-down or malfunction.
- **Do not modify the unit.**
  It could cause electric shocks, fire, or break-down.
- **Be sure to turn OFF the power circuit breaker before repairing/inspecting the unit.**
  Repairing/inspecting the unit with the power circuit breaker turned ON could cause electric shocks or injury.
- **Do not install the unit in appropriate environment or where inflammable gas could generate, flow in, accumulate or leak.**
  If the unit is used at places where air contains dense oil mist, steam, organic solvent vapor, corrosive gas (ammonium, sulfuric compound, acid, etc) or where acidic or alkaline solution, special spray, etc. are used, it could cause electric shocks, break-down, smoke or fire as a result of significant deterioration of its performance or corrosion.
- **Do not install the unit where water vapor is generated excessively or condensation occurs.**
  It could cause electric shocks, fire, or break-down.
- **Do not use the unit in a place where it gets wet, such as laundry room.**
  It could cause electric shocks, fire, or break-down.
- **Do not operate the unit with wet hands.**
  It could cause electric shocks.

⚠WARNING

- **Do not wash the unit with water.**
  It could cause electric shocks, fire, or break-down.
- **Use the specified cables for wiring, and connect them securely with care to protect electronic parts from external forces.**
  Improper connections or fixing could cause heat generation, fire, etc.
- **When installing the unit at a hospital, telecommunication facility, etc., take measures to suppress electric noises.**
  It could cause malfunction or break-down due to hazardous effects on the inverter, private power generator, high frequency medical equipment, radio communication equipment, etc.
  The influences transmitted from the remote control to medical or communication equipment could disrupt medical activities, video broadcasting or cause noise interference.
- **Do not leave the remote control with its PCB case removed.**
  If dew, water, insect, etc. enters through the hole, it could cause electric shocks, fire or break-down.

⚠CAUTION

- DO NOT install the wireless kit at the following places in order to avoid malfunction.
  It could cause break-down or deformation of remote control.
  (1) Places exposed to direct sunlight
  (2) Places near heat devices
  (3) High humidity places
  (4) Hot surface or cold surface enough to generate condensation
  (5) Places exposed to oil mist or steam directly
  (6) Uneven surface
  (7) Places affected by the direct airflow of the AC unit.
  (8) Places where the receiver is influenced by the fluorescent lamp (especially inverter type) or sunlight.
  (9) Places where the receiver is affected by infrared rays of any other communication devices.
  (10) Places where some object may obstruct the communication with the remote controller

① Accessories

Please make sure that you have all of the following accessories.

① Receiver		1
② Bracket		1
③ Parts set (A)		1
④ Parts set (B)		1
⑤ Installation manual		1

① Wireless remote control (RCN-E2)		1
② Remote controholder		1
③ Screw for holder		2
④ AAA dry cell battery (LR03)		2
⑤ User's manual		1

① Tapping screw		4
② Tapping screw (White)		1

② Preparation before installation

Setting on site

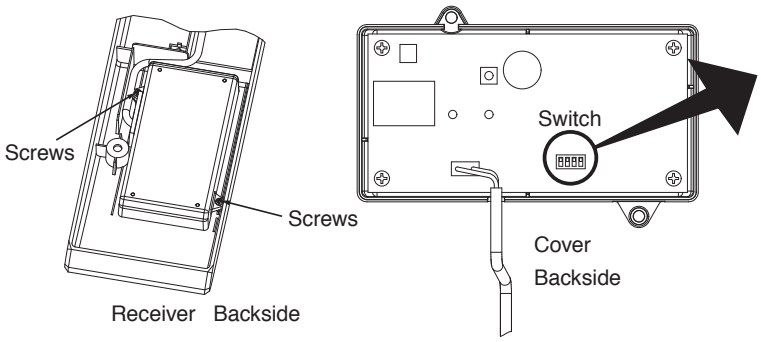
PCB on the receiver has the following switches to set the function.
Default setting is shown with [ ] mark.

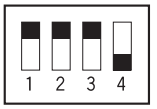
SW1	Prevents interference during plural setting	[ON : Normal]	OFF : Customized
SW2	Receiver master/ slave setting	[ON : Master]	OFF : Slave
SW3	Buzzer	[ON : Valid]	OFF : Invalid
SW4	Auto restart	ON : Valid	[OFF : Invalid]

② Preparation before installation (continued)

To change setting

1. Remove the cover by unscrewing two screws from the back of receiver.
2. Change the setting by the switch on PCB.





Master/Slave setting when using plural remote controls

Up to two receiver or wired remote control can be installed in one indoor unit group. When two receiver or wired remote control are used, it is necessary to change SW on the PCB to set it as slave.

3. When SW1 is turned to OFF position, change the wireless remote control setting. For the method of changing the setting, refer to Setting to avoid mixed communication of ④ Wireless remote control .

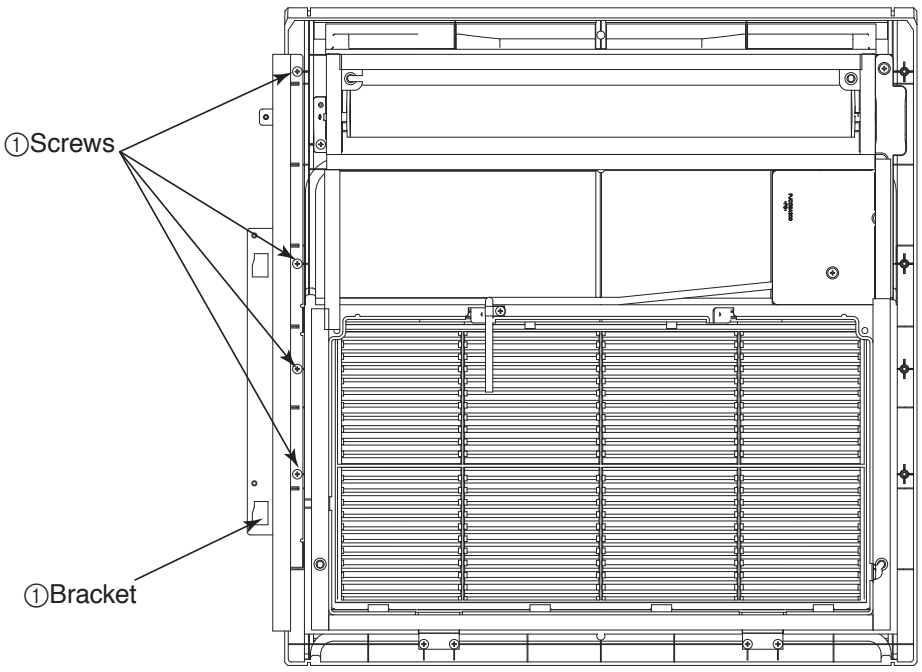
*The receivable area of the signal refer to ⑤ Receiver .

③ How to install the receiver

Install the receiver of this wireless kit at the refrigerant pipe side.

Preparation before installation

① Install the bracket on the panel at the refrigerant pipe side with 4 pieces of screw.
② Remove the control box cover on the main unit of air-conditioner by unfastening 2 pieces of screw.

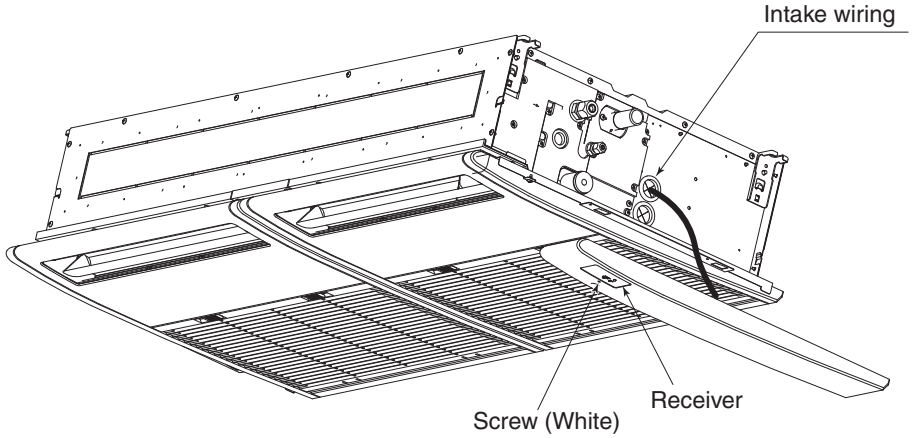


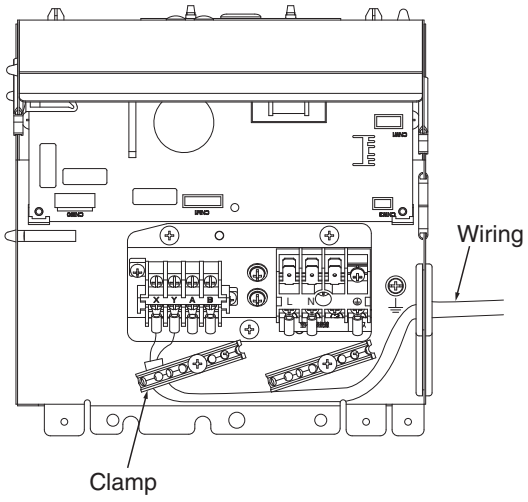
③ How to install the receiver(continued)

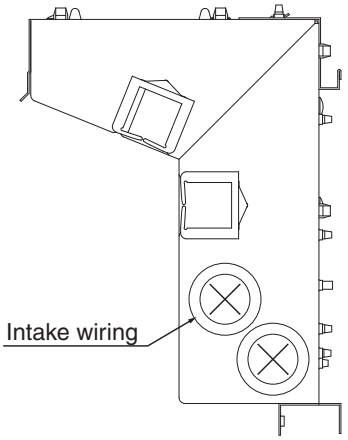
Installation of receiver

① Introduce the receiver cable, together with wires arranged at site, into the control box.
② Connect the wires to the terminal block (X, Y terminals) in the control box. (No polarity)
③ Fix the wires with the clamp as shown below.
④ Reinstall the control box cover.
⑤ Hook the receiver on the panel and fix with a white screw.

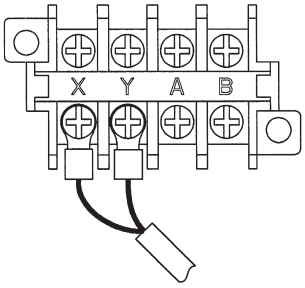
* Caution: Take care not to pinch the wires during installation.







Terminal block (X, Y) in the indoor unit control box

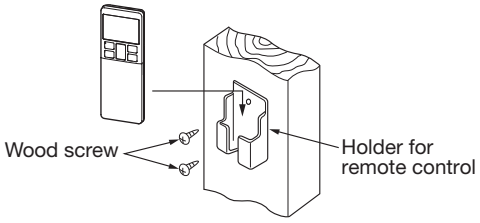


④ Wireless remote control

Installation tips for the remote control holder

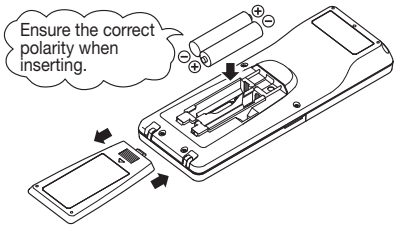
Fix the remote control holder using the screws supplied with this product.

* Precautions for installing the holder
- Adjust the position so that it is upright.
- Ensure that the screw heads are not protruding.
- DO NOT attach the holder on plaster wall



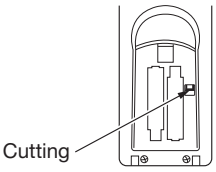
How to insert batteries

1. Detach the back lid.
2. Insert the batteries. (two AAA batteries)
3. Reattach the back lid.



Setting to avoid mixed communication

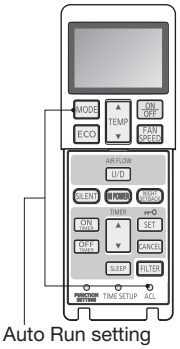
1. Detach the back lid, and remove the batteries.
2. Cut off the switching wire in the battery compartment using nippers.
3. Insert the batteries, and attach the back lid.



Changing the remote control setting

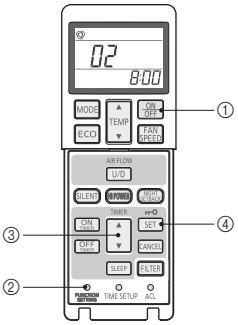
How to change the Auto Run setting
The Auto Run mode is not available on the building air-conditioning and gas heat pump series (excluding the cooling/heating free multi system).
When using the remote control to operate those models, set the remote control to disable the Auto Run mode.
To disable the Auto Run mode, press the ACL switch while holding down the MODE button, or insert batteries while holding down the MODE button.

* Note: Once the batteries are removed, the setting is reset to the factory default.
When the batteries are removed, repeat the steps described above.



Indoor function settings

1. How to set indoor functions
   ① Press the ON/OFF button to stop the unit.
   ② Press the desired one of the buttons shown item **2.** while holding down the FUNCTION SETTING switch.
   ③ Use the selection buttons, ▲ and ▼, to change the setting.
   ④ Press the SET button.
   The buzzer on the remote control signal receiver beeps twice, and the LED lamp flashes four times at two-second intervals.



④ Wireless remote control (continued)

2. Setting details
   The following functions can be set.

Button	Number indicator	Function setting
FAN SPEED	00	Fun speed setting : Standard
	01	Fun speed setting : Setting 1 *
	02	Fun speed setting : Setting 2 *
MODE	00	Room heating temperature adjustment : Disable
	01	Room heating temperature adjustment : +1°C
	02	Room heating temperature adjustment : +2°C
	03	Room heating temperature adjustment : +3°C
FILTER	00	Filter sign display : OFF
	01	Filter sign display : 180 hours
	02	Filter sign display : 600 hours
	03	Filter sign display : 1000 hours
	04	Filter sign display : Operation stop after 1000 hours have elapsed
U/D	00	Anti draft setting : Disable
	01	Anti draft setting : Enable
SILENT	00	Infrared sensor setting (Motion sensor setting) : Disable
	01	Infrared sensor setting (Motion sensor setting) : Enable
HI POWER	00	Infrared sensor control (Motion sensor control) : Disable
	01	Infrared sensor control (Motion sensor control) : Power control only
	02	Infrared sensor control (Motion sensor control) : Auto OFF only
	03	Infrared sensor control (Motion sensor control) : Power control and Auto OFF
ON TIMER	00	Cooling fan residual-period running : Disable
	01	Cooling fan residual-period running : 0.5 hours
	02	Cooling fan residual-period running : 2 hours
	03	Cooling fan residual-period running : 6 hours
OFF TIMER	00	Heating fan residual-period running : Disable
	01	Heating fan residual-period running : 0.5 hours
	02	Heating fan residual-period running : 2 hours
	03	Heating fan residual-period running : 6 hours
NIGHT SETBACK	00	Remote control signal receiver LED : Brightness High
	01	Remote control signal receiver LED : Brightness Low
	02	Remote control signal receiver LED : OFF

* Refer to technical data.

⑤ Receiver

1 Control plural indoor units with one remote control

Up to 16 indoor units can be connected.

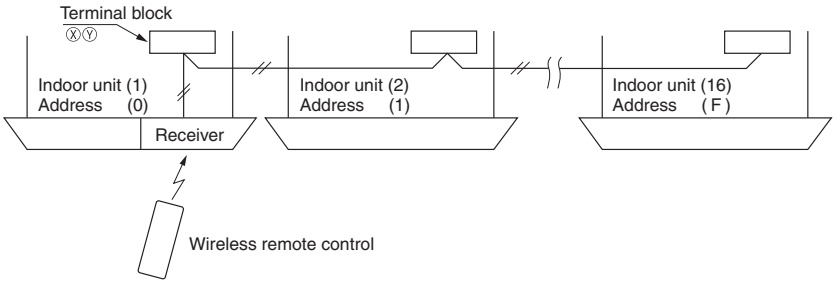
1. Connect the XY terminal with 2-core wire. As for the size, refer to the following note.
2. For Packaged air-conditioner series, set the indoor unit address with SW2 on the indoor unit PCB from [0] to [F] so as not to duplicate.

Restrictions on the thickness and length of wire (Maximun total extension 600m.)

Standard	Within 0.3 mm² × 100m
	Within 0.5 mm² × 200m
	Within 0.75mm² × 300m
	Within 1.25mm² × 400m
	Within 2.0 mm² × 600m

For the shop series

For VRF series, set the indoor unit address with SW1, SW2 and SW5-2 on the indoor unit PCB from [000] to [127] so as not to duplicate.

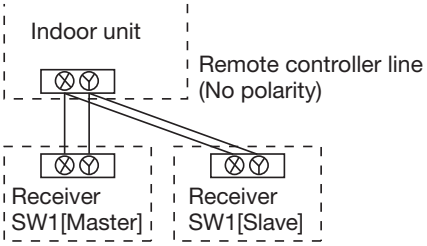


For the building air-conditioning and gas heat pump series

Set the indoor unit and outdoor unit numbers by manually specifying the addresses.
Use the rotary SW1 and SW2 provided on the indoor unit PCB (printed circuit board) to set the indoor unit numbers so that they are not duplicated.

Master/Slave setting when using plural remote control

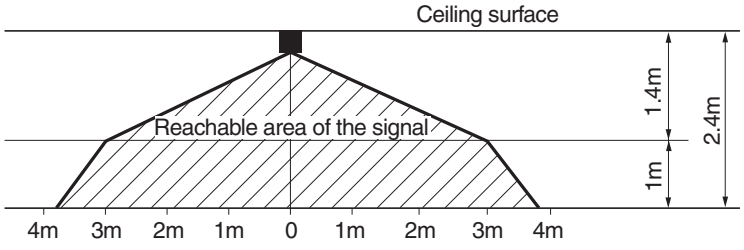
Up to two receivers can be installed in one indoor unit group.



Switch	Setting	Function
SW2	ON	Master
	OFF	Slave

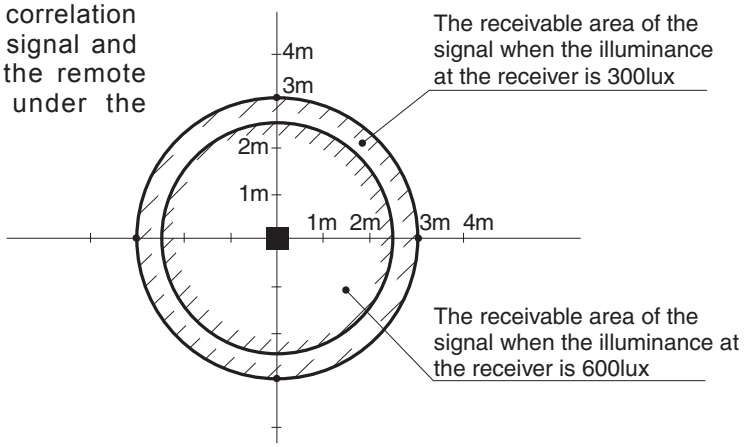
Wireless remote control's operable area

1. Standard reachable area of the signal
   [condition] Illuminance at the receiver: 300lux
   (when no lighting is installed within 1m of the receiver in an ordinary office.)



⑤ Receiver (continued)

2. Correlation between illuminance at the receiver and reachable area of the signal in a plain view. The drawing in the right shows the correlation between the reachable area of the signal and illuminance at the receiver when the remote control is operated at 1m high under the condition of ceiling height of 2.4m.

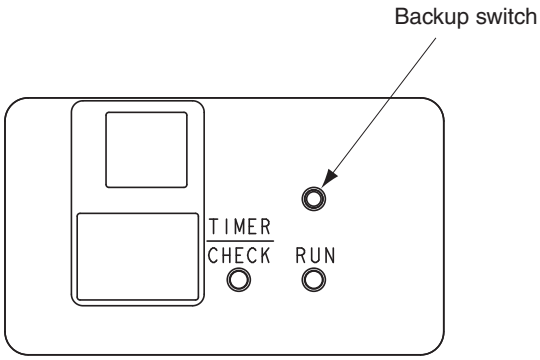


3. Installation tips when several receivers are installed close Minimum distance between the indoor units which can avoid cross communication is 5m under the condition of 300lux of illuminance at the receiver. (When no lighting is installed within 1m of the receiver in an ordinary office)

Backup switch

A Backup switch is provided on the receiver. Even when the operation from the wireless remote control is not possible (due to fl at batteries, control lost, or controller failure), still it possible to operate as temporary means. Press the switch directly when operating it.

1. The air-conditioner starts the operation with the condition of Auto mode, 23˚C of set point, High fan speed and horizontal louver position.
2. The air-conditioner stops the operation when the switch is pressed when in operation.



Cooling test run operation

- After safety confi rmation, turn on the power.
- Transmit a cooling operation command with the wireless remote control, while the backup switch on the receiver is depressed.
- If the backup switch on the receiver is pressed during a test run, it will end the test run.
- If you cannot operate the unit properly during a test run, please check wiring by consulting with inspection guides.

How to read the 2-digit display

On the receiver of a wireless kit, a two-digit (7-segment) display is provided.

1. An indication will be displayed for one hour after power on.
2. An indication will be displayed for 3.5 seconds after transmitting a “STOP” command from the wireless remote control or the operation of the backup switch to stop the unit.
3. An indication appearing in (1) or (2) above will go off as soon as the unit starts operation.
4. When there are no error records to indicate, addresses of all the connected units are displayed.
5. When there are some error records remaining, the error records are displayed.
6. Error records can be cleared by transmitting a “STOP” command from the wireless remote control, while the backup button is pressed.

(5) FDK series (RCN-K-E2 · RCN-K71-E2)

PHA012D049A

Safety precautions

●Please read this manual carefully before starting installation work to install the unit properly. Every one of the followings is important information to be observed strictly.
⚠WARNING Failure to follow these instructions properly may result in serious consequences such as death, severe injury, etc.
⚠CAUTION Failure to follow these instructions properly may cause injury or property damage. It could have serious consequences depending on the circumstances.
●The following pictograms are used in the text.

⃠	Never do.	❗	Always follow the instructions given.

●Keep this manual at a safe place where you can consult with whenever necessary. Show this manual to installers when moving or repairing the unit. When the ownership of the unit is transferred, this manual should be given to a new owner.

⚠WARNING

- **Consult your dealer or a professional contractor to install the unit.**
  Improper installation made on your own may cause electric shocks, fire or dropping of the unit.
- **Installation work should be performed properly according to this installation manual.**
  Improper installation work may result in electric shocks, fire or break-down.
- **Be sure to use accessories and specified parts for installation work.**
  Use of unspecified parts may result in drop, fire or electric shocks.
- **Install the unit properly to a place with sufficient strength to hold the weight.**
  If the place is not strong enough, the unit may drop and cause injury.
- **Be sure to have the electrical wiring work done by qualified electrical installer, and use exclusive circuit.**
  Power source with insufficient and improper work can cause electric shock and fire.
- **Shut OFF the main power source before starting electrical work.**
  Otherwise, it could result in electric shocks, break-down or malfunction.
- **Do not modify the unit.**
  It could cause electric shocks, fire, or break-down.
- **Be sure to turn OFF the power circuit breaker before repairing/inspecting the unit.**
  Repairing/inspecting the unit with the power circuit breaker turned ON could cause electric shocks or injury.
- **Do not install the unit in appropriate environment or where inflammable gas could generate, flow in, accumulate or leak.**
  If the unit is used at places where air contains dense oil mist, steam, organic solvent vapor, corrosive gas (ammonium, sulfuric compound, acid, etc) or where acidic or alkaline solution, special spray, etc. are used, it could cause electric shocks, break-down, smoke or fire as a result of significant deterioration of its performance or corrosion.
- **Do not install the unit where water vapor is generated excessively or condensation occurs.**
  It could cause electric shocks, fire, or break-down.
- **Do not use the unit in a place where it gets wet, such as laundry room.**
  It could cause electric shocks, fire, or break-down.
- **Do not operate the unit with wet hands.**
  It could cause electric shocks.

⚠WARNING

- **Do not wash the unit with water.**
  It could cause electric shocks, fire, or break-down.
- **Use the specified cables for wiring, and connect them securely with care to protect electronic parts from external forces.**
  Improper connections or fixing could cause heat generation, fire, etc.
- **When installing the unit at a hospital, telecommunication facility, etc., take measures to suppress electric noises.**
  It could cause malfunction or break-down due to hazardous effects on the inverter, private power generator, high frequency medical equipment, radio communication equipment, etc.
  The influences transmitted from the remote control to medical or communication equipment could disrupt medical activities, video broadcasting or cause noise interference.
- **Do not leave the remote control with its PCB case removed.**
  If dew, water, insect, etc. enters through the hole, it could cause electric shocks, fire or break-down.

⚠CAUTION

- Do not install the wireless kit at the following places in order to avoid malfunction.
  It could cause break-down or deformation of remote control.
  (1) Places exposed to direct sunlight
  (2) Places near heat devices
  (3) High humidity places
  (4) Hot surface or cold surface enough to generate condensation
  (5) Places exposed to oil mist or steam directly
  (6) Uneven surface
  (7) Places affected by the direct airflow of the AC unit.
  (8) Places where the receiver is influenced by the fluorescent lamp (especially inverter type) or sunlight.
  (9) Places where the receiver is affected by infrared rays of any other communication devices.
  (10) Places where some object may obstruct the communication with the remote control.

① Accessories

Please make sure that you have all of the following accessories.

RCN-K-E2

① Control-Assy		1
② Display-Assy		1
③ Display label		1
④ Parts set		1
⑤ Installation manual		1

RCN-K71-E2

① Control-Assy		1
② Display-Assy		1
③ Label (LED)		1
④ Parts set		1
⑤ Installation manual		1

① Wireless remote control (RCN-EK2)		1
② Remote control holder		1
③ Screw for holder		2
④ AAA dry cell battery (LR03)		2
⑤ User's manual		1

② Preparation before installation

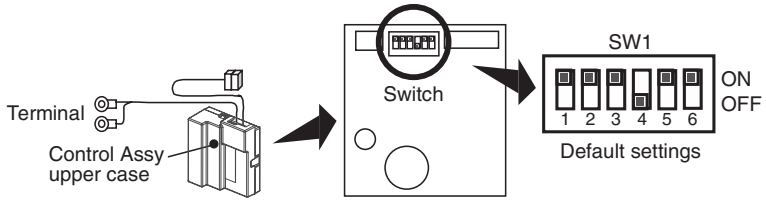
Setting on site

PCB on the receiver has the following switches to set the function. Default setting is shown with ☐ mark.

SW1	Prevents interference during plural setting	ON : Normal	OFF : Customized
SW2	Receiver master/slave setting	ON : Master	OFF : Slave
SW3	Buzzer	ON : Valid	OFF : Invalid
SW4	Auto restart	ON : Valid	OFF : Invalid
SW5	Indication for error	ON : Valid	OFF : Invalid
SW6	Unit type	ON : FDK	OFF : FDTW, FDFW

To change setting

1. Remove the upper case of Control-Assy.
2. Change the setting by the switch on PCB.



3. When SW1 is turned to OFF position, change the wireless remote control setting.
   For the method of changing the setting, refer to Setting to avoid mixed communication of ④ Wireless remote control .

*The receivable area of the signal refer to ⑤ Receiver .

Master/Slave setting when using plural remote controls

Up to two receiver or wired remote control can be installed in one indoor unit group.
When two receiver or wired remote control are used, it is necessary to change SW on the PCB to set it as slave.

③ How to install the receiver

The Control-Assy and Display-Assy can be installed inside the indoor unit.
After turning off the power and confirming safety, execute as follows.

① **Remove the front panel**

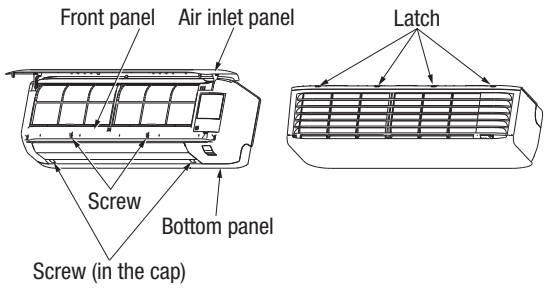
(a) Remove the air inlet panel.

(b) Remove the 2 screws in the cap of bottom panel. (Type 15 - 56 only)

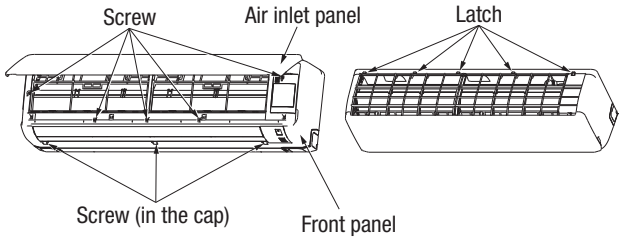
(c) Remove the 2 hooks of left and right side and then bottom panel can be removed. (Type 15 - 56 only)

(d) Remove the screws (Type 15 - 56: 2 screws, Type 71, 90: 5 screws + 3 screws (in the cap))

(e) Remove the upper latches and then front panel can be removed.
(Type 15 - 56: 4 latches, Type 71, 90: 5 latches)



Type 15 - 56



Type 71, 90

③ How to install the receiver (continued)

② Install Display-Assy on Indoor unit

(a) Remove the control cover, and then louver wiring can be removed to CnJ1 on the PCB.

(b) Remove the louver wiring hanging on display holder.

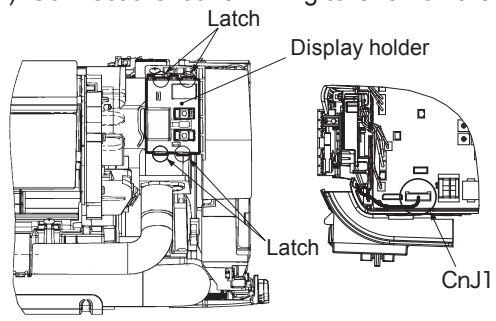
(c) Remove the latches of display holder and then display holder can be removed.
(Type 15 - 56 : 4 latches, Type 71, 90 : 6 latches)

* Please use slotted screwdriver etc when remove the latches of display holder.

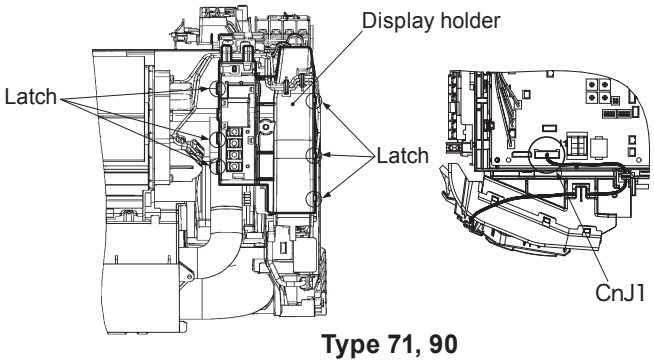
(d) Fix the latches of Display-Assy and then Display-Assy can be installed.
(Type 15 - 56 : 4 latches, Type 71, 90 : 6 latches)

(e) Hang on the louver wiring to the Display-Assy.

(f) Connect the louver wiring to CnJ1 on the PCB, and fix the control cover.



Type 15 - 56



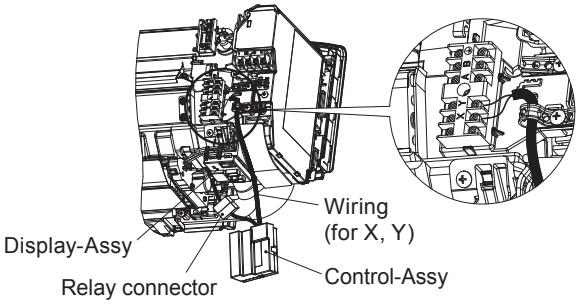
Type 71, 90

③ Fix wiring and install the Control-Assy on Indoor unit.

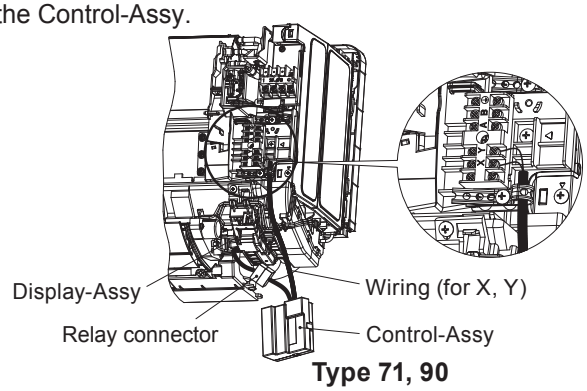
(a) Fix the terminal of the wiring assy (for X, Y) on the terminal block of the indoor unit. (No polarity)

(b) Route the wiring as shown in figure.

(c) Connect relay connectors of the Display-Assy and the Control-Assy.



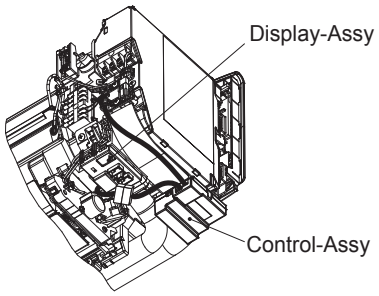
Type 15 - 56



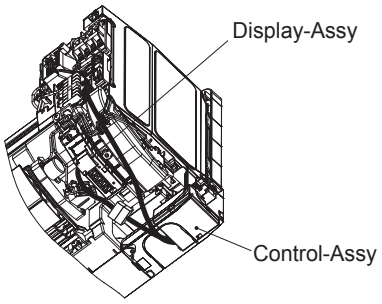
Type 71, 90

(d) The fixed place of wireless interface is refer to the following

In the case of Left-hand-side piping



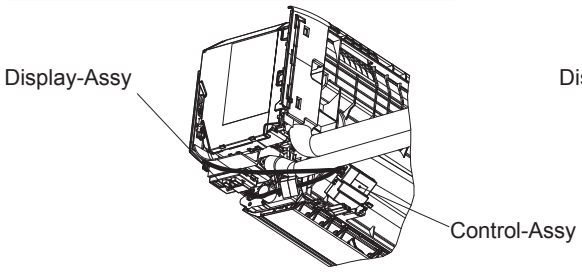
Type 15 - 56



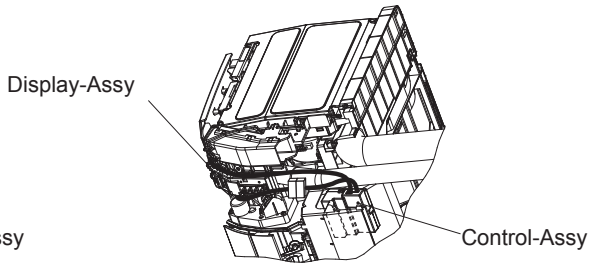
Type 71, 90

③ How to install the receiver (continued)

In the case of right-hand-side piping



Type 15 - 56



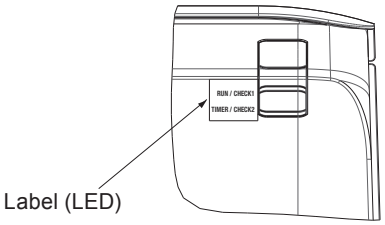
Type 71, 90

④ Install the front panel

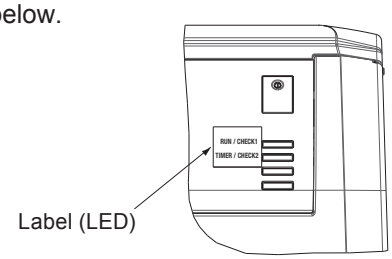
(a) Cover the unit with the front panel and fix upper latches (Type 15 - 56: 4 latches, Type 71, 90: 5 latches)
(b) Fix the front panel with the screws (Type 15 - 56: 2 screws, Type 71, 90: 5 screws + 3 screws (in the cap))
(c) Install the 2 hooks of left and right side and then bottom panel can be installed. (Type 15 - 56 only)
(d) Fix the bottom panel with 2 screws in the cap. (Type 15 - 56 only)
(e) Install the air inlet panel.

⑤ Stick label (LED) on panel

Stick the attached label (LED) on the front panel as below.



Type 15 - 56



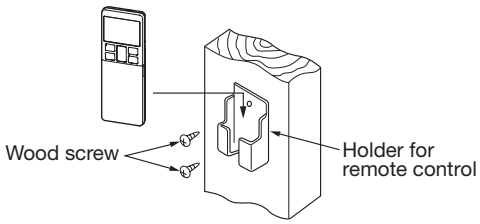
Type 71, 90

④ Wireless remote control

Installation tips for the remote control holder

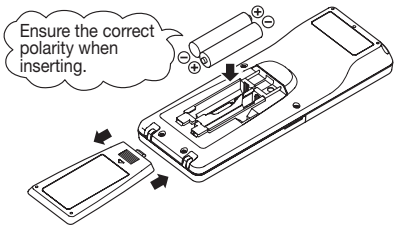
Fix the remote control holder using the screws supplied with this product.

* Precautions for installing the holder
- Adjust the position so that it is upright.
- Ensure that the screw heads are not protruding.
- Do not attach the holder on plaster wall.



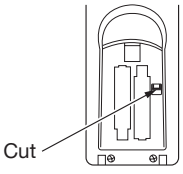
How to insert batteries

1. Detach the back lid.
2. Insert the batteries. (two AAA batteries)
3. Reattach the back lid.



Setting to avoid mixed communication

1. Detach the back lid, and remove the batteries.
2. Cut off the switching wire in the battery compartment using nippers.
3. Insert the batteries, and attach the back lid.

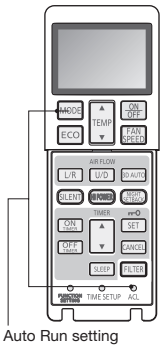


④ Wireless remote control (continued)

Changing the remote control setting

How to change the Auto Run setting
The Auto Run mode is not available on the building air-conditioning and gas heat pump series (excluding the cooling/heating free multi system).
When using the remote control to operate those models, set the remote control to disable the Auto Run mode.
To disable the Auto Run mode, press the ACL switch while holding down the MODE button, or insert batteries while holding down the MODE button.

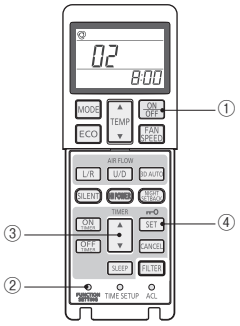
* Note: Once the batteries are removed, the setting is reset to the factory default.
When the batteries are removed, repeat the steps described above.



Auto Run setting

Indoor function settings

1. How to set indoor functions
   ① Press the ON/OFF button to stop the unit.
   ② Press the desired one of the buttons shown item 2. while holding down the FUNCTION SETTING switch.
   ③ Use the selection buttons, ▲ and ▼, to change the setting.
   ④ Press the SET button.
   The buzzer on the remote control signal receiver beeps twice, and the LED lamp flashes four times at two-second intervals.
2. Setting details
   The following functions can be set.



Button	Number indicator	Function setting
FAN SPEED	00	Fun speed setting : Standard
	01	Fun speed setting : Setting 1 *
	02	Fun speed setting : Setting 2 *
MODE	00	Room heating temperature adjustment : Disable
	01	Room heating temperature adjustment : +1°C
	02	Room heating temperature adjustment : +2°C
	03	Room heating temperature adjustment : +3°C
FILTER	00	Filter sign display : OFF
	01	Filter sign display : 180 hours
	02	Filter sign display : 600 hours
	03	Filter sign display : 1000 hours
	04	Filter sign display : Operation stop after 1000 hours have elapsed
U/D	00	Anti draft setting : Disable
	01	Anti draft setting : Enable
SILENT	00	Infrared sensor setting (Motion sensor setting) : Disable
	01	Infrared sensor setting (Motion sensor setting) : Enable

Button	Number indicator	Function setting
HI POWER	00	Infrared sensor control (Motion sensor control) : Disable
	01	Infrared sensor control (Motion sensor control) : Power control only
	02	Infrared sensor control (Motion sensor control) : Auto OFF only
	03	Infrared sensor control (Motion sensor control) : Power control and Auto OFF
ON TIMER	00	Cooling fan residual-period running : Disable
	01	Cooling fan residual-period running : 0.5 hours
	02	Cooling fan residual-period running : 2 hours
	03	Cooling fan residual-period running : 6 hours
OFF TIMER	00	Heating fan residual-period running : Disable
	01	Heating fan residual-period running : 0.5 hours
	02	Heating fan residual-period running : 2 hours
	03	Heating fan residual-period running : 6 hours
NIGHT SETBACK	00	Remote control signal receiver LED : Brightness High
	01	Remote control signal receiver LED : Brightness Low
	02	Remote control signal receiver LED : OFF

* Refer to technical data.

⑤ Receiver

1 control plural indoor units with one remote control

Up to 16 indoor units can be connected.

1. Connect the XY terminal with 2 cores wire. As for the size, refer to the following note.
2. For packaged air-conditioner series, set the indoor unit address with SW2 on the indoor unit PCB from [0] to [F] so as not to duplicate.

Restrictions on the thickness and length of wire
(Maximun total extension 600m.)

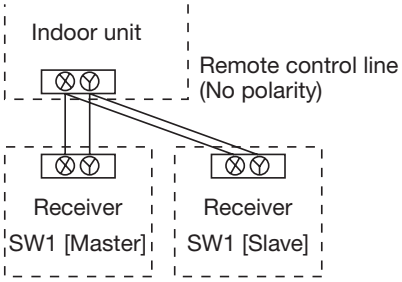
Standard	Within 0.3 mm² × 100m
	Within 0.5 mm² × 200m
	Within 0.75mm² × 300m
	Within 1.25mm² × 400m
	Within 2.0 mm² × 600m

⑤ Receiver (continued)

3. Set the indoor unit and outdoor unit numbers by manually specifying the addresses.
   Use the rotary switchs SW1 and SW2 provided on the indoor unit PCB (printed circuit board) to set the indoor unit numbers so that they are not duplicated.

Master/Slave setting when using plural remote control

Up to two receivers can be installed in one indoor unit group.

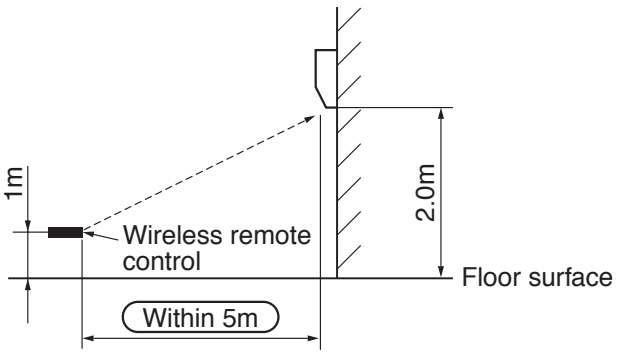


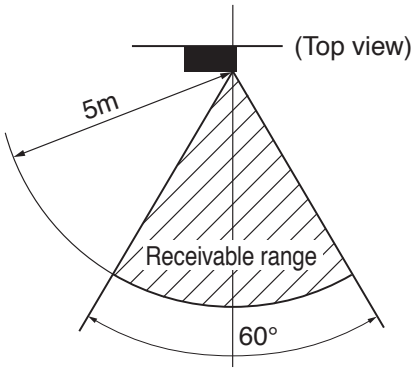
Switch	Setting	Function
SW2	ON	Master
	OFF	Slave

Wireless remote control's operable area

1. Standard signal receiving range

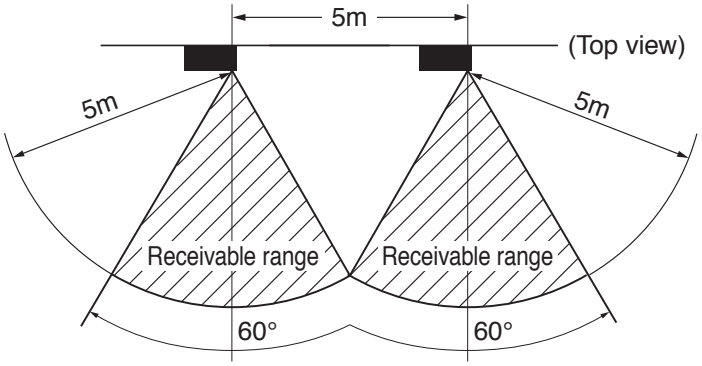
   [Condition] Illuminance at the receiver area: 360 lux.
   (When no lighting fixture is located within 1m of indoor unit in an ordinary office)





2. Installation tips when several receivers are installed close

   [Condition] Illuminance at the receiver area: 360 lux.

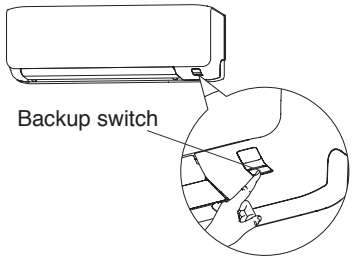


⑤ Receiver (continued)

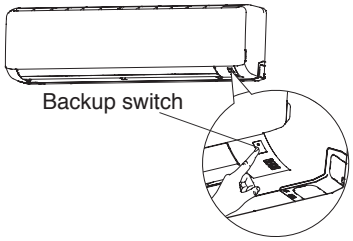
Backup button

A backup switch is provided on the receiver section of the panel surface.
When operation from the wireless remote control unit is not possible (due to flat batteries, a mislaid unit, a unit failure), you can use it as an emergency means. You should operate this switch manually.

1. If pressed while the air-conditioner is in a halt, it will cause the air-conditioner to start operation in the automatic mode (in the case of cooling only, in the cooling mode). Fan speed: Hi fan, Temperature setting: 23°C, Louver: horizontal
2. If pressed while the air-conditioner is in operation, it will stop the air-conditioner.



Type 15 - 56



Type 71, 90

Cooling test run operation

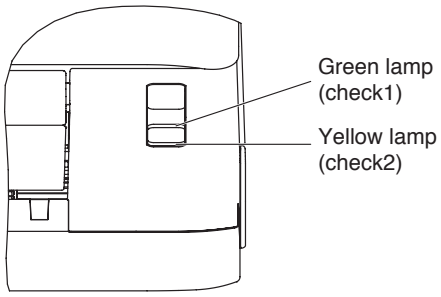
- After safety confirmation, turn on the power.
- Transmit a cooling operation command with the wireless remote control, while the backup switch on the receiver is depressed.
- If the backup switch on the receiver is pressed during a test run, it will end the test run.
- If you cannot operate the unit properly during a test run, please check wiring by consulting with inspection guides.

NOTE

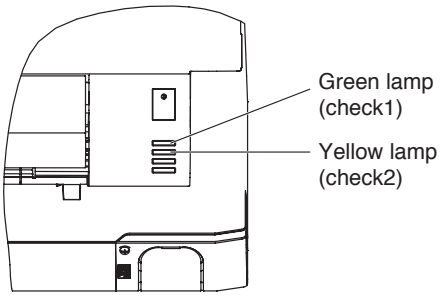
After over 2 minute from power on, operate the wireless remote control.
The operation is invalid during 2 minute from power on.

How to read the check display

- Check indicator lamp "green lamp (check1)" / "yellow lamp (check2)" shows error code.
- The number of blinking shows the error code and "green lamp (check1)" / "yellow lamp (check2)" corresponds to tens/ones place.

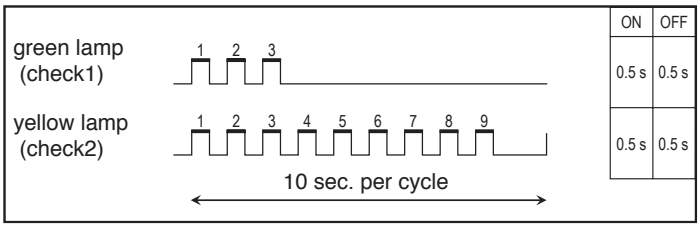


Type 15 - 56



Type 71, 90

Display method
Example: For E39



(6) FDE series (RCN-E-E3)

PFA012D635

Safety precautions

●Please read this manual carefully before starting installation work to install the unit properly. Every one of the followings is important information to be observed strictly.
⚠WARNING Failure to follow these instructions properly may result in serious consequences such as death, severe injury, etc.
⚠CAUTION Failure to follow these instructions properly may cause injury or property damage. It could have serious consequences depending on the circumstances.
●The following pictograms are used in the text.

⃠	Never do.	❗	Always follow the instructions given.

●Keep this manual at a safe place where you can consult with whenever necessary. Show this manual to installers when moving or repairing the unit. When the ownership of the unit is transferred, this manual should be given to a new owner.

⚠WARNING

- **Consult your dealer or a professional contractor to install the unit.**
  Improper installation made on your own may cause electric shocks, fire or dropping of the unit.
- **Installation work should be performed properly according to this installation manual.**
  Improper installation work may result in electric shocks, fire or break-down.
- **Be sure to use accessories and specified parts for installation work.**
  Use of unspecified parts may result in drop, fire or electric shocks.
- **Install the unit properly to a place with sufficient strength to hold the weight.**
  If the place is not strong enough, the unit may drop and cause injury.
- **Be sure to have the electrical wiring work done by qualified electrical installer, and use exclusive circuit.**
  Power source with insufficient and improper work can cause electric shock and fire.
- **Shut OFF the main power source before starting electrical work.**
  Otherwise, it could result in electric shocks, break-down or malfunction.
- **Do not modify the unit.**
  It could cause electric shocks, fire, or break-down.
- **Be sure to turn OFF the power circuit breaker before repairing/inspecting the unit.**
  Repairing/inspecting the unit with the power circuit breaker turned ON could cause electric shocks or injury.
- **Do not install the unit in appropriate environment or where inflammable gas could generate, flow in, accumulate or leak.**
  If the unit is used at places where air contains dense oil mist, steam, organic solvent vapor, corrosive gas (ammonium, sulfuric compound, acid, etc) or where acidic or alkaline solution, special spray, etc. are used, it could cause electric shocks, break-down, smoke or fire as a result of significant deterioration of its performance or corrosion.
- **Do not install the unit where water vapor is generated excessively or condensation occurs.**
  It could cause electric shocks, fire, or break-down.
- **Do not use the unit in a place where it gets wet, such as laundry room.**
  It could cause electric shocks, fire, or break-down.
- **Do not operate the unit with wet hands.**
  It could cause electric shocks.

⚠WARNING

- **Do not wash the unit with water.**
  It could cause electric shocks, fire, or break-down.
- **Use the specified cables for wiring, and connect them securely with care to protect electronic parts from external forces.**
  Improper connections or fixing could cause heat generation, fire, etc.
- **When installing the unit at a hospital, telecommunication facility, etc., take measures to suppress electric noises.**
  It could cause malfunction or break-down due to hazardous effects on the inverter, private power generator, high frequency medical equipment, radio communication equipment, etc. The influences transmitted from the remote control to medical or communication equipment could disrupt medical activities, video broadcasting or cause noise interference.
- **Do not leave the remote control with its PCB case removed.**
  If dew, water, insect, etc. enters through the hole, it could cause electric shocks, fire or break-down.

⚠CAUTION

- Do not install the wireless kit at the following places in order to avoid malfunction.
  It could cause break-down or deformation of remote control.
  (1) Places exposed to direct sunlight
  (2) Places near heat devices
  (3) High humidity places
  (4) Hot surface or cold surface enough to generate condensation
  (5) Places exposed to oil mist or steam directly
  (6) Uneven surface
  (7) Places affected by the direct air flow of the AC unit.
  (8) Places where the receiver is influenced by the fluorescent lamp (especially inverter type) or sunlight.
  (9) Places where the receiver is affected by infrared rays of any other communication devices.
  (10) Places where some object may obstruct the communication with the remote control

① Accessories

Please make sure that you have all of the following accessories.

① Receiver		1
② Parts set		1
③ Installation manual		1
④ Wiring		1

① Wireless remote control (RCN-E2)		1
② Remote control holder		1
③ Screw for holder		2
④ AAA dry cell battery (LR03)		2
⑤ User's manual		1

② Preparation before installation

Setting on site

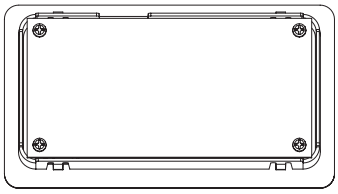
PCB on the receiver has the following switches to set the function.
Default setting is shown with ☐ mark.

SW1	Prevents interference during plural setting	☐ ON : Normal OFF : Customized
SW2	Receiver master/slave setting	☐ ON : Master OFF : Slave
SW3	Buzzer	☐ ON : Valid OFF : Invalid
SW4	Auto restart	ON : Valid ☐ OFF : Invalid

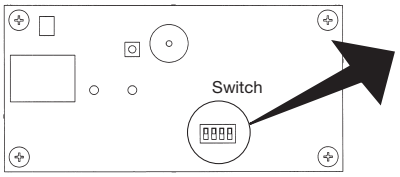
② Preparation before installation (continued)

To change setting

1. Remove four screws located on the back of the receiver and detach the board.
2. Change the setting by the switch on PCB.



Receiver backside





Default settings

Master/Slave setting when using plural remote controls

Up to two receiver or wired remote control can be installed in one indoor unit group. When two receiver or wired remote control are used, it is necessary to change SW on the PCB to set it as slave.

3. When SW1 is turned to OFF position, change the wireless remote control setting.
   For the method of changing the setting, refer to Setting to avoid mixed communication of ⑤ Wireless remote control

   *The receivable area of the signal refer to ⑥ Receiver .

③ How to install the receiver

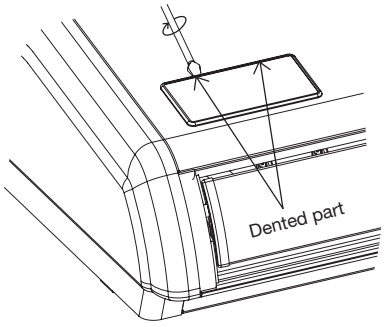
The receiver can be installed by replacing with a cover of the panel.

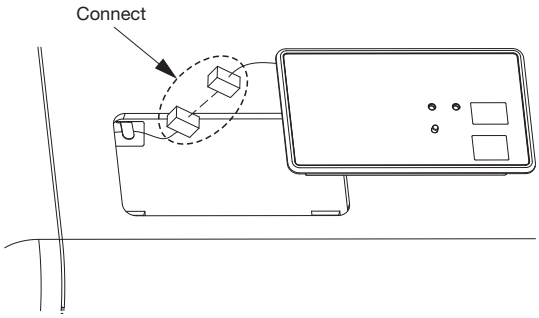
CAUTION: When installing the receiver after unit has been fixed, injury due to falling may result because of working at high place.

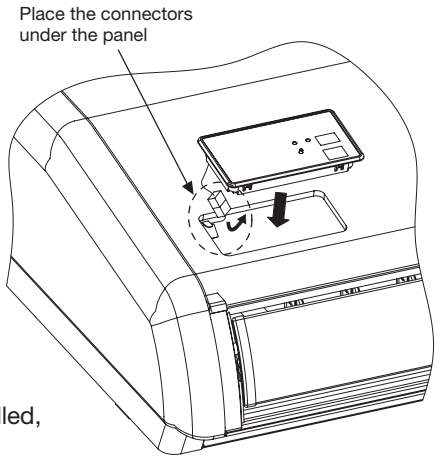
① **Remove the cover**
Insert a flat-blade screwdriver into the dented part (2 places), and wrench slightly so as not to damage panel surface.

② **Connect the wiring**
Connect wiring of the receiver to the wiring in the back.

ATTENTION: Do not remove the clamp fixed the wiring.







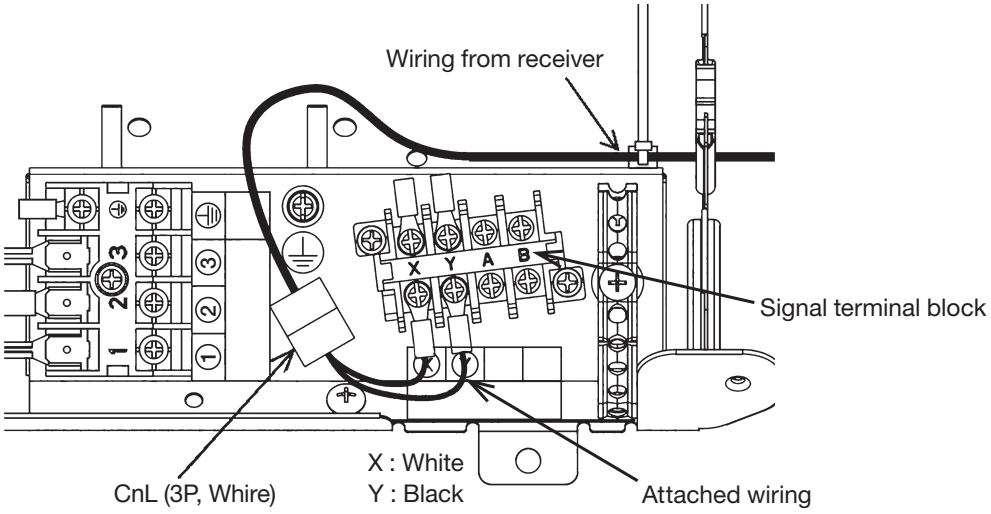
③ **Installation of the receiver**
Check direction of the receiver, and fix to the panel.

CAUTION: Connect the connectors before installing the receiver. In case of connecting after the receiver had been installed, it will be necessary to remove the panel.

④ How to connect the wiring for control box

Connect the attached wiring to the signal terminal block primary side XY (for grill side) in the control box, and connect to the CnL connector (3P white) from the receiver .

* This installation is unnecessary for indoor unit that have wiring is already connected from the signal terminal block to the receiver.

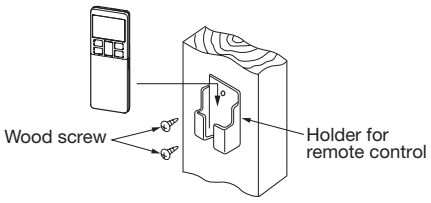


⑤ Wireless remote control

Installation tips for the remote control holder

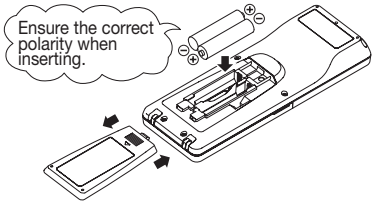
Fix the remote control holder using the screws supplied with this product.

* Precautions for installing the holder
- Adjust the position so that it is upright.
- Ensure that the screw heads are not protruding.
- Do not attach the holder on plaster wall.



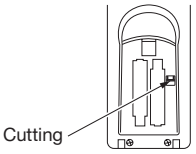
How to insert batteries

1. Detach the back lid.
2. Insert the batteries. (two AAA batteries)
3. Reattach the back lid.



Setting to avoid mixed communication

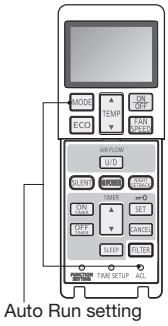
1. Detach the back lid, and remove the batteries.
2. Cut off the switching wire in the battery compartment using nippers.
3. Insert the batteries, and attach the back lid.



Changing the remote control setting

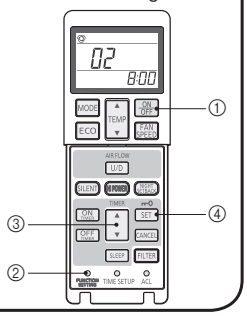
How to change the Auto Run setting
The Auto Run mode is not available on the building air conditioning and gas heat pump series (excluding the cooling/heating free multi system).
When using the remote control to operate those models, set the remote control to disable the Auto Run mode.
To disable the Auto Run mode, press the ACL switch while holding down the MODE button, or insert batteries while holding down the MODE button.

* Note: Once the batteries are removed, the setting is reset to the factory default. When the batteries are removed, repeat the steps described above.



Indoor function settings

1. How to set indoor functions
   ① Press the ON/OFF button to stop the unit.
   ② Press the desired one of the buttons shown item **2.** while holding down the FUNCTION SETTING switch.
   ③ Use the selection buttons, ▲ and ▼, to change the setting.
   ④ Press the SET button.
   The buzzer on the remote control signal receiver beeps twice, and the LED lamp flashes four times at two-second intervals.



⑤ Wireless remote control (continued)

2. Setting details
   The following functions can be set.

Button	Number indicator	Function setting
FAN SPEED	00	Fun speed setting : Standard
	01	Fun speed setting : Setting 1 *
	02	Fun speed setting : Setting 2 *
MODE	00	Room heating temperature adjustment : Disable
	01	Room heating temperature adjustment : +1°C
	02	Room heating temperature adjustment : +2°C
	03	Room heating temperature adjustment : +3°C
FILTER	00	Filter sign display : OFF
	01	Filter sign display : 180 hours
	02	Filter sign display : 600 hours
	03	Filter sign display : 1000 hours
	04	Filter sign display : Operation stop after 1000 hours have elapsed
U/D (Up/Down)	00	Anti draft setting : Disable
	01	Anti draft setting : Enable
SILENT	00	Infrared sensor setting (Motion sensor setting) : Disable
	01	Infrared sensor setting (Motion sensor setting) : Enable
HI POWER	00	Infrared sensor control (Motion sensor control) : Disable
	01	Infrared sensor control (Motion sensor control) : Power control only
	02	Infrared sensor control (Motion sensor control) : Auto OFF only
	03	Infrared sensor control (Motion sensor control) : Power control + Auto OFF
ON TIMER	00	Cooling fan residual-period running : Disable
	01	Cooling fan residual-period running : 0.5 hours
	02	Cooling fan residual-period running : 2 hours
	03	Cooling fan residual-period running : 6 hours
OFF TIMER	00	Heating fan residual-period running : Disable
	01	Heating fan residual-period running : 0.5 hours
	02	Heating fan residual-period running : 2 hours
	03	Heating fan residual-period running : 6 hours
NIGHT SETBACK	00	Remote control signal receiver LED : Brightness High
	01	Remote control signal receiver LED : Brightness Low
	02	Remote control signal receiver LED : OFF

* Refer to technical data.

⑥ Receiver

1 Control plural indoor units with one remote control

Up to 16 indoor units can be connected.

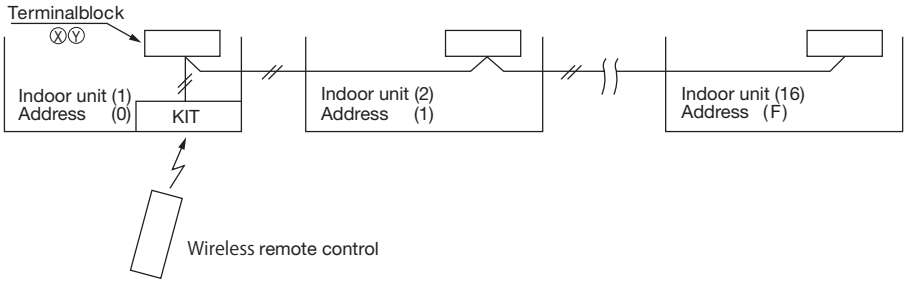
1. Connect the XY terminal with 2 cores wire. As for the size, refer to the following note.
2. For Packaged air conditioner series, set the indoor unit address with SW2 on the indoor unit PCB from [1] to [F] so as not to duplicate.

Restrictions on the thickness and length of wire (Maximun total extension 600m.)

Standard	Within 0.3 mm² × 100m
	Within 0.5 mm² × 200m
	Within 0.75mm² × 300m
	Within 1.25mm² × 400m
	Within 2.0 mm² × 600m

For the shop series

For VRF series, set the indoor unit address with SW1, SW2 and SW5-2 on the indoor unit PCB from [000] to [127] so as not to duplicate.

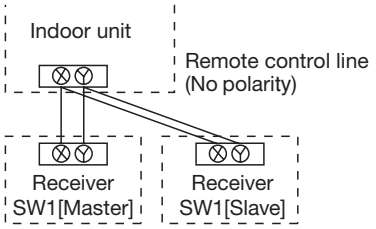


For the building air-conditioning and gas heat pump series

Set the indoor unit and outdoor unit numbers by manually specifying the addresses.
Use the rotary switches SW1 and SW2 provided on the indoor unit PCB (printed circuit board) to set the indoor unit numbers so that they are not duplicated.

Master/Slave setting when using plural remote control

Up to two receivers can be installed in one indoor unit group.

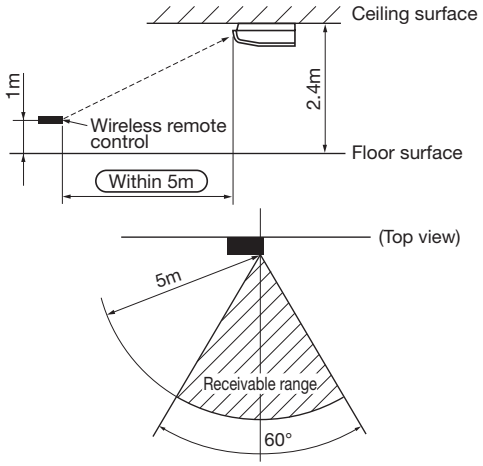


Switch	Setting	Function
SW2	ON	Master
	OFF	Slave

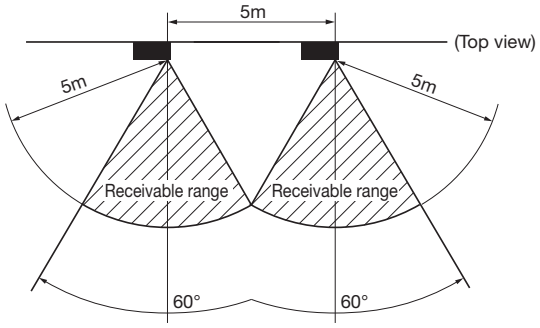
⑥ Receiver (continued)

Wireless remote control's operable area

1. Standard signal receiving range
   [Condition]
   Illuminance at the receiver area: 300 lux.
   (When no lighting fixture is located within 1m of indoor unit in an ordinary office)

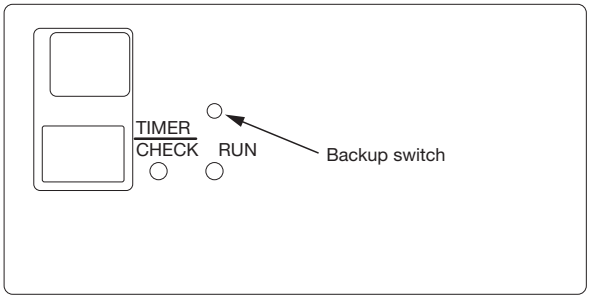


2. Points for attention in connecting a plural number of indoor units
   [Condition]
   Illuminance at the receiver area: 300 lux.



Backup switch

A backup switch is provided on the receiver section of the panel surface.
When operation from the wireless remote control is not possible (due to flat batteries, a mislaid unit, a unit failure), you can use it as an emergency means. You should operate this switch manually.



1. If pressed while the air-conditioner is in a halt, it will cause the air-conditioner to start operation in the automatic mode (in the case of cooling only, in the cooling mode).
   Wind speed: Hi fan, Temperature setting: 23°C, Louver: horizontal.
2. If pressed while the air-conditioner is in operation, it will stop the air-conditioner.

Cooling test run operation

- After safety confirmation, turn on the power.
- Transmit a cooling operation command with the wireless remote control, while the backup switch on the receiver is depressed.
- If the backup switch on the receiver is pressed during a test run, it will end the test run.
- If you cannot operate the unit properly during a test run, please check wiring by consulting with inspection guides.

How to read the two-digit display

A two-digit indicator (7-segment indicator) is provided on the receiver section.

1. An indication will be displayed for one hour after power on.
2. An indication appears for 3.5 seconds when a “Stop” command is sent from the wireless remote control unit while the air-conditioner is not running.
3. An indication appearing in (1) or (2) above will go off as soon as the unit starts operation.
4. When there are no error records to indicate, addresses are displayed for all of the connected units.
5. When there are some error records remaining, the error records are displayed.
6. Error records can be cleared by transmitting a “Stop” command from the wireless remote control unit, while the backup switch is depressed.

(7) FDU, FDUM, FDUT, FDU-F series (RCN-KIT4-E2)

PJZ012D112A

Safety precautions

●Please read this manual carefully before starting installation work to install the unit properly. Every one of the followings is important information to be observed strictly.
⚠WARNING Failure to follow these instructions properly may result in serious consequences such as death, severe injury, etc.
⚠CAUTION Failure to follow these instructions properly may cause injury or property damage. It could have serious consequences depending on the circumstances.
●The following pictograms are used in the text.

⃠	Never do.	❗	Always follow the instructions given.

●Keep this manual at a safe place where you can consult with whenever necessary. Show this manual to installers when moving or repairing the unit. When the ownership of the unit is transferred, this manual should be given to a new owner.

⚠WARNING

- **Consult your dealer or a professional contractor to install the unit.**
  Improper installation made on your own may cause electric shocks, fire or dropping of the unit.
- **Installation work should be performed properly according to this installation manual.**
  Improper installation work may result in electric shocks, fire or break-down.
- **Be sure to use accessories and specified parts for installation work.**
  Use of unspecified parts may result in drop, fire or electric shocks.
- **Install the unit properly to a place with sufficient strength to hold the weight.**
  If the place is not strong enough, the unit may drop and cause injury.
- **Be sure to have the electrical wiring work done by qualified electrical installer, and use exclusive circuit.**
  Power source with insufficient and improper work can cause electric shock and fire.
- **Shut OFF the main power source before starting electrical work.**
  Otherwise, it could result in electric shocks, break-down or malfunction.
- **Do not modify the unit.**
  It could cause electric shocks, fire, or break-down.
- **Be sure to turn OFF the power circuit breaker before repairing/inspecting the unit.**
  Repairing/inspecting the unit with the power circuit breaker turned ON could cause electric shocks or injury.
- **Do not install the unit in appropriate environment or where inflammable gas could generate, flow in, accumulate or leak.**
  If the unit is used at places where air contains dense oil mist, steam, organic solvent vapor, corrosive gas (ammonium, sulfuric compound, acid, etc) or where acidic or alkaline solution, special spray, etc. are used, it could cause electric shocks, break-down, smoke or fire as a result of significant deterioration of its performance or corrosion.
- **Do not install the unit where water vapor is generated excessively or condensation occurs.**
  It could cause electric shocks, fire, or break-down.
- **Do not use the unit in a place where it gets wet, such as laundry room.**
  It could cause electric shocks, fire, or break-down.
- **Do not operate the unit with wet hands.**
  It could cause electric shocks.

⚠WARNING

- **Do not wash the unit with water.**
  It could cause electric shocks, fire, or break-down.
- **Use the specified cables for wiring, and connect them securely with care to protect electronic parts from external forces.**
  Improper connections or fixing could cause heat generation, fire, etc.
- **When installing the unit at a hospital, telecommunication facility, etc., take measures to suppress electric noises.**
  It could cause malfunction or break-down due to hazardous effects on the inverter, private power generator, high frequency medical equipment, radio communication equipment, etc.
  The influences transmitted from the remote control to medical or communication equipment could disrupt medical activities, video broadcasting or cause noise interference.
- **Do not leave the remote control with its PCB case removed.**
  If dew, water, insect, etc. enters through the hole, it could cause electric shocks, fire or break-down.

⚠CAUTION

- Do not install the wireless kit at the following places in order to avoid malfunction.
  It could cause break-down or deformation of remote control.
  (1) Places exposed to direct sunlight
  (2) Places near heat devices
  (3) High humidity places
  (4) Hot surface or cold surface enough to generate condensation
  (5) Places exposed to oil mist or steam directly
  (6) Uneven surface
  (7) Places affected by the direct air flow of the AC unit
  (8) Places where the receiver is influenced by the fluorescent lamp (especially inverter type) or sunlight
  (9) Places where the receiver is affected by infrared rays of any other communication devices
  (10) Places where some object may obstruct the communication with the remote control

① Accessories

Please make sure that you have all of the following accessories.

① Receiver		1
② Wiring (3m)		1
③ Parts set (A)		1
④ Parts set (B)		1
⑤ Parts set (C)		1
⑥ Installation manual		1

① Wireless remote control (RCN-E2)		1
② Remote control holder		1
③ Screw for holder		2
④ AAA dry cell battery (LR03)		2
⑤ User"s manual		1

① Screw for receiver		2
② Fixing band		1
③ Clamp		5
④ Screw for clamp		5

① Receiver installation bracket		1
② Screw for the bracket		2
③ Installation fitting		2

② Preparation before installation

Setting on site

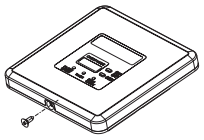
PCB on the receiver has the following switches to set the function. Default setting is shown with ☐ mark.

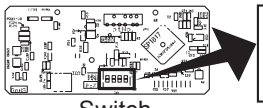
SW1	Prevents interference during plural setting	☐ ON : Normal	OFF : Customized
SW2	Receiver master/ slave setting	☐ ON : Master	OFF : Slave
SW3			
SW4	Auto restart	ON : Valid	☐ OFF : Invalid

② Preparation before installation (continued)

To change setting

1. Remove one screws located on the under of the receiver and detach the board.
2. Change the setting by the switch on PCB.





Switch



Default settings

3. When SW1 is turned to OFF position, change the wireless remote control setting. For the method of changing the setting, refer to Setting to avoid mixed communication of ④ Wireless remote control .

*The receivable area of the signal refer to ⑤ Receiver .

Master/Slave setting when using plural remote controls

Up to two receiver or wired remote control can be installed in one indoor unit group.
When two receiver or wired remote control are used, it is necessary to change SW on the PCB to set it as slave.

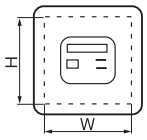
③ How to install the receiver

The following two methods can be used to install the receiver onto a ceiling or a wall.
Select a method according to the installation position.

<Installation position> (A) Direct installation onto the ceiling with wood screws.
(B) Installation with accessory's bracket

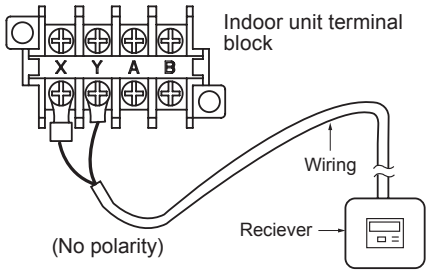
(1) Drilling of the ceiling (ceiling opening)

Drill the receiver installation holes with the dimensions shown right at the ceiling position where wires can be connected.



(A) Direct installation onto the ceiling with wood screws.	88mm(H)×101mm(W)
(B) Installation with enclosed bracket	108mm(H)×108mm(W)

(2) Wiring connection of receiver



⚠ Caution

Do not connect the wiring to the power source of the terminal block. If it is connected, printed board will be damaged.

(3) Installation of the receiver

Remove the screw on the side of the receiver and sprit it into the upper case and lower case.
Install the receiver with one of the two installation methods (A) to (C) shown below.

(A) Direct installation onto the ceiling with screws

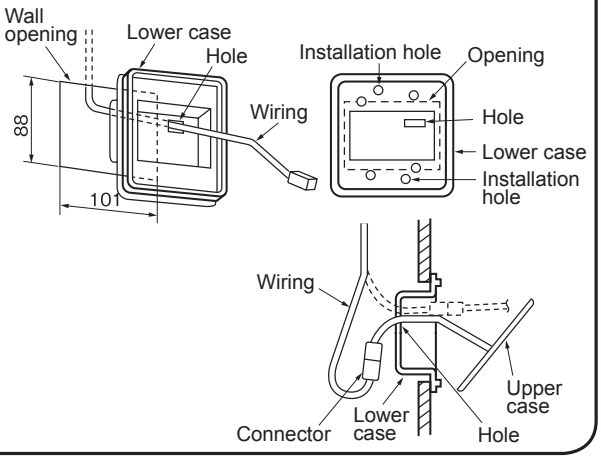
▷ Use this installation method when the ceiling is wooden, and there is no problem for strength in installing directly with wood screws.

① Put through the wiring from the back side to the hole of the lower case.

② Fit the lower case into the ceiling opening. Make sure that the clearance between the convex part of the back of the lower case and the ceiling opening must be as equal as possible on both sides.

③ Using the two installation holes shown right, fix the lower case onto the ceiling with the enclosed wood screws. (The other four holes are not used.)

④ Connect the wiring with the wiring from the upper case by the connector.

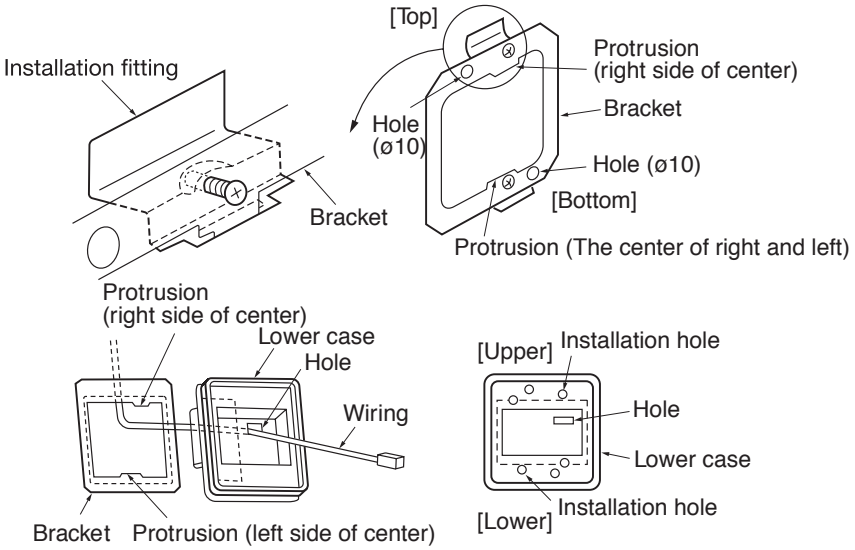


③ How to install the receiver(continued)

⑤ Take out the connector to the backside from the hole of the lower case putting through the wiring at ①.
⑥ Fit the upper case and the lower case, and tighten the screws.

(B) Installation with enclosed bracket

Use this method when installaing onto a gypsum board (7 to 18mm), etc.

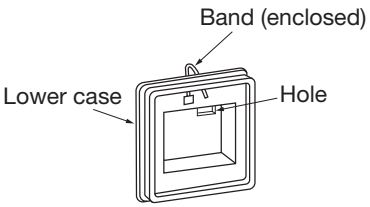


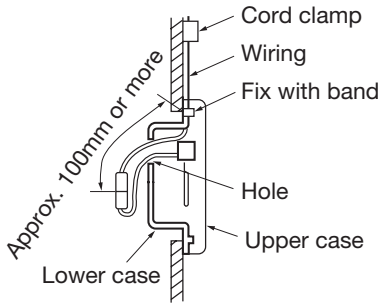
① Catch the two protrusion of the enclosed bracket onto the fitting as shown above, and temporarily fix with the screws. (The bracket has an Upper/Lower and front/back orientation. Confirm the Upper/Lower protrusion positions and the positional relation of the ø10 holes on the bracket and the installation hole on the lower case with the above drawing.)
② Insert the end of the installation fitting into the back of the ceiling from the opening, and tighten the screws to fix the bracket onto the ceiling.
③ Pass the wiring from the rear side through the hole on the lower case.
④ Fit the lower case onto the bracket, and fix the lower case to the bracket using the two installation holes shown above. (The other four holes are not used.)
⑤ Follow step ① to ⑥ for (A) to complete the installation.

③ How to install the receiver (continued)

(C) Exposed installation

Use the following procedure when installing the case with the wiring exposed.





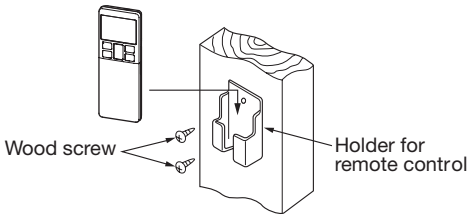
① Cut off the thin section on the side of the upper case with a pair of nippers or a knife, and remove the burrs with a file, etc. (The wiring is passed through this section.)
② Pass the enclosed band through the wiring outlet hole on the lower case.
③ Use on of the light detection adaptor installation methods (A) or (B) explained in section 3, and fix the lower case onto the wall. Do not pass the wiring through the hole on the lower case.
④ Fix the wiring using the band while leaving the wiring length from the band fixing section to the end of the wiring connector at 100mm or more.
⑤ Connect the wiring with the wiring protruding front the upper case using a connector.
⑥ Pass the connected connector and the excess wiring through the hole on the lower case.
⑦ Fit the upper case onto the lower case, and tighten the screws.
⑧ Adequately fix the wiring with the enclesed cord clamp.

④ Wireless remote control

Installation tips for the remote control holder

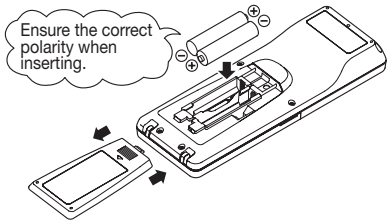
Fix the remote control holder using the screws supplied with this product.

* Precautions for installing the holder
● Adjust the position so that it is upright.
● Ensure that the screw heads are not protruding.
● Do not attach the holder on plaster wall.



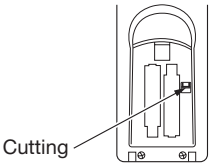
How to insert batteries

1. Detach the back lid.
2. Insert the batteries. (two AAA batteries)
3. Reattach the back lid.



Setting to avoid mixed communication

1. Detach the back lid, and remove the batteries.
2. Cut off the switching wire in the battery compartment using nippers.
3. Insert the batteries, and attach the back lid.

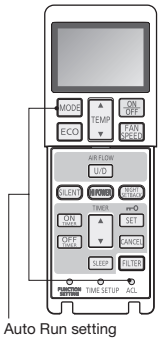


④ Wireless remote control (continued)

Changing the wireless remote control setting

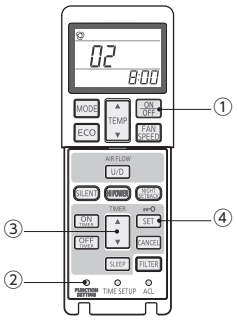
How to change the Auto Run setting
The Auto Run mode is not available on the building air-conditioner and gas heat pump series (excluding the cooling/heating free multi system).
When using the wireless remote control to operate those models, set the wireless remote control to disable the Auto Run mode.
To disable the Auto Run mode, press the ACL switch while holding down the MODE button, or insert batteries while holding down the MODE button.

* Note: Once the batteries are removed, the setting is reset to the factory default.
When the batteries are removed, repeat the steps described above.



Indoor function settings

1. How to set indoor functions
   ① Press the ON/OFF button to stop the unit.
   ② Press the desired one of the buttons shown below while holding down the FUNCTION SETTING switch.
   ③ Use the selection buttons, ▲ and ▼, to change the setting.
   ④ Press the SET button.
   The buzzer on the wireless remote control signal receiver beeps twice, and the LED lamp flashes four times at two-second intervals.
2. Setting details
   The following functions can be set.



Button	Number indicator	Function setting
FAN SPEED	00	Fun speed setting : Standard
	01	Fun speed setting : Setting 1 *
	02	Fun speed setting : Setting 2 *
MODE	00	Room heating temperature adjustment : Disable
	01	Room heating temperature adjustment : +1°C
	02	Room heating temperature adjustment : +2°C
	03	Room heating temperature adjustment : +3°C
FILTER	00	Filter sign display : OFF
	01	Filter sign display : 180 hours
	02	Filter sign display : 600 hours
	03	Filter sign display : 1000 hours
	04	Filter sign display : Operation stop after 1000 hours have elapsed
U/D	00	Anti draft setting : Disable
	01	Anti draft setting : Enable
SILENT	00	Infrared sensor setting (Motion sensor setting) : Disable
	01	Infrared sensor setting (Motion sensor setting) : Enable
HI POWER	00	Infrared sensor control (Motion sensor control) : Disable
	01	Infrared sensor control (Motion sensor control) : Power control only
	02	Infrared sensor control (Motion sensor control) : Auto OFF only
	03	Infrared sensor control (Motion sensor control) : Power control and Auto OFF

Button	Number indicator	Function setting
ON TIMER	00	Cooling fan residual-period running : Disable
	01	Cooling fan residual-period running : 0.5 hours
	02	Cooling fan residual-period running : 2 hours
	03	Cooling fan residual-period running : 6 hours
OFF TIMER	00	Heating fan residual-period running : Disable
	01	Heating fan residual-period running : 0.5 hours
	02	Heating fan residual-period running : 2 hours
	03	Heating fan residual-period running : 6 hours
NIGHT SETBACK	00	Remote control signal receiver LED : Brightness High
	01	Remote control signal receiver LED : Brightness Low
	02	Remote control signal receiver LED : OFF

* Refer to technical data.

⑤ Receiver

1 Control plural indoor units with one remote control

Up to 16 indoor units can be connected.

1. Connect the XY terminal with 2 cores wire. As for the size, refer to the following note.
2. For Packaged air-conditioner series, set the indoor unit address with SW2 on the indoor unit PCB from [0] to [F] so as not to duplicate.

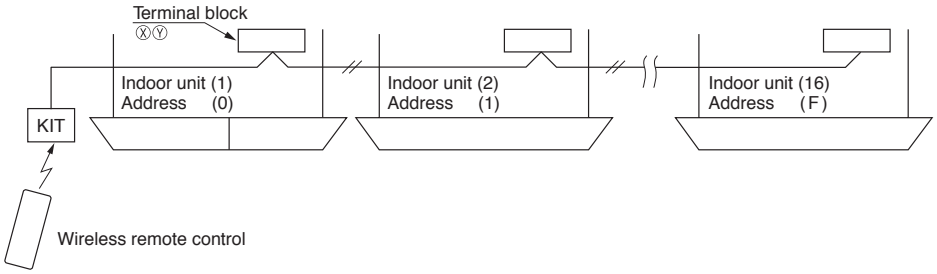
Restrictions on the thickness and length of wire (Maximun total extension 600m.)

Standard	Within 0.3 mm² × 100m
	Within 0.5 mm² × 200m
	Within 0.75mm² × 300m
	Within 1.25mm² × 400m
	Within 2.0 mm² × 600m

⑤ Receiver (continued)

For the shop series

For VRF series, set the indoor unit address with SW1, SW2 and SW5-2 on the indoor unit PCB from [000] to [127] so as not to duplicate.

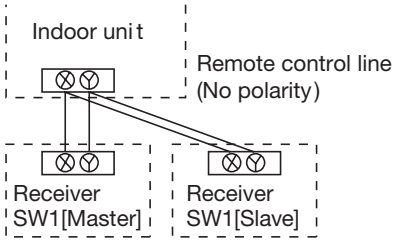


For the building air-conditioner and gas heat pump series

Set the indoor unit and outdoor unit numbers by manually specifying the addresses.
Use the rotary switches SW1 and SW2 provided on the indoor unit PCB (printed circuit board) to set the indoor unit numbers so that they are not duplicated.

Master/Slave setting when using plural remote control

Up to two receivers can be installed in one indoor unit group.

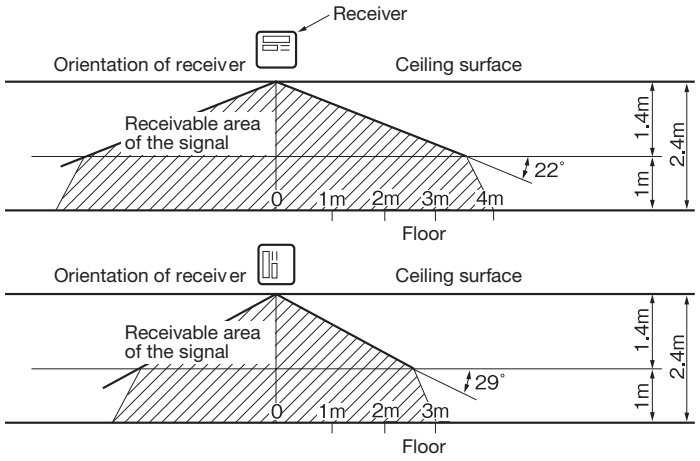


Switch	Setting	Function
SW2	ON	Master
	OFF	Slave

When installed on ceiling

1. Standard reachable area of the signa

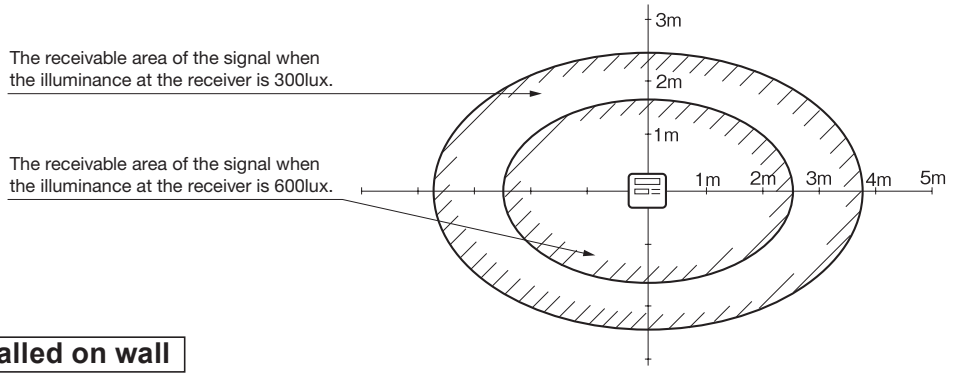
[Condition] Illuminance at the receiver : **300lux** (when no lighting is installed within 1m of the receiver in an ordinary office.)



2. Correlation between illuminance at the receiver and reachable area of the signal in a plain view.

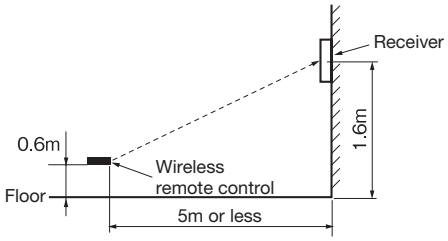
[Condition] Correlation between the reachable area of the signal and illuminance at the receiver when the wireless remote control is operated at 1m high under the condition of ceiling height of 2.4m. When the illuminance becomes double, the area is narrowed down to two third.

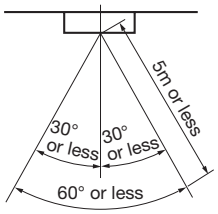
⑤ Receiver (continued)



When installed on wall

[Condition] Illuminance at the receiver : 800lux.

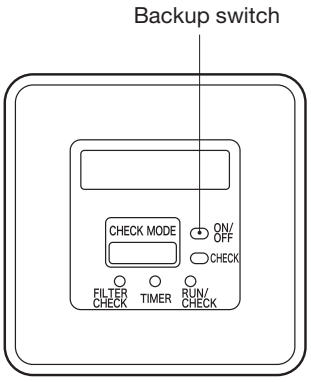




Backup switch

A backup switch is provided on the receiver section of the panel surface. When operation from the wireless remote control is not possible (due to flat batteries, a mislaid unit, a unit failure), you can use it as an emergency means. You should operate this switch manually.

1. If pressed while the air-conditioner is in a halt, it will cause the air-conditioner to start operation in the automatic mode (in the case of cooling only, in the cooling mode). Wind speed: Hi fan, Temperature setting: 23°C, Louver: horizontal
2. If pressed while the air-conditioner is in operation, it will stop the air-conditioner.



Cooling test run operation

- After safety confirmation, turn on the power.
- Transmit a cooling operation command with the wireless remote control, while the backup switch on the receiver is depressed.
- If the backup switch on the receiver is pressed during a test run, it will end the test run.
- If you cannot operate the unit properly during a test run, please check wiring by consulting with inspection guides.

How to read the 6-digit display

A 6-digit indicator (7-segment indicator) is provided on the receiver section.

1. An indication will be displayed for one hour after power on.
2. An indication appears for 3.5 seconds when a “Stop” command is sent from the wireless remote control unit while the air-conditioner is not running.
3. An indication appearing in (1) or (2) above will go off as soon as the unit starts operation.
4. When there are no error records to indicate, addresses are displayed for all of the connected units.
5. When there are some error records remaining, the error records are displayed.
6. Error records can be cleared by transmitting a “Stop” command from the wireless remote control unit, while the backup switch is depressed.

12.2 Motion sensor kit

(1) FDT series (LB-T-5W-E)

PJF012D036 A

⚠ WARNING

- Connect the wiring to the PCB in the control box on the indoor unit and hold the wiring securely so as not to apply unexpected stress on the PCB.
  Loose connection or hold will cause abnormal heat generation or fire.
- Make sure the power source is turned off when electric wiring work.
  Otherwise, electric shock, malfunction and improper running may occur.

⚠ CAUTION

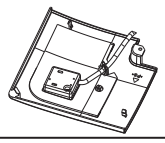
- Do not install the motion sensor kit at the following places in order to aboid malfunction.
  (1) Places exposed to direct sunlight
  (2) Places near heat devices
  (3) High humidity places
  (4) Hot surface or cold surface enough to generate condensation
  (5) Places exposed to oil mist or steam directly
  (6) Places affected by the direct air flow of the Indoor unit.
  (7) Places where the motion sensor is influenced by the fluorescent lamp or sunlight
  (8) Places where the motion sensor is affected by infrared rays of any other communication devices
  (9) Places where some object may obstruct the motion sensor
- Do not leave the motion sensor without the cover.
  In case the cover needs to be detached, protect the motion sensor with a packaging or bag in order to keep it away from water and dust.

Attention

- Instruct the customer how to operate it correctly referring to the instruction manual.
- For the installation method of the air-conditioner itself, refer to the installation manual enclosed in the package.

① Accessories

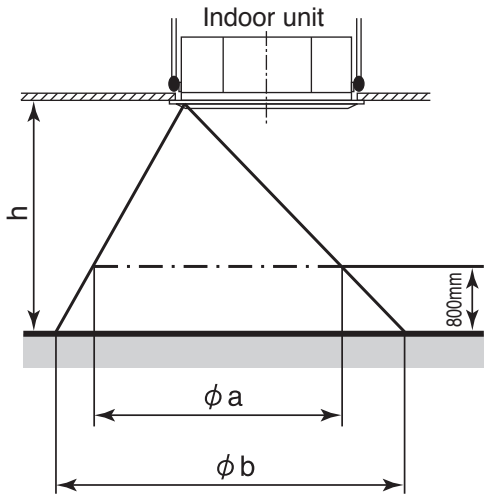
Please make sure that you have the motion sensor.

Motion sensor		1

② Installing the motion sensor

It is possible to install the motion sensor by replacing with a corner lid on the panel.

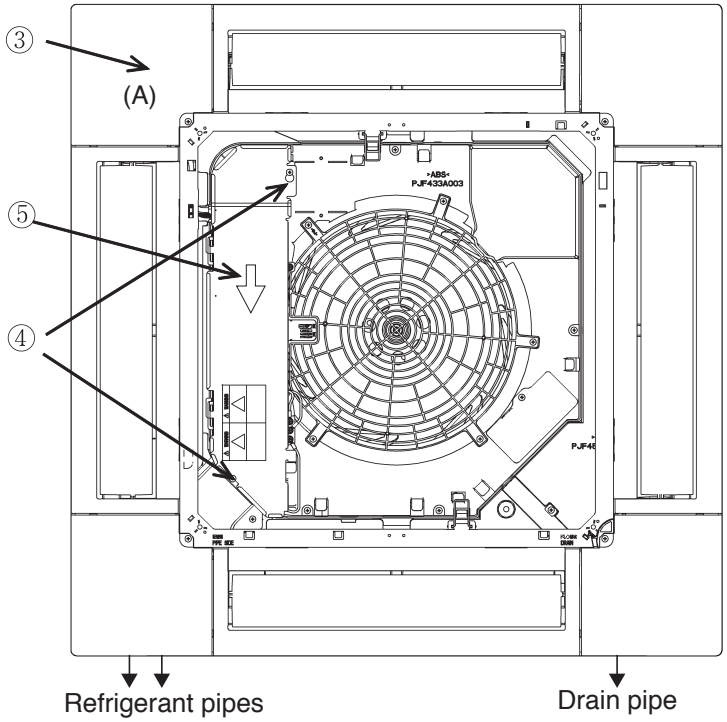
Aim of the detectable scope



Hight of the ceiling	h[m]	2.7	3.5	4.0
Detectable scope①	ϕ a[m]	about 4.5	about 6.4	about 7.6
Detectable scope②	ϕ b[m]	about 6.4	about 8.3	about 9.5

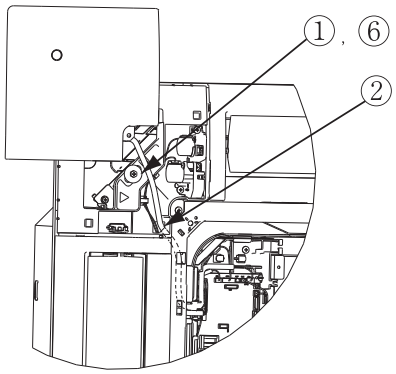
Preparation before installation

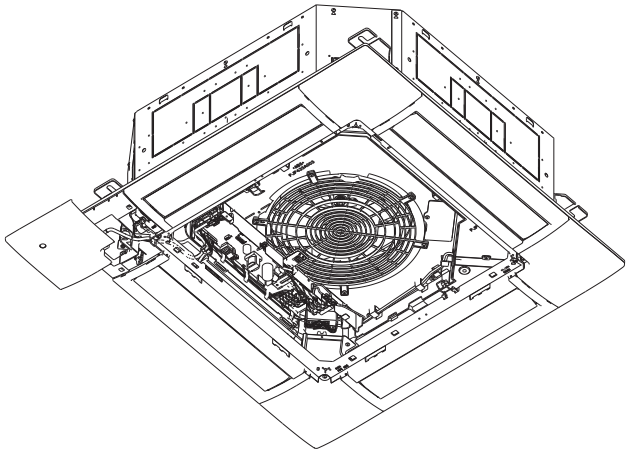
① Install the panel onto the indoor unit according to the installation manual for the panel.
② Remove the inlet grille.
③ Remove the corner lid (A) located on the panel.
④ Loosen 2 screws for the control lid. (It is unnecessury to remove the screws.)
⑤ Slide the control lid, and open and remove it.

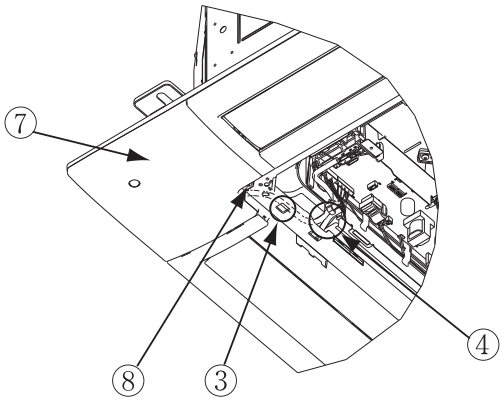


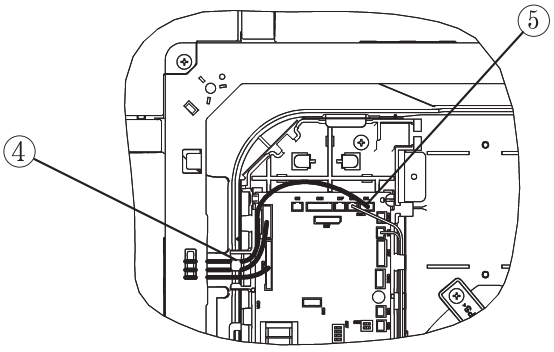
Installation of the motion sensor

① Loosen the bolts which fix the panel, and make a gap between the panel and the indoor unit.
② Pass the wiring of the motion sensor through the opening of the panel.
③ Hang the wiring on the hook which is on the panel's inside.
④ Pass the wiring through the opening of the control box.
⑤ Connect the connecter to CnL(3P,Black) on PCB in the contorl box.
⑥ Tighten the bolts which fix the panel.
⑦ Install the motion sensor on the panel.
⑧ Fix the motion sensor by the screw.
⑨ Reinstall the control lid, and tighten 2 screws.









③ Setting the motion sensor

The motion sensor will not function if it is only installed.
Set the function of the motion sensor by the wired or wireless remote control.
Refer to the manual instraction of each remote control for the setting procedure.

Note: It is not possible to set by the following remote control models or older.
Wired:RC-EX1A, RC-E5, RCH-E3
Wireless: RCN-E1R

(2) FDTC series (LB-TC-5W-E)

PJF012D504

⚠ WARNING

- Connect the wiring to the PCB in the control box on the indoor unit and fix the wiring securely so as not to apply unexpected stress on the PCB.
  Loose connection or fixing will cause abnormal heat generation or fire.
- Make sure the power source is turned off during electrical wiring work.
  Otherwise, electric shock, malfunction and abnomal operation may occur.

⚠ CAUTION

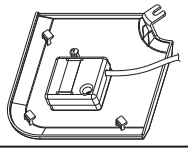
- Do not install the motion sensor kit at the following places in order to avoid malfunction.
  (1) Places exposed to direct sunlight
  (2) Places near heat-generating devices
  (3) High humidity places
  (4) Hot surface or cold surface enough to generate condensation
  (5) Places directly exposed to oil mist or steam
  (6) Places affected by the direct air flow of the indoor unit
  (7) Places where the motion sensor may be influenced by fluorescent lamp or sunlight
  (8) Places where the motion sensor may be affected by infrared rays of any other communication devices
  (9) Places where some object may obstruct the motion sensor
  (10) Places where there may be impact on the motion sensor
  (11) Places with strong radio wave or static electricity
  (12) Dusty place where the motion sensor lens may become tainted or be damaged
- Do not leave the motion sensor without the cover.
  In case the cover needs to be detached, protect the motion sensor with a packaging or bag in order to keep it away from water and dust.

Attention

- Instruct the customer how to operate the motion sensor kit correctly by referring to the instruction manual.
- For the installation method of the air-conditioner itself, refer to the installation manual enclosed in the package.

① Accessories

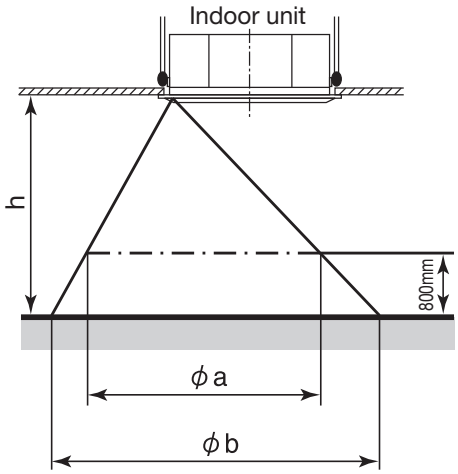
Please make sure that all components are in the package.

Motion sensor		1

② Installing the motion sensor

It is possible to install the motion sensor by replacing the corner lid on the panel.

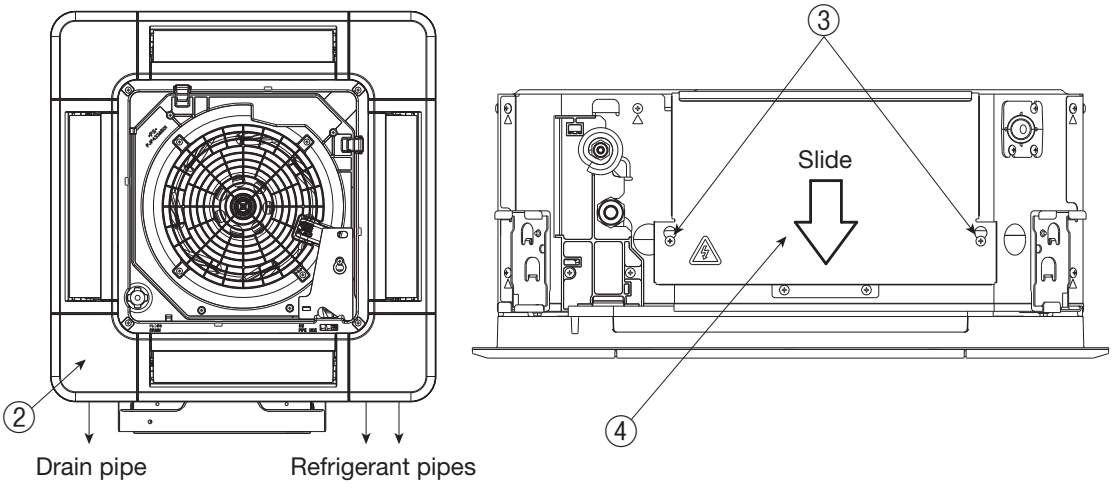
The detectable area



Height of the ceiling	h[m]	2.7	3.5	4.0
Detectable area①	ϕ a[m]	about 4.5	about 6.4	about 7.6
Detectable area②	ϕ b[m]	about 6.4	about 8.3	about 9.5

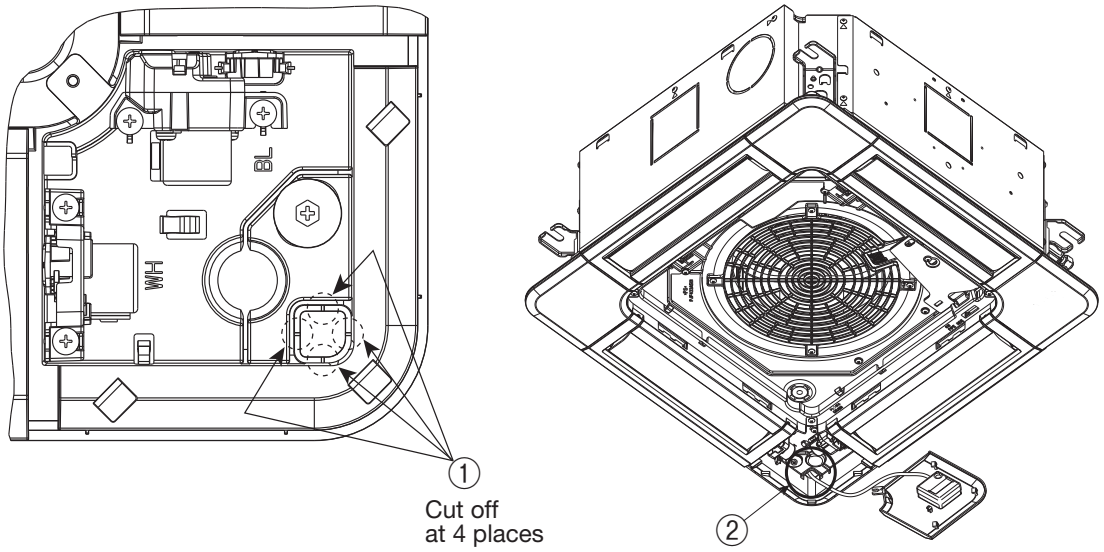
Preparation before installation

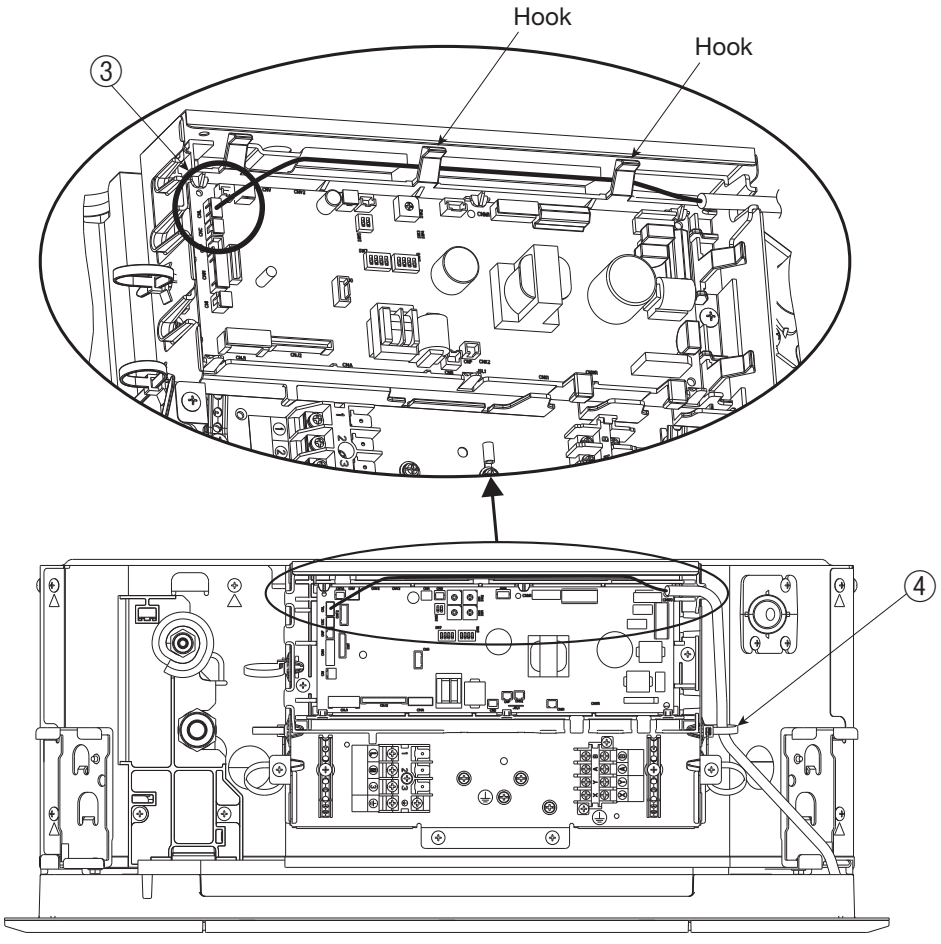
① Remove the inlet grille according to the installation manual of the panel.
② Remove the corner lid at the drain pipe side.
③ Loosen screws (2 pcs) on the control box of the unit. (It is not necessary to remove the screws.)
④ Slide the control lid in the arrow direction, and remove it.



Installation of the motion sensor

① Cut the half blanking (4 sections) of the panel as shown in the following figure.
② Pass the motion sensor wiring through the opening of the panel.
③ Connect the wiring connector to CnL (3P, black) on the PCB in the control box.
④ Fix the wiring with a band as shown below.
⑤ Install the motion sensor on the panel according to the installation manual of the panel.
⑥ Install the control lid with care not to pinch the wiring, and reinstall the control lid with screws (2 pcs.).





③ Setting the motion sensor

The motion sensor will not function if it is only installed.
Set the function of the motion sensor by the wired or wireless remote control.
Refer to the manual instruction of each remote control for the setting procedure.

Note: It is not possible to set by the following remote control models or older ones.
Wired:RC-EX1A, RC-E5, RCH-E3
Wireless: RCN-E1R

(3) FDTW series (LB-TW-6W)

PJB012D311A

⚠ WARNING

● Connect the wiring to the PCB in the control box on the indoor unit and hold the wiring securely so as not to apply unexpected stress on the PCB.
Loose connection or hold will cause abnormal heat generation or fire.

● Make sure the power supply is turned off when electric wiring work.
Otherwise, electric shock, malfunction and improper running may occur.

⚠ CAUTION

● DO NOT install the motion sensor kit at the following places in order to avoid malfunction.

(1) Places exposed to direct sunlight
(2) Places near heat devices
(3) High humidity places
(4) Hot surface or cold surface enough to generate condensation
(5) Places exposed to oil mist or steam directly
(6) Places affected by the direct airflow of the Indoor unit.
(7) Places where the motion sensor is influenced by the fluorescent lamp or sunlight.
(8) Places where the motion sensor is affected by infrared rays of any other communication devices.
(9) Places where some object may obstruct the motion sensor
(10) Place that the motion sensor have a shock
(11) Place with the strong radio wave or Static electricity
(12) Place that motion sensor lens become tainted or have damaged. Dusty place.

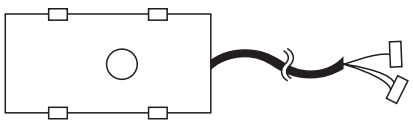
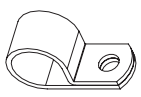
● DO NOT leave the motion sensor without the cover.
In case the cover needs to be detached, protect the motion sensor with a packaging or bag in order to keep it away from water and dust.

Attention

- This manual describes how to install the motion sensor kit.
- Instruct the customer how to operate it correctly referring to the instruction manual.
- For the installation method of the air conditioner itself, refer to the installation manual enclosed in the package.

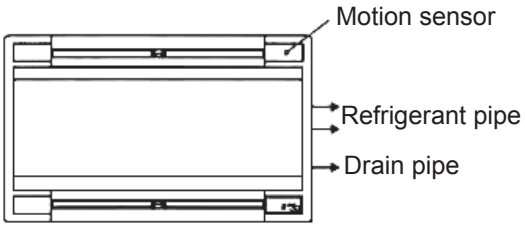
① Accessories

Please make sure that all components are in the package.

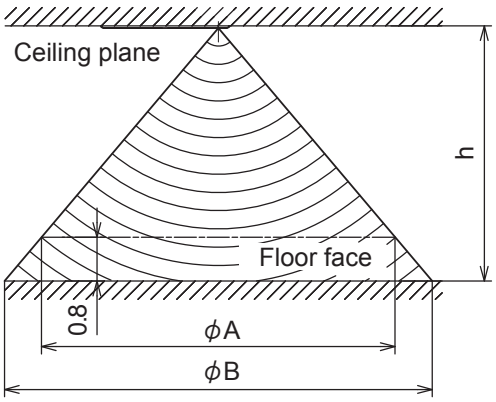
Motion sensor	Grommet	Wiring clamp	Screw	Manual
				

② Installing the motion sensor

- It is possible to install the motion sensor by replacing with a corner lid on the panel.
- The recommended height is lower than 4000 mm for motion sensor. When the installation height is higher, motion detection accuracy might be reduced.
- Sensor will detect the object with a different temperature from the surrounding.
- Sensor may not detect small children or infants with little motion.



The detectable area



Height of the ceiling	h (m)	2.7	3.5	4.0
Detectable area	ϕ A (m)	4.5	6.4	7.6
Detectable area	ϕ B (m)	6.4	8.3	9.5

Installing the motion sensor (before installing the panel)

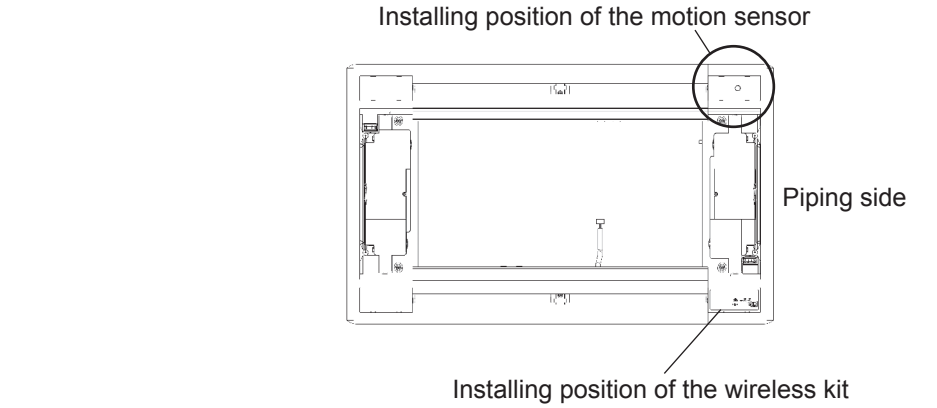
CAUTION: Motion sensor can be installed only at the corner lid as shown below.
Make sure to install the motion sensor in the correct direction.

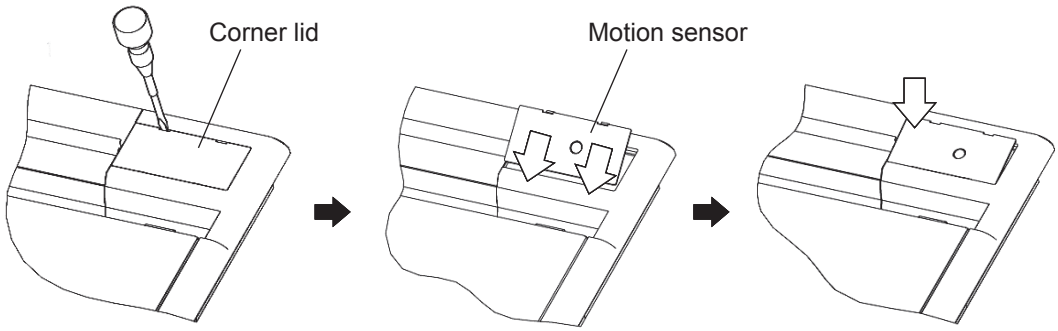
① Remove the corner lid at the location where the motion sensor is to be installed.
Insert a tool into the dented part and turn the tool wrench slightly not to damage the frame.

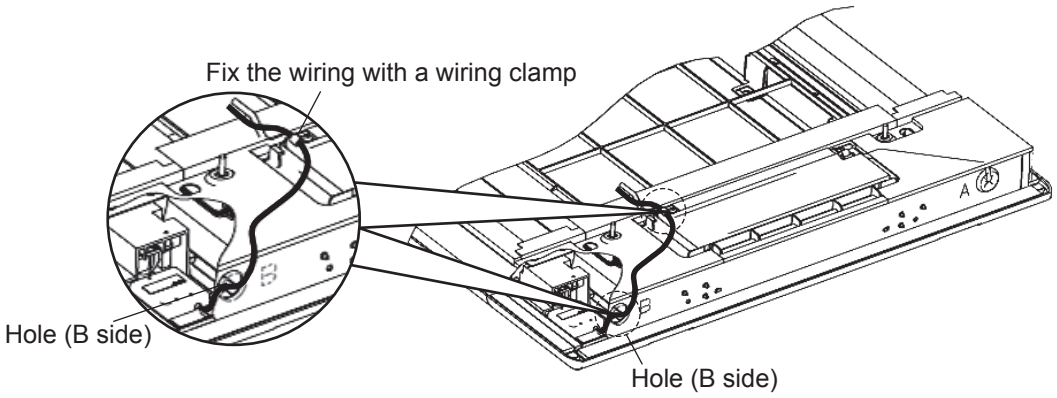
② Cut off the slit on the side of the panel (round hole (ϕ25), B side), install the grommet in the accessories.

③ After inserting the wiring of the motion sensor at hole (B side), install the motion sensor by snapping the hook (2 places) from outer edge into the frame.

④ Insert the wiring as shown in the panel ceiling rear side drawing and secure the wiring with the wiring clamps in the accessories and screws.





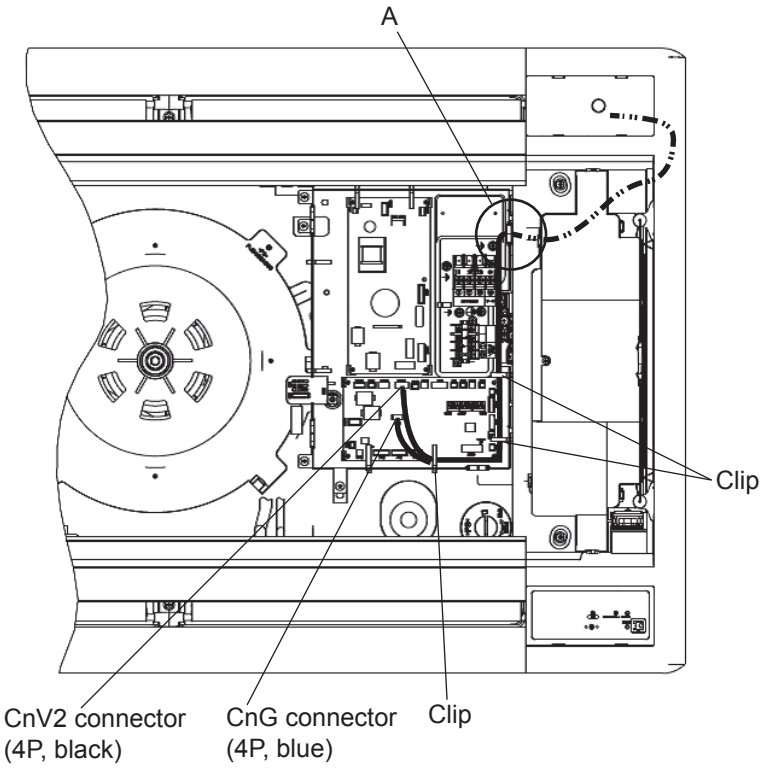


Installing the panel to the indoor unit

Install the panel to the indoor unit by following the manual attached to the panel.
CAUTION: When installing the panel, make sure that the wiring is not pinched.

Wiring connection in the control box

① Remove the service panel and air filter.
② Remove the control box cover from the unit. (2 places to be screwed)
③ Through the wiring inside the control box from A .
④ Fix the wiring with clips (3 places).
⑤ Connect CnG connector (4P, blue) to the PCB.
⑥ Connect CnV2 connector (4P, black) to the PCB.



③ Setting the motion sensor

The motion sensor will not function if it is only installed.
Set the function of the motion sensor by the wired or wireless remote control.
Refer to the manual instruction of each remote control for the setting procedure.

Note: It is not possible to set by the following remote control models or older.
Wired:RC-EX1A, RC-E5, RCH-E3
Wireless: RCN-E1R

(4) FDE series (LB-E)

PFA012D633A

⚠ WARNING

- Connect the wiring to the PCB in the control box on the indoor unit and hold the wiring securely so as not to apply unexpected stress on the PCB.
  Loose connection or hold will cause abnormal heat generation or fire.

- Make sure the power source is turned off when electric wiring work.
  Otherwise, electric shock, malfunction and improper running may occur.

⚠ CAUTION

- Do not install the motion sensor kit at the following places in order to avoid malfunction.
  (1) Places exposed to direct sunlight
  (2) Places near heat devices
  (3) High humidity places
  (4) Hot surface or cold surface enough to generate condensation
  (5) Places exposed to oil mist or steam directly
  (6) Places affected by the direct air flow of the Indoor unit
  (7) Places where the motion sensor is influenced by the fluorescent lamp or sunlight
  (8) Places where the motion sensor is affected by infrared rays of any other communication devices
  (9) Places where some object may obstruct the motion sensor
  (10) Place that the motion sensor have a shock
  (11) Place with the strong radio wave or Static electricity
  (12) Place that motion sensor lens become tainted or have damaged. Dusty place

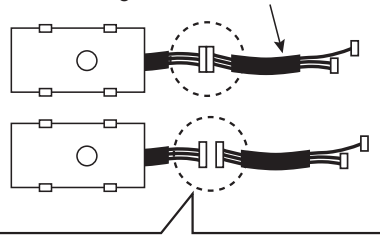
- Do not leave the motion sensor without the cover.
  In case the cover needs to be detached, protect the motion sensor with a packaging or bag in order to keep it away from water and dust.

Attention

- This manual describes how to install the motion sensor kit.
- Instruct the customer how to operate it correctly referring to the instruction manual.
- For the installation method of the air-conditioner itself, refer to the installation manual enclosed in the package.

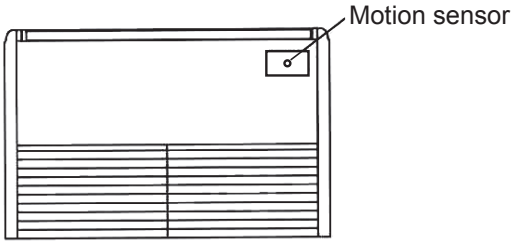
① Accessories

Please make sure that all components are in the package.

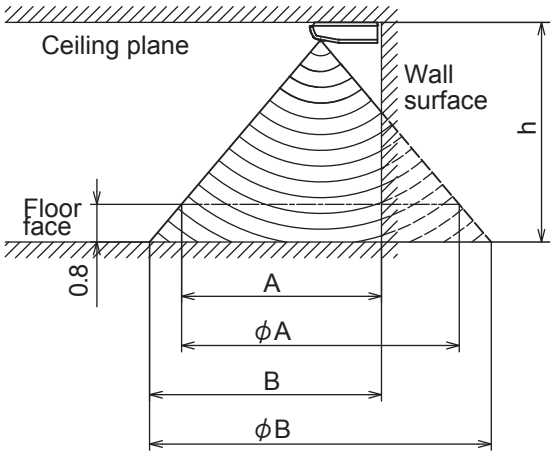
Motion sensor (※)	Manual
Attached wiring to the motion sensor kit  ※ Wiring from the motion sensor and the attached wiring to the motion sensor kit have been connected when shipped from the factory. Remove the connector at the position of ○ mark and connect it to the attached wiring to the indoor unit before use.	

② Installing the motion sensor

- It is possible to install the motion sensor by replacing the indoor unit.
- The recommended height is lower than 4000 mm for motion sensor. When the installation height is higher, motion detection accuracy might be reduced.
- Sensor will detect the object with a different temperature from the surrounding.
- Sensor may not detect small children or infants with little motion.
- Use the separate motion sensor so that person's activity can be detected when the detectable area differs from the person's activity area.
- Use the separate motion sensor when using both wireless remote control and motion sensor together.



The detectable area



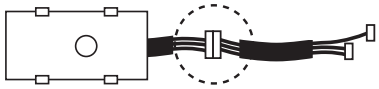
Height of the ceiling	h (m)	2.7	3.5	4.0
Detectable area	A (m)	2.9	3.9	4.5
Detectable area	ϕ A (m)	4.5	6.4	7.6
Detectable area	B (m)	3.9	4.8	5.4
Detectable area	ϕ B (m)	6.4	8.3	9.5

Installing the motion sensor (before installing the unit)

Motion sensor can be installed by replacing with a cover of the panel.

CAUTION: Install the motion sensor before installing the unit.
When installing the motion sensor after unit has been fixed, injury due to falling may result because of working at high place.

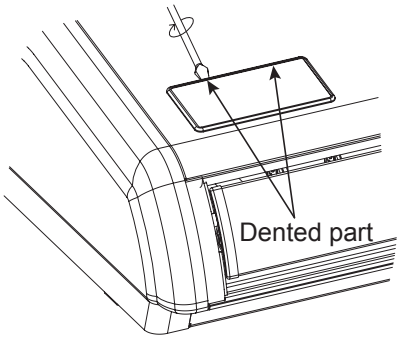
① Remove the connector that connects the motion sensor and the wiring.

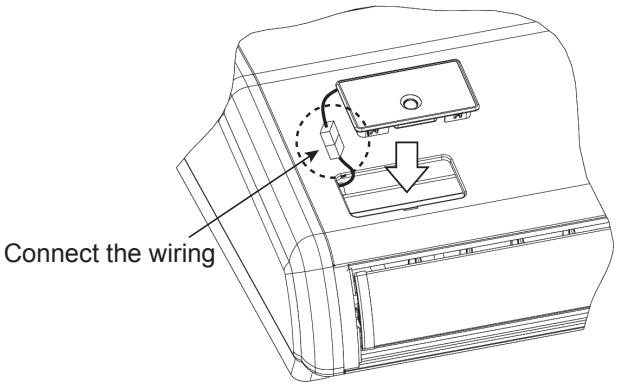


② Insert a tool into the dented part (2 places) of the panel cover, and wrench slightly not to damage the paintwork of the panel to remove the cover.

③ Connect the wiring from the panel's hole (attached to the indoor unit, color of the wiring: white, red and black, connector: 3P, white) to the wiring from the motion sensor. Make sure to install the motion sensor in the correct direction.

CAUTION: Do not remove the clamp fixed the wiring.





④ Install the motion sensor
Place the connector under the panel and install it to the panel with careful attention to the direction of the motion sensor.

CAUTION: Connect the connectors before installing the motion sensor.
In case of connecting after the motion sensor has been installed, it will be necessary to remove the panel.

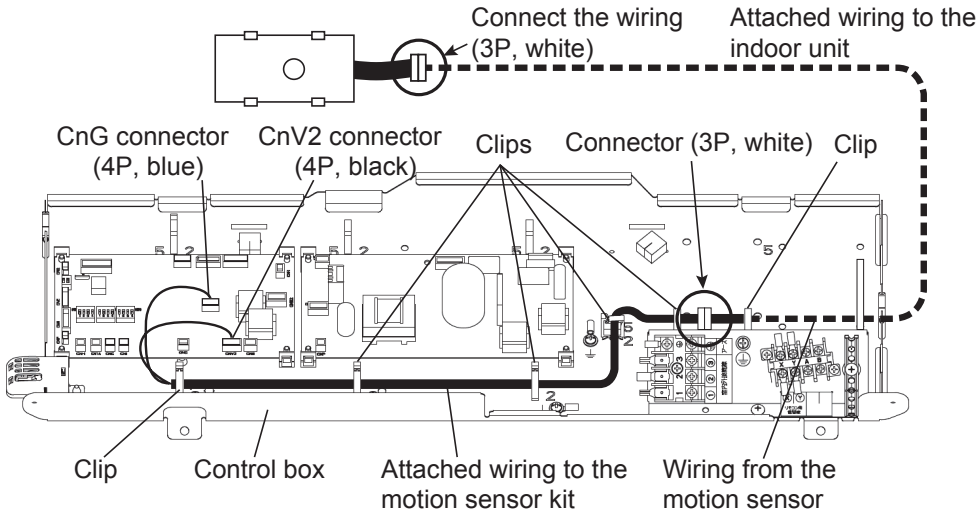
Wiring connection in the control box

① Connect the wiring from the motion sensor (attached to the indoor unit, color of the wiring: white, red and black, connector: 3P, white) to the attached wiring to the motion sensor kit.

② Fix the wiring with clips (6 places).

③ Connect CnG connector (4P, blue) to the PCB.

④ Connect CnV2 connector (4P, black) to the PCB.



③ Setting the motion sensor

The motion sensor will not function if it is only installed.

Set the function of the motion sensor by the wired or wireless remote control. Refer to the manual instruction of each remote control for the setting procedure.

Note: It is not possible to set by the following remote control models or older.

Wired:RC-EX1A, RC-E5, RCH-E3

Wireless: RCN-E1R

(5) FDTS, FDU, FDUM, FDUT, FDK, FDU-F series (LB-KIT)

PJZ012D122A

⚠ WARNING

- Connect the wiring to the PCB in the control box on the indoor unit and hold the wiring securely so as not to apply unexpected stress on the PCB.
  Loose connection or hold will cause abnormal heat generation or fire.

- Make sure the power source is turned off when electric wiring work.
  Otherwise, electric shock, malfunction and improper running may occur.

⚠ CAUTION

- Do not install the motion sensor kit at the following places in order to avoid malfunction.

(1) Places exposed to direct sunlight
(2) Places near heat devices
(3) High humidity places
(4) Hot surface or cold surface enough to generate condensation
(5) Places exposed to oil mist or steam directly
(6) Places affected by the direct air flow of the Indoor unit
(7) Places where the motion sensor is influenced by the fluorescent lamp or sunlight
(8) Places where the motion sensor is affected by infrared rays of any other communication devices
(9) Places where some object may obstruct the motion sensor
(10) Place that the motion sensor have a shock
(11) Place with the strong radio wave or Static electricity
(12) Place that motion sensor lens become tainted or have damaged. Dusty place
(13) Place where it runs in parallel with strong voltage lines such as power source wiring

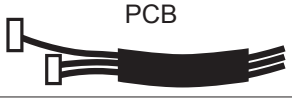
- Do not leave the motion sensor without the cover.
  In case the cover needs to be detached, protect the motion sensor with a packaging or bag in order to keep it away from water and dust.

Attention

- This manual describes how to install the motion sensor kit.
- Instruct the customer how to operate it correctly referring to the instruction manual.
- For the installation method of the air-conditioner itself, refer to the installation manual enclosed in the package.

① Accessories

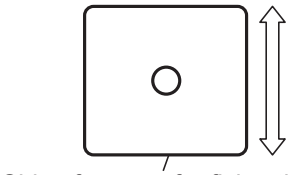
Please make sure that all components are in the package.

Motion sensor	Wiring <1>	Wiring <2>	2 screws	Manual
	In case of CnL connector on the indoor unit PCB (FDT/FDK/FDTC) 	In case of CnL connector is not on the indoor unit PCB 		

※ Please prepare a relay wiring for connecting the motion sensor and indoor unit on site. (0.2 mm^2 or thicker, triplex (red, white and black) cable for communication, with the maximum length of 8 m.)

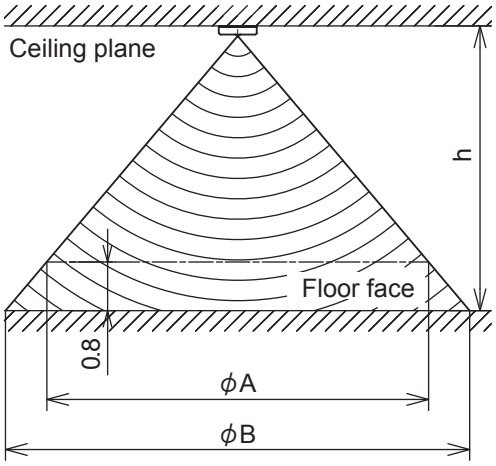
② Installing the motion sensor

- The recommended height is lower than 4000 mm for motion sensor. When the installation height is higher, motion detection accuracy might be reduced.
- Sensor will detect the object with a different temperature from the surrounding.
- Motion sensor is more sensitive to motions in the direction of ⇔ mark.
- Sensor may not detect small children or infants with little motion.
- Although motion sensor can be installed on a wall, it is recommended to install it on the ceiling plane.
- If the sensor is installed on the wall, the sensing distance in the front direction is about 5 m, covering the angle of about 100 degrees.



Side of screws for fixing the case

The detectable area



Height of the ceiling	h (m)	2.7	3.5	4.0
Detectable area	ϕ A (m)	4.5	6.4	7.6
Detectable area	ϕ B (m)	6.4	8.3	9.5

Installing the motion sensor

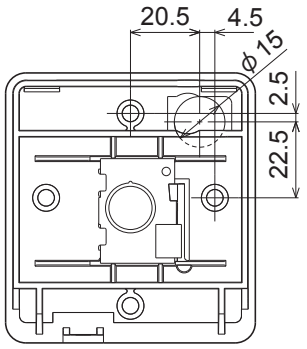
There are the following 3 methods to install the motion sensor on the ceiling plane or wall surface (hereinafter called “ceiling plane”). Select the method according to the installation position.

<How to install>

(A) Direct installation by screws to the ceiling plane with the wiring in the ceiling space.

(B) Direct installation by screws to the ceiling plane with the wiring in the room.

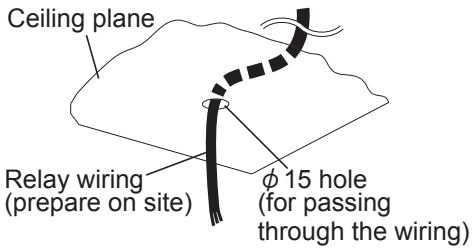
(C) Installation with switch box (prepare at the site)



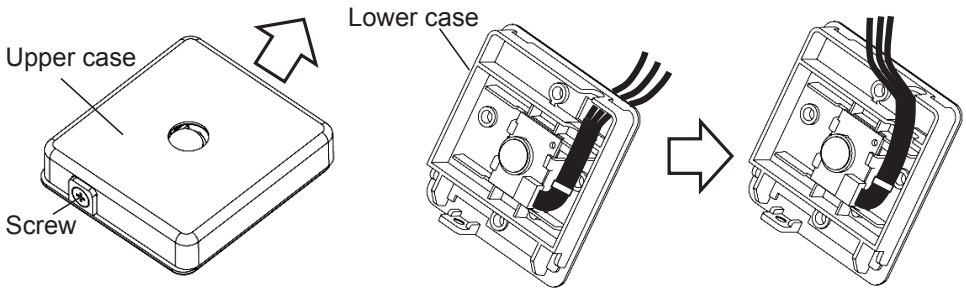
Positional relation for pulling out relay wiring hole and installing holes.

Option (A)

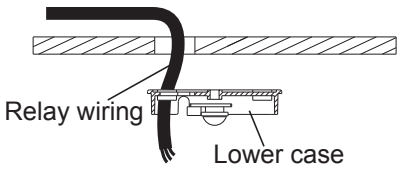
►Select this method if the ceiling plane has sufficient strength to install the motion sensor directly with screws.

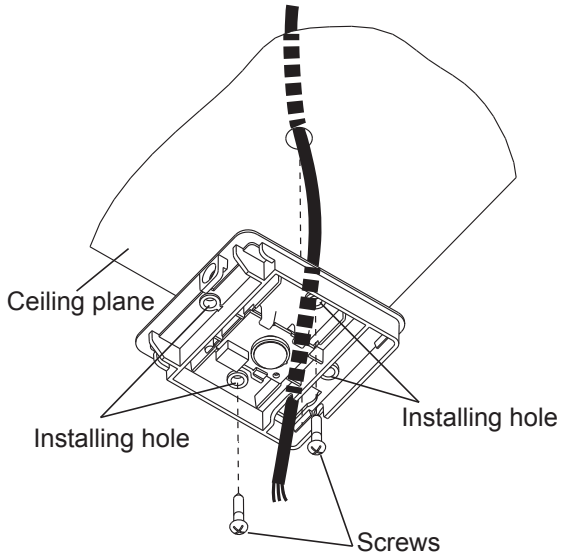


① Prepare a relay wiring on site and lay out the wiring in advance.
② Remove the screw at the side of the motion sensor and slide the upper case in the direction of the arrow.
③ Pull the wiring of the motion sensor as below.



④ Pass the relay wiring through the hole on the lower case.
⑤ When fixing the lower case to the ceiling plane, tighten it in 2 locations of the installing holes (4 locations) with the attached screws.

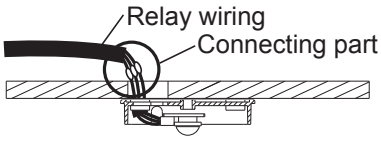




⑥ Using a crimping terminal, etc., connect the same color to the relay wiring (prepare on site) and the wiring of motion sensor.



⑦ Place the connecting part inside of the ceiling space.
⑧ Seal the wiring hole on the lower case with putty.
⑨ Taking care not to pinch the wirings, slip the upper case into the lower case, and tighten the screws.

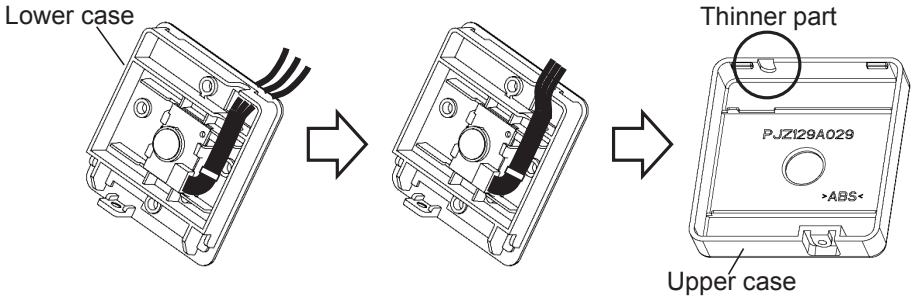


Caution:
In order to prevent tracking, be sure to perform construction so as not to clog up the connecting part with dust, etc.

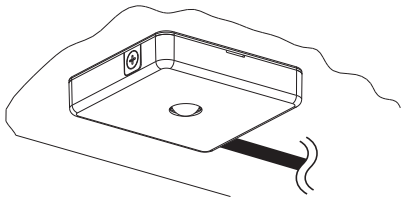
Option (B)

►Select this method if the ceiling plane has sufficient strength to install the motion sensor directly with screws.

① Remove the screw at the side of the motion sensor and slide the upper case in the direction of the arrow. (The same as ② of Option (A))
② Pull the wiring of the motion sensor toward the side. Cut off the thinner part of the upper case.

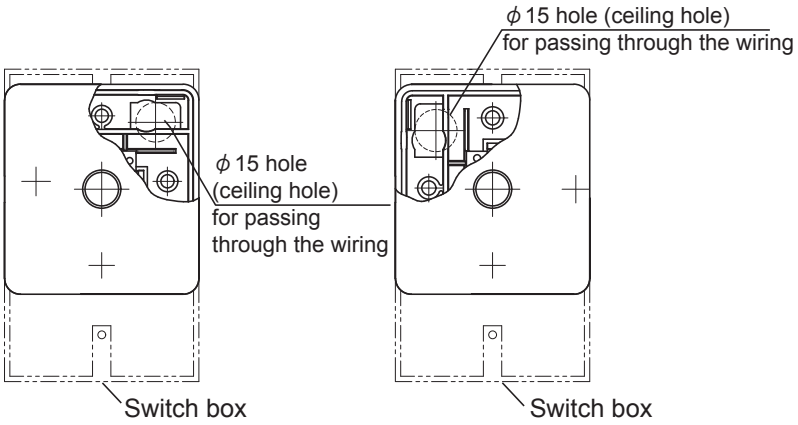


③ When fixing the lower case to the ceiling plane, tighten it in 2 locations of the installing holes (4 locations) with the attached screws. (The same as ⑤ of Option (A))
④ Using a crimping terminal, etc., connect the same color to the relay wiring (prepare on site) and the wiring of motion sensor.
(The same as ⑥ of Option (A))
⑤ Taking care not to pinch the wirings, slip the upper case into the lower case, and tighten the screws.
(The same as ⑨ of Option (A))
⑥ Seal the cut part at Step ② with putty.

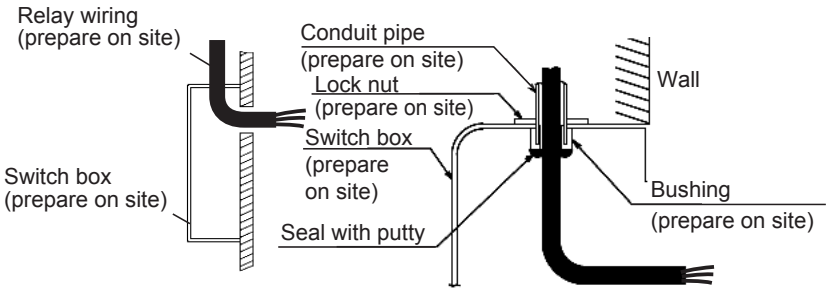


Option (C)

① Set up the switch box and relay wiring (prepare on site) in advance.
Seal the relay wiring inlet with putty.



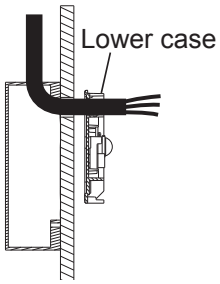
Positional relation for the switch box and installing holes



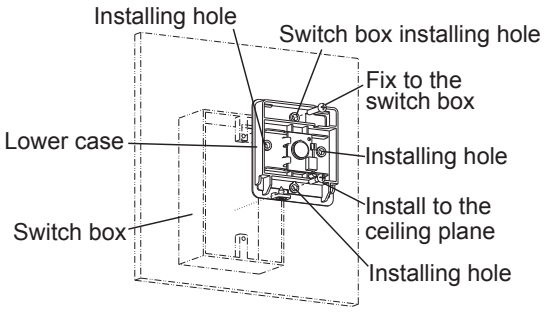
② Remove the screw at the side of the motion sensor and slide the upper case in the direction of the arrow. (The same as ② of Option (A))

③ Pull the wiring of the motion sensor. (The same as ③ of Option (A))

④ Pass the relay wiring through the hole on the lower case from switch box.

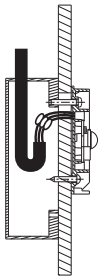


⑤ Fix the lower case to switch box using the installing hole (1 place).

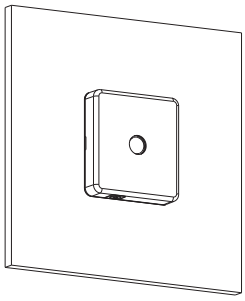


⑥ Connect the same color to the relay wiring (prepare on site) and the wiring of motion sensor. (The same as ⑥ of Option (A))

⑦ Place the connecting part between switch box and the hole of the lower case through passed the wiring at step ④ .



⑧ Taking care not to pinch the wirings, slip the upper case into the lower case, and tighten the screws. (The same as ⑨ of Option (A))

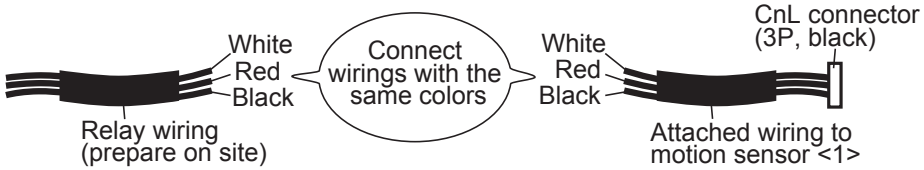


Wiring connection in the control box of indoor unit

CAUTION: Attached wirings to the motion sensor vary depending on the model of the indoor unit. Make sure your model before installing.

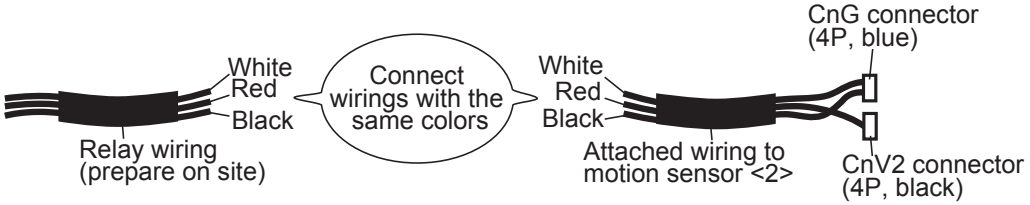
<In case of the CnL connector is on the indoor unit PCB (FDT/FDK/FDTC)>

① Connect the same color to the relay wiring (prepare on site) and the attached wiring <1>.
② Remove the control box cover from the indoor unit.
③ Connect CnL connector (3P, black) to the PCB.

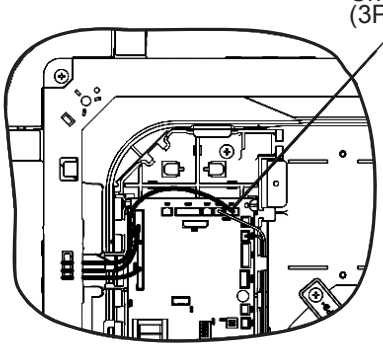


<Incase of the CnL connector is not on the indoor unit PCB>

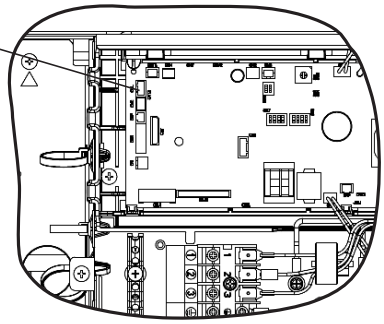
① Connect the same color to the relay wiring (prepare on site) and the attached wiring <2>.
② Remove the control box cover from the indoor unit.
③ Connect CnG connector (4P, blue) to the PCB.
④ Connect CnV2 connector (4P, black) to the PCB.



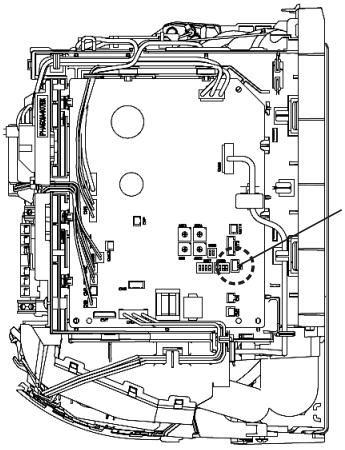
<For FDT>



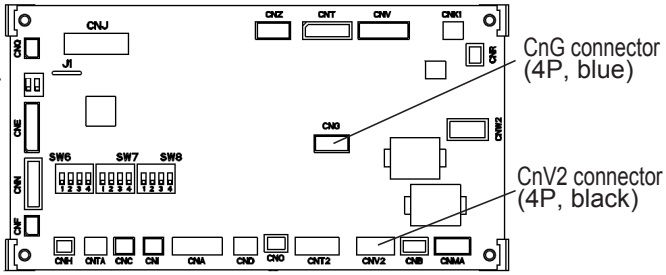
<For FDTC>



<For FDK>



<For the other indoor units>



③ Setting the motion sensor

The motion sensor will not function if it is only installed.
Set the function of the motion sensor by the wired or wireless remote control. Refer to the manual instruction of each remote control for the setting procedure.

Note: It is not possible to set by the following remote control models or older.
Wired:RC-EX1A, RC-E5, RCH-E3
Wireless: RCN-E1R

(6) User's manual

PJZ012A164

SAFETY PRECAUTIONS

⚠ WARNING

● **If a child, person with disease or other persons needed for assist uses this product, people around the person should take sufficient care.**
A halt of the air-conditioner due to abnormal situation or motion sensor's control may cause a feeling of sickness or accident.

ATTENTION

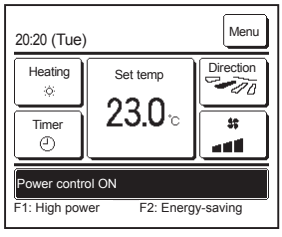
- The sensor may not detect a person near the border of detection range.
- Installation near an object with a different temperature from the surrounding may cause a false detection of human.
- Due to correction of temperature setting, some people may feel chilly.

This product uses infrared sensor to detect person's activity level to support control of air-conditioner.
Please set the control you like from the remote control.

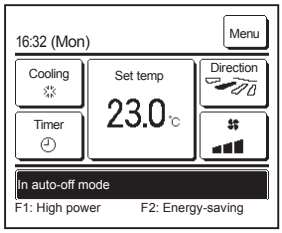
Indoor unit control	Detective situation	Description of control	Display of eco touch remote control
① Power control	Activity level is large	Lower the indoor temperature setting for comfort.	Power control ON
	Activity level is small	Raise the indoor temperature setting for energy-saving.	Power control ON
② Auto-off	No one is detected for 1 hour	Stop operation and stand by	In auto-off mode
	No one is detected for 12 hours	Stop operation	-
① + ②	Any combination of the above	Any of the above	Any of the above
All disabled (default setting)	-	Standard control	-

If the sensor is disconnected or defective, the control will be set as if it no detects (or less) activity level.

Refer to the next section for setting method.



- When power control is enabled
  The amount of human motion is detected by a motion sensor to adjust the Set temp.
  During power control, "Power control ON" will be displayed on the message display.



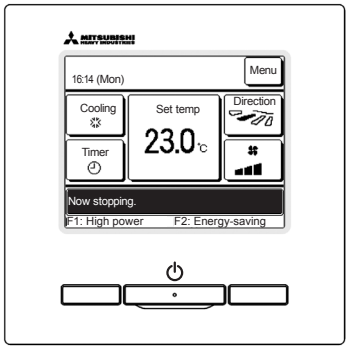
- When auto-off is enabled
  The unit will enter the "Operation wait" state when an hour has elapsed since the last time a human presence was detected and will be in "Complete stop" state after another 12 hours.

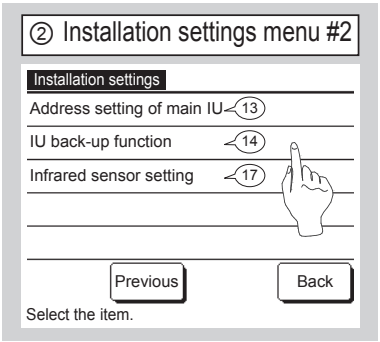
"Operation wait"...The unit stops but will resume operation when human presence is detected. When the unit is in "Complete stop", "In auto-off mode" will be displayed on the message display.

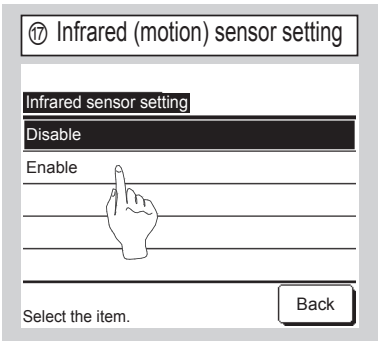
"Complete stop"...When auto-off is enabled, the unit stops. The unit will not resume operation even when human presence is detected.
The message "In auto-off mode" will disappear from the message display, and the operation lamp will turn off.

Control setting (from eco touch remote control)

● Refer to the installation manual for eco touch remote control to activate the infrared sensor (motion sensor).
TOP screen **Menu** ⇨ **Service setting** ⇨ **Installation settings** ⇨ **Service password**



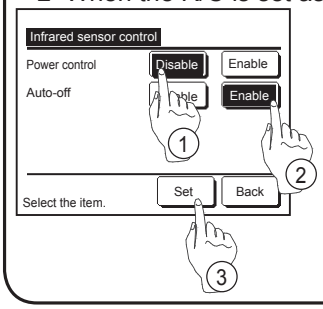




● Refer to the installation manual for eco touch remote control to set control mode.

■ Infrared sensor (motion sensor) control (for IUs with motion sensors)
Presence of humans and the amount of motion are detected by a motion sensor to perform various controls.

■ When the R/C is set as the sub R/C, the infrared sensor (motion sensor) control cannot be set.



Tap the **Menu** button on the TOP screen and select **Energy-saving setting** ⇨ **Infrared sensor control** or **Motion sensor control**.

The Infrared sensor control screen and contents of the current settings are displayed.

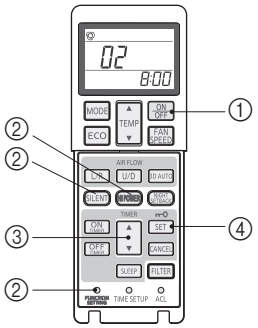
① Enable/disable power control.
② Enable/disable auto-off.
③ After you set each item, tap the **Set** button.
The display returns to the Energy-saving setting menu screen.

Control setting (from wireless remote control)

● Refer to the installation manual for wireless remote control to enable motion sensor in **Indoor function settings**

Indoor function settings

1. How to set indoor functions
① Press the ON/OFF button to stop the unit.
② Press the desired one of the buttons shown item **2.** while holding down the FUNCTION SETTING switch.
③ Use the selection buttons, ▲ and ▼, to change the setting.
④ Press the SET button.
The buzzer on the remote control signal receiver beeps twice, and the LED lamp flashes four times at two-second intervals.



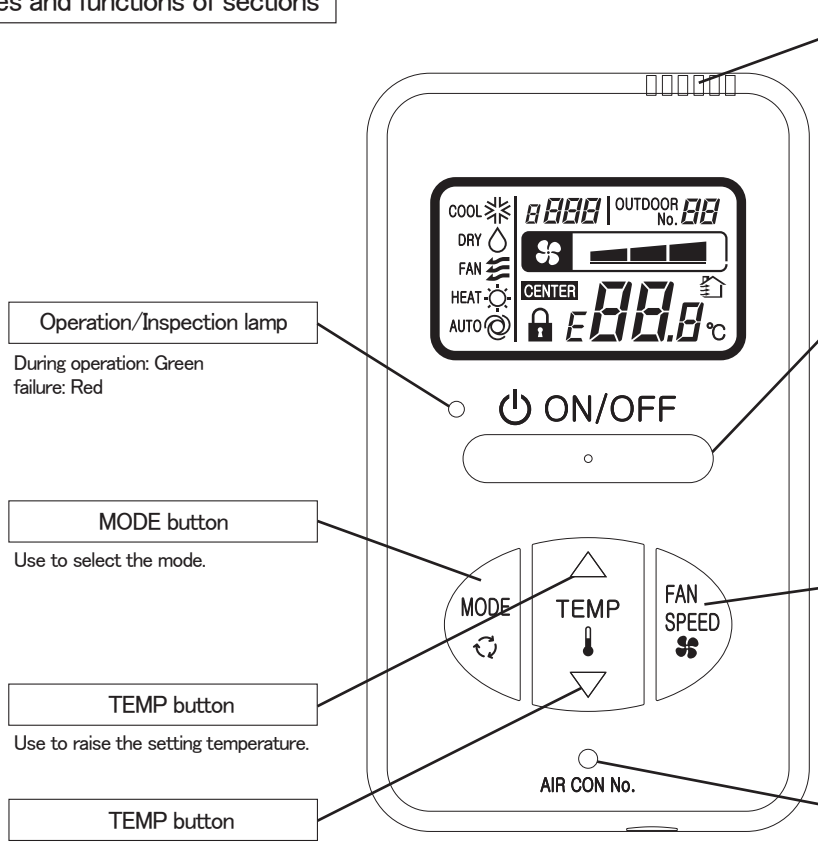
2. Setting details

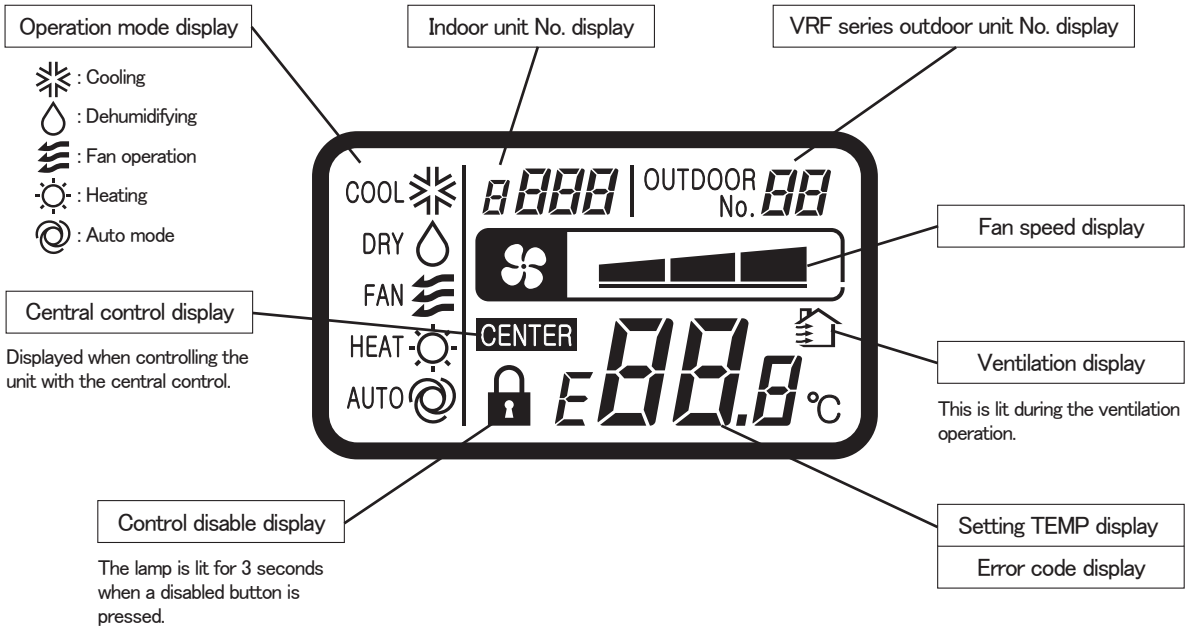
Button	Number indicator	Function setting
SILENT	00	Infrared sensor setting (Motion sensor setting) : Disable
	01	Infrared sensor setting (Motion sensor setting) : Enable
HI POWER	00	Infrared sensor control (Motion sensor control) : Disable
	01	Infrared sensor control (Motion sensor control) : Power control only
	02	Infrared sensor control (Motion sensor control) : Auto OFF only
	03	Infrared sensor control (Motion sensor control) : Power control and Auto OFF

12.3 Simple wired remote control (RCH-E3)

PJZ000Z272

Names and functions of sections



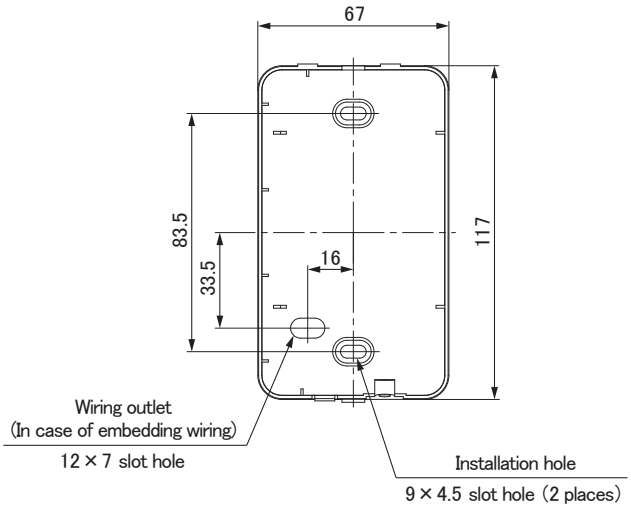


Installation of remote control

Do not install the remote control at the following places in order to avoid malfunction.

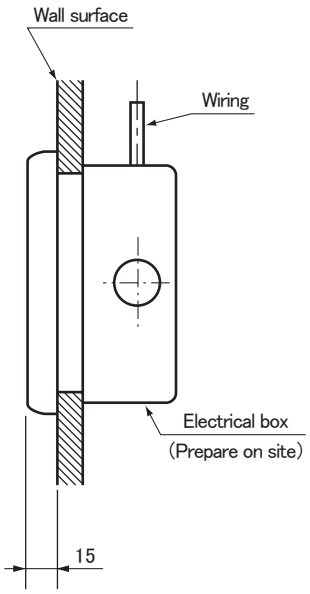
(1) Places exposed to direct sunlight
(2) Places near heat devices
(3) High humidity places
(4) Hot surface or cold surface enough to generate condensation
(5) Places exposed to oil mist or steam directly
(6) Uneven surface

Remote control installation dimensions

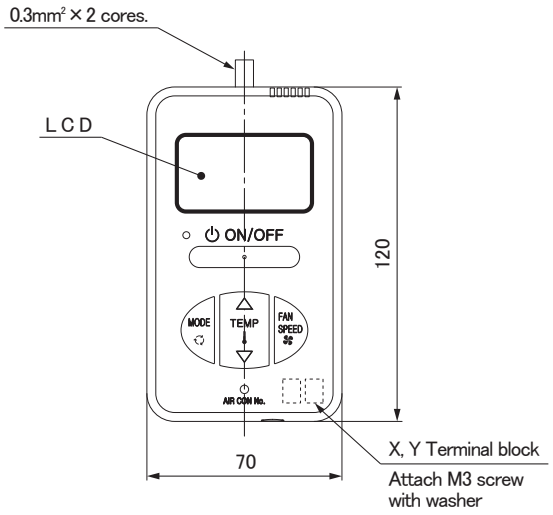


Note: Installation screw for remote control
M4 screw (2 pieces)

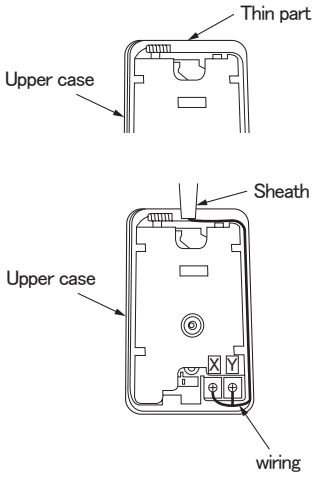
In case of embedding wiring



In case of exposing wiring

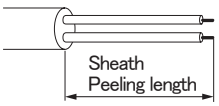


The remote control wiring can be extracted from the upper center.
After the thin part in the upper side of the remote control upper case is scraped with a nipper or knife, remove burr with a file.



The peeling length of each wiring is as follows:

X wiring : 160mm Y wiring : 150mm



Wiring specifications

(1) Wiring of remote control should use 0.3mm² × 2 cores wires or cables. (on-site configuration)
(2) Maximum prolongation of remote control wiring is 600m.
If the prolongation is over 100m, change to the size below.
But, the wiring in the remote control case should be 0.3mm² (recommended) to 0.5mm².
Change the wire size outside of the case according to wire connecting. Waterproof treatment is necessary at the wire connecting section. Be careful about contact failure.

Unit:mm

Length	Wiring thickness
100 to 200m	0.5mm² × 2 cores
Under 300m	0.75mm² × 2 cores
Under 400m	1.25mm² × 2 cores
Under 600m	2.0mm² × 2 cores

Adapted to **RoHS** directive

Simple Remote Control Installation Manual

PJZ012D069A

Read together with indoor unit's installation manual.

⚠WARNING

- **Fasten the wiring to the terminal securely and hold the cable securely so as not to apply unexpected stress on the terminal.**
  Loose connection or hold will cause abnormal heat generation or fire.
- **Make sure the power source is turned off when electric wiring work.**
  Otherwise, electric shock, malfunction and improper running may occur.

⚠ CAUTION

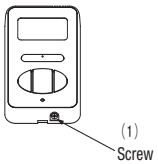
- **Do not install the remote control at the following places in order to avoid malfunction.**
  (1) Places exposed to direct sunlight
  (2) Places near heat devices
  (3) High humidity places
  (4) Hot surface or cold surface enough to generate condensation
  (5) Places exposed to oil mist or steam directly
  (6) Uneven surface
- **Do not leave the remote control without the upper case.**
  In case the upper cace needs to be detached, protect the remote control with a packaging box or bag in order to keep it away from water and dust.

Accessories	Remote control, wood screw (ϕ3.5×16) 2 pieces
Prepare on site	Remote control cord (2 cores) (Refer to [2. Installation and wiring of remote control]) [In case of embedding cord] Electrical box, M4 screw (2 pieces) [In case of exposing cord] Cord clamp (if needed)

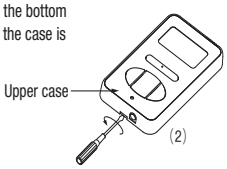
1. Installation procedure

In case of embedding cord

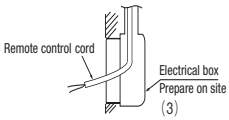
(1) Make certain to remove the screw on the bottom surface of the remote control.



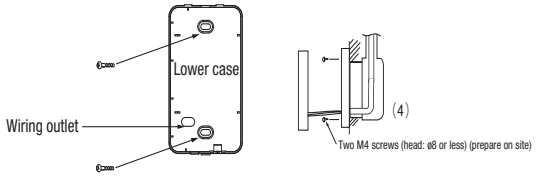
(2) Remove the upper case of the remote control.
Insert a flat-blade screwdriver to a concave portion of the bottom surface of the remote control and slightly twist it, and the case is removed.



(3) Pre-bury the electrical box and remote control cord.



(4) Prepare two M4 screws (recommended length: 12 – 16mm), and install the lower case to the electrical box.
Do not use a screw whose screw head is larger than the height of the wall around the screw hole.

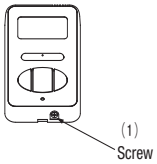


(5) Connect the remote control cord to the terminal block.
Connect the terminals (X and Y) of the remote control and the terminals (X and Y) of the indoor unit. (No polarity of X and Y)

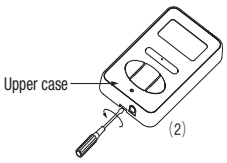
(6) Mount the upper case for restoring to its former state so as not to crimp the remote control cord, and secure with the removed screw.

In case of exposing cord

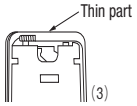
(1) Make certain to remove a screw on the bottom surface of the remote control.



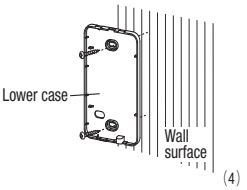
(2) Remove the upper case of the remote control.
Insert a flat-blade screwdriver to a concave portion of the bottom surface of the remote control and slightly twist it, and the case is removed.



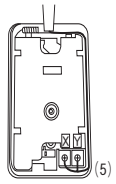
(3) The remote control cord can be extracted from the upper center.
After the thin part in the upper side of the remote control upper case is scraped with a nipper or knife, remove burr with a file.



(4) The lower case of the remote control is mounted to a flat wall with two accessory wood screws.

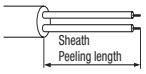


(5) Connect the remote control cord to the terminal block.
Connect the terminals (X and Y) of the remote control and the terminals (X and Y) of the indoor unit. (No polarity of X and Y)
The wiring route is as shown in the right.



The wiring in the remote control case should be 0.3 mm^2 (recommended) to 0.5 mm^2 at maximum.
Further, peel off the sheath.
The peeling length of each wiring is as follows:

X wiring : 160mm
Y wiring : 150mm



(6) Mount the upper case for restoring to its former state so as not to crimp the remote control cord, and secure with the removed screw.

(7) In the case of exposing installation, secure the remote control cord to the wall surface with a cord clamp so as not to loosen the remote control cord.

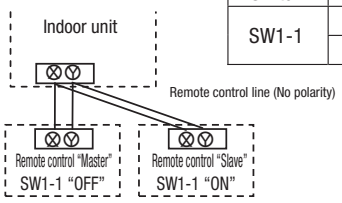
2. Installation and wiring of remote control

(1) Wiring of remote control should use 0.3mm^2 × 2 cores wires or cables. (on-site configuration)
(2) Maximum prolongation of remote control wiring is 600 m.
If the prolongation is over 100m, change to the size below.
But, the wiring in the remote control case should be 0.3mm^2 (recommended) to 0.5mm^2.
Change the wire size outside of the case according to wire connecting. Waterproof treatment is necessary at the wire
connecting section. Be careful about contact failure.
100 - 200m·····0.5mm^2 × 2 cores
Under 300m·····0.75mm^2 × 2 cores
Under 400m·····1.25mm^2 × 2 cores
Under 600m·····2.0mm^2 × 2 cores

3. Master/ slave setting when more than one remote control are used

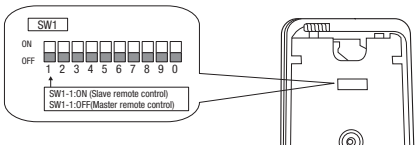
(1) Up to two remote controls can be connected to one unit (or one group) of indoor unit.

Switch	Setting	Function detail
SW1-1	ON	Slave remote control
	OFF	Master remote control



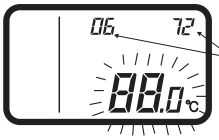
(2) Set the switch SW1-1 of the slave remote control is "Slave" (ON). The factory default is set as "Master" (OFF).

(Note) • The remote control thermistor enabled setting can be set only to the master remote control.
• Install the master remote control at the position to detect room temperature.
• The air-conditioner operation follows the last operation of the remote control in case of the master / slave setting.



4. The indication when power source is supplied

(1) At the time of turning the power source on, after the light is on for the first 2 seconds, the display becomes as shown below.
The number displayed on the upper side of LCD in the remote control is the software number, and this is not an error code.



Software number
(The number in the left is one example. Another number may be shown.)

(2) Then, "88.0 °C" blinks on the remote control until the communication between the remote control and the indoor unit is established.

(3) In the case of connecting one remote control with one unit (or one group) of indoor unit, make certain to set the master remote control (factory default).
If the slave remote control is set, a communication cannot be established.

(4) If a state where the communication between the remote control and the indoor unit cannot be established continues about for 30 minutes, "E" is displayed. Confirm the wiring of the indoor unit and the outdoor unit and master/slave setting of the remote control.



5. Confirmation method for return air temperature

Return air temperature can be confirmed by the remote control operation.

(1) **Press AIR CON No. button for over 5 seconds.**
"88" blinks on the temperature setting indicator.
("88" blinks for approximately 2 seconds while data are read.)
↓
Then, the return air temperature is displayed.
(Example) return air temperature: "27 °C" (blinking)



(Note) For the return air temperature, in the normal case, the return air temperature of the indoor unit is displayed; however, in the case that the remote control thermistor is effective, detected temperature by the remote control thermistor is displayed.

(2) **Press ⏻ ON/OFF button.**
End.

[In the case that the remote thermistor is ineffective and plural indoor units are connected to one remote control]

(1) **Press AIR CON No. button for over 5 seconds.**
Indoor unit No. indicator: "U 000" (blinking)
(Among the connected indoor units, the lowest number is displayed.)



(2) **Press TEMP△ or TEMP▽ button.**
Select the indoor unit No.

(3) **Press MODE button.**
Dectder the indoor unit No.
(Example) Indoor unit No. indicator: "U 000"
"88" blinks on the temperature setting indicator. (blinking for approximately 2 to 10 seconds while data are read) Then, the return air temperature is displayed. When AIR CON No. is pressed, return to the indoor unit selection display (example, "U 000").

(4) **Press ⏻ ON/OFF button.**
End.

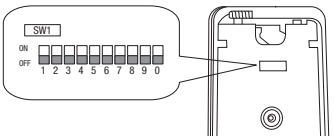
6. Function setting

Each function of the remote control and the indoor unit is automatically set to the initial setting, which is the standard use, on the occasion of connecting the remote control with the indoor unit. In the case of the standard use, the setting change is unnecessary. However, if you whould like to change the initial setting " ○ ", change the setting for only the item of the function number. **Record the setting contents and stored them.**

(1) Function setting item by switch on PCB

Switch No.	Setting	Setting detail	Initial setting
SW1-1	ON	Slave remote control	
	OFF	Master remote control	○
SW1-2	ON	Remote control thermistor enabled	
	OFF	Remote control thermistor disabled	○
SW1-3	ON	"MODE" button prohibited	
	OFF	"MODE" button enabled	○
SW1-4	ON	"ON/OFF" button prohibited	
	OFF	"ON/OFF" button enabled	○

Switch No.	Setting	Setting detail	Initial setting
SW1-5	ON	"TEMP" button prohibited	
	OFF	"TEMP" button enabled	○
SW1-6	ON	"FAN SPEED" button prohibited	※ Note 1
	OFF	"FAN SPEED" button enabled	※ Note 1
SW1-7	ON	Auto restart function enabled	
	OFF	Auto restart function disabled	○
SW1-8, 9, 0	ON	Not used	
	OFF		



- As for the slave remote control, function setting is impossible other than SW1-1.
- In the indoor unit with only one fan speed, "FAN SPEED" button cannot be enabled.

(2) Function setting item by button operation

Classification	Function No.	Function	Setting No.	Setting	Initial setting	Remarks
Remote control function	01	Indoor unit fan speed	01	Fan speed: three steps	※ Note 1	The fan speed is three steps, ❋ ■■■ - ❋ ■■ - ❋ ■.
			02	Fan speed: two steps (Hi-Lo)	※ Note 1	The fan speed is two steps, ❋ ■■■ - ❋ ■.
			03	Fan speed: two steps (Hi-Me)		The fan speed is two steps, ❋ ■■■ - ❋ ■■.
			04	Fan: one step	※ Note 1	The fan speed is fixed to one step.
	03	Remote control thermistor at the time of cooling	01	Remote control thermistor: no offset	○	
			02	Remote control thermistor: +3.0 °C		At the time of cooling, in the case of remote control thermistor enabled, offset temperature at +3.0°C.
			03	Remote control thermistor: +2.0 °C		At the time of cooling, in the case of remote control thermistor enabled, offset temperature at +2.0°C.
			04	Remote control thermistor: +1.0 °C		At the time of cooling, in the case of remote control thermistor enabled, offset temperature at +1.0°C.
			05	Remote control thermistor: -1.0 °C		At the time of cooling, in the case of remote control thermistor enabled, offset temperature at -1.0°C.
			06	Remote control thermistor: -2.0 °C		At the time of cooling, in the case of remote control thermistor enabled, offset temperature at -2.0°C.
			07	Remote control thermistor: -3.0 °C		At the time of cooling, in the case of remote control thermistor enabled, offsett temperature at -3.0°C.
	04	Remote control thermistor at the time of heating	01	Remote control thermistor: no offset	○	
			02	Remote control thermistor: +3.0 °C		At the time of heating, in the case of remote control thermistor enabled, offset temperature at +3.0°C.
			03	Remote control thermistor: +2.0 °C		At the time of heating, in the case of remote control thermistor enabled, offset temperature at +2.0°C.
			04	Remote control thermistor: +1.0 °C		At the time of heating, in the case of remote control thermistor enabled, offset temperature at +1.0°C.
			05	Remote control thermistor: -1.0 °C		At the time of heating, in the case of remote control thermistor enabled, offset temperature at -1.0°C.
			06	Remote control thermistor: -2.0 °C		At the time of heating, in the case of remote control thermistor enabled, offset temperature at -2.0°C.
			07	Remote control thermistor: -3.0 °C		At the time of heating, in the case of remote control thermistor enabled, offset temperature at -3.0°C.
	05	Ventilation setting	01	No ventilator connection	○	
			02	Ventilator links air-conditioner		In case of Single split series, by connecting ventilation device to CnT of the indoor printed circuit board (in case of VRF series, by connecting it to CND of the indoor printed circuit board), the operation of ventilation device is linked with the operation of indoor unit.
	06	"Auto" operation setting	01	"Auto" operation enabled	※ Note 1	
			02	"Auto" operation disabled	※ Note 1	"Auto" operation disabled
Indoor unit function	07	Operation permission/ prohibition	01	Disabled	○	
			02	Enabled		Operation permission/prohibition control is enabled.
	08	External input	01	Level input	○	
			02	Pulse input		
	09	Fan speed setting	01	Standard	Note2	
			02	High speed 1	Note2	
			03	High speed 2	Note2	
	10	Fan remaining operation at the time of cooling	01	No remaining operation	○	After cooling stopped, no fan remaining operation
			02	0.5 hours		After cooling stopped, fan remaining operation for 0.5 hours
			03	1 hour		After cooling stopped, fan remaining operation for 1 hour
			04	6 hours		After cooling stopped, fan remaining operation for 6 hours
	11	Fan remaining operation at the time of heating	01	No remaining operation	○	After heating stopped or after heating thermostat OFF, no fan remaining operation
			02	0.5 hours		After heating stopped or after heating thermostat OFF, fan remaining operation for 0.5 hours
			03	2 hours		After heating stopped or after heating thermostat OFF, fan remaining operation for 2 hours
			04	6 hours		After heating stopped or after heating thermostat OFF, fan remaining operation for 6 hours
	12	Setting temperature offset at the time of heating	01	No offset	○	
			02	Setting temperature offset + 3.0 °C		The setting temperature at the time of heating is offset by +3.0 °C.
			03	Setting temperature offset + 2.0 °C		The setting temperature at the time of heating is offset by +2.0 °C.
			04	Setting temperature offset + 1.0 °C		The setting temperature at the time of heating is offset by +1.0 °C.
	13	Heating fan controller	01	Low fan speed	※ Note 1	At the time of heating thermostat OFF, operate with low fan speed.
			02	Setting fan speed		At the time of heating thermostat OFF, operate with the setting fan speed.
			03	Intermittent operation	※ Note 1	At the time of heatingr thermostat OFF, intermittently operate.
			04	Fan off		At the time of heating thermostat OFF, a fan will be stopped. When the remote control thermistor is enabled, automatically set to "Fan off". Do not set at the time of the indoor unit thermistor.
	14	Return air temperature offset	01	No offset	○	
			02	Return air temperature offset +2.0 °C		Offset the return air temperature of the indoor unit by +2.0 °C.
			03	Return air temperature offset +1.5 °C		Offset the return air temperature of the indoor unit by +1.5 °C.
			04	Return air temperature offset +1.0 °C		Offset the return air temperature of the indoor unit by +1.0 °C.
			05	Return air temperature offset -1.0 °C		Offset the return air temperature of the indoor unit by -1.0 °C.
			06	Return air temperature offset -1.5 °C		Offset the return air temperature of the indoor unit by -1.5 °C.
			07	Return air temperature offset -2.0 °C		Offset the return air temperature of the indoor unit by -2.0 °C.

Note 1: The symbol " ※ " in the initial setting varies depending upon the indoor unit and the outdoor unit to be connected, and this is automatically determined as follows:

Swith No. Function No.	Function	Setting	Product model
SW1-6	"FAN SPEED" button	"FAN SPEED" button prohibited	Product model whose indoor fan speed is only one step
		"FAN SPEED" button enabled	Product model whose indoor fan speed is two steps or three steps
Remote control function 01	Indoor unit fan speed	Fan speed: three steps	Product model whose indoor unit fan speed is three steps
		Fan speed: two steps (Hi-Lo)	Product model whose indoor unit fan speed is two steps
		Fan speed: two steps (Hi-Me)	
		Fan: one step	Product model whose indoor unit fan speed is only one step
Remote control function 06	"Auto" operation setting	"Auto" operation enabled	Product model where "Auto" mode is selectable
		"Auto" operation disabled	Product model without "Auto" mode
Indoor unit function 13	Heating fan control	Low fan speed	Product model except FDUS
		Intermittent operation	FDUS

Note 2: Fan speed of "High speed" setting

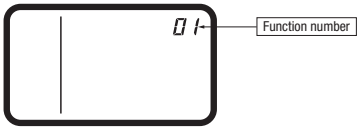
Fan speed setting	Indoor unit fan speed setting		
	❋ ■■■ - ❋ ■■ - ❋ ■	❋ ■■■ - ❋ ■	❋ ■■■ - ❋ ■■
Standard	Hi — Mid — Lo	Hi — Lo	Hi — Mid
High speed 1 • 2	UHi — Hi — Mid	UHi — Mid	UHi — Hi

Initial setting of some indoor unit is "High speed".

Note 3: As for plural indoor unit, set indoor functions to each master and slave indoor unit.
But only master indoor unit is received the setting change of indoor unit function "07 Operation permission/ prohibition" and "08 External input".

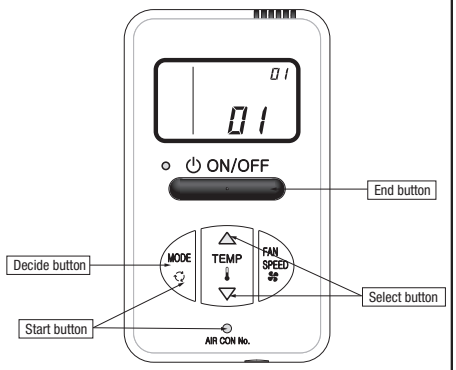
7. How to set functions by button operation

(1) **Stop air-conditioning, and simultaneously press AIR CON No. and MODE buttons at the same time for over three seconds.**
The function number "01" blinks in the upper right.

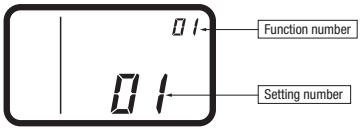


(2) **Press TEMP△ or TEMP▽ button.**
Select the function number.

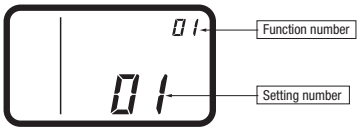
(3) **Press MODE button.**
Decide the function number.



(4) **[In the case of selecting the remote control function (01-06)]**
① The current setting number of the selected function number blinks
(Example)
Function number: "01" (lighting)
Setting number: "01" (blinking)



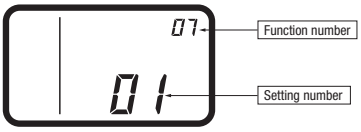
② **Press TEMP△ or TEMP▽ button.**
Select the setting number.
③ **Press MODE button.**
The setting is completed.
Light is on for approximately 3 to 20 seconds while data of the decided function No. and setting No. is transmitted.
(Example)
Function number: "01" (lighting for 3 to 20 seconds)
Setting number: "01" (lighting for 3 to 20 seconds)



Then, the screen goes back to the function number blinking indication (1), if the setting is sequentially conducted, continue with the same procedures. If the setting is finished, proceed to (5).

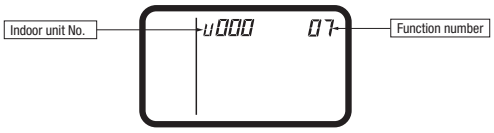
(5) **Press ON/OFF button.**
The setting is completed.

[In the case of selecting the indoor unit function (07-14)]
① **"88" blinks on the temperature setting indicators.**
(blinking for approximately 2 to 10 seconds while data are read)
↓
After that, the current setting number of the selected function number blinks.
(Example)
Function number: "07" (lighting)
Setting number: "01" (blinking)



Proceed to ②.

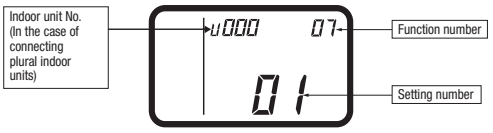
[Note]
a. In the case of connecting one remote control to plural indoor units, the display will be as follows:
Indoor unit No. display: "U 000" (blinking)
(Display the lowest number among the connected indoor units.)



b. Press TEMP△ or TEMP▽ button.
Select the indoor unit No. to be set.
If "U ALL" is selected, the same setting can be set to all units.
c. Press MODE button.
Decide the indoor unit No.
"88" blinks on the temperature setting indicators. (blinking for 2 to 10 seconds while data are read)
When AIR CON No. button is pressed, go back to the indoor unit selection display (for example, "U 000" blinking).

② **Press TEMP△ or TEMP▽ button.**
Select the setting number

③ **Press MODE button.**
The setting is completed.
Light is on for approximately 3 to 20 seconds while data of the decided function No. and setting No. is transmitted.
(Example)
Indoor unit No.: "U 000" (lighting for 3 to 20 seconds)
Function number: "07" (lighting for 3 to 20 seconds)
Setting number: "01" (lighting for 3 to 20 seconds)



Then, the screen goes back to the function number blinking indication (1), if the setting is sequentially conducted, continue with the same procedures. If the setting is finished, proceed to (5).

- Even if ON/OFF button is pressed during setting, the setting is ended. However, any details where the setting has not been completed will be ineffective.
- The setting contents are stored in the control, and even if the power failure occur, this will not be lost.

[Confirmation method for current setting]
According to the operation, the "setting number" displayed first after selecting "function number" and pressing MODE button is the currently set content.
(However, in the case of selecting "U ALL" (all units), the setting number of the lowest number among the indoor units is displayed.)

12.4 OA spacer (FDTC series)

This manual describes the installation methods for OA spacer (TC-OAS-E2) and the duct joint (TC-OAD-E).
◎This OA spacer is designed for assembling on the indoor unit (FDTC Series), not for be using independently.

PJZ012D125

Application model	FDTC15-56KXZE1 FDTC25-60VG

◎Prepare the duct (size: ø75) and the booster fan at site.
◎For the installation of indoor unit, refer to the installation manual attached to the indoor unit.

SAFETY PRECAUTIONS

● Read the "SAFETY PRECAUTIONS" carefully first of all and then strictly follow it during the installation work in order to protect yourself.

⚠WARNING

- **Installation should be performed by the specialist.**
  If you install the unit by yourself, it may lead to serious trouble such as water leakage, electric shock, fire, and injury due to overturn of the unit.
- **Install the system correctly according to these installation manuals.**
  Improper installation may cause explosion, injury, water leakage, electric shock, and fire.
- **Use the genuine accessories and the specified parts for installation.**
  If parts unspecified by our company are used it could cause water leakage, electric shock, fire, and injury due to overturn of the unit.
- **Turn off the power source during servicing or inspection work.**
  If the power is supplied during servicing or inspection work, it could cause electric shock and injury by the operating fan.
- **Shut off the power before electrical wiring work.**
  It could cause electric shock, unit failure and improper running.

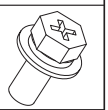
⚠CAUTION

- **Do not install and use the unit where corrosive gas (such as sulfurous acid gas etc.) or flammable gas (such as thinner, petroleum etc.) may be generated or accumulated, or volatile flammable substances are handled.**
  It could cause the corrosion of heat exchanger, breakage of plastic parts etc. And inflammable gas could cause fire.

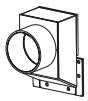
① Before installation

● Confirm the following parts are included:

OA spacer (TC-OAS-E2)

Spacer	Bracket 1	Bracket 2	Bracket 3	Bracket 4	Bolt
					
1	2	2	2	2	8

Duct joint (TC-OAD-E)

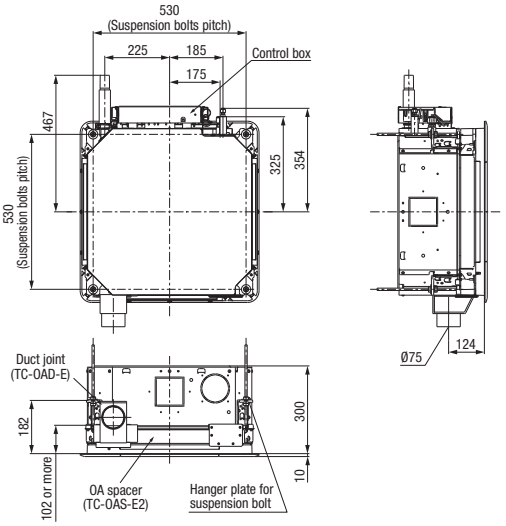
Duct Joint	Screw	Insulation 1 (120 × 54)	Insulation 2 (40 × 60)
			
1	6	1	2

② Prior study before installation (Usage limitation)

(1) Temperature conditions for OA spacer

- Adjust the temperature conditions of mixed air with outdoor air and indoor air within the usage range of suction air temperature for the air-conditioner.
- The usage temperature conditions of intake outdoor air and indoor air around the ducts are shown in the following table.
- If the temperature conditions of intake outdoor air do not meet, process the outdoor air before intaking.

Operation mode	Usage temperature conditions	
	Intake outdoor air	Indoor air around the ducts
In heating	5ºC DB or higher	18.5ºC WB or lower and 60% RH or lower
In cooling	29ºC DB or lower and 80% RH or lower	20ºC DB or higher



(2) Intake outdoor air volume

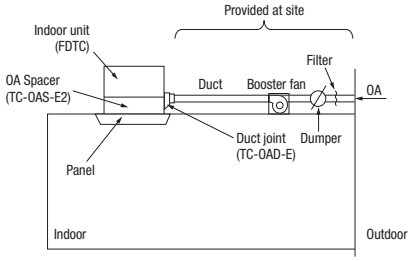
- Intake outdoor air volume is 3.0 m³/min at the maximum (when two sets of duct joints are used).
  Up to two sets of duct joint can be installed on OA spacer.
  In case one set of duct joint is installed: 1.5 m³/min max.
  In case two sets of duct joint is installed: 3.0 m³/min max.

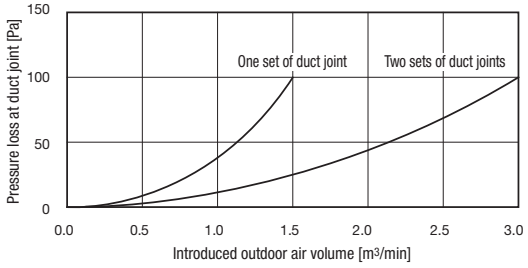
(3) Selection of booster fan

- Select the booster fan based on the duct resistance plus the pressure loss at the duct joint. (See the figure)

(4) Other conditions

- Determine the capacity of air conditioner based on the calculation of air-conditioning load including the heat load of intake outdoor air.
- Install the filter for the intake outdoor air and the reverse flow prevention dumper during the duct work at site.
- Insulate the duct and duct joint in order to prevent dewing.
- Interlock the operation of booster fan with ON/OFF operation of the indoor unit. (See Section 7.)



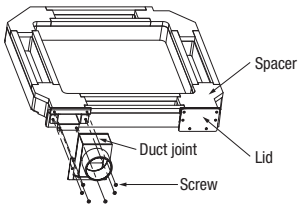


③ Installation of duct joint (TC-OAD-E) onto OA spacer

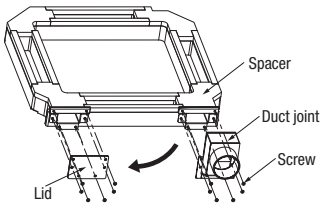
•There are two places where the duct joint can be installed.

When installing one duct joint

Install OA spacer at either one of two installation places on the duct joint.

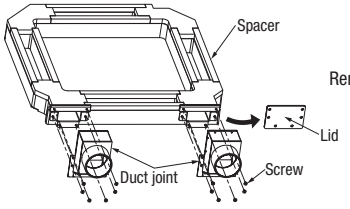


To install the duct joint, screw it in as shown at left.



When installing the duct joint at the lid side, remove the lid and reinstall it at the other end before installing the duct joint.

When installing two duct joints



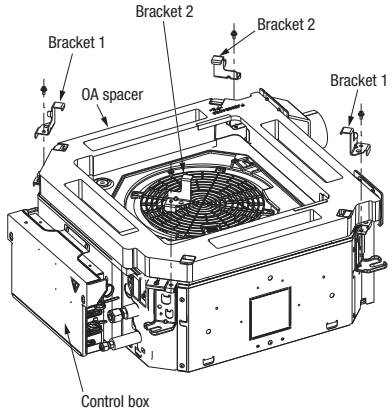
Remove the lid and then install two pieces of duct joint.

④ Installation of OA spacer on the indoor unit

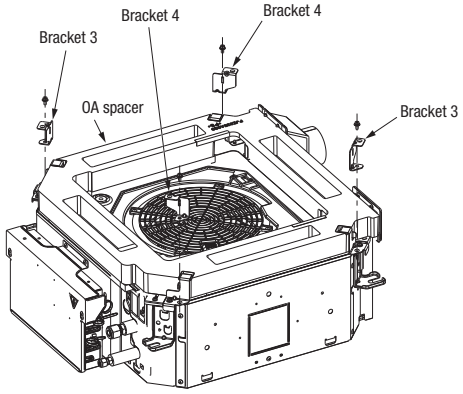
OA spacer can be installed regardless whether the indoor unit has already been hanged or not.
(It is recommended to install before hanging the unit for convenience of installation.)

1-1. When installing OA spacer before hanging the indoor unit

① Placing OA spacer on the indoor unit, fix the brackets 1 and 2 (2 pieces each) with bolts.
Install OA spacer in the appropriate position that the duct joint side of OA spacer becomes opposite to the control box of indoor unit (FDTC).

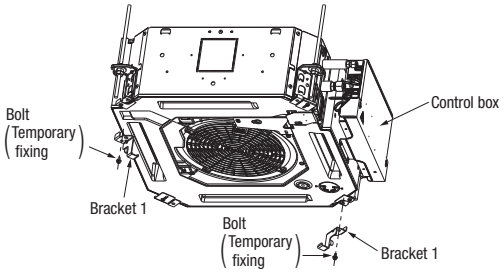


② Fix the brackets 3 and 4 (2 pieces each) with bolts.

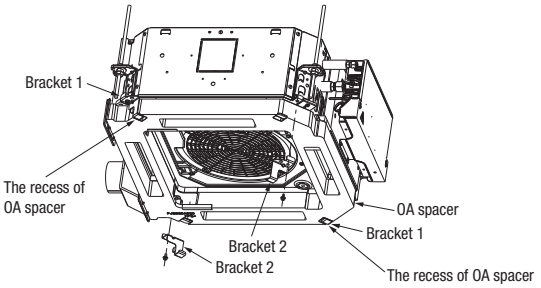


1-2. When installing OA spacer after hanging the indoor unit

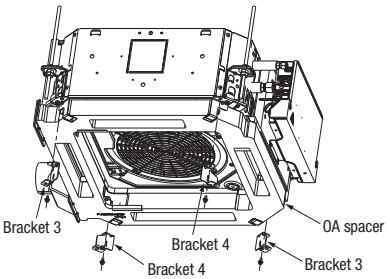
① After hanging the indoor unit (*), fix the bracket 1 (2 pieces) temporarily with bolt by 2 turns as shown in the figure.
* For the height (position) of hanging the indoor unit, refer to Section 5.



② Install OA spacer.
i. Install it in the way that the recess of OA spacer will fit on the bracket 1 fixed temporarily at the step ①.
ii. Tighten the bolt of bracket 1.
iii. Fix the bracket 2 with bolt. (Tighten up)

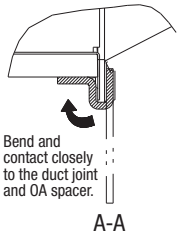


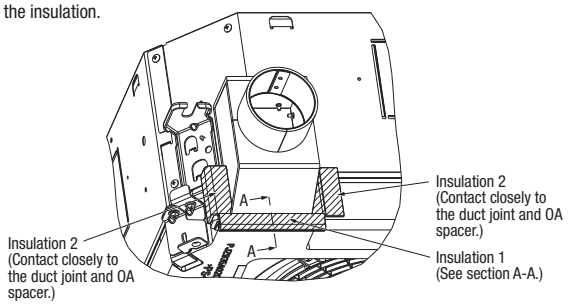
③ Fix the brackets 3 and 4 (2 pieces each) with bolts.



2. Applying insulation

Applying the insulation attached to duct joint set (TC-OAD-E)
① Applying the insulation 1 as shown in the figure.
② Applying the insulation 2 as shown in the figure.
* Be sure to cover the entire surface of sheet metal of the duct joint with the insulation.

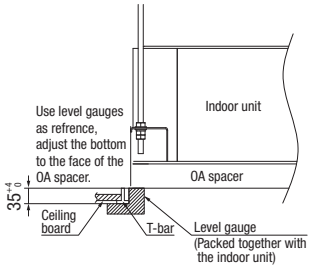


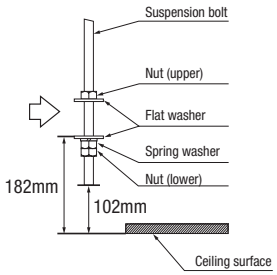


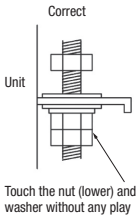
⑤ Installation of indoor unit

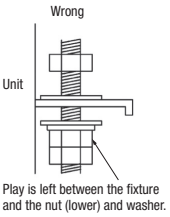
Work procedure

1. This units is designed for 2 × 2 grid ceiling.
   If necessary, please detach the T bar temporarily before you install it.
   If it is installed on a ceiling other than 2 × 2 grid ceiling, provide an inspection port on the control box side.
2. Arrange the suspension bolt at the right position (530mm × 530mm).
3. Make sure to use four suspension bolts and fix them so as to be able to hold 500N load.
4. Ensure that the lower end of the suspension bolt should be 102mm above the ceiling plane. Temporarily put the four lower nuts 182mm above the ceiling plane and the upper nuts on distant place from the lower nuts in order not to obstruct hanging the indoor unit or adjust the indoor unit position, and then hang the indoor unit.
5. Adjust the indoor unit position after hanging it by inserting the level gauge (Packed together with the indoor unit.) attached on the package into the air supply port and checking if the gap between the ceiling plane and the indoor unit is appropriate. (*) In order to adjust the indoor unit position, adjust the lower nuts while the upper nuts are put on distant place. Conrm there is no backlash between the hanger plate for suspension bolt and the lower nut and washer.
   * Use the level gauge only when OA spacer has been installed before hanging (④ 1-1 only).

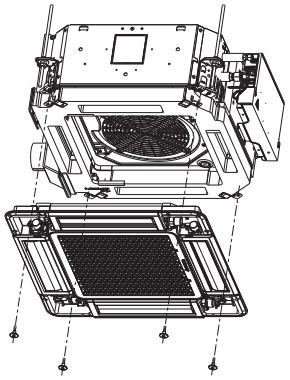








⑥ Installation of panel

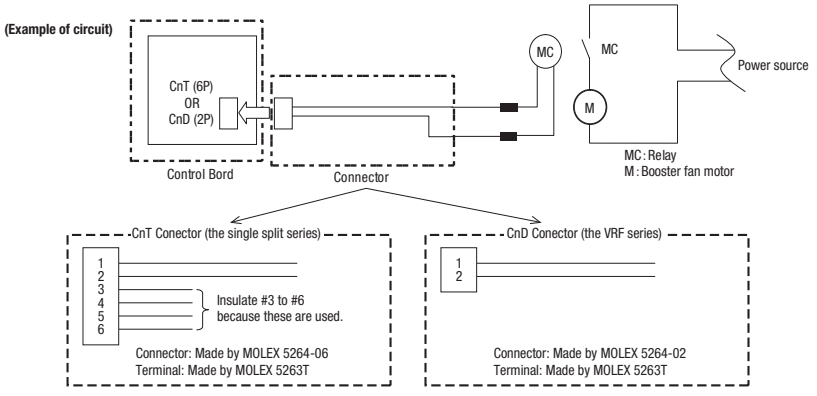


Tighten the panels to the brackets 3 and 4 with bolts.
For further details, refer to the installation manual of panel.

(Caution) Connect the connector of lover motor within the control box.

⑦ Interlocking with the indoor unit fan

◎Connect the single split series and the VRF series to CnT on the indoor PCB and to CnD on the indoor PCB respectively. If a ventilation device is connected been geared with the motion of indoor device (ON: DC12V output, OFF: 0V output), the ventilation device is operated/stopped.
◎Set it at "VENT LINK" by selecting "No. 11 VENT LINK SET" from the functional setting by remote control. For details, refer to the "ELECTRIC WIRNG WORK INSTRUCTION" of indoor unit.



(Caution) Although the indoor unit fan stops during the defrosting or oil return operation, the booster fan is operating.
Use a total heat exchanger, if necessary.

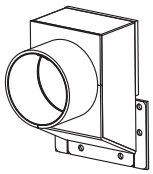
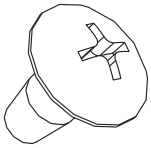
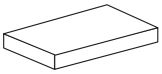
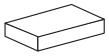
12.5 Duct joint (FDTC series)

PJZ012D073

● This product is used by assembling on the spacer (TC-OAS-E2)

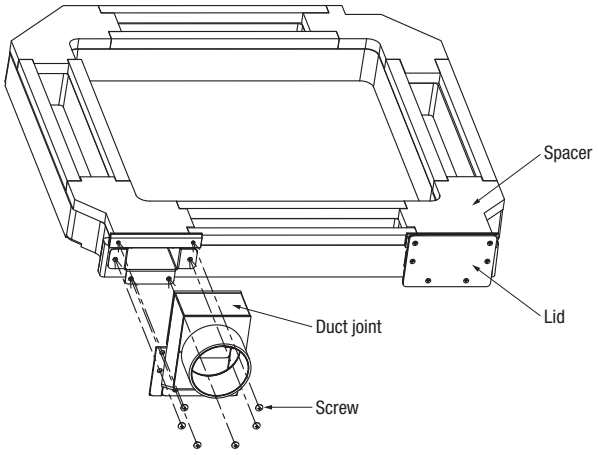
1.Before installation

- Confirm the following parts are included:

Duct joint	Screw	Insulation 1 (120 × 54)	Insulation 2 (40 × 60)
			
1	6	1	2

2.Regarding the use of this product

- Fix the product on the spacer (TC-OAS-E2) as shown below.
- For the installation method, refer to the installation manual of the spacer.



12.6 Filter kit (FDUM series)

PJZ012D076A A

This manual contains installation points and operating instructions for the filter kit manufactured by MHI.
Carry out the work following the instructions below.
This manual also contains information on the usage after installation,
so keep this manual properly with USER'S MANUAL provided with the indoor unit.

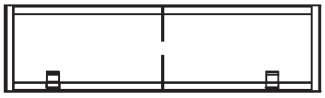
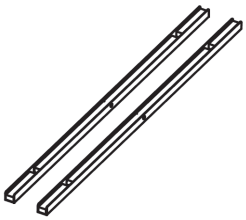
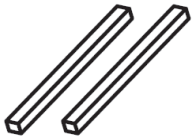
⚠ CAUTION

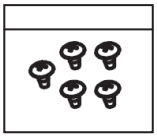
- After unpacking, carry out this work on the ground.
- Do not carry out the work during operation, or there is a danger of being entangled in the rotating parts and getting injured.
- Clean the air filter regularly.
- Be sure to entrust qualified serviceman to performance on the air filter.
- Be sure to cut off the power and stop the unit before performing maintenance.

(1) Table of filter kit parts No. and corresponding object models

	Small mode	Medium model	Large mode
Single type	40, 50	60, 71	100 - 140
Multi type	22 - 56	71, 90	112 - 160
Filter Kit	UM-FL1EF	UM-FL2E	UM-FL3EF

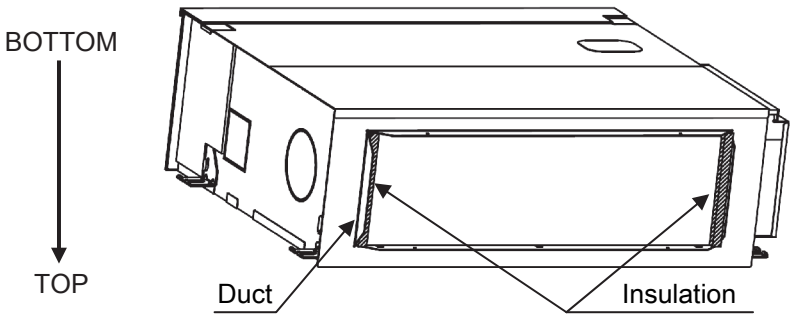
(2) Parts list of filter kit

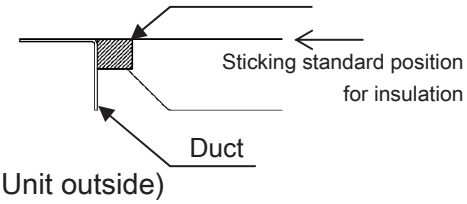
Filter	Rail	Insulation
 1 pc.	 2 pcs.	 2 pcs.

Bracket	Parts set(screw)	
 1 pc.	 small and medium model : 5 pcs.	 large model : 7 pcs. 1 pc.

(3) Installation Points

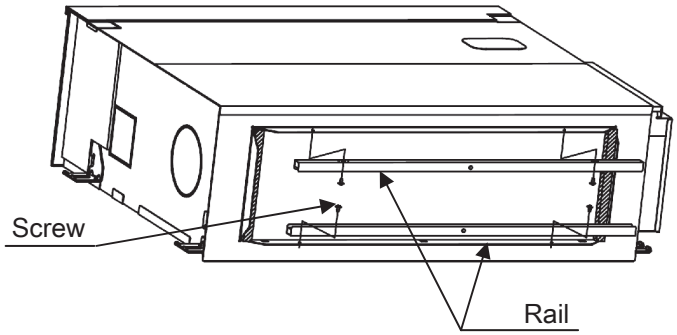
(a) Stick the insulation on both inner sides of the duct, leaving no space up and down.



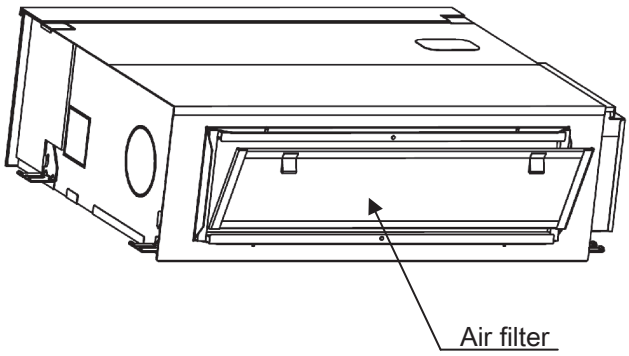


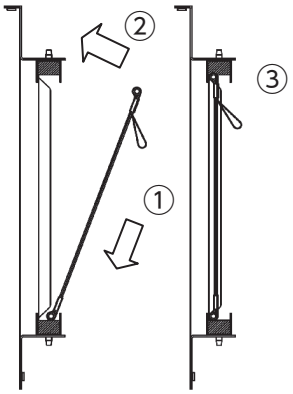
(*) After unpacking, bottom side of the unit is located at the upper side.

(b) Install the rail on both inner sides of the duct with the screw.



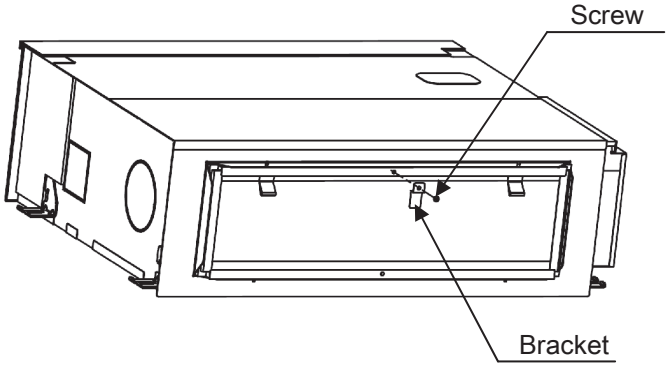
(c) Install the air filter on the rails.





Installation procesure

(d) Install the bracket on the rail with the screw.



(**) When the unit is installed, bottom side of the unit is located at the lower side.

12.7 Filter kit (FDUT series)

(1) Outlet duct plate

PJZ012D081 A

Use this kit for a direct -blow and duct-less installation.
Replace the plate at the blow outlet of unit and connect the blowout duct according to the following procedure.
The blow outlet assembled on the unit at the shipping from factory, is for conneting duct which produces static pressure of 10Pa or more at the outside of unit.

CAUTION

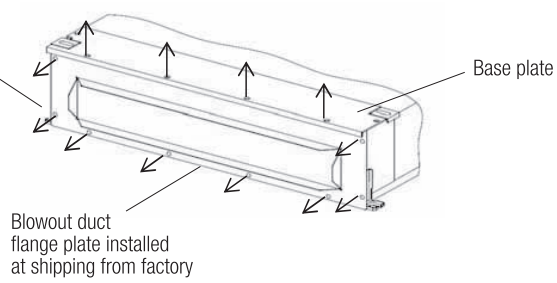
(1) Install the kit while the unit is placed on the floor.
It should not be attempted to install it after installation of the unit in place. Otherwise, it will become very difficult to install it. because related sections could be deformed by the weight of unit.
(2) Do not supply the electric power to the unit during the installation of the kit.
There is the risk of electrical shock or injury be being caught up with revolving parts.

(a) Applicable model of unit and type of blowout duct flange plate kit

Type of blowout duct flange plate kit	UT-SAT1EF	UT-SAT2EF	UT-SAT3EF
Model	15, 22, 28, 36	45, 56	71

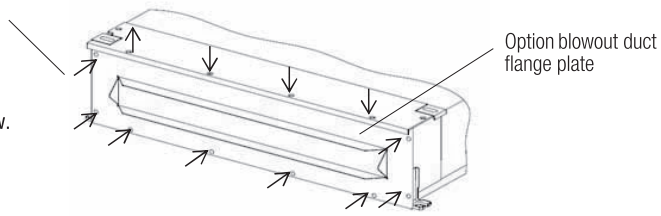
(Figure shows the state that the unit is placed on a floor. Top and bottom are inverted after installing the unit.)
(i) Place the unit as shown below.
(ii) Remove the blowout duct flange plate from the unit. Keep the removed tapping screws to reuse later.

♦Location of tapping screws to be removed
15, 22, 28, 36 : 12 places
45, 56 : 14 places
71 : 12 places
Tapping screw size:

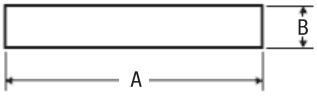


(iii) Install the option blowout duct flange plate using the tapping screws removed at the step (ii) above.
Take care not to damage the insulation when tightening the tapping screws.

♦Location of tapping screws to be tightened
15, 22, 28, 36 : 12places
45, 56 : 14 places
71 : 12 places
Reuse removed tapping screw.



(b) Instruction
(i) Dimensions of the blowout duct flange of the kit are as shown below.
Dimensions in the following table show the outside measurements of the flange.



	A	B
15,22,28,36	600	70
40,56	860	70
71	1060	70

(2) Filter set

PJZ012D089

This manual contains installation points for FILTER SET manufactured by MHI.

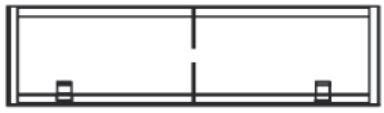
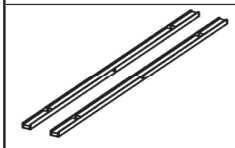
CAUTION

- After unpacking, carry out this work on the ground.
- Do not carry out the work during operation, or there is a danger of being entangled in the rotating parts and getting injured.
- Be sure to cut off the power and stop the unit before maintenance.

(a) Applicable model of unit and type of filter set

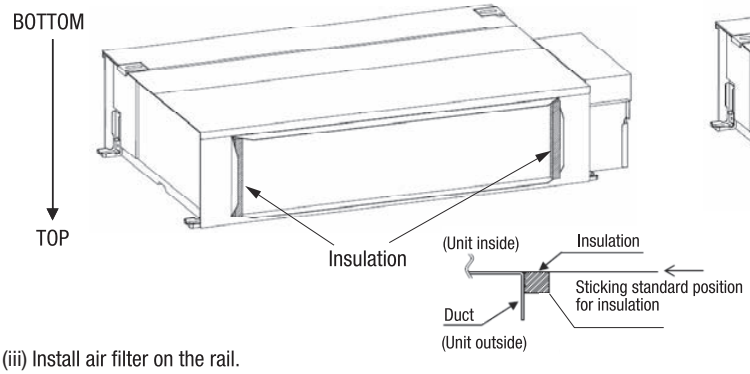
Type of FILTER SET	UT-FL1EF	UT-FL2EF	UT-FL3EF
Model	15, 22, 28, 36	45, 56	71

(b) Parts list of FILTER SET

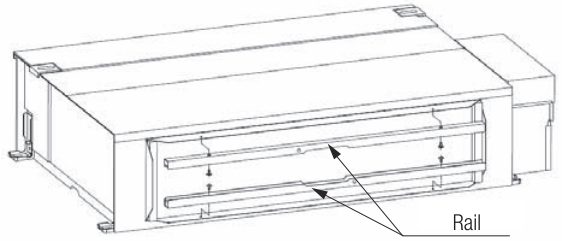
Filter	Rail	Insulation	Bracket	Parts set (screw)
				
1pc.	2pcs.	2pcs.	1pc.	UT-FL1EF 5pcs. UT-FL2EF 5pcs. UT-FL3EF 7pcs.

● Following procedure (i) to (iv) is needed when filter is installed on suction duct flange of unit.

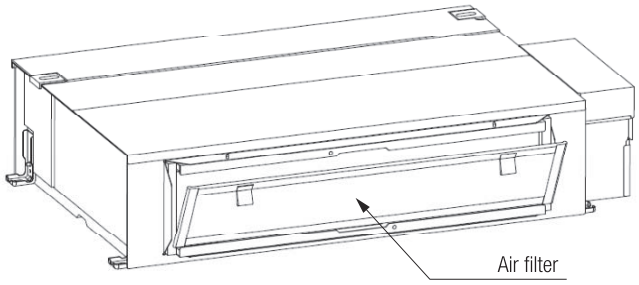
(i) Stick the insulation on both inner sides of the duct flange.

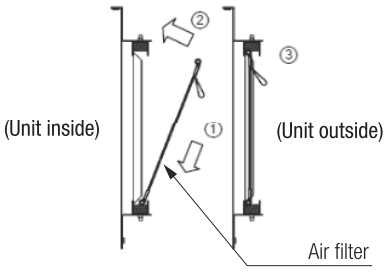


(ii) Install the rail on both inner sides of the duct with the screw.



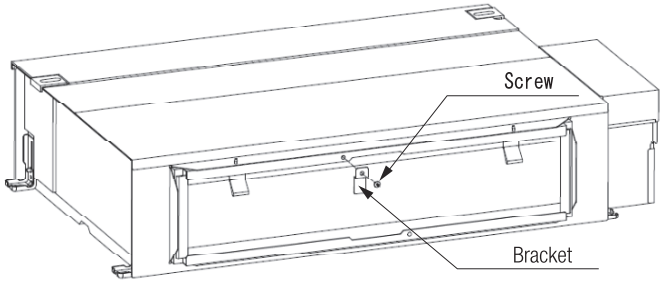
(iii) Install air filter on the rail.





Filter installation procedure

(iv) Install bracket on the rail with screw.



12.8 EEV-SET (FDK series)

How to install Electronic Expansion Valve outside of the AC unit

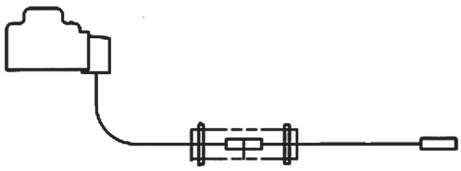
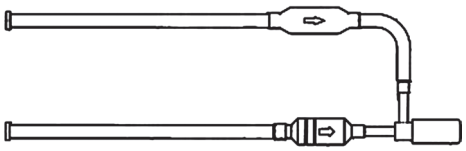
The external expansion valve is installed outside the KX indoor unit series, and control refrigerant flow to decrease refrigerant flow noise from the indoor unit.

This manual is for the installation of EEV-SET to install indoor - outdoor unit piping.
Installation for indoor/outdoor unit, refer to the installation manual attached to an indoor/outdoor unit.

① Check before installation

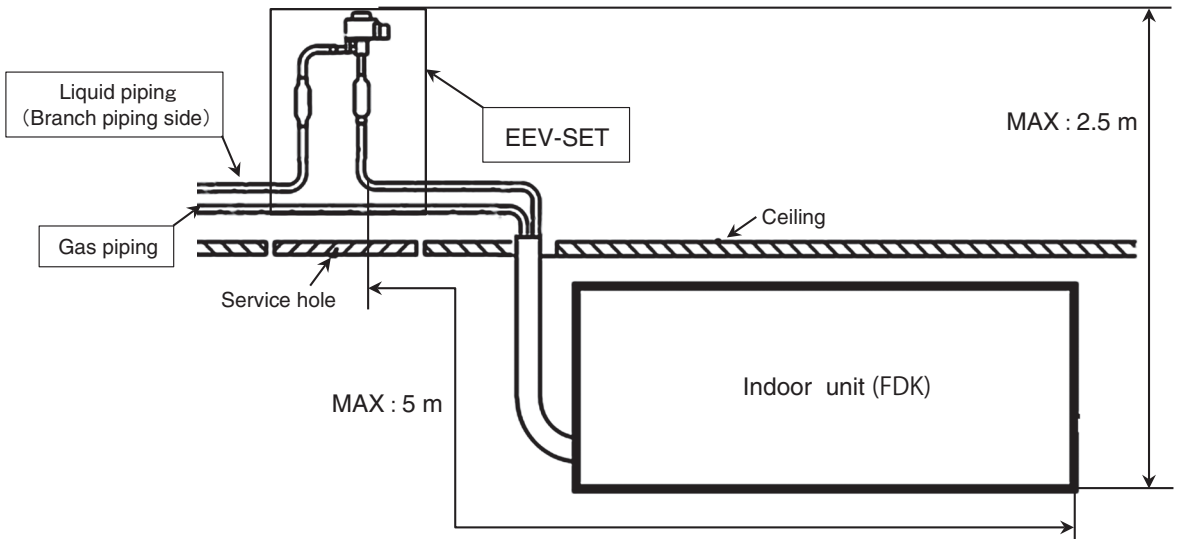
<Applicable AC unit> KX series indoor unit Type FDK22 - 90

1) Please check if following parts are all included in EEV6-71-E (Type 22-71) and EEV6-160-E (Type 90).

COIL ASSY, SOLENOID	VALVE ASSY, EXPANSION
	
1pc	1pc

2) Please check if condition for installation satisfies the followings.

- Check if EEV-SET piping can be connected liquid refrigerant piping in the ceiling.
- Make the inspection port where EEV-SET can be inspected from.
- Keep 5 m or less between indoor unit and EEV-SET
- Keep 2.5 m height difference between indoor unit and EEV-SET.



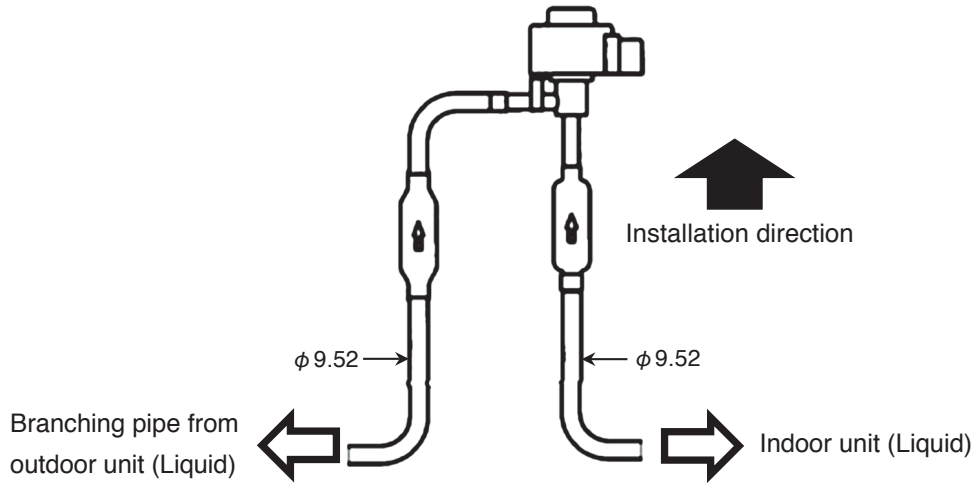
② Refrigerant pipe work

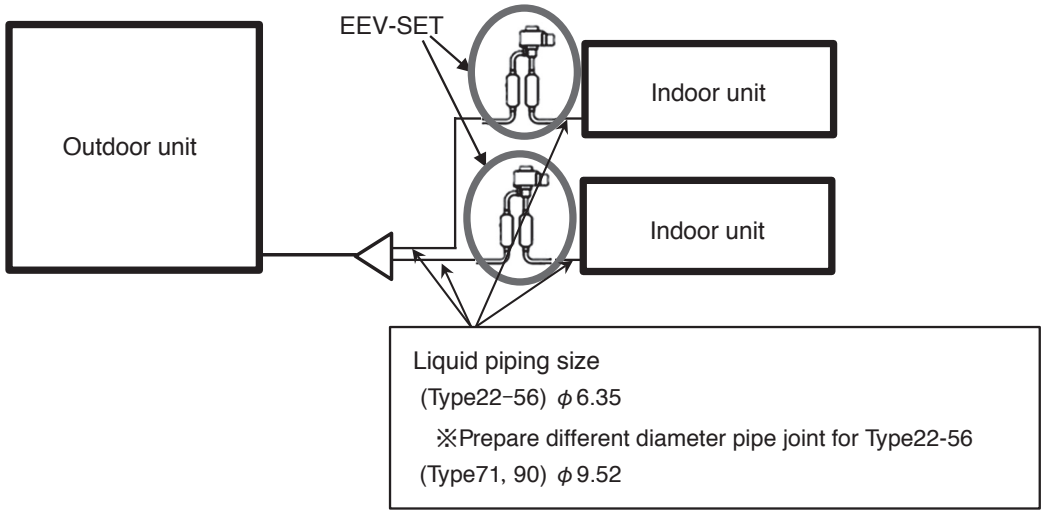
Install EEV-SET between indoor unit and branch pipe of liquid line.
In case of Indoor unit type 22 - 56, joint to connect to ϕ6.35 liquid pipe is necessary.

⚠ CAUTION

Please cool down the body part of electronic expansion valve so that the part may not be heated up to high temperature.
If the temperature in body part exceeds 120℃ or more , parts inside will be damaged.

1) Please do the brazing work without the coil of expansion valve.
2) The inclination angle in the electronic expansion valve coil must be within ±15 degrees.
   If the EEV is installed with over angle, it may cause improper refrigerant distribution.
3) The EEV and piping should be thermally insulated. Without any insulation, it may cause dew drop from the piping.
4) Please make local piping so that no tension be loaded to EEV-SET.

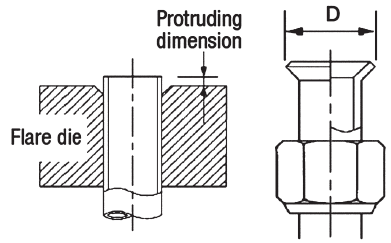




● **Use phosphorus deoxidized copper alloy seamless pipe (C1220T specified in JIS H 3300) for refrigeration pipe installation.**

In addition, make sure there is no damage both inside and outside of the pipe, and no harmful substances such as sulfur, oxide, dust or contaminant stuck on the pipes.

In the case of flare connection, Please check there is no burr or scratches on the flare surface. Please check D dimension after matching.



Pipe dia. d mm	Min. pipe wall thickness mm	Protruding dimension for flare, mm		Flare O.D. D mm	Flare nut tightening torque N·m
		Rigid(Clitch type)			
		R410A	Conventional tool		
6.35	0.8	0-0.5	0.7-1.3	8.7-9.1	14-18
9.52	0.8			12.8-13.2	34-32
12.7	0.8			16.2-16.6	49-61
15.88	1			19.3-19.7	68-82
19.05	1.2			23.6-24.0	100-120

● **Please reinforce the insulation of refrigerant pipes in use under high humidity condition**

Temperature of piping between EEV-SET and indoor unit will be lower than the other liquid piping.
We highly recommend to use piping insulation with thickness of 20mm or more.

● **When fastening the flare nut, align the refrigeration pipe with the center of flare nut, screw the nut for 3-4 times by hand and then tighten it by spanner with the specified torque mentioned in the table above. Make sure to hold the pipe in the indoor unit securely by a spanner when tightening the nut in order to avoid unexpected stress on the copper pipe.**

● **After they are checked for a gas leak, cover the insulation and tighten both ends firmly with the band.**

⚠ CAUTION

Refrigerating oil should not be applied to the threads of union or external surface of flare. It is because, even if the same tightening torque is applied, the oil is likely to decrease the slide friction force on the threads and increase, in turn, the axial component force so that it could crack the flare by the stress corrosion.

Refrigerating machine oil may be applied to the internal surface of flare only.

③ Electrical wiring

1. The original expansion valve inside the indoor unit should be fully opened.

A) In case power source is turned off.

Turn ON the power source in indoor unit.

The expansion valve of indoor unit is fully opened automatically with original control of indoor unit.

Please go the step 2.

B) In case power source is turned ON. (Expansion valve is under operation.)

1) Turn OFF the power source of indoor unit.

2) After turn OFF of power source, please disconnect the Superlink line (AB signal line).

3) Turn ON the power source again. The expansion valve is to be fully opened in about 60 seconds.

The indoor unit opens automatically from the fully closed position to the fully open position after closing the expansion valve when the power is first turned on.

Please do not turn OFF the power source, or operate indoor unit by remote control during this 60 sec.

4) Re-connect the Superlink line (A-B signal line).

VRF INVERTER MULTI-SYSTEM AIR-CONDITIONERS

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