Manual No.'21 • KX-T-386

MITSUBISHI HEAVY INDUSTRIES

TECHNICAL MANUAL

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

Duct connected-High static pressure type

FDU45KXE6F-W	FDU112KXE6F-W
56KXE6F-W	140KXE6F-W
71KXE6F-W	160KXE6F-W
90KXE6F-W	

Duct connected-Low/Middle static pressure type

FDUM22KXE6F-W	FDUM71KXE6F-W
28KXE6F-W	90KXE6F-W
36KXE6F-W	112KXE6F-W
45KXE6F-W	140KXE6F-W
56KXE6F-W	160KXE6F-W

Duct connected (thin)-Low static pressure type

FDUT15KXE6F-W	FDUT45KXE6F-W
22KXE6F-W	56KXE6F-W
28KXE6F-W	71KXE6F-W
36KXE6F-W	

・Note:
(1) Refer to the technical manual “20·KX-T-373” for the corresponding outdoor unit “FDC121, 140, 155KXZEN(S)1-W”.

MITSUBISHI HEAVY INDUSTRIES THERMAL SYSTEMS, LTD.

PREFACE

Combination table for KXZE1 series and KXZE1-W series

( ) Date of launching in the market

Category	Outdoor unit	Indoor unit				
		Connectable remote control		Same series	Mixed series	Same series
		2-wire type	RC-E3 RC-E4 RC-E5 RC-EX1A RC-EX3 RC-EX3A	KXZE1 KXE6F	KXZE1 KXZE1-W KXE6F KXE6F-W	KXZE1-W KXE6F-W
Heat pump (2-pipe) systems	FDC-KXZE1	10-60HP	(2017.4-)	YES	NO	NO
	FDC-KXZME1	8-12HP	(2019.1-)	YES	NO	NO
	FDC-KXZEN/S1	4,5, 5.5HP	(2019.4-)	YES	NO	NO
	FDC-KXZEN/S1-W	4,5, 5.5HP	(2020.12-)	NO	NO	YES

Notes (1) YES : Connectable, NO : Not connectable

(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	Connectable I/U	16	64	128 (128×1)	128 (64×2)*1	96 (48×2)	128 (64×2)*1
	Superlink protocol	New	New	New	New	New	New
	Connectable network	1	1	1	2	2	2

*1 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.

CONTENTS

1. INFORMATION 2
2. SPECIFICATIONS 4
3. EXTERIOR DIMENSIONS 10
3.1 Indoor units 10
3.2 Remote control (Option parts) 19
4. ELECTRICAL WIRING 22
5. NOISE LEVEL 30
6. CHARACTERISTICS OF FAN 39
7. CAPACITY TABLES 49
8. APPLICATION DATA 73
8.1 Installation of indoor unit 73
8.2 Electric wiring work instruction 89
8.3 Installation of wired remote control (Option parts) 93
(1) Model RC-EX3A 93
(2) Model RC-E5 100
9. OUTLINE OF OPERATION CONTROL BY MYCROCOMPUTER 105
9.1 Remote control (Option parts) 105
9.2 Operation control function by the wired remote control 108
9.3 Operation control function by the indoor control 111
10. SYSTEM TROUBLESHOOTING PROCEDURE 127
10.1 Basics of troubleshooting 127
10.2 Contents of troubleshooting 128
10.3 Instruction of how to replace PCB 157
10.4 Indoor PCB setting 163
11. INDOOR UNIT DISASSEMBLY PROCEDURE 164
12. OPTION PARTS 168
12.1 Wireless kit 168
12.2 Motion sensor kit 178
12.3 Simple wired remote control (RCH-E3) 188
12.4 Filter kit (FDUM series) 194
12.5 Filter kit (FDUT series) 196

1. INFORMATION

1.1 Model description

Example: **FDU 45 KX E 6F -W**

- -W: R32 refrigerant
- 6F: Series No.
- E: Application power source...See the specifications
- KX: Multi KX series
- 45: Nominal capacity (Nominal cooling capacity : 4.5kW)
- FDU: Model name〔Indoor unit : FDU, FDUM, FDUT〕

(1) 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
All models	RCN-KIT4-E2

(c) Motion sensor kit

Model	Motion sensor kit
All models	LB-KIT2

1.2 Table of models

Model \ Capacity	15	22	28	36	45	56	71	90	112	140	160
Duct connected-High static pressure type (FDU)					○	○	○	○	○	○	○
Duct connected-Low/Middle static pressure type (FDUM)		○	○	○	○	○	○	○	○	○	○
Duct connected (thin)-Low static pressure type (FDUT)	○	○	○	○	○	○	○				
Outdoor units to be combined FDC	FDC121KXZEN1-W, 140KXZEN1-W, 155KXZEN1-W FDC121KXZES1-W, 140KXZES1-W, 155KXZES1-W										

2. SPECIFICATIONS

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

Models FDU45KXE6F-W, 56KXE6F-W, 71KXE6F-W, 90KXE6F-W

Model			FDU45KXE6F-W	FDU56KXE6F-W	FDU71KXE6F-W	FDU90KXE6F-W
Nominal cooling capacity*1		kW	4.5	5.6	7.1	9.0
Nominal heating capacity*2		kW	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 pressure level	Cooling	dB(A)	P-Hi : 34 Hi : 29 Me : 27 Lo : 25	P-Hi : 34 Hi : 29 Me : 27 Lo : 25	P-Hi : 37 Hi : 31 Me : 27 Lo : 22	P-Hi : 37 Hi : 31 Me : 27 Lo : 22
	Heating		P-Hi : 35 Hi : 30 Me : 29 Lo : 25	P-Hi : 35 Hi : 30 Me : 29 Lo : 25	P-Hi : 39 Hi : 33 Me : 28 Lo : 23	P-Hi : 39 Hi : 33 Me : 28 Lo : 23
Sound power level	Cooling		58	58	63	63
	Heating		60	60	65	65
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,RCH-E3 Wireless : RCN-KIT4-E2	Wired : RC-EX3A,RC-E5,RCH-E3 Wireless : RCN-KIT4-E2	Wired : RC-EX3A,RC-E5,RCH-E3 Wireless : RCN-KIT4-E2	Wired : RC-EX3A,RC-E5,RCH-E3 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			R32	R32	R32	R32
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			PJG000Z767	PJG000Z767	PJG000Z768	PJG000Z768
Electrical wiring			PJG000Z770	PJG000Z770	PJG000Z771	PJG000Z771

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℃	19℃	35℃	24℃	ISO-T1	35(FDU45-71KXE6F-W) 47(FDU90KXE6F-W)
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-KIT2	PJZ000Z341

Adapted to **RoHS** directive

PJG000Z766 A

Models FDU112KXE6F-W, 140KXE6F-W, 160KXE6F-W

Model			FDU112KXE6F-W	FDU140KXE6F-W	FDU160KXE6F-W
Nominal cooling capacity*1		kW	11.2	14.0	16.0
Nominal heating capacity*2		kW	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	kW	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	A	2.00 - 2.00 / 2.00	2.30 - 2.20 / 2.30	2.70 - 2.50 / 2.70
Sound pressure level	Cooling	dB(A)	P-Hi : 40 Hi : 36 Me : 34 Lo : 28	P-Hi : 41 Hi : 37 Me : 34 Lo : 28	P-Hi : 45 Hi : 38 Me : 34 Lo : 29
	Heating	dB(A)	P-Hi : 41 Hi : 36 Me : 34 Lo : 28	P-Hi : 41 Hi : 37 Me : 34 Lo : 28	P-Hi : 45 Hi : 38 Me : 34 Lo : 29
Sound power level	Cooling	dB(A)	68	68	72
	Heating	dB(A)	69	69	72
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	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
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,RCH-E3 Wireless : RCN-KIT4-E2	Wired : RC-EX3A,RC-E5,RCH-E3 Wireless : RCN-KIT4-E2	Wired : RC-EX3A,RC-E5,RCH-E3 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 Refrigerant piping size	Liquid line		ϕ9.52 (3/8") <Flare piping>	ϕ9.52 (3/8") <Flare piping>	ϕ9.52 (3/8") <Flare piping>
	Gas line		ϕ15.88 (5/8") <Flare piping>	ϕ15.88 (5/8") <Flare piping>	ϕ15.88 (5/8") <Flare piping>
Refrigerant			R32	R32	R32
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
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			PJG000Z769	PJG000Z769	PJG000Z769
Electrical wiring			PJG000Z772	PJG000Z772	PJG000Z772

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℃	19℃	35℃	24℃	ISO-T1	60
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-KIT2	PJZ000Z341

Adapted to **RoHS** directive

PJG000Z766 A

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

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

Model			FDUM22KXE6F-W	FDUM28KXE6F-W	FDUM36KXE6F-W	FDUM45KXE6F-W	FDUM56KXE6F-W
Nominal cooling capacity*1		kW	2.2	2.8	3.6	4.5	5.6
Nominal heating capacity*2		kW	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	0.080 - 0.080 / 0.080	0.080 - 0.080 / 0.080	0.080 - 0.080 / 0.080	0.080 - 0.080 / 0.080	0.080 - 0.080 / 0.080
	Heating	kW	0.080 - 0.080 / 0.080	0.080 - 0.080 / 0.080	0.080 - 0.080 / 0.080	0.080 - 0.080 / 0.080	0.080 - 0.080 / 0.080
Running current	Cooling	A	0.63 - 0.58 / 0.63	0.63 - 0.58 / 0.63	0.63 - 0.58 / 0.63	0.63 - 0.58 / 0.63	0.63 - 0.58 / 0.63
	Heating	A	0.63 - 0.58 / 0.63	0.63 - 0.58 / 0.63	0.63 - 0.58 / 0.63	0.63 - 0.58 / 0.63	0.63 - 0.58 / 0.63
Sound pressure level	Cooling	dB(A)	P-Hi : 33 Hi : 27 Me : 25 Lo : 23	P-Hi : 33 Hi : 27 Me : 25 Lo : 23	P-Hi : 34 Hi : 29 Me : 27 Lo : 25	P-Hi : 34 Hi : 29 Me : 27 Lo : 25	P-Hi : 34 Hi : 29 Me : 27 Lo : 25
	Heating	dB(A)	P-Hi : 36 Hi : 30 Me : 29 Lo : 25	P-Hi : 36 Hi : 30 Me : 29 Lo : 25	P-Hi : 35 Hi : 30 Me : 29 Lo : 25	P-Hi : 35 Hi : 30 Me : 29 Lo : 25	P-Hi : 35 Hi : 30 Me : 29 Lo : 25
Sound power level	Cooling	dB(A)	57	57	58	58	58
	Heating	dB(A)	60	60	60	60	60
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	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
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,RCH-E3 Wireless : RCN-KIT4-E2	Wired : RC-EX3A,RC-E5,RCH-E3 Wireless : RCN-KIT4-E2	Wired : RC-EX3A,RC-E5,RCH-E3 Wireless : RCN-KIT4-E2	Wired : RC-EX3A,RC-E5,RCH-E3 Wireless : RCN-KIT4-E2	Wired : RC-EX3A,RC-E5,RCH-E3 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		ϕ6.35 (1/4") <Flare piping>	ϕ6.35 (1/4") <Flare piping>	ϕ6.35 (1/4") <Flare piping>	ϕ6.35 (1/4") <Flare piping>	ϕ6.35 (1/4") <Flare piping>
	Gas line		ϕ9.52 (3/8") <Flare piping>	ϕ9.52 (3/8") <Flare piping>	ϕ12.7 (1/2") <Flare piping>	ϕ12.7 (1/2") <Flare piping>	ϕ12.7 (1/2") <Flare piping>
Refrigerant			R32	R32	R32	R32	R32
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			PJG000Z760	PJG000Z760	PJG000Z760	PJG000Z760	PJG000Z760
Electrical wiring			PJG000Z763	PJG000Z763	PJG000Z763	PJG000Z763	PJG000Z763

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℃	19℃	35℃	24℃	ISO-T1	35
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) 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-KIT2	PJZ000Z341
Air filter (For 22-56)		UM-FL1EF	—

Adapted to **RoHS** directive

PJG000Z759 A

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

Model			FDUM71KXE6F-W	FDUM90KXE6F-W	FDUM112KXE6F-W	FDUM140KXE6F-W	FDUM160KXE6F-W
Nominal cooling capacity*1		kW	7.1	9.0	11.2	14.0	16.0
Nominal heating capacity*2		kW	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	0.160 - 0.160 / 0.160	0.160 - 0.160 / 0.160	0.250 - 0.250 / 0.250	0.260 - 0.260 / 0.260	0.380 - 0.380 / 0.380
	Heating	kW	0.160 - 0.160 / 0.160	0.160 - 0.160 / 0.160	0.250 - 0.250 / 0.250	0.260 - 0.260 / 0.260	0.380 - 0.380 / 0.380
Running current	Cooling	A	1.41 - 1.29 / 1.41	1.41 - 1.29 / 1.41	1.62 - 1.49 / 1.62	1.68 - 1.54 / 1.68	2.30 - 2.11 / 2.30
	Heating	A	1.41 - 1.29 / 1.41	1.41 - 1.29 / 1.41	1.62 - 1.49 / 1.62	1.68 - 1.54 / 1.68	2.30 - 2.11 / 2.30
Sound pressure level	Cooling	dB(A)	P-Hi : 37 Hi : 31 Me : 27 Lo : 22	P-Hi : 37 Hi : 31 Me : 27 Lo : 22	P-Hi : 40 Hi : 36 Me : 34 Lo : 28	P-Hi : 41 Hi : 37 Me : 34 Lo : 28	P-Hi : 45 Hi : 38 Me : 34 Lo : 29
	Heating	dB(A)	P-Hi : 39 Hi : 33 Me : 28 Lo : 23	P-Hi : 39 Hi : 33 Me : 28 Lo : 23	P-Hi : 41 Hi : 36 Me : 34 Lo : 28	P-Hi : 41 Hi : 37 Me : 34 Lo : 28	P-Hi : 45 Hi : 38 Me : 34 Lo : 29
Sound power level	Cooling	dB(A)	63	63	68	68	72
	Heating	dB(A)	65	65	69	69	72
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	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
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,RCH-E3 Wireless : RCN-KIT4-E2	Wired : RC-EX3A,RC-E5,RCH-E3 Wireless : RCN-KIT4-E2	Wired : RC-EX3A,RC-E5,RCH-E3 Wireless : RCN-KIT4-E2	Wired : RC-EX3A,RC-E5,RCH-E3 Wireless : RCN-KIT4-E2	Wired : RC-EX3A,RC-E5,RCH-E3 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		ϕ9.52 (3/8") <Flare piping>	ϕ9.52 (3/8") <Flare piping>	ϕ9.52 (3/8") <Flare piping>	ϕ9.52 (3/8") <Flare piping>	ϕ9.52 (3/8") <Flare piping>
	Gas line		ϕ15.88 (5/8") <Flare piping>	ϕ15.88 (5/8") <Flare piping>	ϕ15.88 (5/8") <Flare piping>	ϕ15.88 (5/8") <Flare piping>	ϕ15.88 (5/8") <Flare piping>
Refrigerant			R32	R32	R32	R32	R32
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			PJG000Z761	PJG000Z761	PJG000Z762	PJG000Z762	PJG000Z762
Electrical wiring			PJG000Z764	PJG000Z764	PJG000Z765	PJG000Z765	PJG000Z765

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℃	19℃	35℃	24℃	ISO-T1	35(FDUM71),47(FDUM90,112) 60(FDUM140,160)
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) 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-KIT2	PJZ000Z341
Air filter (For 71-90)		UM-FL2EF	—
Air filter (For 112-160)		UM-FL3EF	—

Adapted to **RoHS** directive

PJG000Z759 A

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

Models FDUT15KXE6F-W, 22KXE6F-W, 28KXE6F-W, 36KXE6F-W

Model			FDUT15KXE6F-W	FDUT22KXE6F-W	FDUT28KXE6F-W	FDUT36KXE6F-W
Panel model (Option)			Rear air return	Rear air return	Rear air return	Rear air return
Nominal cooling capacity*1		kW	1.5	2.2	2.8	3.6
Nominal heating capacity*2		kW	1.7	2.5	3.2	4.0
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	0.057-0.058 / 0.060	0.063-0.066 / 0.070	0.063-0.066 / 0.070	0.067-0.070 / 0.072
	Heating	kW	0.057-0.058 / 0.060	0.065-0.067 / 0.070	0.065-0.067 / 0.070	0.070-0.072 / 0.074
Running current	Cooling	A	0.27-0.26 / 0.28	0.29-0.28 / 0.32	0.29-0.28 / 0.32	0.32-0.30 / 0.34
	Heating	A	0.27-0.26 / 0.28	0.30-0.29 / 0.33	0.30-0.29 / 0.33	0.33-0.31 / 0.34
Sound pressure level ①	Cooling	dB(A)	Hi : 28 Me : 26 Lo : 21	Hi : 28 Me : 26 Lo : 22	Hi : 28 Me : 26 Lo : 22	Hi : 30 Me : 28 Lo : 24
	Heating	dB(A)	Hi : 28 Me : 25 Lo : 20	Hi : 28 Me : 26 Lo : 22	Hi : 28 Me : 26 Lo : 22	Hi : 31 Me : 29 Lo : 25
Sound pressure level ②	Cooling	dB(A)	Hi : 32 Me : 29 Lo : 25	Hi : 32 Me : 29 Lo : 25	Hi : 32 Me : 29 Lo : 25	Hi : 37 Me : 34 Lo : 28
	Heating	dB(A)	Hi : 32 Me : 29 Lo : 25	Hi : 32 Me : 29 Lo : 25	Hi : 32 Me : 29 Lo : 25	Hi : 37 Me : 34 Lo : 28
Sound power level	Cooling	dB(A)	52	52	52	54
	Heating	dB(A)	51	52	52	55
Exterior dimensions Height x Width x Depth		mm	200 × 750 × 500	200 × 750 × 500	200 × 750 × 500	200 × 750 × 500
Net weight		kg	22	21	21	22
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 × 2
Fan motor		W	14	14	14	14
Starting method			Direct line start	Direct line start	Direct line start	Direct line start
Air flow (Standard)		m^3/min	Hi : 6 Me : 5 Lo : 4	Hi : 7.5 Me : 6 Lo : 5	Hi : 7.5 Me : 6 Lo : 5	Hi : 8.5 Me : 7 Lo : 5.5
External static pressure		Pa	Standard : 10, Max : 35	Standard : 10, Max : 35	Standard : 10, Max : 35	Standard : 10, Max : 35
Outdoor air intake			Possible	Possible	Possible	Possible
Suction guard(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-E5,RC-EX3A,RCH-E3 Wireless : RCN-KIT4-E2	Wired :RC-E5,RC-EX3A,RCH-E3 Wireless : RCN-KIT4-E2	Wired :RC-E5,RC-EX3A,RCH-E3 Wireless : RCN-KIT4-E2	Wired :RC-E5,RC-EX3A,RCH-E3 Wireless : RCN-KIT4-E2
Room temperature control			Thermostat by electronics	Thermostat by electronics	Thermostat by electronics	Thermostat by electronics
Safety equipment			Internal thermostat for fan motor Frost protection thermostat	Internal thermostat for fan motor Frost protection thermostat	Internal thermostat for fan motor Frost protection thermostat	Internal thermostat for fan motor Frost protection thermostat
Installation data Refrigerant piping size	Liquid line Gas line		φ6.35 (1/4") <Flare piping > φ9.52 (3/8") <Flare piping >	φ6.35 (1/4") <Flare piping > φ9.52 (3/8") <Flare piping >	φ6.35 (1/4") <Flare piping > φ9.52 (3/8") <Flare piping >	φ6.35 (1/4") <Flare piping > φ12.7 (1/2") <Flare piping >
Refrigerant			R32	R32	R32	R32
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, Joint for drain piping	Mounting kit, Joint for drain piping	Mounting kit, Joint for drain piping	Mounting kit, Joint for drain piping
Exterior dimensions / Electrical wiring			PJH000Z027 / PJH000Z030	PJH000Z027 / PJH000Z030	PJH000Z027 / PJH000Z030	PJH000Z027 / PJH000Z030

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℃	19℃	35℃	24℃	ISO-T1	10
Heating*2	20℃		7℃	6℃		

(2) 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.
(3) This packaged air-conditioner is manufactured and tested in conformity with the following standard.
ISO-T1 "UNITARY AIR-CONDITIONERS"
(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-FL1EF" is 5Pa.
(6) Select the breaker size according to the own national standard.

Adapted to **RoHS** directive

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-KIT2	PJZ000Z341
Suction guard(Air filter)		UT-FL1EF(For 15-36)	

PJH000Z026 B

Models FDUT45KXE6F-W, 56KXE6F-W, 71KXE6F-W

Model			FDUT45KXE6F-W	FDUT56KXE6F-W	FDUT71KXE6F-W
Panel model (Option)			Rear air return	Rear air return	Rear air return
Nominal cooling capacity*1		kW	4.5	5.6	7.1
Nominal heating capacity*2		kW	5.0	6.0	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
Power consumption	Cooling	kW	0.075-0.078 / 0.088	0.076-0.080 / 0.090	0.080-0.080 / 0.080
	Heating		0.072-0.076 / 0.085	0.073-0.078 / 0.088	0.070-0.070 / 0.070
Running current	Cooling	A	0.36-0.33 / 0.40	0.36-0.35 / 0.42	0.42-0.42 / 0.42
	Heating		0.34-0.32 / 0.39	0.34-0.33 / 0.40	0.46-0.46 / 0.46
Sound pressure level ①	Cooling	dB(A)	Hi：30 Me：26 Lo：24	Hi：31 Me：27 Lo：24	Hi：32 Me：28 Lo：27
	Heating		Hi：30 Me：27 Lo：25	Hi：31 Me：28 Lo：26	Hi：32 Me：28 Lo：26
Sound pressure level ②	Cooling		Hi：36 Me：33 Lo：27	Hi：38 Me：33 Lo：29	Hi：41 Me：37 Lo：32
	Heating		Hi：36 Me：33 Lo：27	Hi：38 Me：33 Lo：29	Hi：41 Me：37 Lo：32
Sound power level	Cooling		54	55	56
	Heating		54	55	57
Exterior dimensions Height x Width x Depth		mm	200 × 950 × 500	200 × 950 × 500	200 × 1,150 × 565
Net weight		kg	25	25	31
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 × 4
Fan motor		W	38	38	100
Starting method			Direct line start	Direct line start	Direct line start
Air flow (Standard)		m^3/min	Hi：11.5 Me：9 Lo：7	Hi：12.5 Me：9 Lo：7.2	Hi：16 Me：13 Lo：9.5
External static pressure		Pa	Standard : 10, Max : 50	Standard : 10, Max : 50	Standard : 10, Max : 50
Outdoor air intake			Possible	Possible	Possible
Suction guard(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-E5,RC-EX3A,RCH-E3 Wireless : RCN-KIT4-E2	Wired :RC-E5,RC-EX3A,RCH-E3 Wireless : RCN-KIT4-E2	Wired :RC-E5,RC-EX3A,RCH-E3 Wireless : RCN-KIT4-E2
Room temperature control			Thermostat by electronics	Thermostat by electronics	Thermostat by electronics
Safety equipment			Internal thermostat for fan motor Frost protection thermostat	Internal thermostat for fan motor Frost protection thermostat	Internal thermostat for fan motor Frost protection thermostat
Installation data Refrigerant piping size	Liquid line Gas line		φ6.35 (1/4") <Flare piping > φ12.7 (1/2") <Flare piping >	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			R32	R32	R32
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
Insulation for piping			Necessary(both Liquid & Gas line)	Necessary(both Liquid & Gas line)	Necessary(both Liquid & Gas line)
Accessories			Mounting kit, Joint for drain piping	Mounting kit, Joint for drain piping	Mounting kit, Joint for drain piping
Exterior dimensions / Electrical wiring			PJH000Z028 / PJH000Z030	PJH000Z028 / PJH000Z030	PJH000Z029 / PJH000Z031

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℃	19℃	35℃	24℃	ISO-T1	10
Heating*2	20℃		7℃	6℃		

(2) 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.
(3) This packaged air-conditioner is manufactured and tested in conformity with the following standard.
ISO-T1 "UNITARY AIR-CONDITIONERS"
(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-FL2EF""UT-FL3EF" is 5Pa.
(6) Select the breaker size according to the own national standard.

Adapted to **RoHS** directive

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-KIT2	PJZ000Z341
Suction guard(Air filter)		UT-FL2EF (For 45,56)	
		UT-FL3EF (For 71)	

PJH000Z026 B

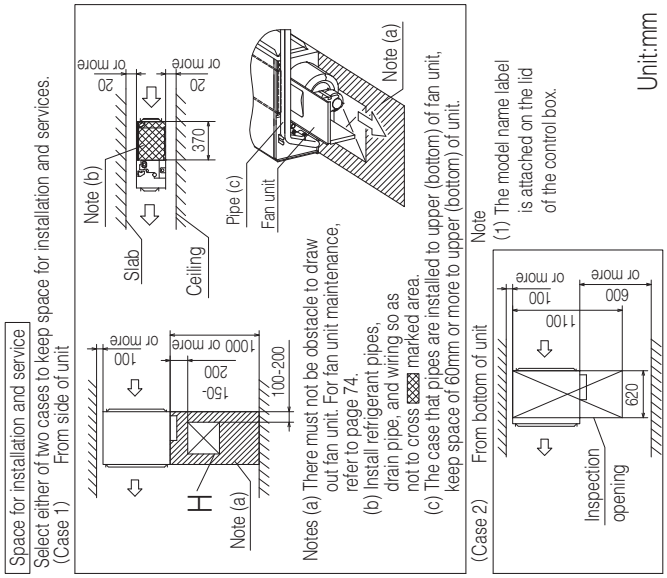
3. EXTERIOR DIMENSIONS

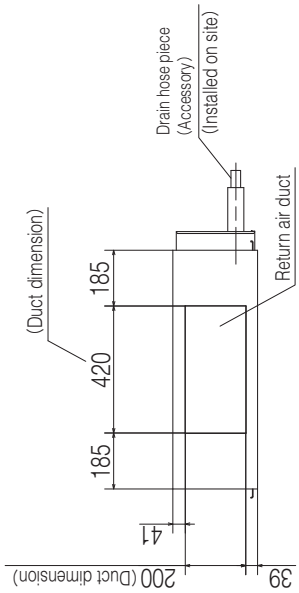
3.1 Indoor units

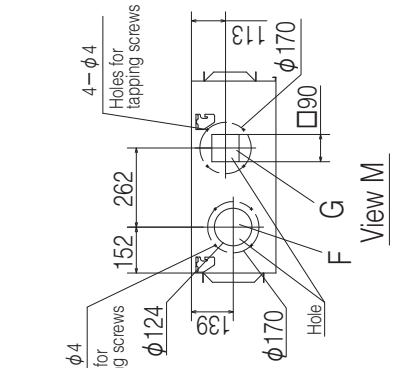
(1) Duct connected-High static pressure type (FDU)

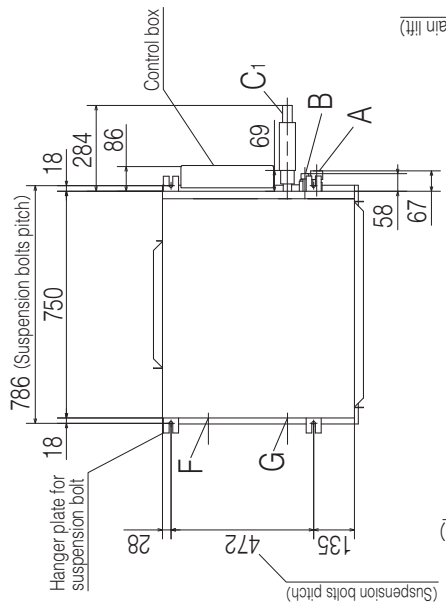
Models FDU45KXE6F-W, 56KXE6F-W

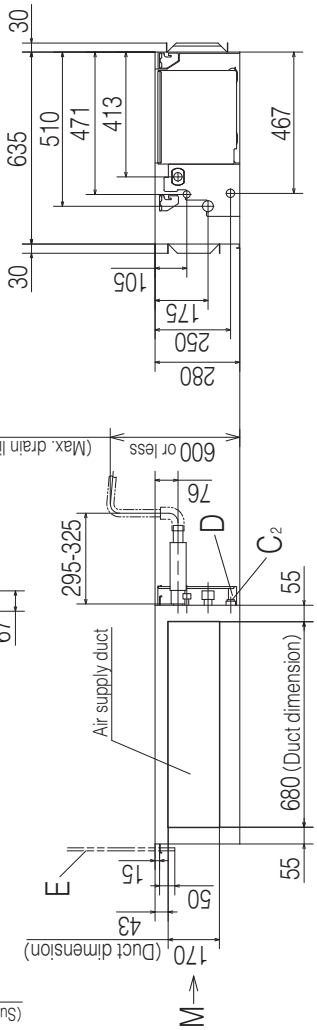
Symbol	Content	
A	Gas piping	φ12.7 (1/2") (Flare)
B	Liquid piping	φ6.35 (1/4") (Flare)
C1	Drain piping	VP25 (O.D.32)
C2	Drain piping (Gravity drainage)	VP20 (O.D.26)
D	Hole for wiring	
E	Suspension bolts	(M10)
F	Outside air opening for ducting	(Knock out)
G	Air outlet opening for ducting	(Knock out)
H	Inspection opening	(450×450)





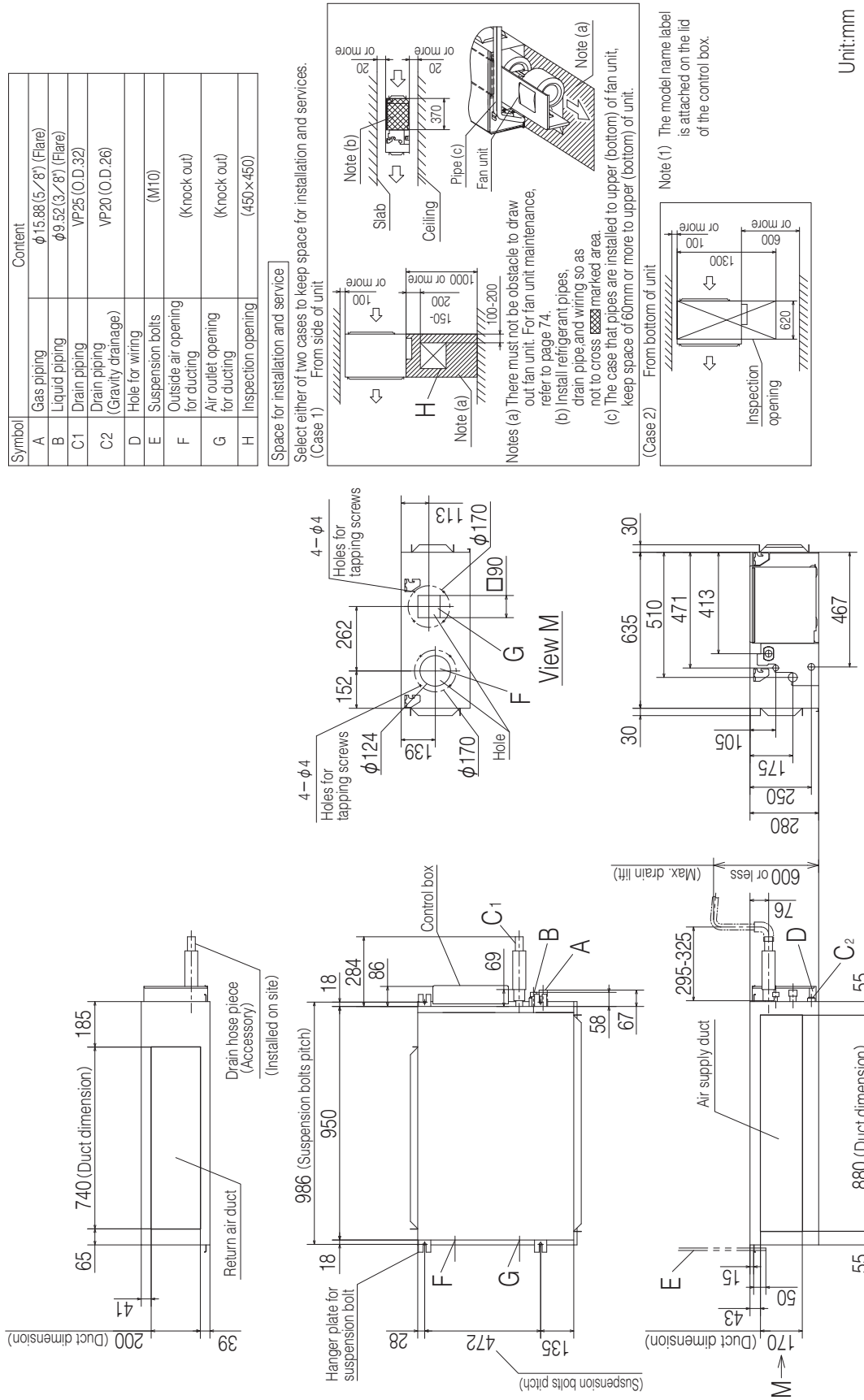






PJG000Z767

Models FDU71KXE6F-W, 90KXE6F-W



PJG000Z768

Models FDU112KXE6F-W, 140KXE6F-W, 160KXE6F-W

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)
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.

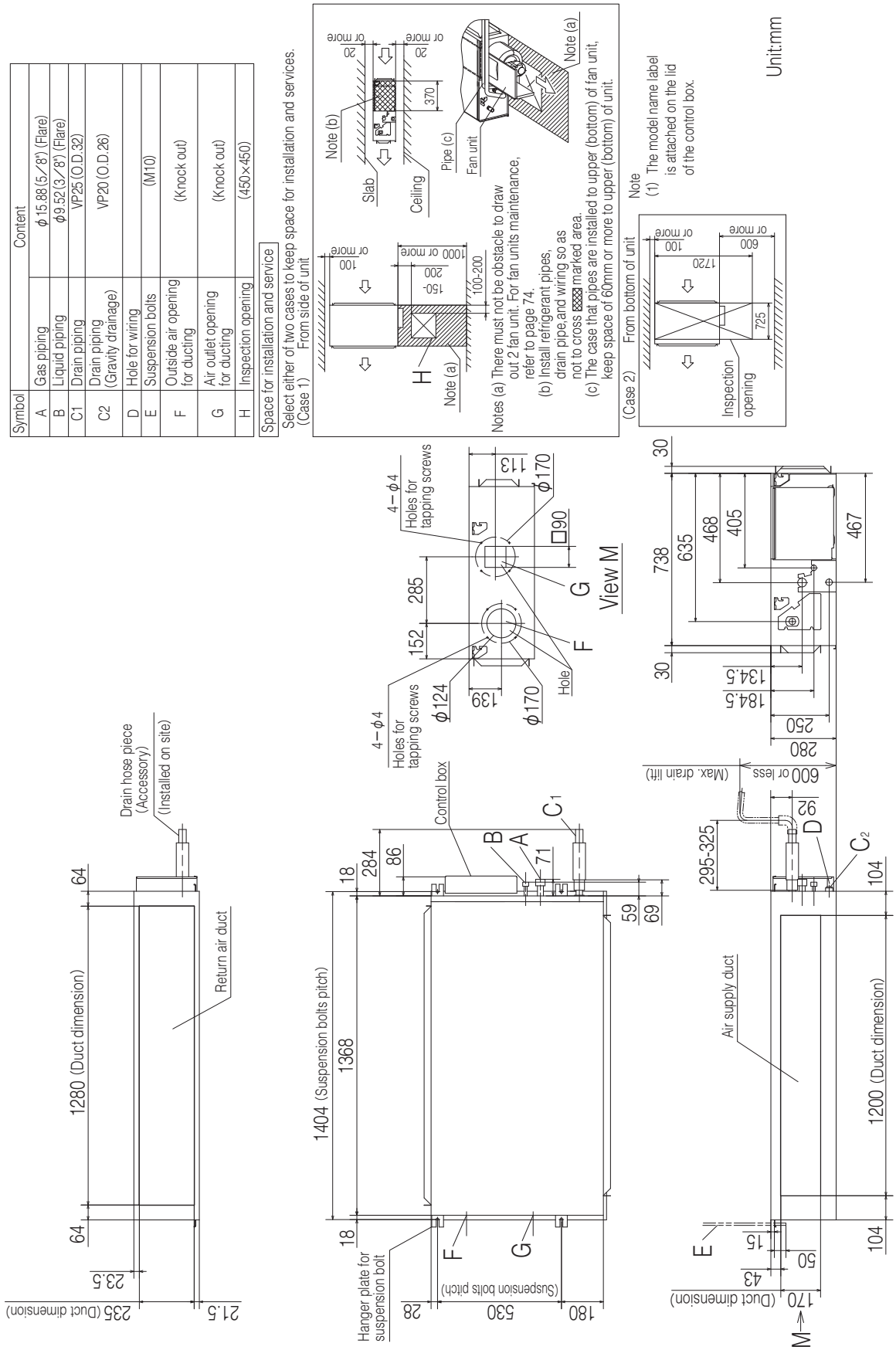
(Case 1) From side of unit

(Case 2) From bottom of unit

Notes (a) There must not be obstacle to draw out 2 fan unit. For fan units maintenance, refer to page 74.
(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.

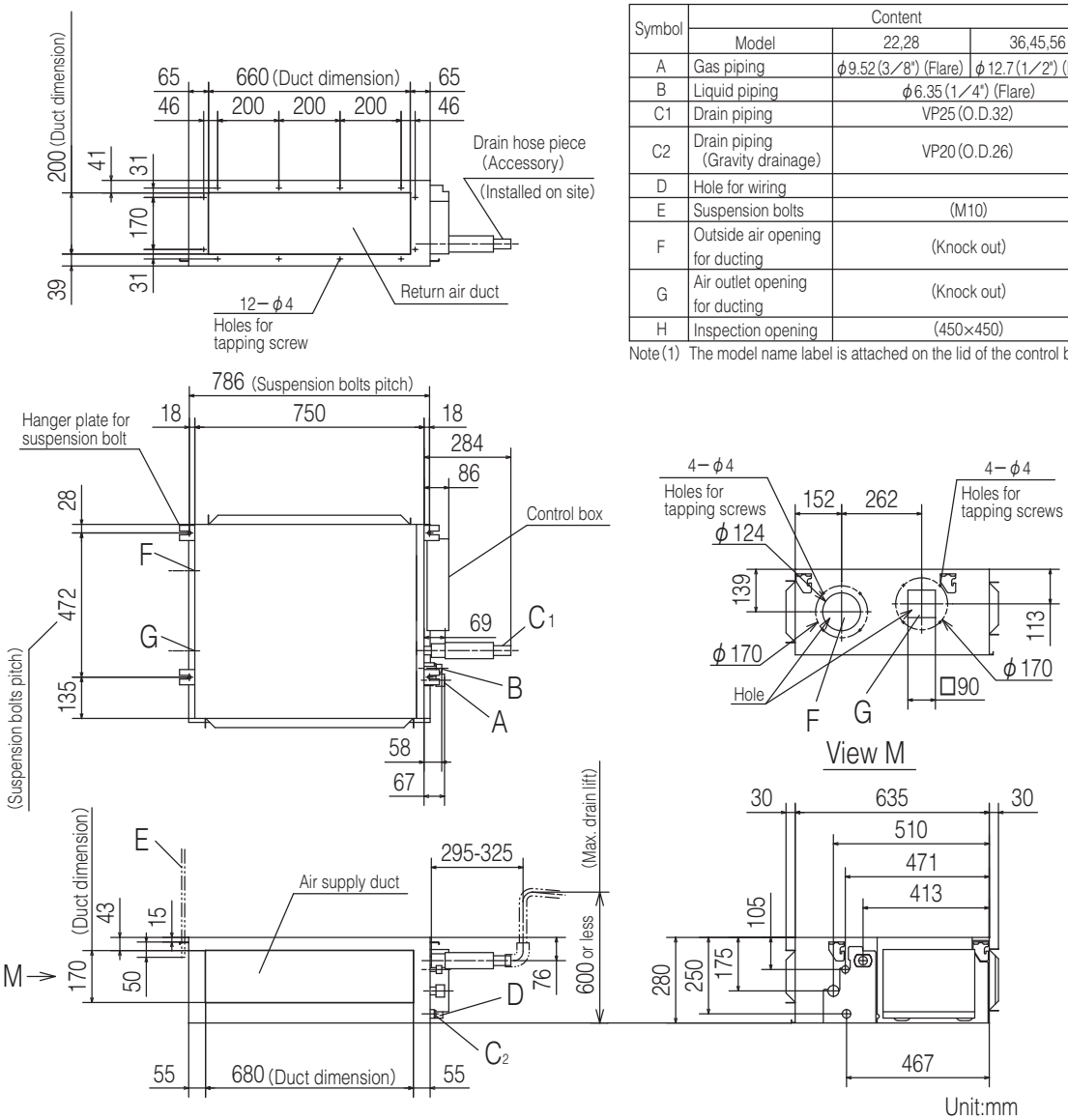
Unit:mm



PJG000Z769

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

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

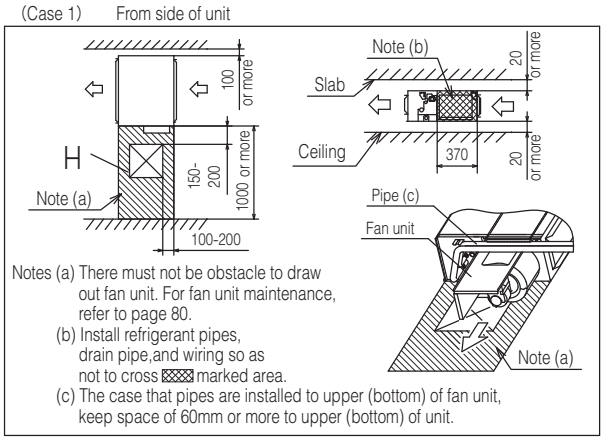


Symbol	Content		
	Model	22,28	36,45,56
A	Gas piping	φ9.52 (3/8") (Flare)	φ12.7 (1/2") (Flare)
B	Liquid piping	φ6.35 (1/4") (Flare)	
C1	Drain piping	VP25 (O.D.32)	
C2	Drain piping (Gravity drainage)	VP20 (O.D.26)	
D	Hole for wiring		
E	Suspension bolts	(M10)	
F	Outside air opening for ducting	(Knock out)	
G	Air outlet opening for ducting	(Knock out)	
H	Inspection opening	(450×450)	

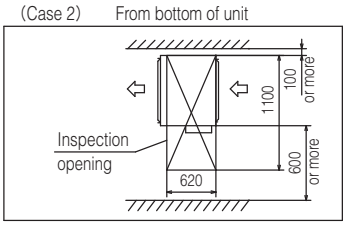
Note (1) The model name label is attached on the lid of the control box.

Space for installation and service

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

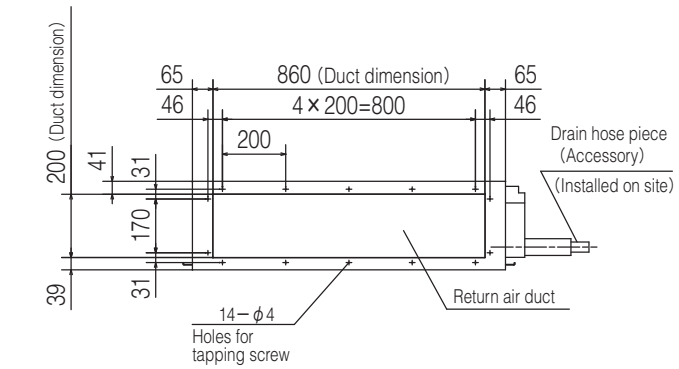


Notes (a) There must not be obstacle to draw out fan unit. For fan unit maintenance, refer to page 80.
(b) Install refrigerant pipes, drain pipe,and wiring so as not to cross ▨ marked area.
(c) The case that pipes are installed to upper (bottom) of fan unit, keep space of 60mm or more to upper (bottom) of unit.



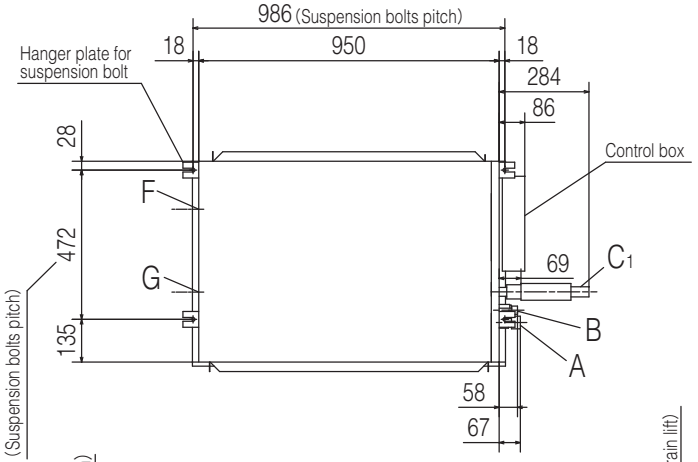
PJG000Z760

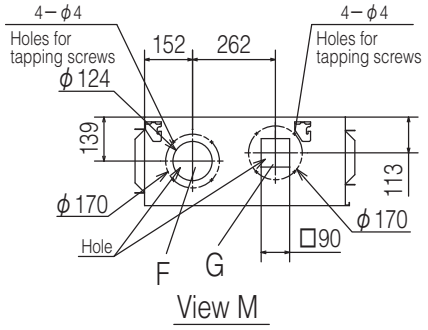
Models FDUM71KXE6F-W, 90KXE6F-W

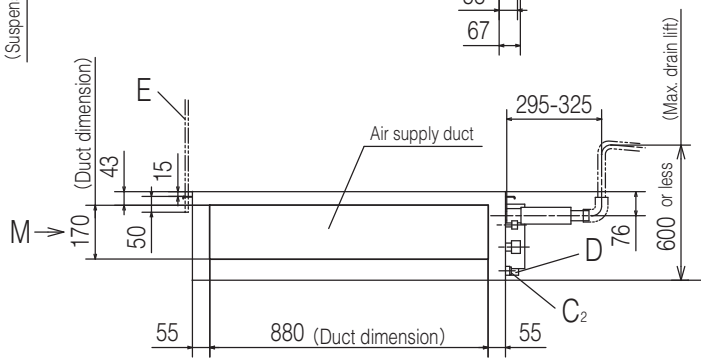


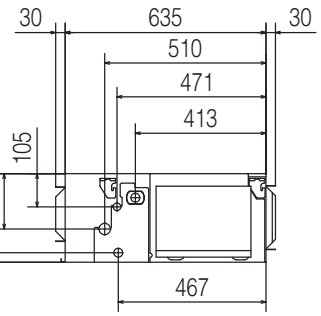
Symbol	Content	
A	Gas piping	φ15.88(5/8")(Flare)
B	Liquid piping	φ9.52(3/8")(Flare)
C1	Drain piping	VP25 (O.D.32)
C2	Drain piping (Gravity drainage)	VP20 (O.D.26)
D	Hole for wiring	
E	Suspension bolts	(M10)
F	Outside air opening for ducting	(Knock out)
G	Air outlet opening for ducting	(Knock out)
H	Inspection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

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





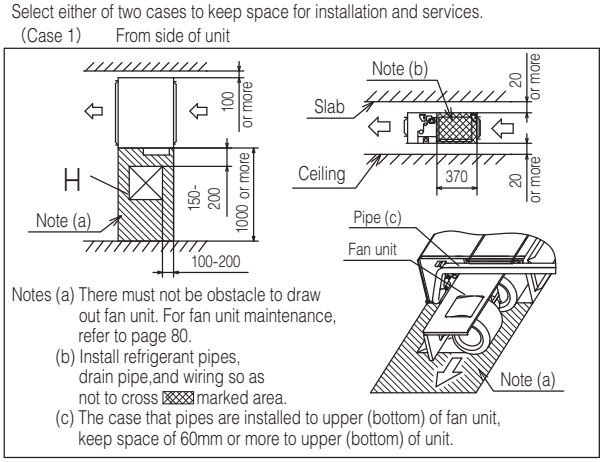




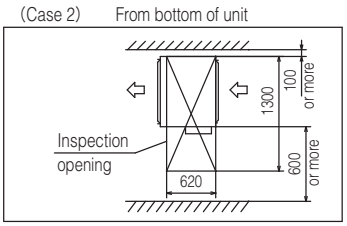
Unit:mm

Space for installation and service

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

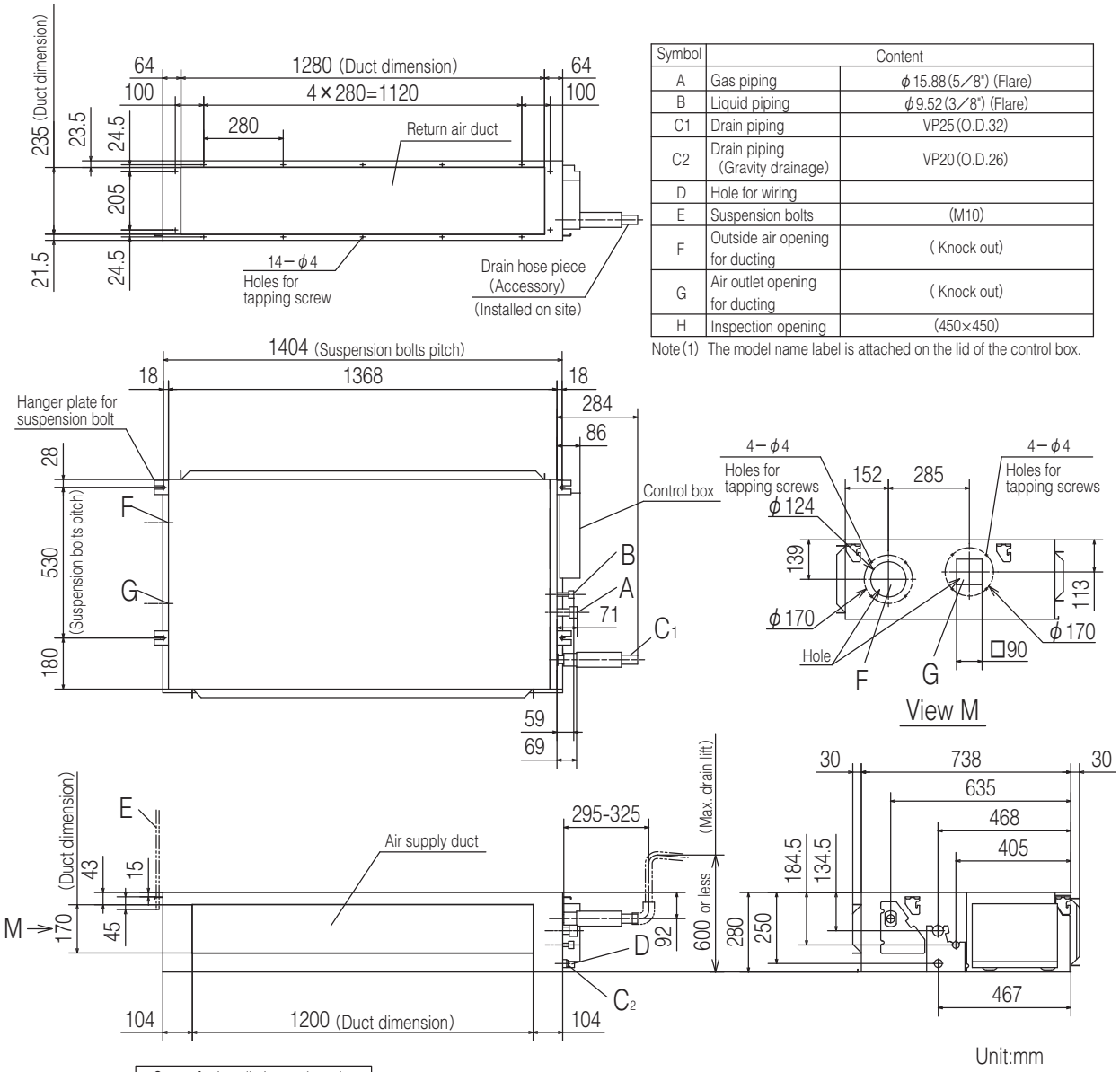


Notes (a) There must not be obstacle to draw out fan unit. For fan unit maintenance, refer to page 80.
(b) Install refrigerant pipes, drain pipe,and wiring so as not to cross ▩ marked area.
(c) The case that pipes are installed to upper (bottom) of fan unit, keep space of 60mm or more to upper (bottom) of unit.



PJG000Z761

Models FDUM112KXE6F-W, 140KXE6F-W, 160KXE6F-W

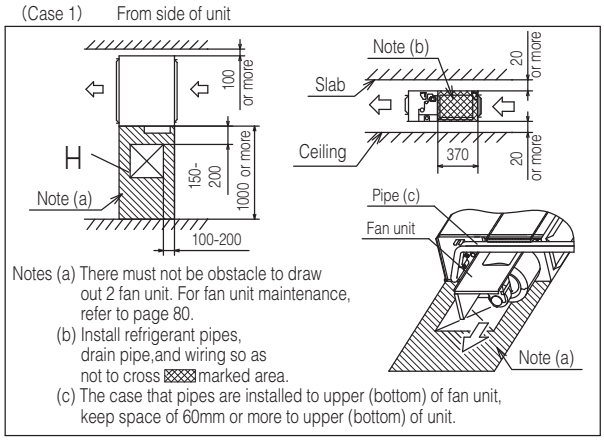


Symbol	Content	
A	Gas piping	φ15.88 (5/8") (Flare)
B	Liquid piping	φ9.52 (3/8") (Flare)
C1	Drain piping	VP25 (O.D.32)
C2	Drain piping (Gravity drainage)	VP20 (O.D.26)
D	Hole for wiring	
E	Suspension bolts	(M10)
F	Outside air opening for ducting	(Knock out)
G	Air outlet opening for ducting	(Knock out)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

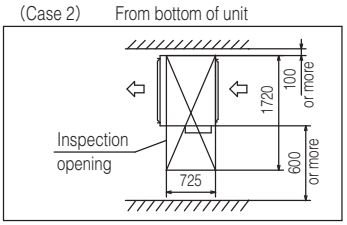
Note (1) The model name label is attached on the lid of the control box.

Space for installation and service

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

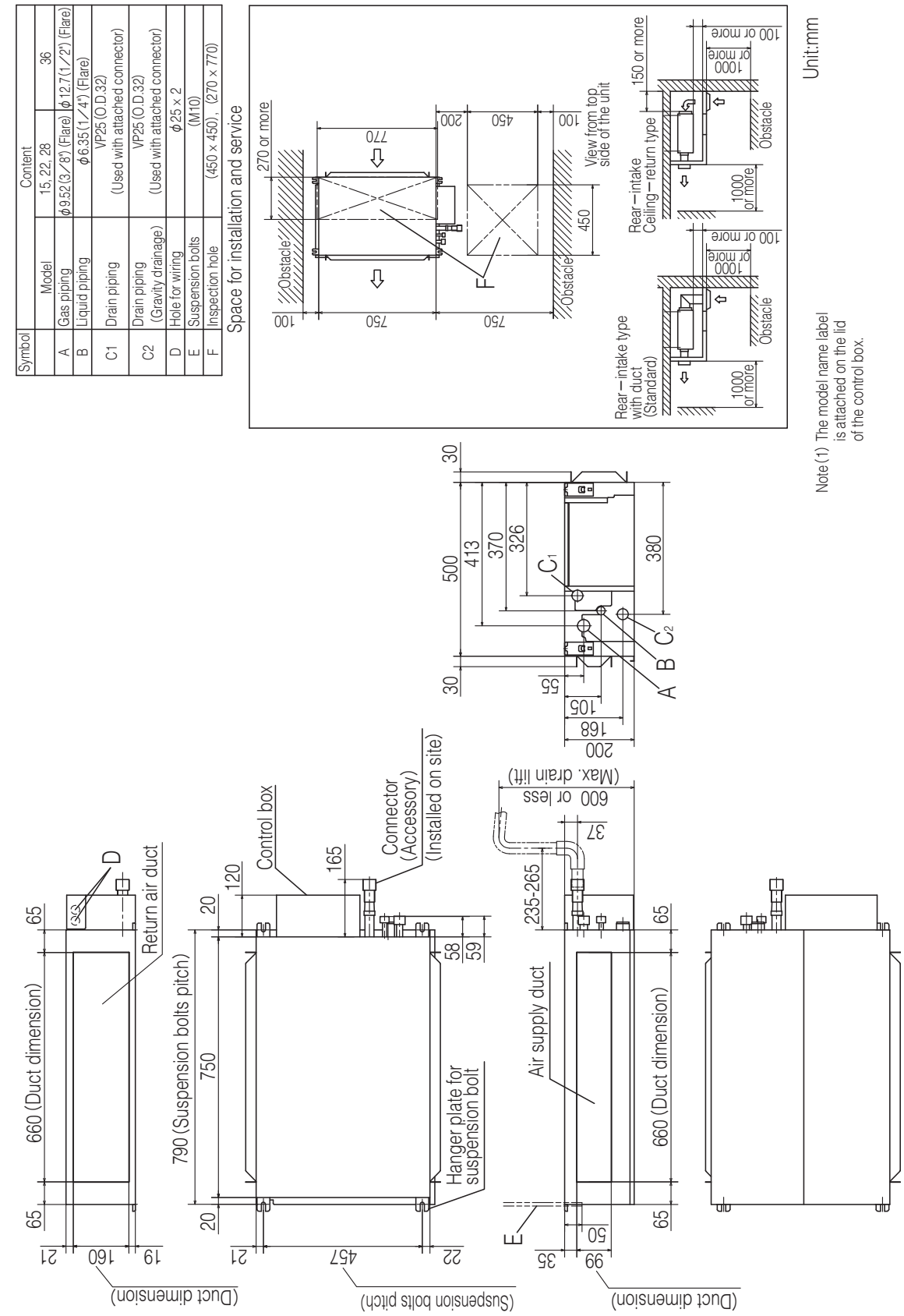


Notes (a) There must not be obstacle to draw out 2 fan unit. For fan unit maintenance, refer to page 80.
(b) Install refrigerant pipes, drain pipe,and wiring so as not to cross ▩ marked area.
(c) The case that pipes are installed to upper (bottom) of fan unit, keep space of 60mm or more to upper (bottom) of unit.



PJG000Z762

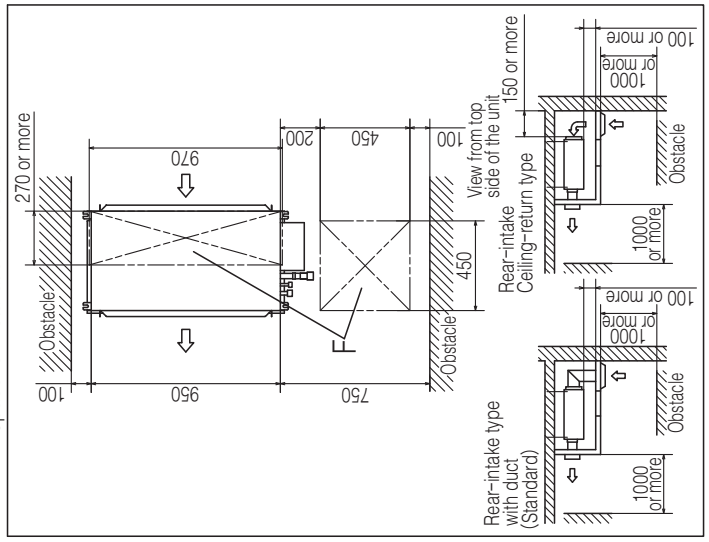
(3) Duct connected (thin)-Low static pressure type (FDUT)
Models FDUT15KXE6F-W, 22KXE6F-W, 28KXE6F-W, 36KXE6F-W



PJH000Z027

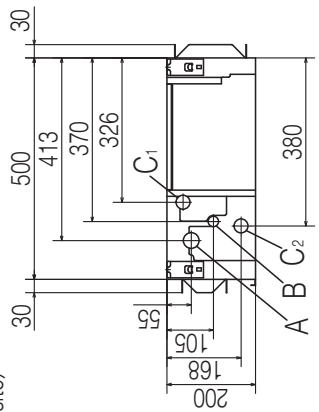
Models FDUT45KXE6F-W, 56KXE6F-W

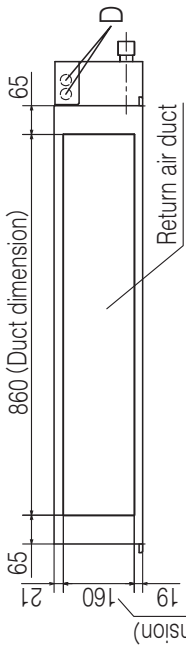
Symbol	Model	Content
		45,56
A	Gas piping	φ12.7 (1/2") (Flare)
B	Liquid piping	φ6.35 (1/4") (Flare)
C1	Drain piping	VP25 (O.D.32) (Used with attached connector)
C2	Drain piping (Gravity drainage)	VP25 (O.D.32) (Used with attached connector)
D	Hole for wiring	φ25 × 2
E	Suspension bolts	(M10)
F	Inspection hole	(450 x 450), (270 x 970)

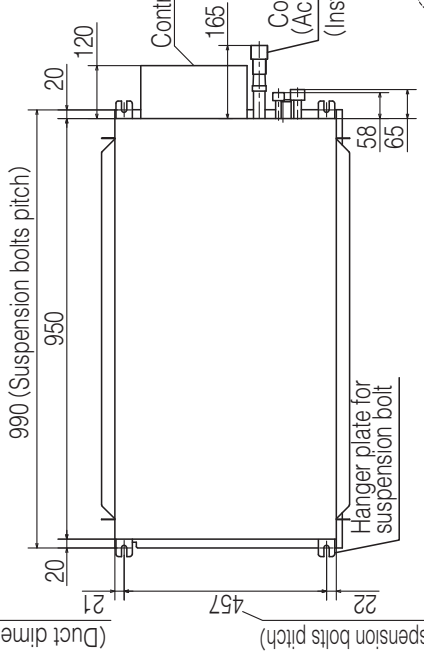


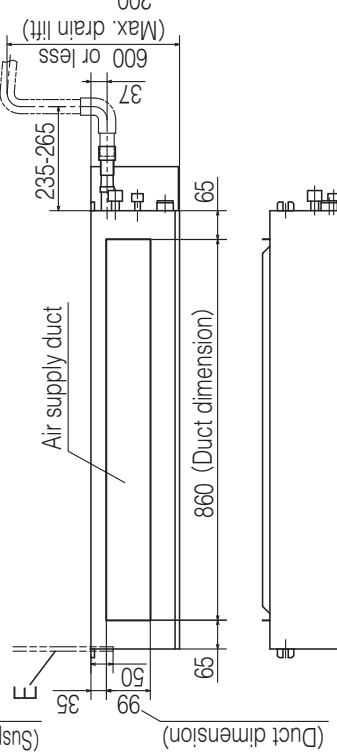
Unit:mm

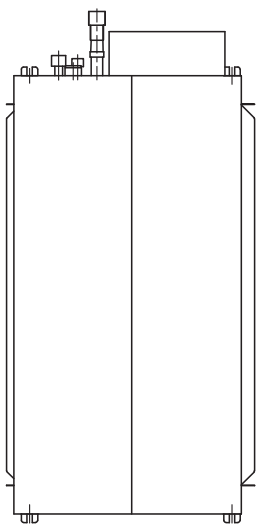
Note (1) The model name label is attached on the lid of the control box.





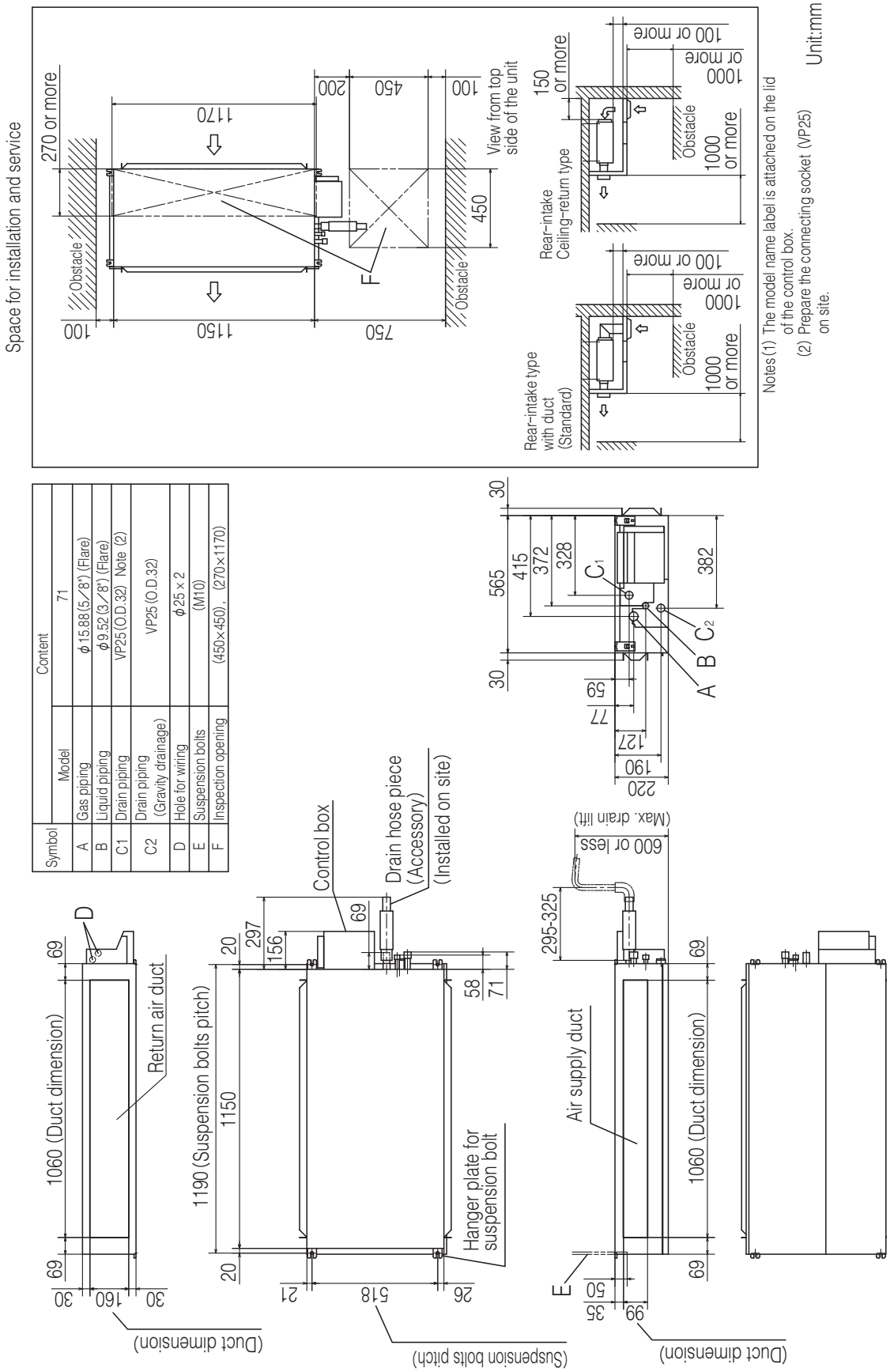






PJH000Z028

Model FDUT71KXE6F-W



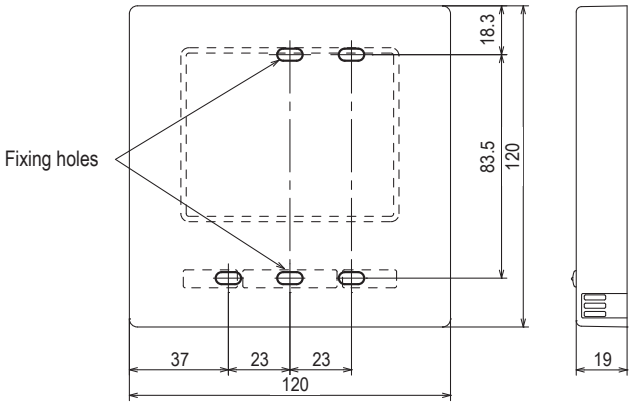
PJH000Z029

3.2 Remote control (Option parts)

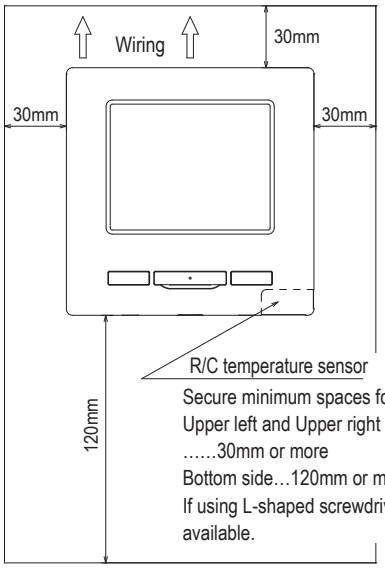
(1) Wired remote control

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 x 2 cores

When the cable length is longer than 100m, the max size for wires used in the R/C case is 0.5mm^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.

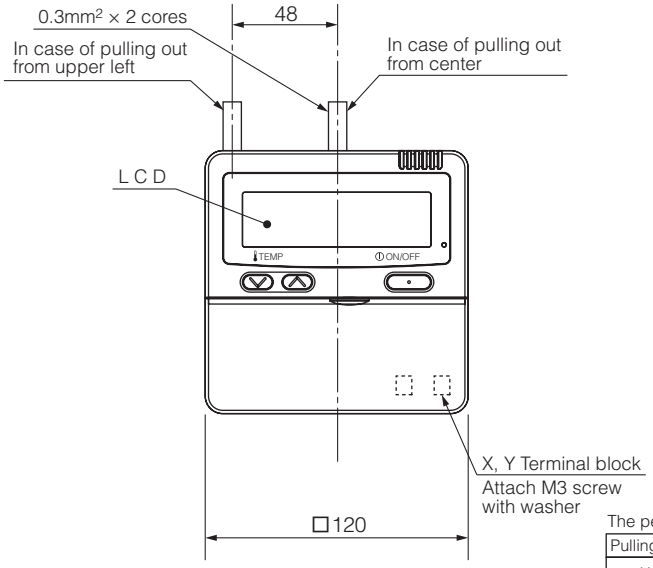
≦ 200m	0.5 mm^2 x 2 cores
≦ 300m	0.75 mm^2 x 2 cores
≦ 400m	1.25 mm^2 x 2 cores
≦ 600m	2.0 mm^2 x 2 cores

Adapted **RoHS** directive

PJZ000Z333

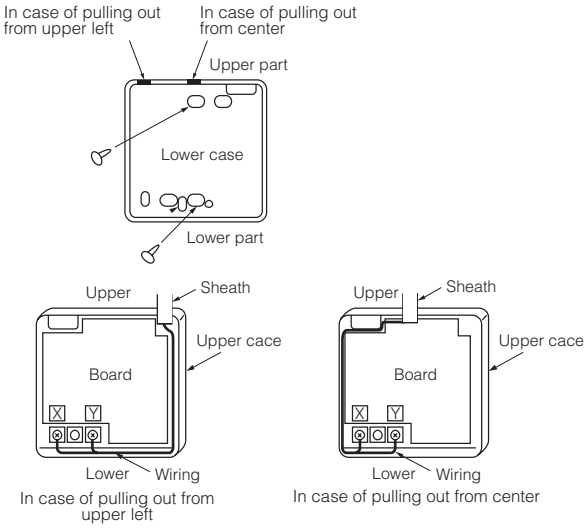
Model RC-E5

Exposed mounting



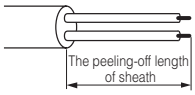
Exterior appearance (Munsell color)	Pearl white (N8.5) near equivalent

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.

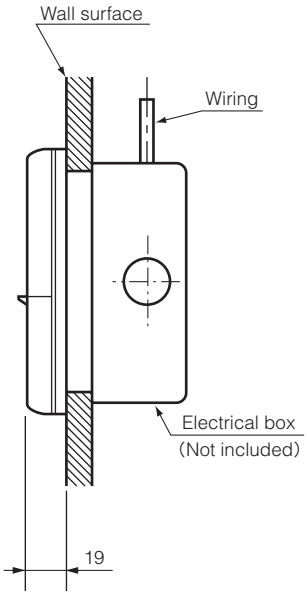


The peeling-off length of sheath

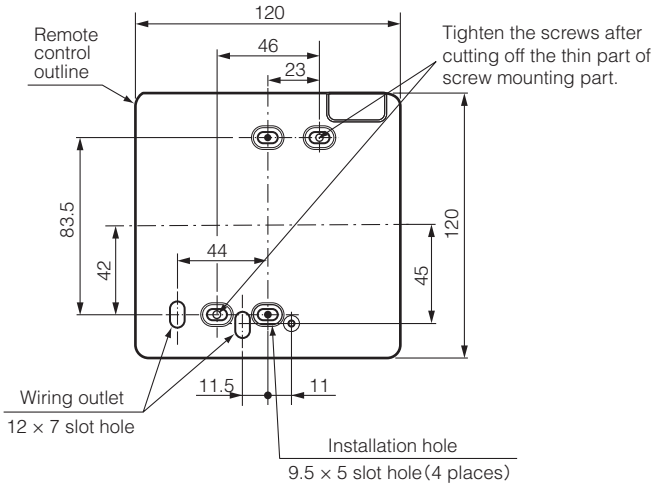
Pulling out from upper left	Pulling out from center
X wiring : 215mm Y wiring : 195mm	X wiring : 170mm Y wiring : 190mm



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.

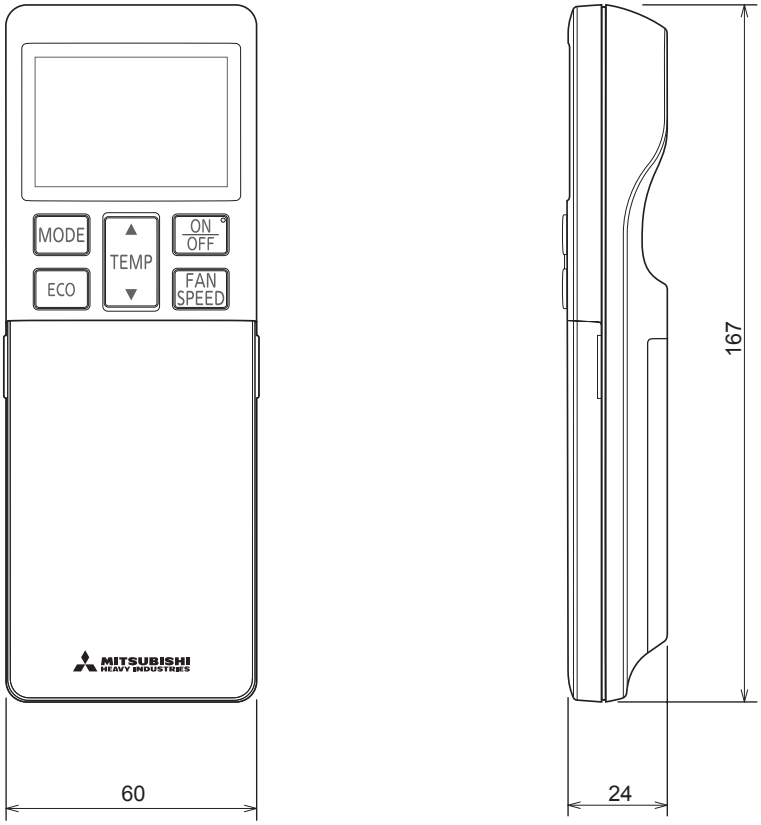
Length	Wiring thickness
100 to 200m	0.5mm² × 2 cores
Under 300m	0.75mm² × 2 cores
Under 400m	1.25mm² × 2 cores
Under 600m	2.0mm² × 2 cores

PJZ000Z295

(2) Wireless remote control (RCN-E2)

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

Unit: mm



4. ELECTRICAL WIRING

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

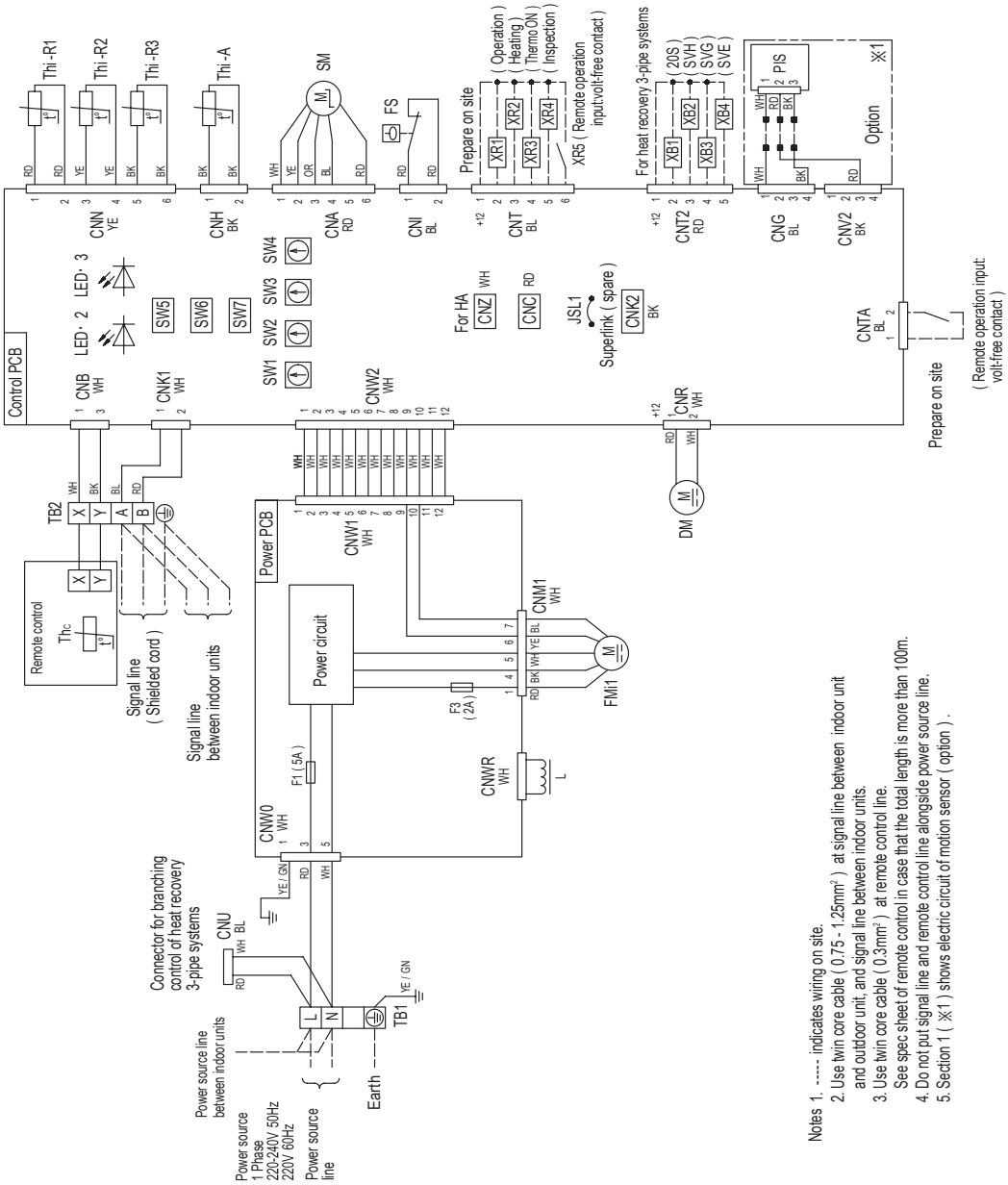
Models FDU45KXE6F-W, 56KXE6F-W

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

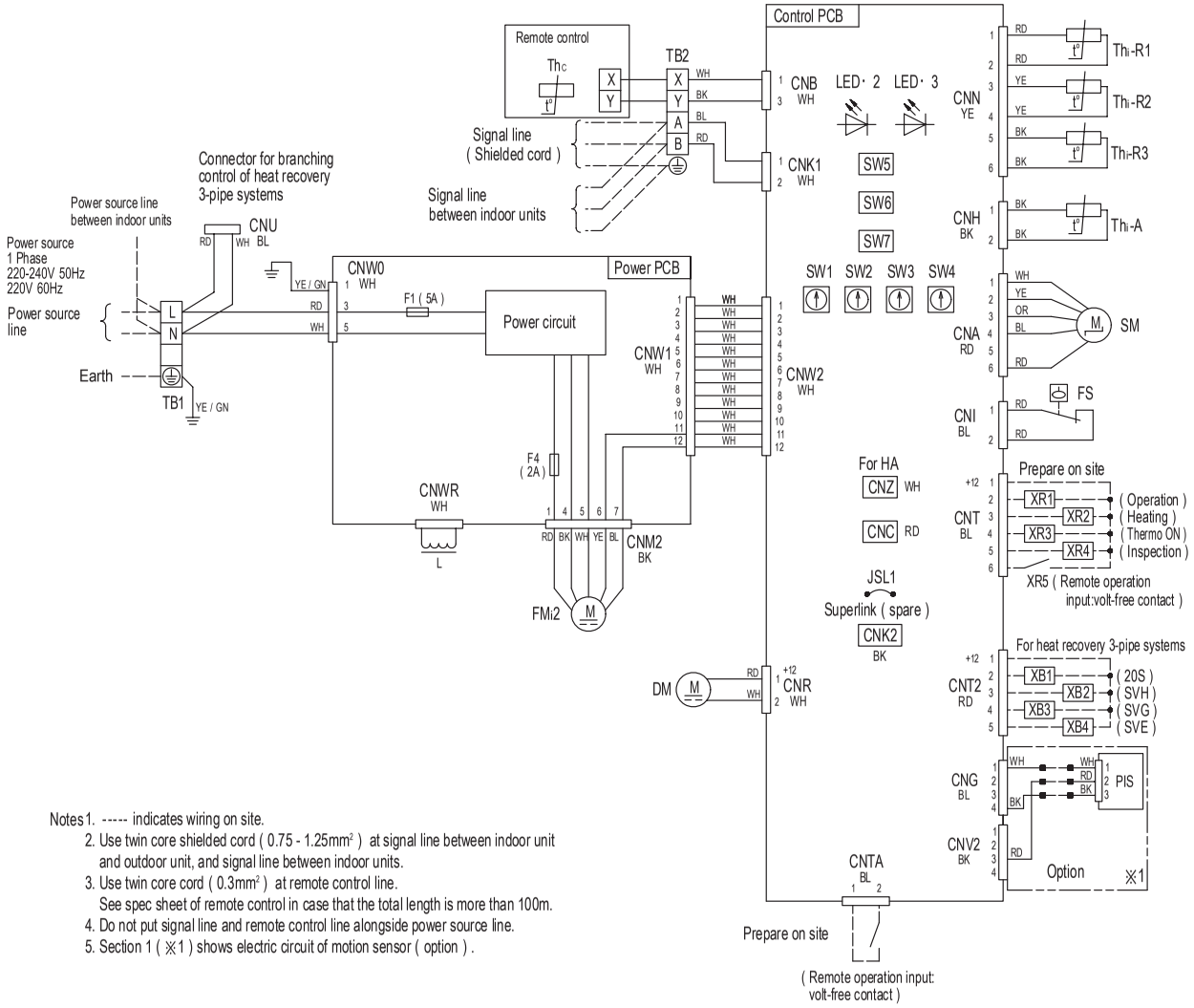
Mark	Color	Mark	Color
BK	Black	WH	White
BL	Blue	YE	Yellow
OR	Orange	YE / GN	Yellow / Green
RD	Red		



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) .

PJG000Z770

Models FDU71KXE6F-W, 90KXE6F-W



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) .

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		

PJG000Z771

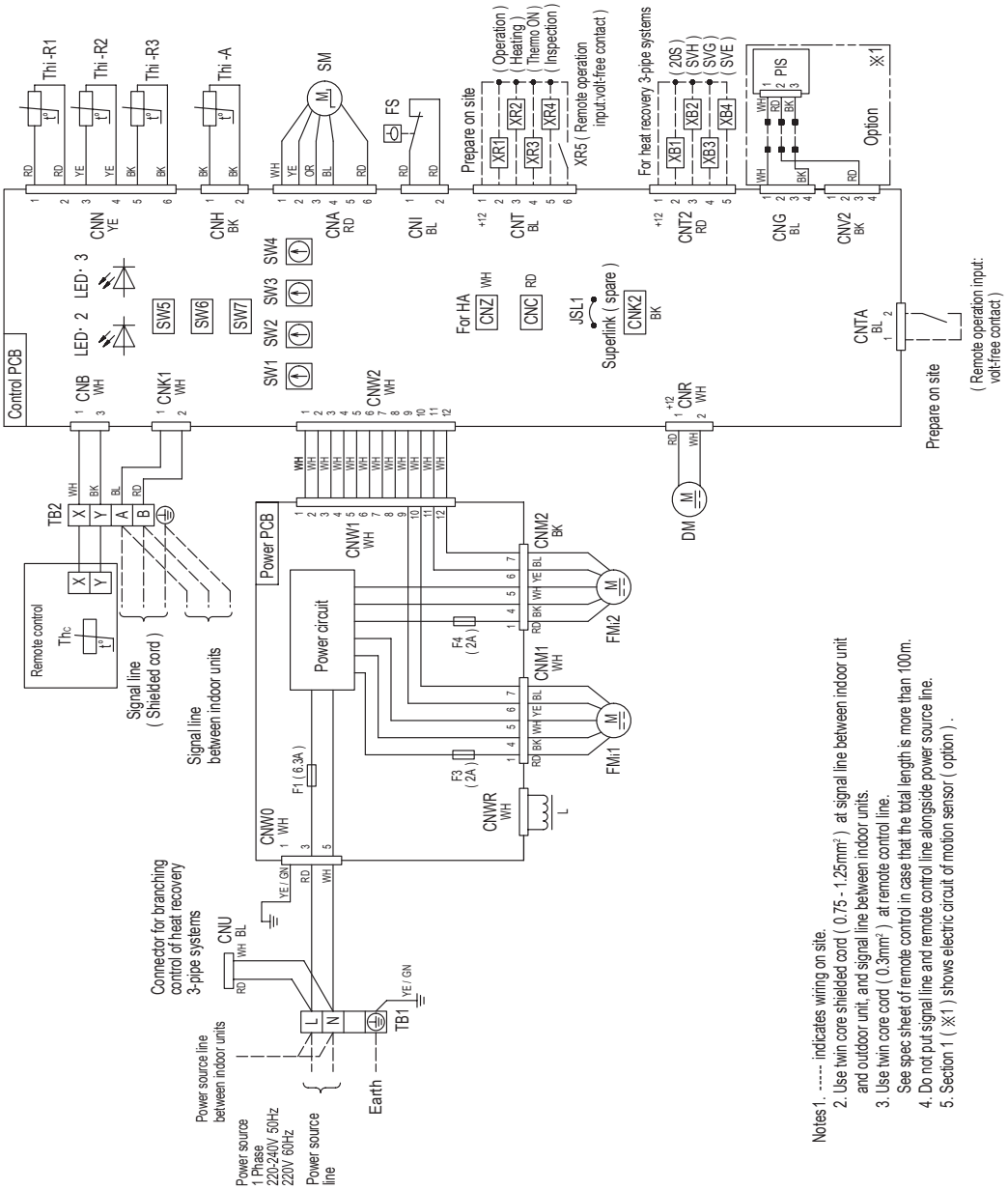
Models FDU112KXE6F-W, 140KXE6F-W, 160KXE6F-W

Meaning of marks

Item	Description
CNA-Z	Connector
DM	Drain pump motor
F1,3,4	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	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) .

PJG000Z772

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

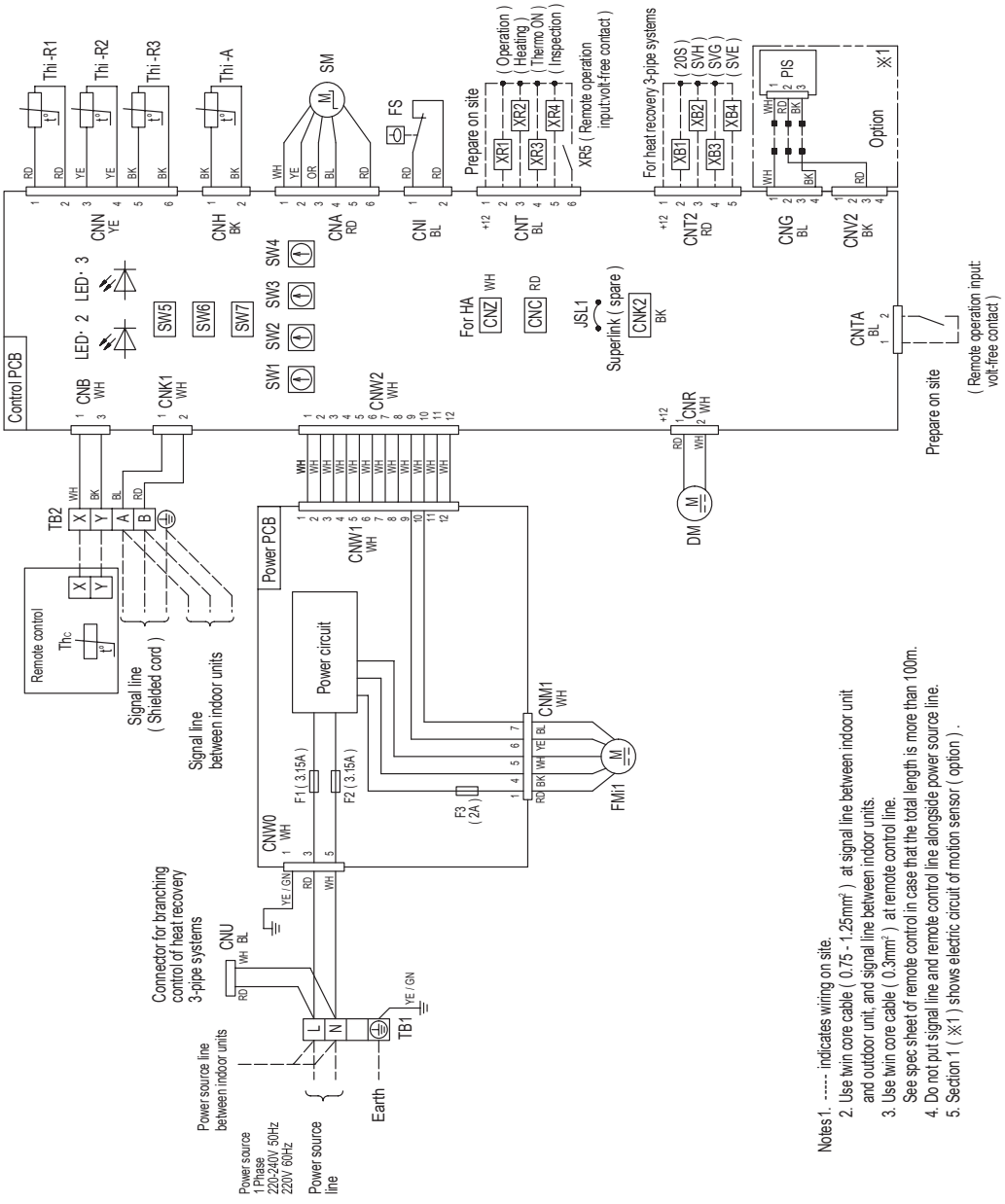
Models FDUM22KXE6F-W, 28KXE6F-W, 36KXE6F-W, 45KXE6F-W, 56KXE6F-W

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)
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

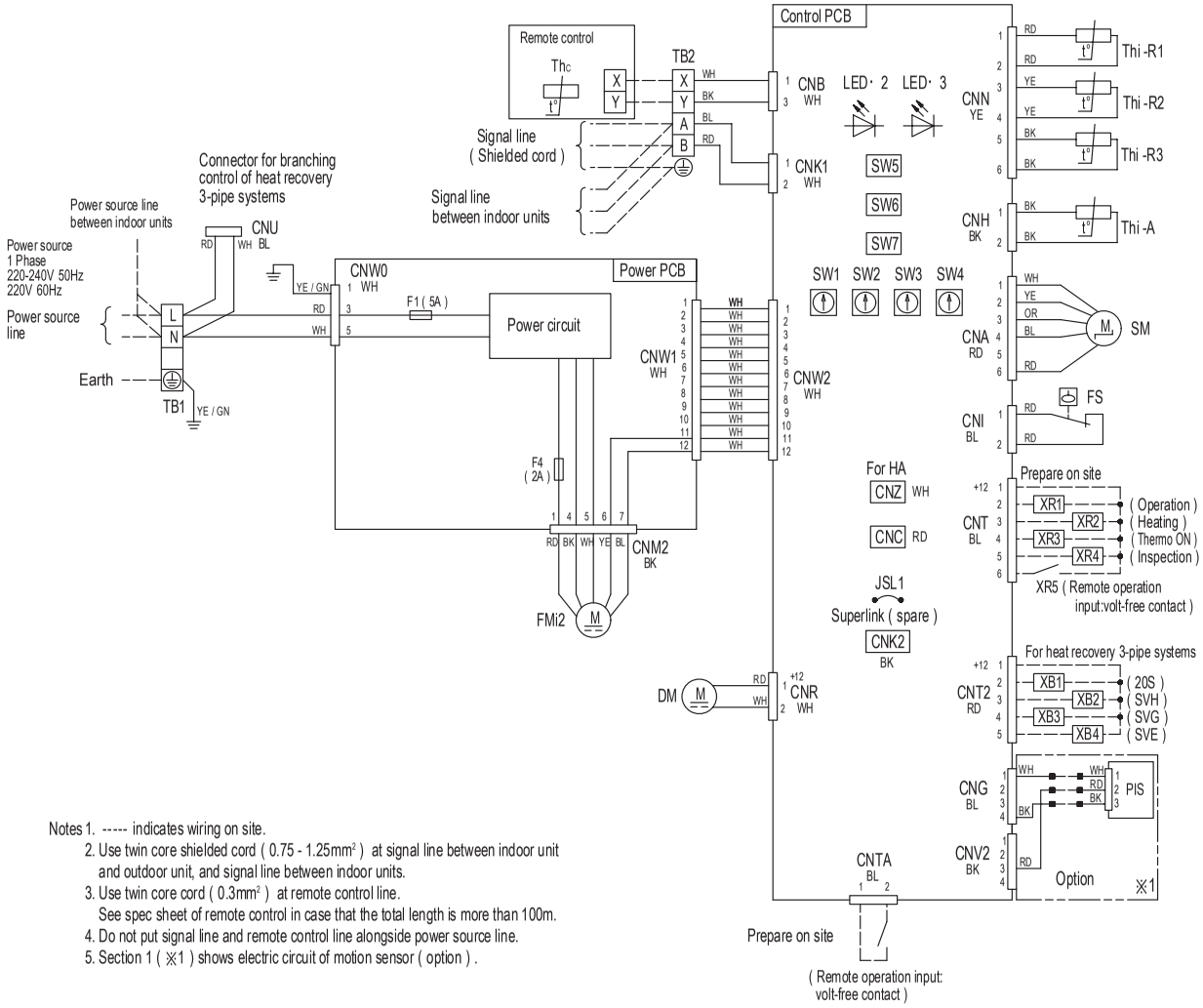
Color marks

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



PJG000Z763

Models FDUM71KXE6F-W, 90KXE6F-W



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) .

Meaning of marks

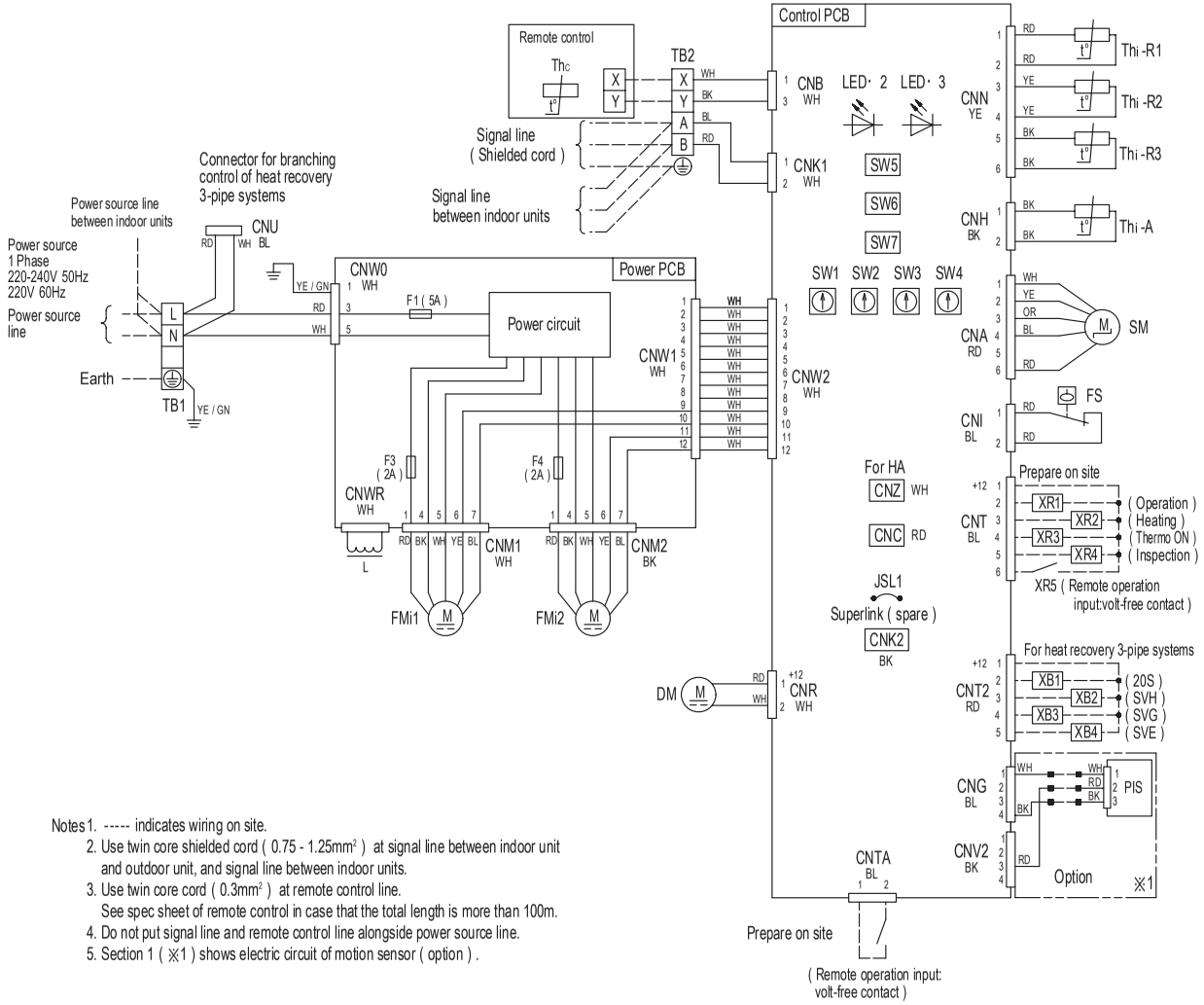
Item	Description
CNA-Z	Connector
DM	Drain pump motor
F1,4	Fuse
FMi2	Fan motor
FS	Float switch
JSL1	Spare Superlink connector change
LED・2	Indication lamp (Green-Normal operation)
LED・3	Indication lamp (Red-Inspection)
PIS	Motion sensor
SM	Stepping motor (For electronic expansion valve)
SW1	Indoor unit 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

PJG000Z764

Models FDUM112KXE6F-W, 140KXE6F-W, 160KXE6F-W



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) .

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

PJG000Z765

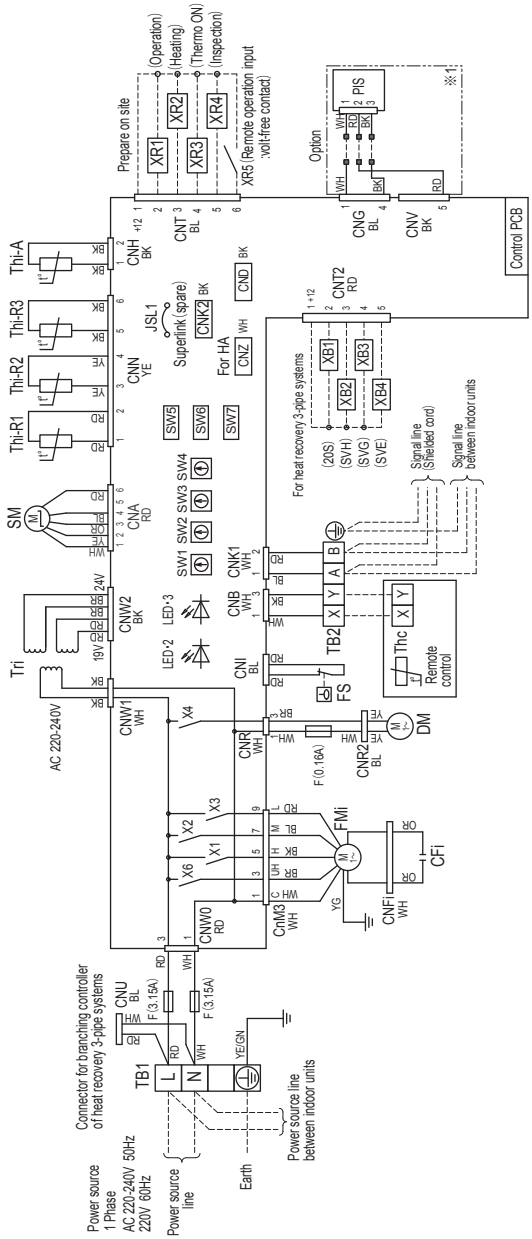
(3) Duct connected (thin)-Low static pressure type (FDUT)
Models FDUT15KXE6F-W, 22KXE6F-W, 28KXE6F-W, 36KXE6F-W, 45KXE6F-W, 56KXE6F-W

Meaning of marks

Item	Description
CFi	Capacitor for FMi
CNA-Z	Connector
DM	Drain pump motor
F	Fuse
FMi	Fan motor (with thermister)
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)
Tri	Transformer
X1-3,6	Relay for FM
X4	Relay for DM
■mark	Closed-end connector

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 - 1.25mm²) 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).

PJH000Z030

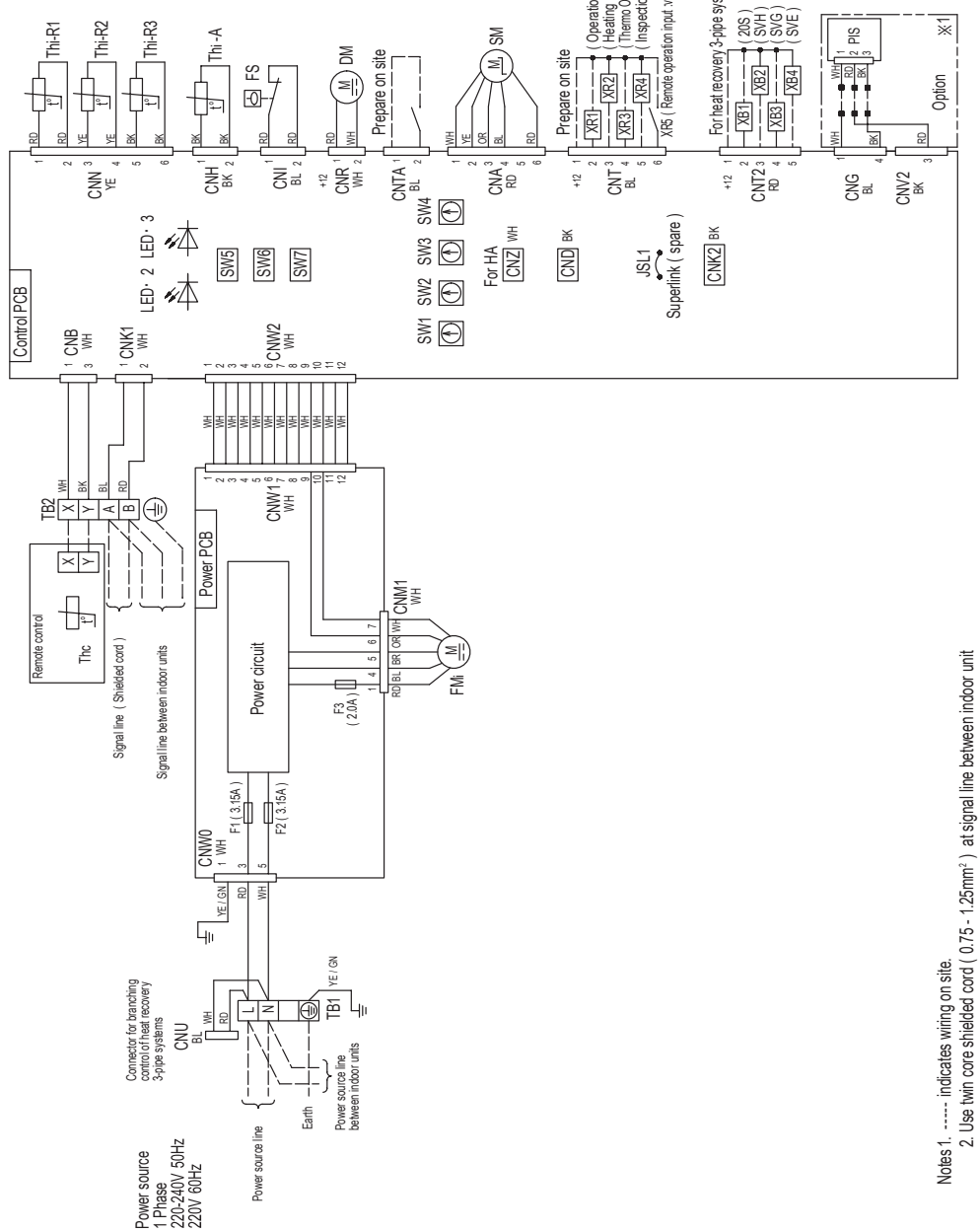
Model FDUT71KXE6F-W

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)
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	Closed-end connector

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 - 1.25mm²) 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) .

PJH000Z031

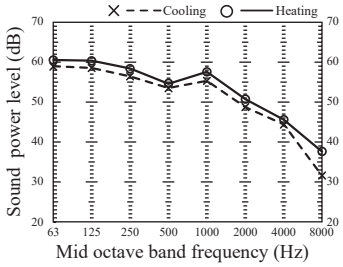
5. NOISE LEVEL

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.

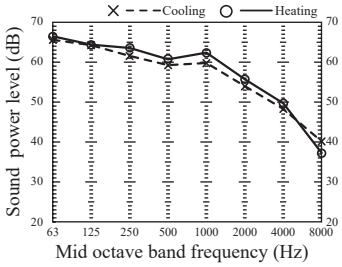
(1) Duct connected-High static pressure type (FDU)

(a) Sound power level

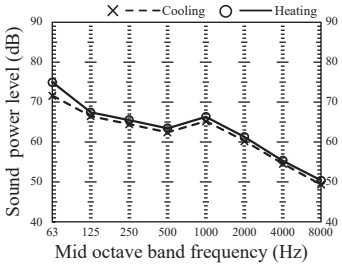
Models FDU45,56KXE6F-W
Noise level Cooling:58 dB (A)
Heating:60 dB (A)



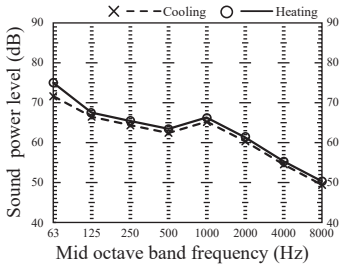
Models FDU71,90KXE6F-W
Noise level Cooling:63 dB (A)
Heating:65 dB (A)



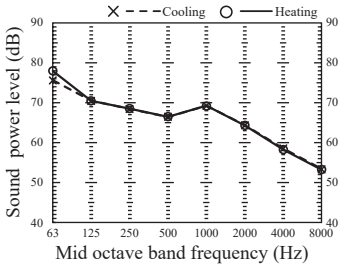
Model FDU112KXE6F-W
Noise level Cooling:68 dB (A)
Heating:69 dB (A)



Model FDU140KXE6F-W
Noise level Cooling:68 dB (A)
Heating:69 dB (A)

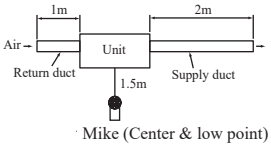


Model FDU160KXE6F-W
Noise level Cooling:72 dB (A)
Heating:72 dB (A)



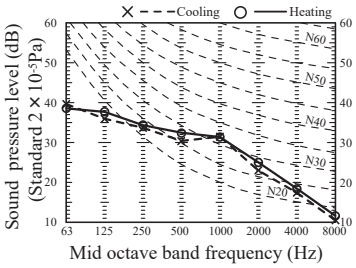
(b) Sound pressure level

Measured based on JIS B 8616
Mike position as right

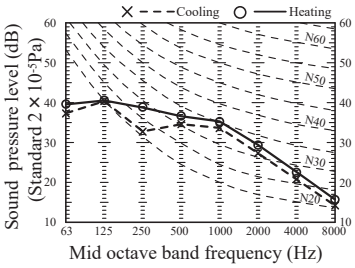


(i) Air flow : P-Hi

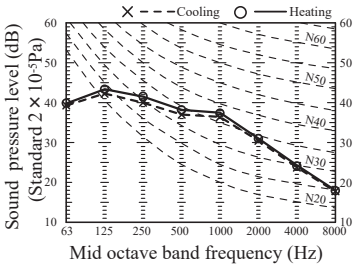
Models FDU45,56KXE6F-W
Noise level Cooling:34 dB (A)
Heating:35 dB (A)



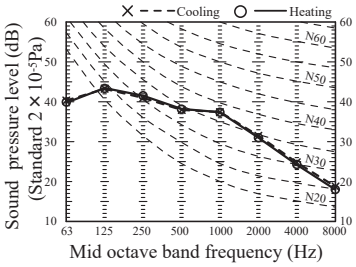
Models FDU71,90KXE6F-W
Noise level Cooling:37 dB (A)
Heating:39 dB (A)



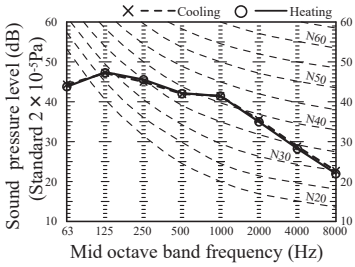
Model FDU112KXE6F-W
Noise level Cooling:40 dB (A)
Heating:41 dB (A)



Model FDU140KXE6F-W
Noise level Cooling:41 dB (A)
Heating:41 dB (A)



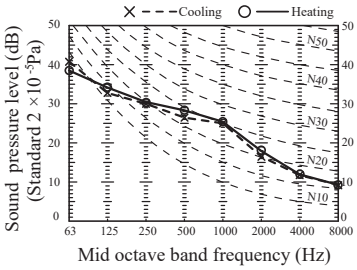
Model FDU160KXE6F-W
Noise level Cooling:45 dB (A)
Heating:45 dB (A)



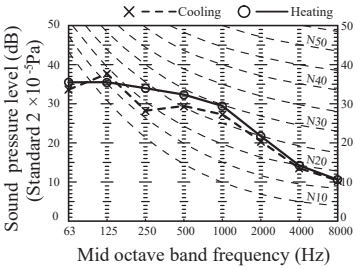
ISD20764

(ii) Air flow : Hi

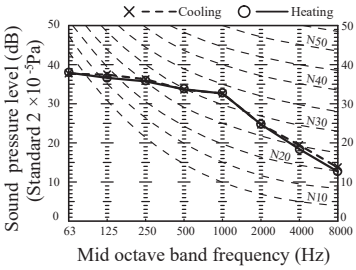
Models FDU45,56KXE6F-W
Noise level Cooling:29 dB (A)
Heating:30 dB (A)



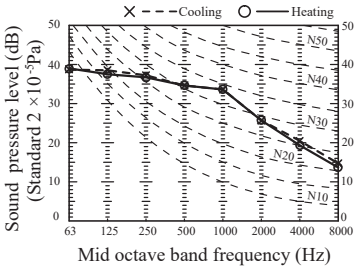
Models FDU71,90KXE6F-W
Noise level Cooling:31 dB (A)
Heating:33 dB (A)



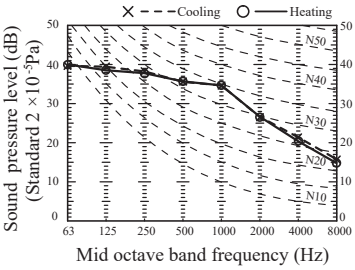
Model FDU112KXE6F-W
Noise level Cooling:36 dB (A)
Heating:36 dB (A)



Model FDU140KXE6F-W
Noise level Cooling:37 dB (A)
Heating:37 dB (A)

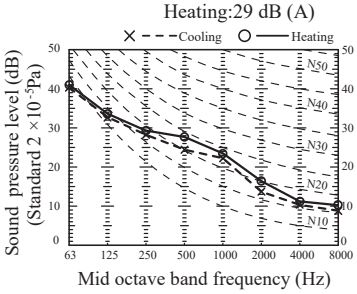


Model FDU160KXE6F-W
Noise level Cooling:38 dB (A)
Heating:38 dB (A)

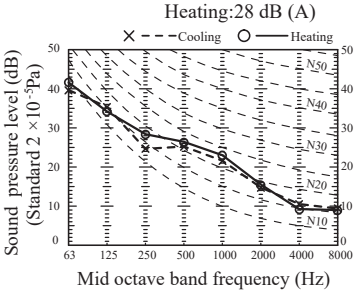


(iii) Air flow : Me

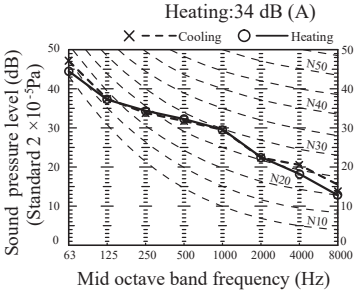
Models FDU45,56KXE6F-W
Noise level Cooling:27 dB (A)
Heating:29 dB (A)



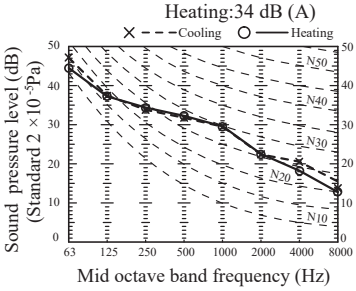
Models FDU71,90KXE6F-W
Noise level Cooling:27 dB (A)
Heating:28 dB (A)



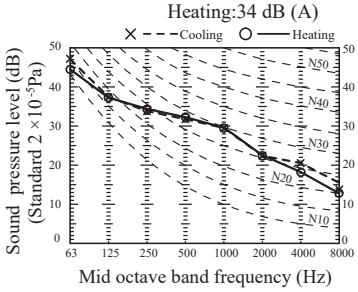
Model FDU112KXE6F-W
Noise level Cooling:34 dB (A)
Heating:34 dB (A)



Model FDU140KXE6F-W
Noise level Cooling:34 dB (A)
Heating:34 dB (A)



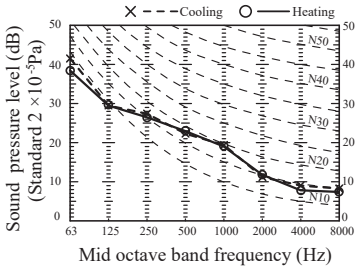
Model FDU160KXE6F-W
Noise level Cooling:34 dB (A)
Heating:34 dB (A)



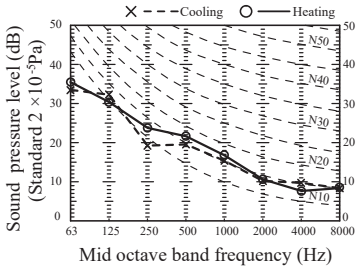
ISD20764

(iv) Air flow : Lo

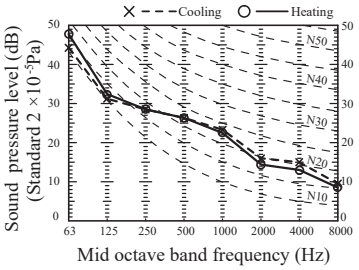
Models FDU45,56KXE6F-W
Noise level Cooling:25 dB (A)
Heating:25 dB (A)



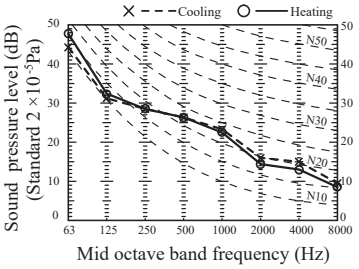
Models FDU71,90KXE6F-W
Noise level Cooling:22 dB (A)
Heating:23 dB (A)



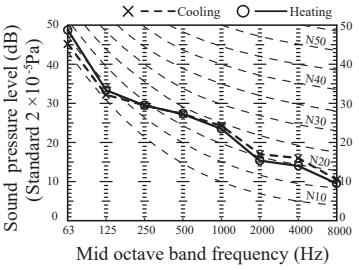
Model FDU112KXE6F-W
Noise level Cooling:28 dB (A)
Heating:28 dB (A)



Model FDU140KXE6F-W
Noise level Cooling:28 dB (A)
Heating:28 dB (A)



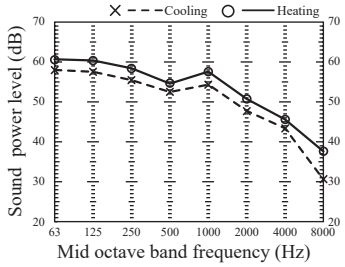
Model FDU160KXE6F-W
Noise level Cooling:29 dB (A)
Heating:29 dB (A)



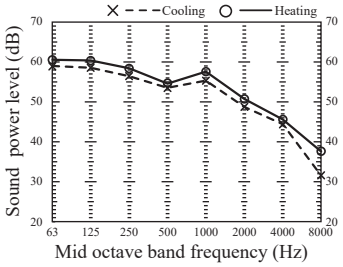
(2) Duct connected Low/Middle static pressure type (FDUM)

(a) Sound power level

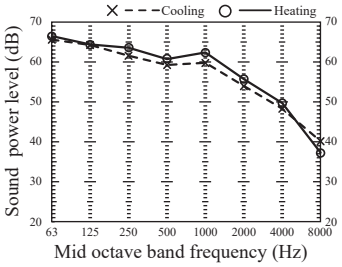
Models FDUM22,28KXE6F-W
Noise level Cooling:57 dB (A)
Heating:60 dB (A)



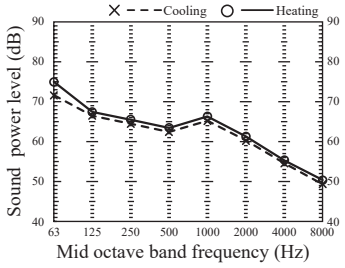
Models FDUM36,45,56KXE6F-W
Noise level Cooling:58 dB (A)
Heating:60 dB (A)



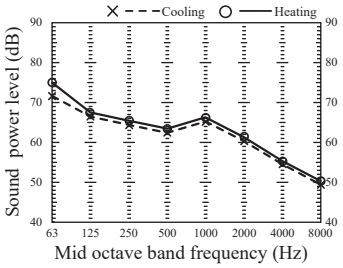
Models FDUM71,90KXE6F-W
Noise level Cooling:63 dB (A)
Heating:65 dB (A)



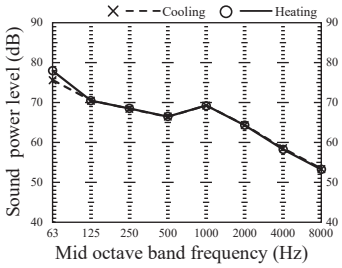
Model FDUM112KXE6F-W
Noise level Cooling:68 dB (A)
Heating:69 dB (A)



Model FDUM140KXE6F-W
Noise level Cooling:68 dB (A)
Heating:69 dB (A)



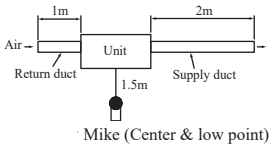
Model FDUM160KXE6F-W
Noise level Cooling:72 dB (A)
Heating:72 dB (A)



ISD20764

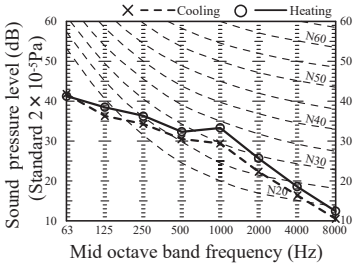
(b) Sound pressure level

Measured based on JIS B 8616
Mike position as right

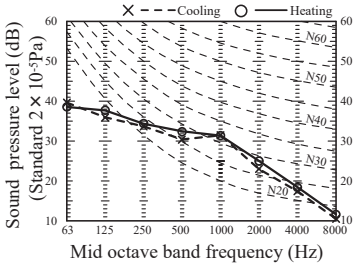


(i) Air flow : P-Hi

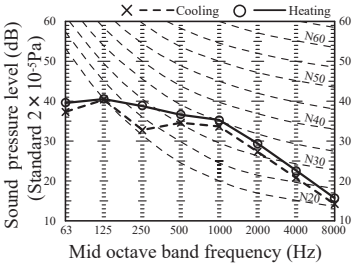
Models FDUM22,28KXE6F-W
Noise level Cooling:33 dB (A)
Heating:36 dB (A)



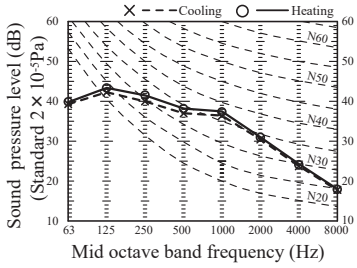
Models FDUM36,45,56KXE6F-W
Noise level Cooling:34 dB (A)
Heating:35 dB (A)



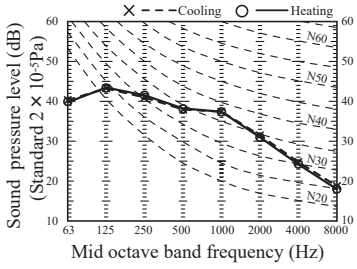
Models FDUM71,90KXE6F-W
Noise level Cooling:37 dB (A)
Heating:39 dB (A)



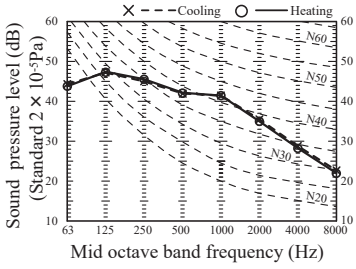
Model FDUM112KXE6F-W
Noise level Cooling:40 dB (A)
Heating:41 dB (A)



Model FDUM140KXE6F-W
Noise level Cooling:41 dB (A)
Heating:41 dB (A)

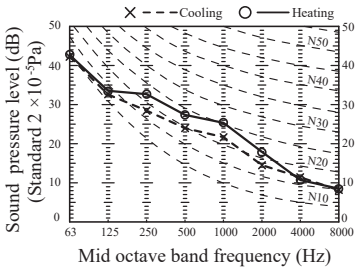


Model FDUM160KXE6F-W
Noise level Cooling:45 dB (A)
Heating:45 dB (A)

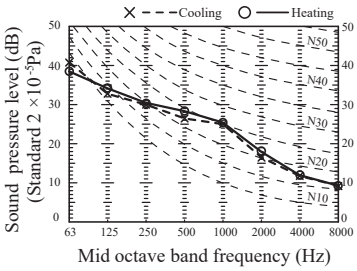


(ii) Air flow : Hi

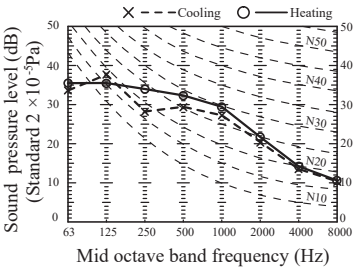
Models FDUM22,28KXE6F-W
Noise level Cooling:27 dB (A)
Heating:30 dB (A)



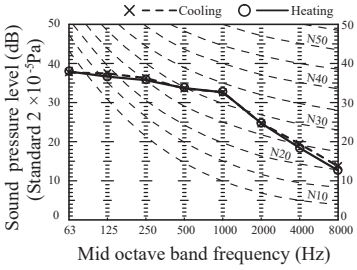
Models FDUM36,45,56KXE6F-W
Noise level Cooling:29 dB (A)
Heating:30 dB (A)



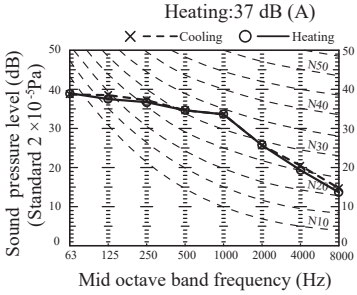
Models FDUM71,90KXE6F-W
Noise level Cooling:31 dB (A)
Heating:33 dB (A)



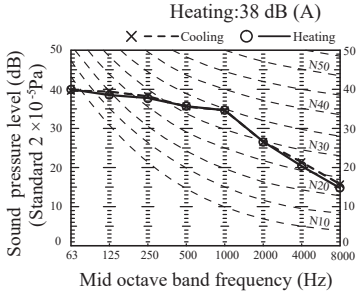
Model FDUM112KXE6F-W
Noise level Cooling:36 dB (A)
Heating:36 dB (A)



Model FDUM140KXE6F-W
Noise level Cooling:37 dB (A)
Heating:37 dB (A)



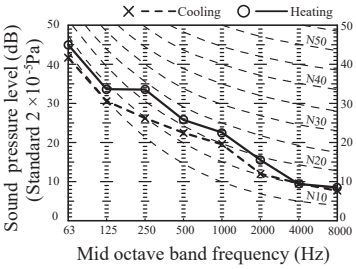
Model FDUM160KXE6F-W
Noise level Cooling:38 dB (A)
Heating:38 dB (A)



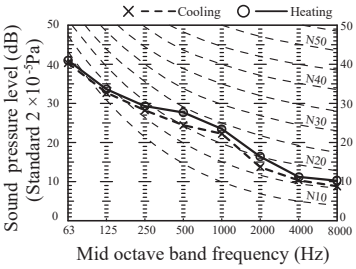
ISD20764

(iii) Air flow : Me

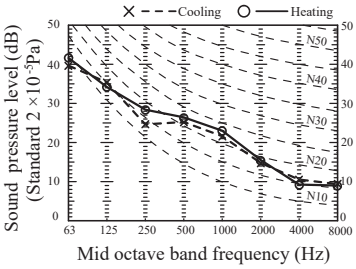
Models FDUM22,28KXE6F-W
Noise level Cooling:25 dB (A)
Heating:29 dB (A)



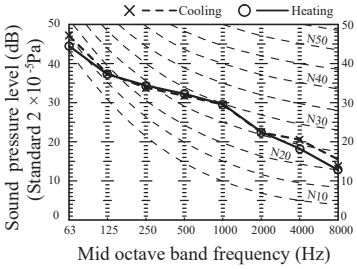
Models FDUM36,45,56KXE6F-W
Noise level Cooling:27 dB (A)
Heating:29 dB (A)



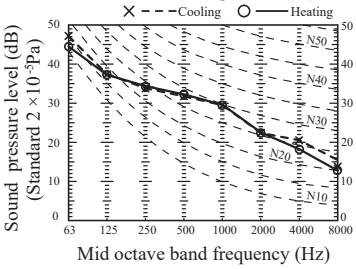
Models FDUM71,90KXE6F-W
Noise level Cooling:27 dB (A)
Heating:28 dB (A)



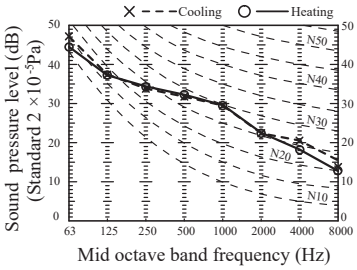
Model FDUM112KXE6F-W
Noise level Cooling:34 dB (A)
Heating:34 dB (A)



Model FDUM140KXE6F-W
Noise level Cooling:34 dB (A)
Heating:34 dB (A)

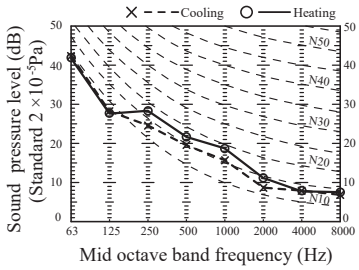


Model FDUM160KXE6F-W
Noise level Cooling:34 dB (A)
Heating:34 dB (A)

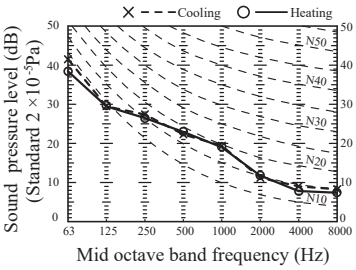


(iv) Air flow : Lo

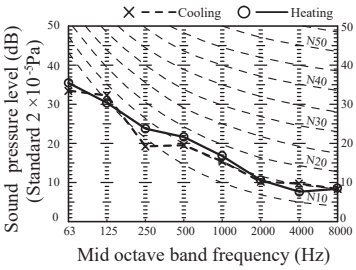
Models FDUM22,28KXE6F-W
Noise level Cooling:23 dB (A)
Heating:25 dB (A)



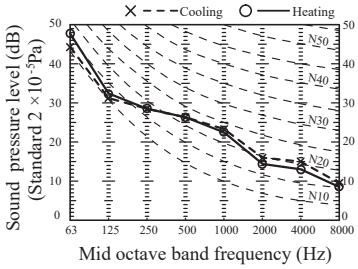
Models FDUM36,45,56KXE6F-W
Noise level Cooling:25 dB (A)
Heating:25 dB (A)



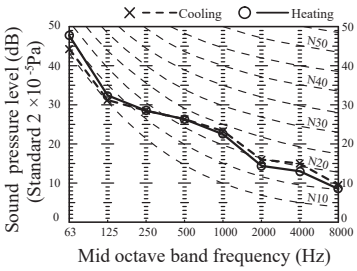
Models FDUM71,90KXE6F-W
Noise level Cooling:22 dB (A)
Heating:23 dB (A)



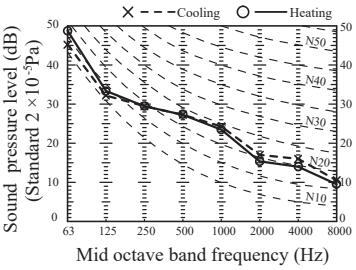
Model FDUM112KXE6F-W
Noise level Cooling:28 dB (A)
Heating:28 dB (A)



Model FDUM140KXE6F-W
Noise level Cooling:28 dB (A)
Heating:28 dB (A)



Model FDUM160KXE6F-W
Noise level Cooling:29 dB (A)
Heating:29 dB (A)

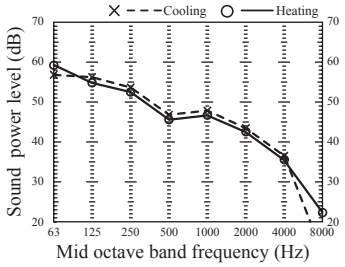


ISD20764

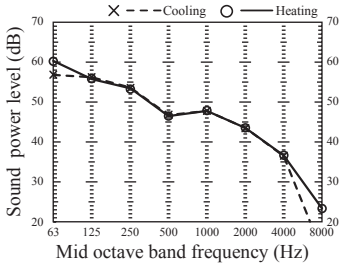
(3) Duct connected (thin)-Low static pressure type (FDUT)

(a) Sound power level

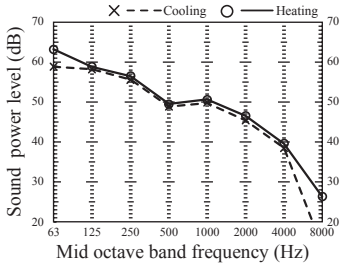
Model FDUT15KXE6F-W
Noise level Cooling:52 dB (A)
Heating:51 dB (A)



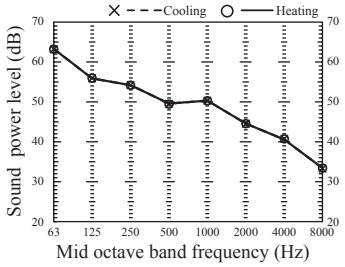
Models FDUT22,28KXE6F-W
Noise level Cooling:52 dB (A)
Heating:52 dB (A)



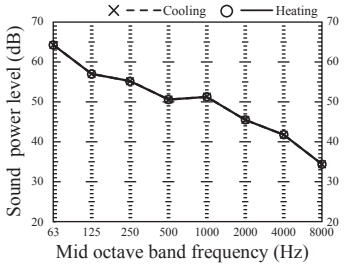
Model FDUT36KXE6F-W
Noise level Cooling:54 dB (A)
Heating:55 dB (A)



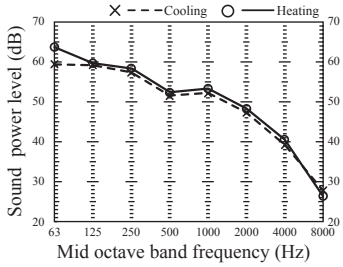
Model FDUT45KXE6F-W
Noise level Cooling:54 dB (A)
Heating:54 dB (A)



Model FDUT56KXE6F-W
Noise level Cooling:55 dB (A)
Heating:55 dB (A)



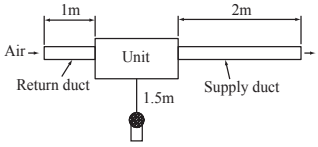
Model FDUT71KXE6F-W
Noise level Cooling:56 dB (A)
Heating:57 dB (A)



(b) Sound pressure level

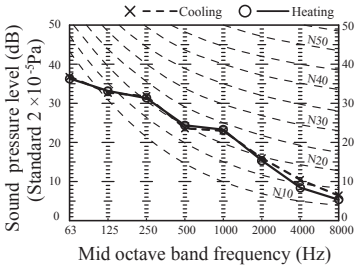
(i) Mike position : 1.5m below the unit

Measured based on JIS B 8616 ANNEX3 (Duct setting)
Mike position as right

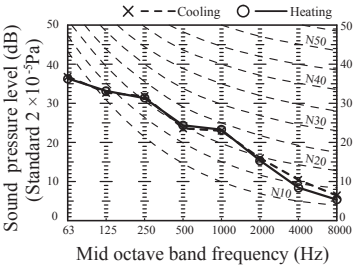


1) Air flow : Hi

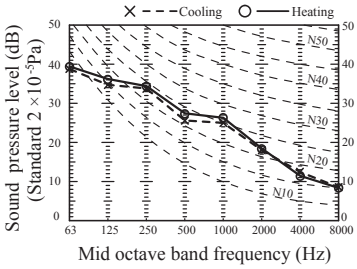
Model FDUT15KXE6F-W
Noise level Cooling:28 dB (A)
Heating:28 dB (A)



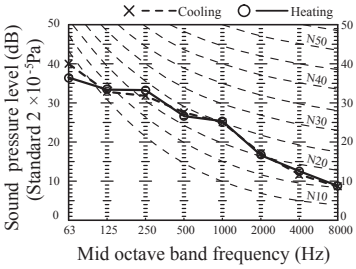
Models FDUT22,28KXE6F-W
Noise level Cooling:28 dB (A)
Heating:28 dB (A)



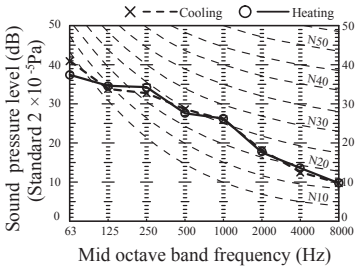
Model FDUT36KXE6F-W
Noise level Cooling:30 dB (A)
Heating:31 dB (A)



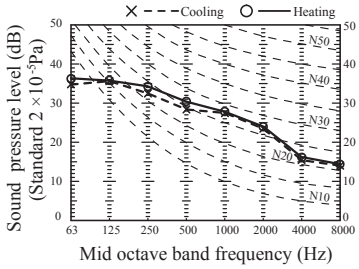
Model FDUT45KXE6F-W
Noise level Cooling:30 dB (A)
Heating:30 dB (A)



Model FDUT56KXE6F-W
Noise level Cooling:31 dB (A)
Heating:31 dB (A)



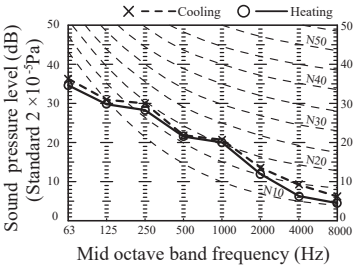
Model FDUT71KXE6F-W
Noise level Cooling:32 dB (A)
Heating:32 dB (A)



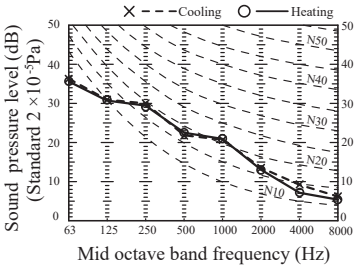
ISD20765

2) Air flow : Me

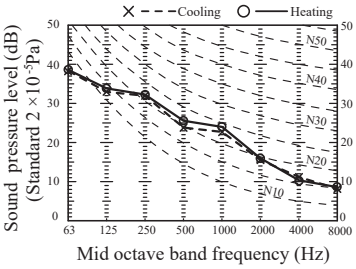
Model FDUT15KXE6F-W
Noise level Cooling:26 dB (A)
Heating:25 dB (A)



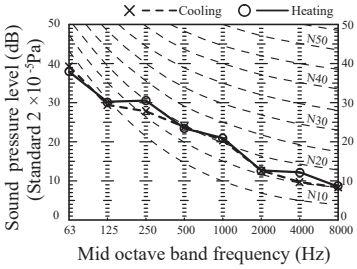
Models FDUT22,28KXE6F-W
Noise level Cooling:26 dB (A)
Heating:26 dB (A)



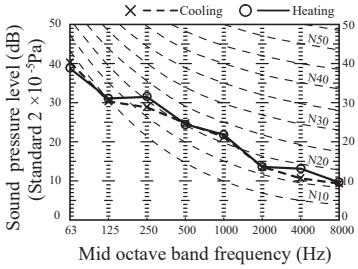
Model FDUT36KXE6F-W
Noise level Cooling:28 dB (A)
Heating:29 dB (A)



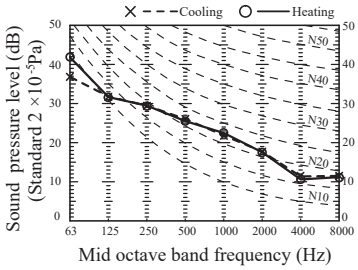
Model FDUT45KXE6F-W
Noise level Cooling:26 dB (A)
Heating:27 dB (A)



Model FDUT56KXE6F-W
Noise level Cooling:27 dB (A)
Heating:28 dB (A)

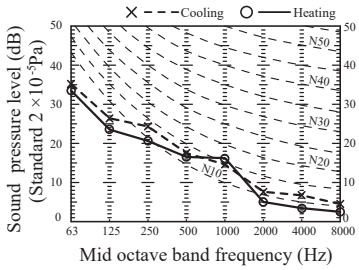


Model FDUT71KXE6F-W
Noise level Cooling:28 dB (A)
Heating:28 dB (A)

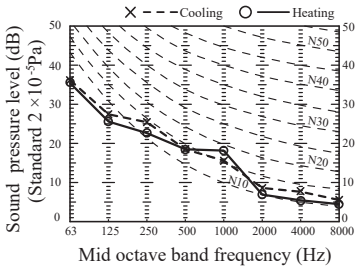


3) Air flow : Lo

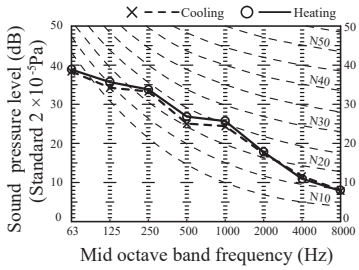
Model FDUT15KXE6F-W
Noise level Cooling:21 dB (A)
Heating:20 dB (A)



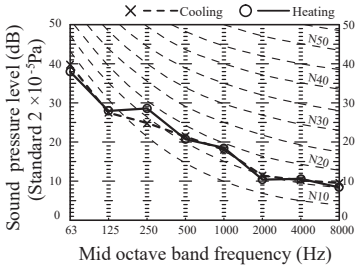
Models FDUT22,28KXE6F-W
Noise level Cooling:22 dB (A)
Heating:22 dB (A)



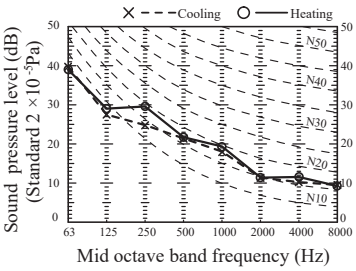
Model FDUT36KXE6F-W
Noise level Cooling:24 dB (A)
Heating:25 dB (A)



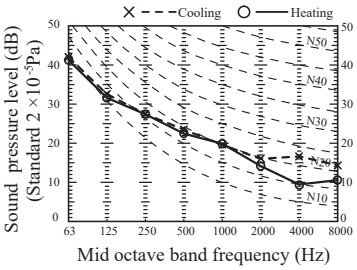
Model FDUT45KXE6F-W
Noise level Cooling:24 dB (A)
Heating:25 dB (A)



Model FDUT56KXE6F-W
Noise level Cooling:24 dB (A)
Heating:26 dB (A)

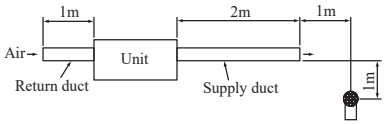


Model FDUT71KXE6F-W
Noise level Cooling:27 dB (A)
Heating:26 dB (A)



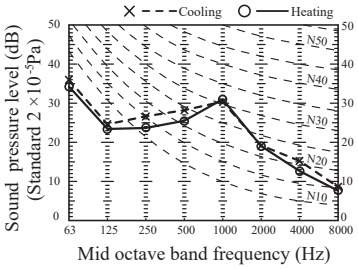
ISD20765

(ii) 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

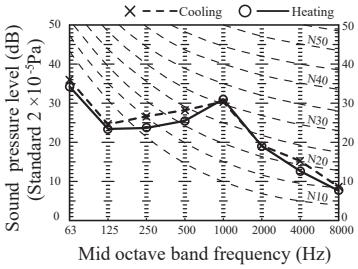


1) Air flow : Hi

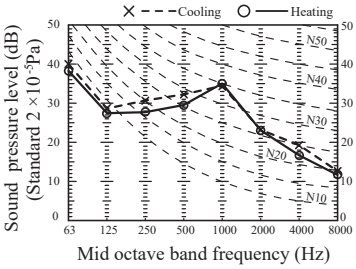
Model FDUT15KXE6F-W
Noise level Cooling:32 dB (A)
Heating:32 dB (A)



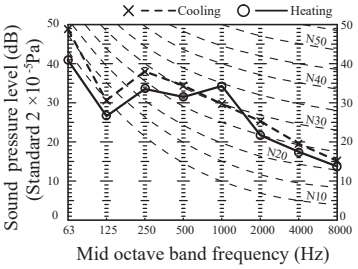
Models FDUT22,28KXE6F-W
Noise level Cooling:32 dB (A)
Heating:32 dB (A)



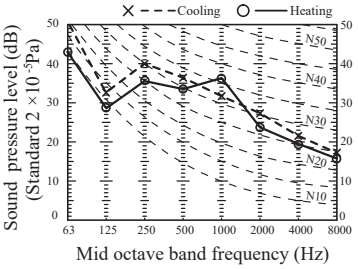
Model FDUT36KXE6F-W
Noise level Cooling:37 dB (A)
Heating:37 dB (A)



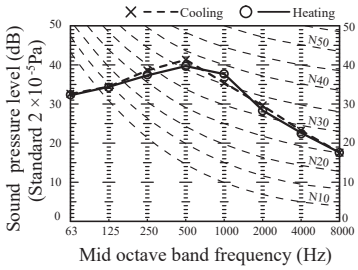
Model FDUT45KXE6F-W
Noise level Cooling:36 dB (A)
Heating:36 dB (A)



Model FDUT56KXE6F-W
Noise level Cooling:38 dB (A)
Heating:38 dB (A)

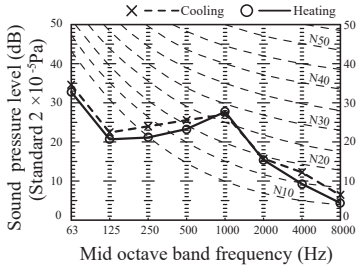


Model FDUT71KXE6F-W
Noise level Cooling:41 dB (A)
Heating:41 dB (A)

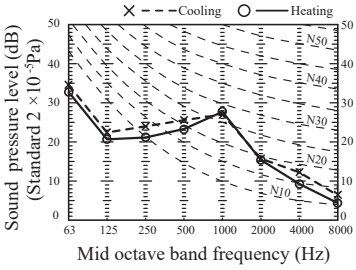


2) Air flow : Me

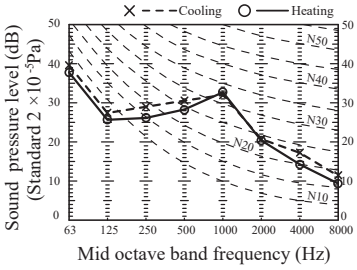
Model FDUT15KXE6F-W
Noise level Cooling:29 dB (A)
Heating:29 dB (A)



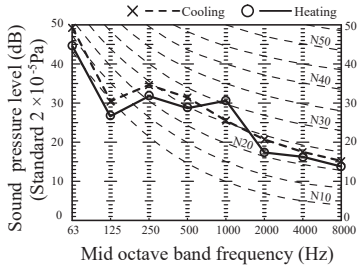
Models FDUT22,28KXE6F-W
Noise level Cooling:29 dB (A)
Heating:29 dB (A)



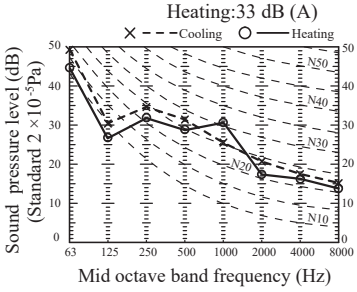
Model FDUT36KXE6F-W
Noise level Cooling:34 dB (A)
Heating:34 dB (A)



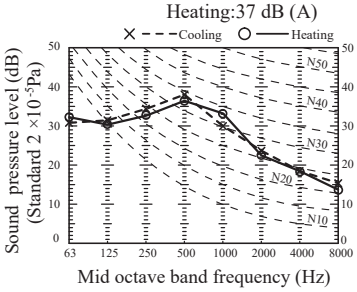
Model FDUT45KXE6F-W
Noise level Cooling:33 dB (A)
Heating:33 dB (A)



Model FDUT56KXE6F-W
Noise level Cooling:33 dB (A)
Heating:33 dB (A)



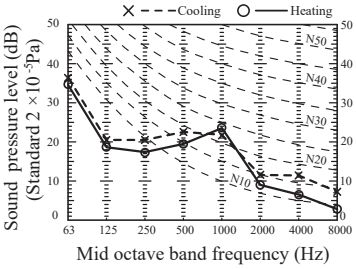
Model FDUT71KXE6F-W
Noise level Cooling:37 dB (A)
Heating:37 dB (A)



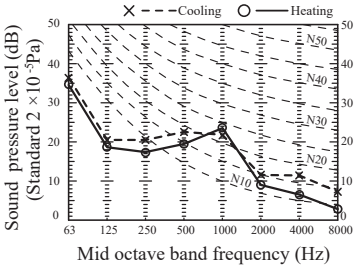
ISD20765

3) Air flow : Lo

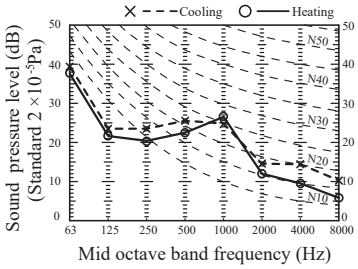
Model FDUT15KXE6F-W
Noise level Cooling:25 dB (A)
Heating:25 dB (A)



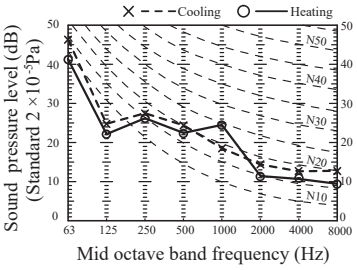
Models FDUT22,28KXE6F-W
Noise level Cooling:25 dB (A)
Heating:25 dB (A)



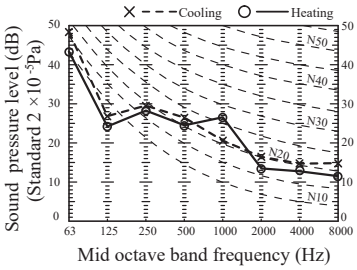
Model FDUT36KXE6F-W
Noise level Cooling:28 dB (A)
Heating:28 dB (A)



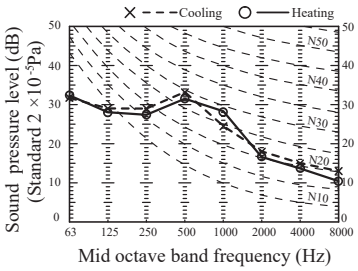
Model FDUT45KXE6F-W
Noise level Cooling:27 dB (A)
Heating:27 dB (A)



Model FDUT56KXE6F-W
Noise level Cooling:29 dB (A)
Heating:29 dB (A)



Model FDUT71KXE6F-W
Noise level Cooling:32 dB (A)
Heating:32 dB (A)



ISD20765

6. CHARACTERISTICS OF FAN

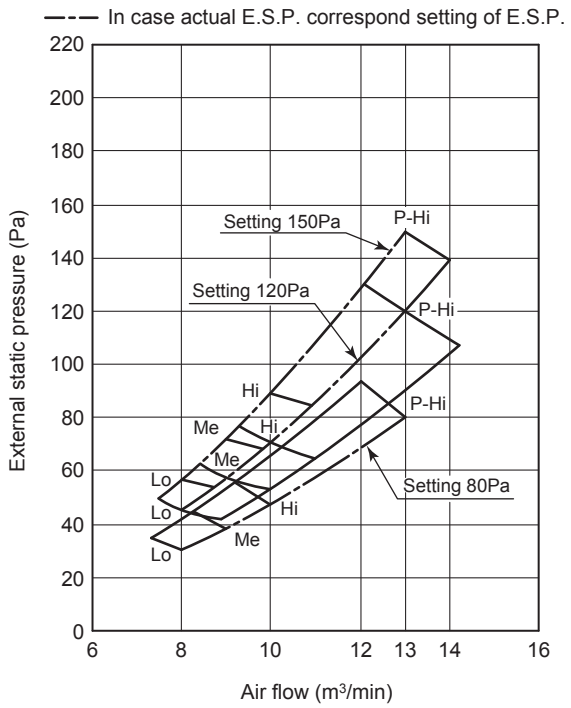
(1) Duct connected-High static pressure type (FDU)

- 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.

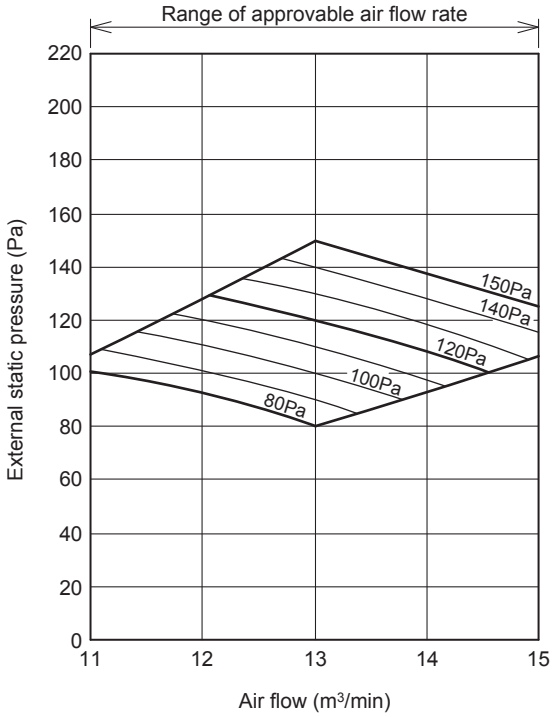
Models FDU45KXE6F-W, 56KXE6F-W

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

Characteristic FAN (1)

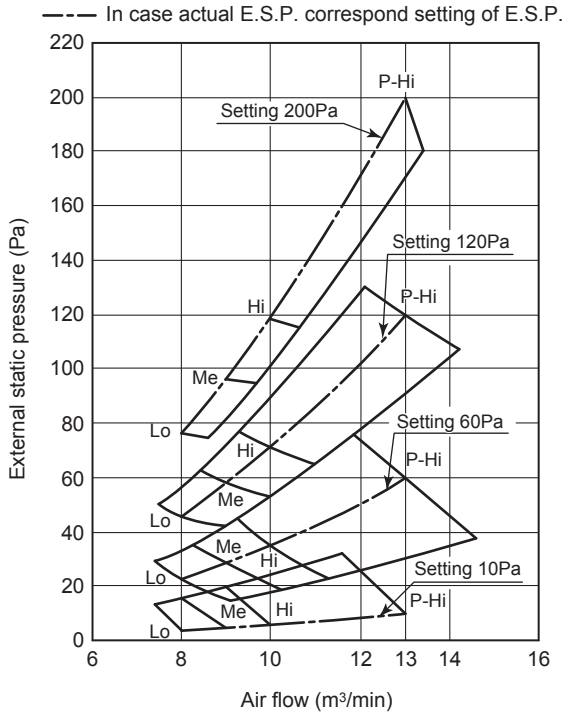


Characteristic FAN (2)

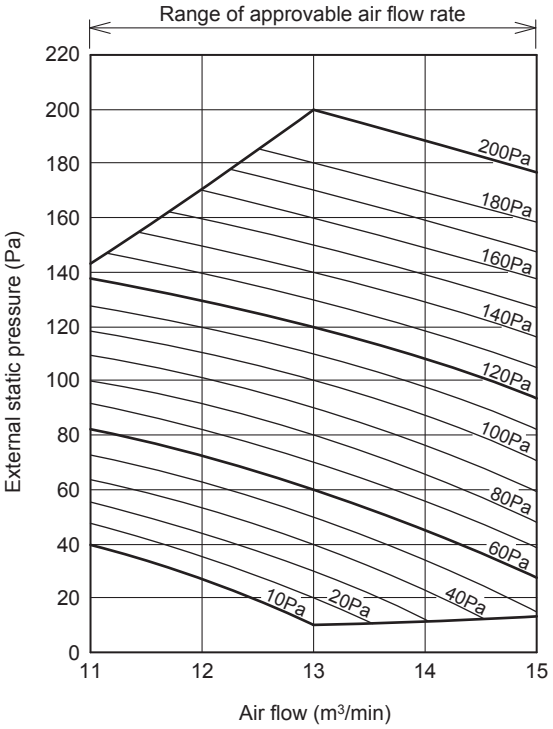


■SW8-4 : ON (Range of use limitation : Setting 10Pa-200Pa)

Characteristic FAN (1)



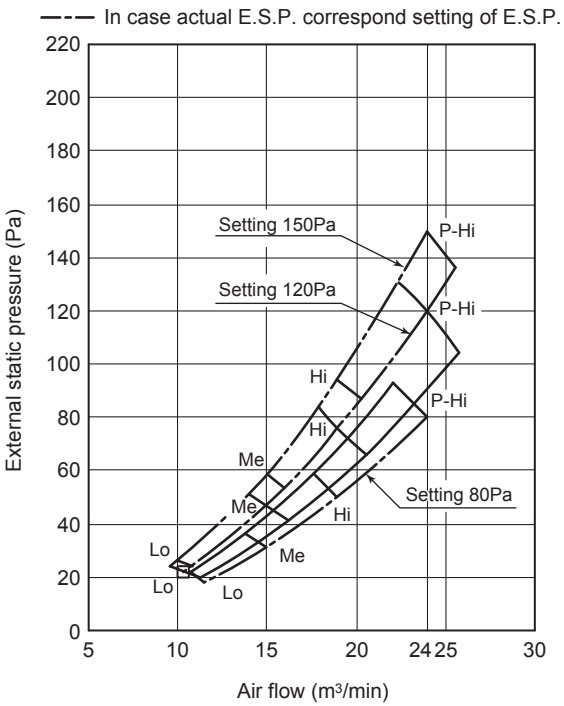
Characteristic FAN (2)



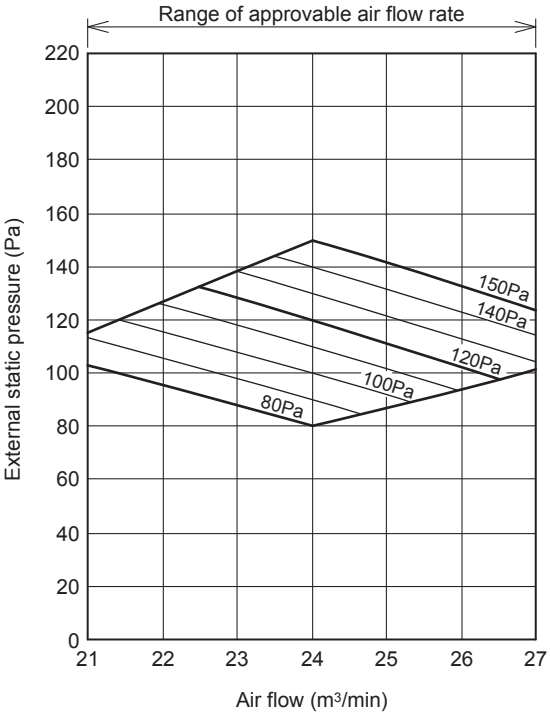
Models FDU71KXE6F-W, 90KXE6F-W

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

Characteristic FAN (1)

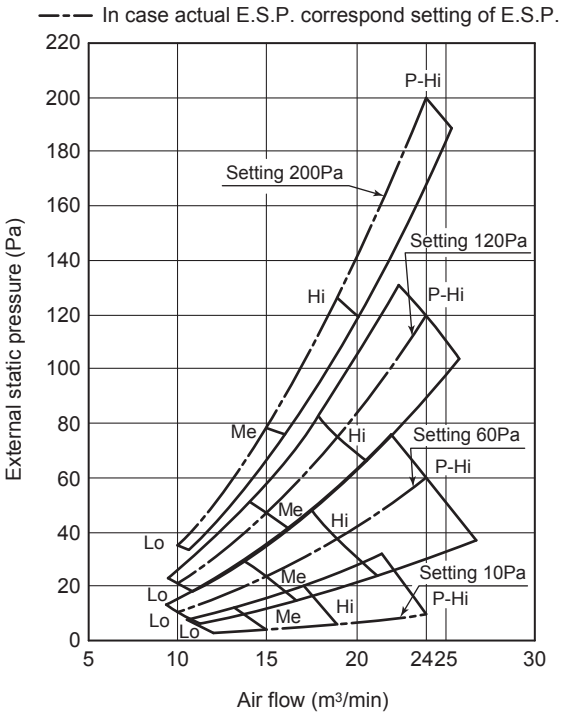


Characteristic FAN (2)

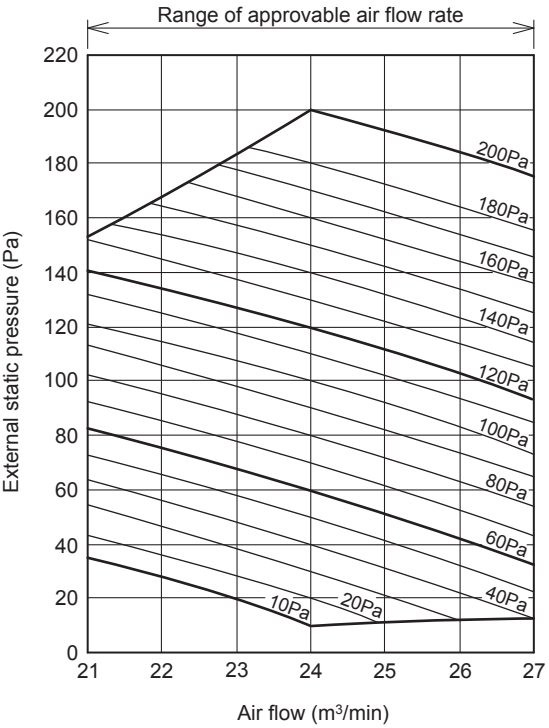


■SW8-4 : ON (Range of use limitation : Setting 10Pa-200Pa)

Characteristic FAN (1)



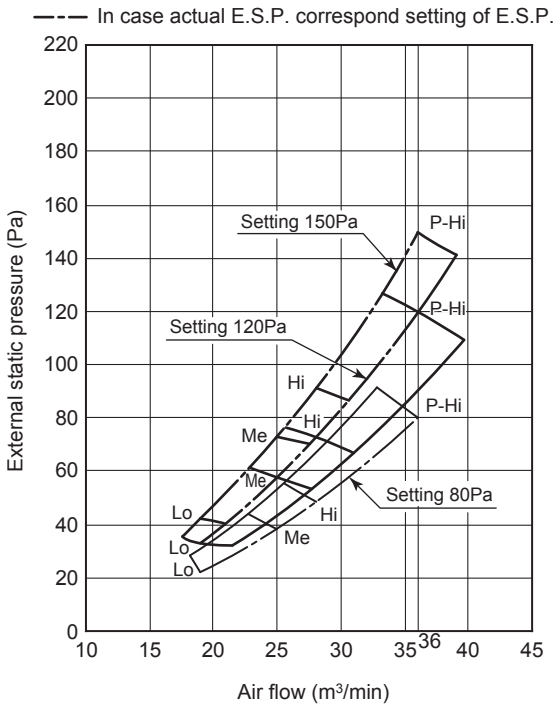
Characteristic FAN (2)



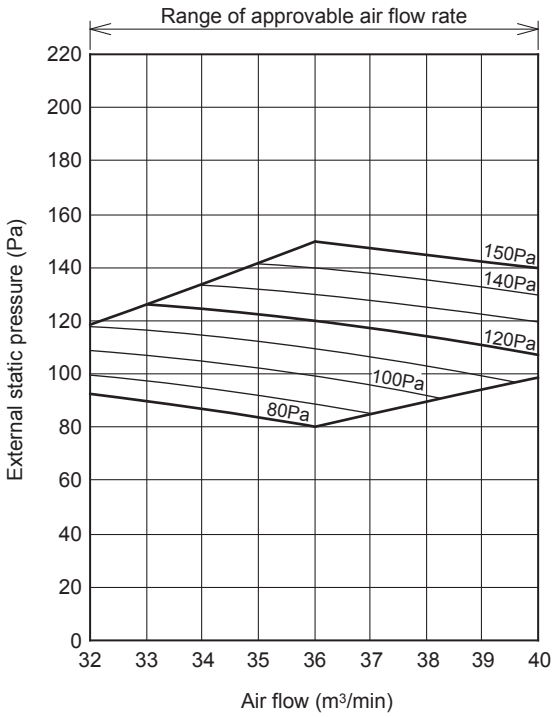
Model FDU112KXE6F-W

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

Characteristic FAN (1)

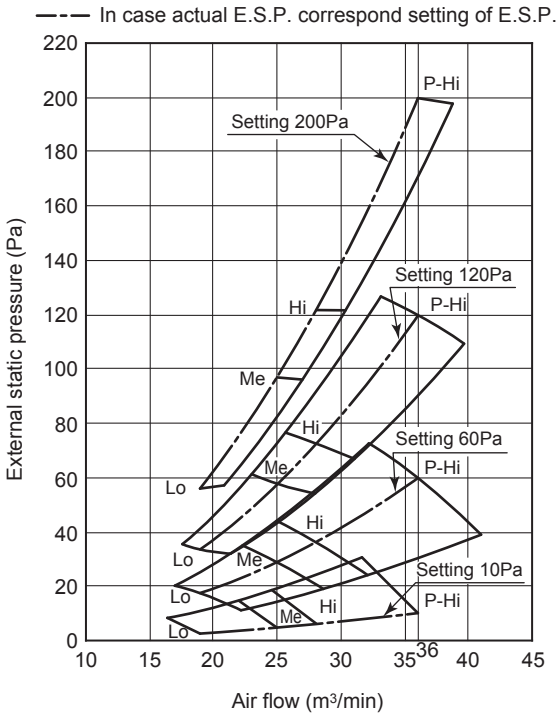


Characteristic FAN (2)

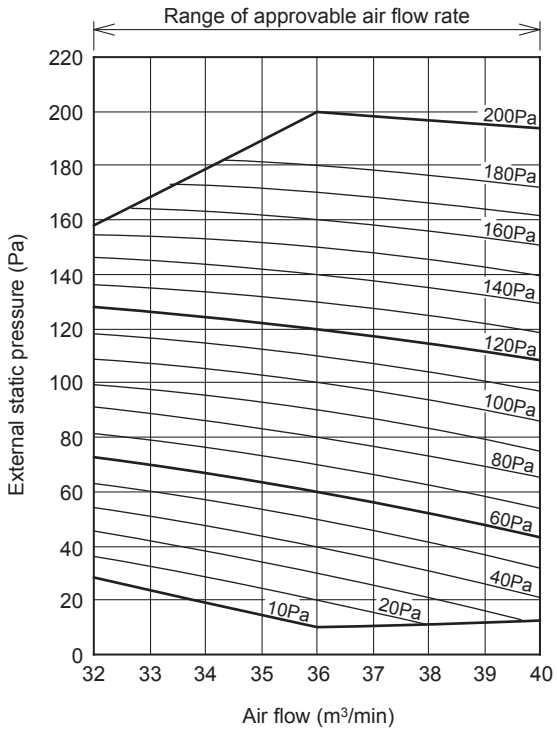


■SW8-4 : ON (Range of use limitation : Setting 10Pa-200Pa)

Characteristic FAN (1)



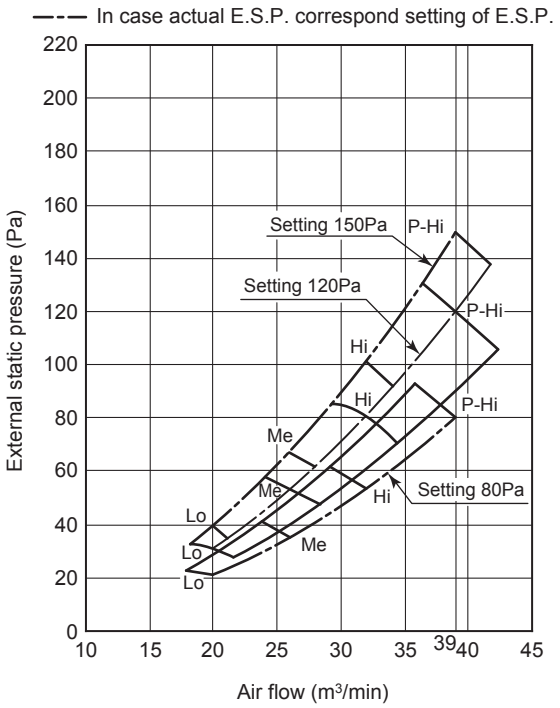
Characteristic FAN (2)



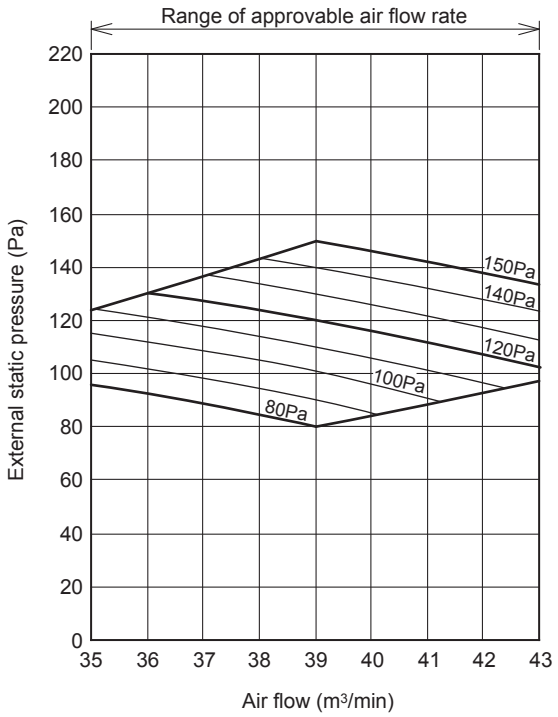
Model FDU140KXE6F-W

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

Characteristic FAN (1)

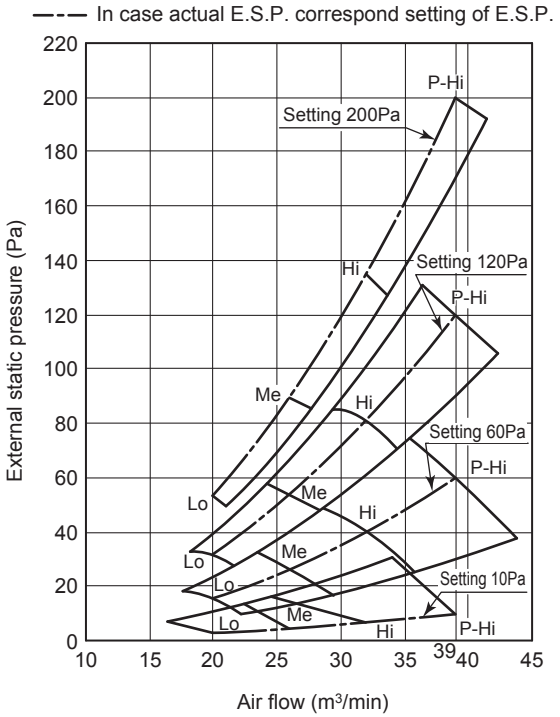


Characteristic FAN (2)

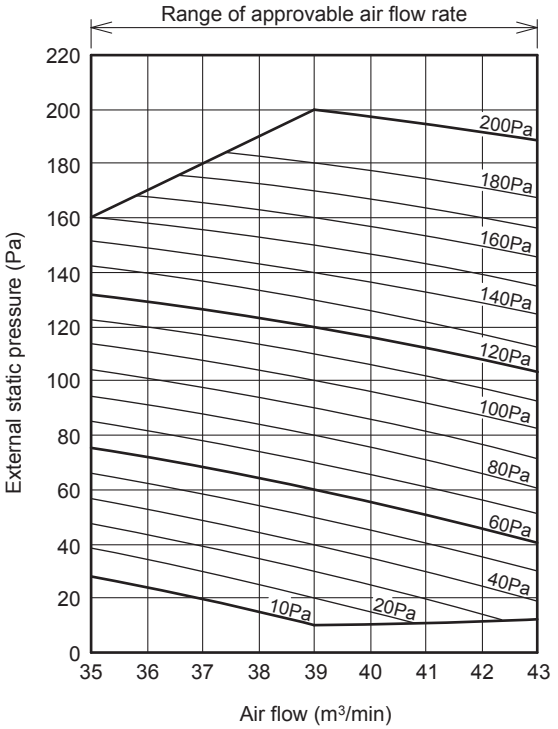


■SW8-4 : ON (Range of use limitation : Setting 10Pa-200Pa)

Characteristic FAN (1)



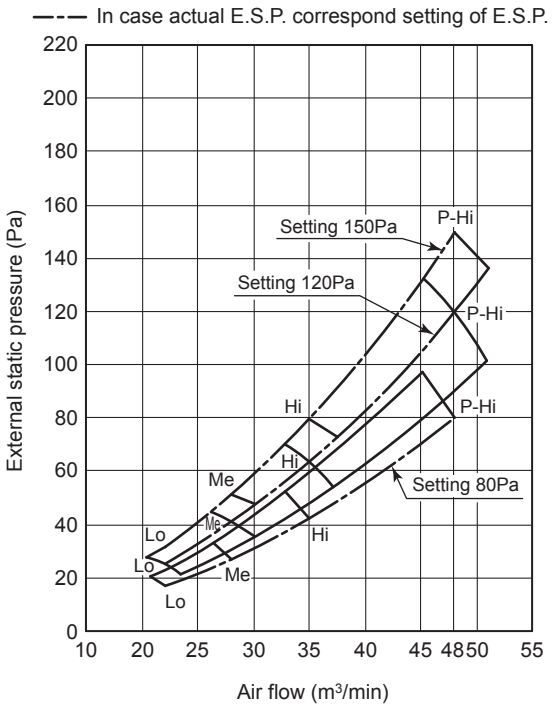
Characteristic FAN (2)



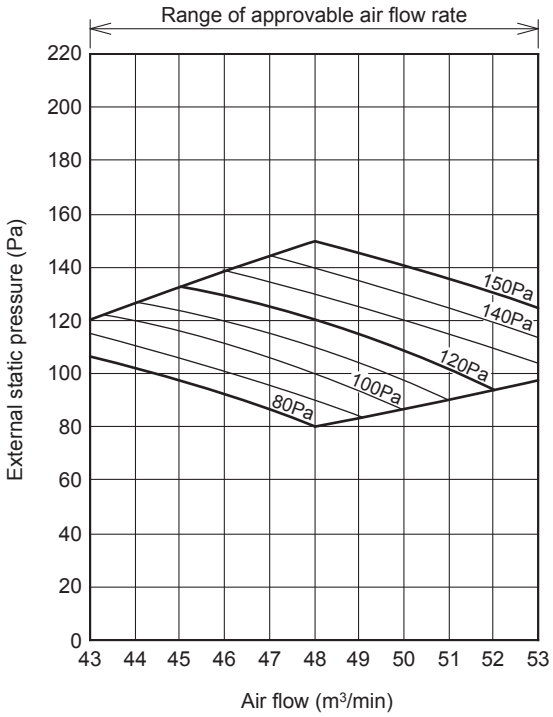
Model FDU160KXE6F-W

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

Characteristic FAN (1)

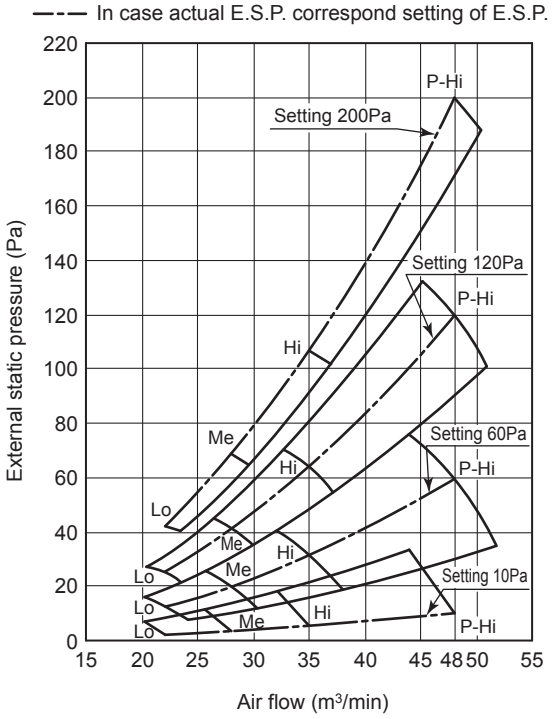


Characteristic FAN (2)

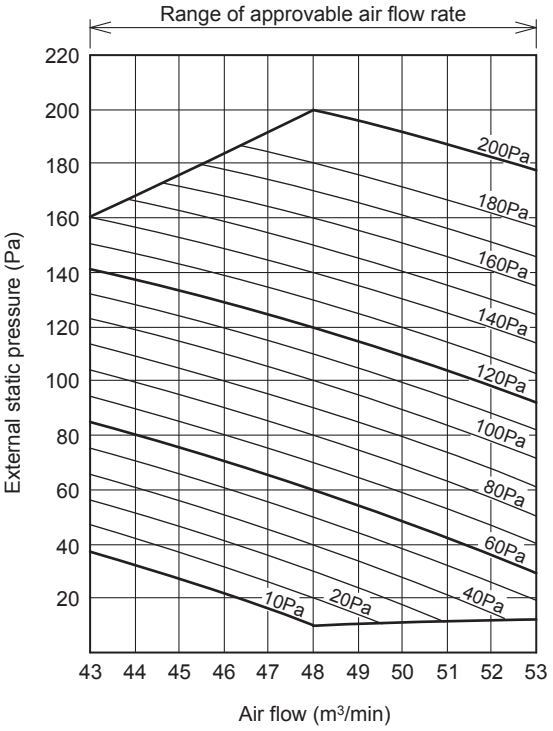


■SW8-4 : ON (Range of use limitation : Setting 10Pa-200Pa)

Characteristic FAN (1)



Characteristic FAN (2)

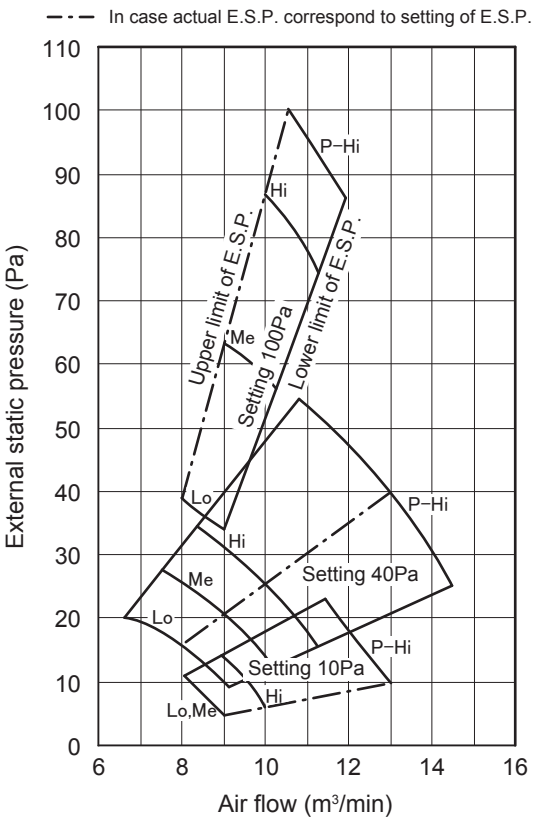


(2) Duct connected-Low/Middle static pressure (FDUM)

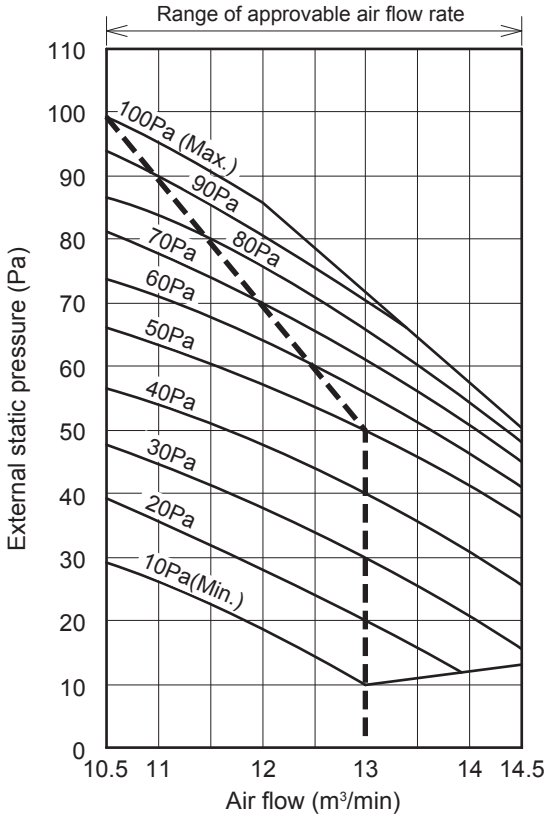
- Characteristic FAN (1) shows air flow vs. External Static Pressure (E.S.P.) range where settings of E.S.P. are maximum E.S.P. (100Pa) , rated E.S.P., and minimum E.S.P. (10Pa)
- Characteristic FAN (2) shows air flow vs. E.S.P curve when set fan tap is set P-Hi with each setting of E.S.P by remote control.
- 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-W, 28KXE6F-W, 36KXE6F-W, 45KXE6F-W, 56KXE6F-W

Characteristic FAN(1)

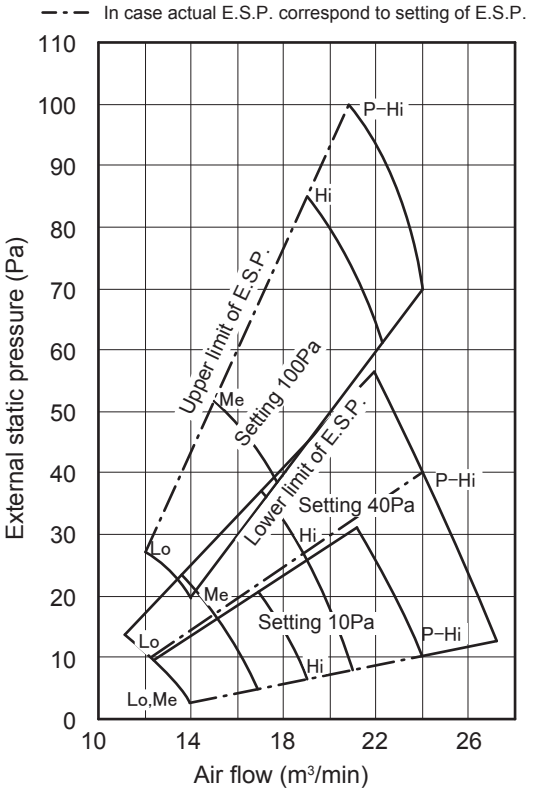


Characteristic FAN(2)

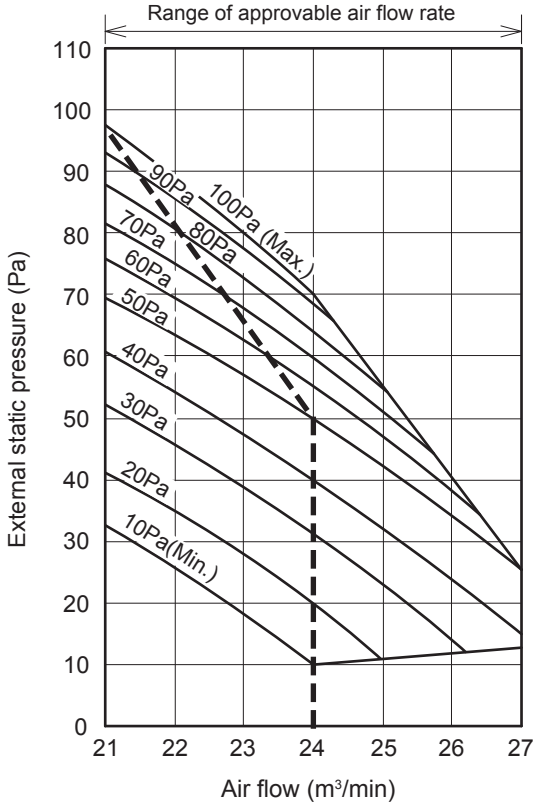


Models FDUM71KXE6F-W, 90KXE6F-W

Characteristic FAN(1)

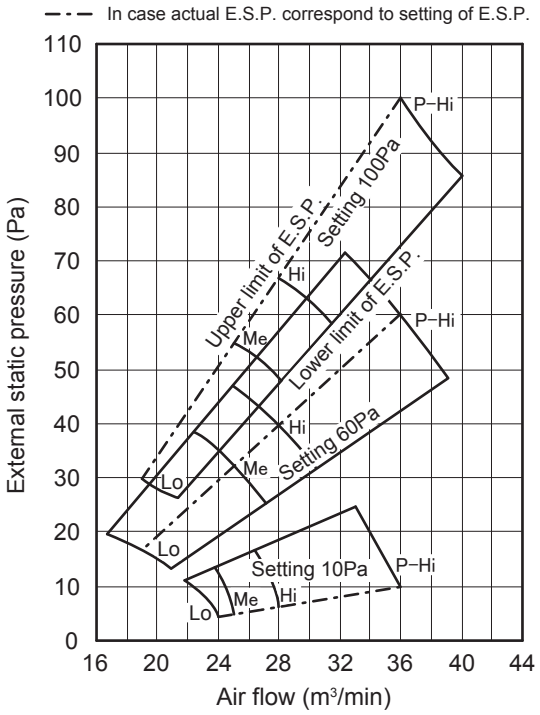


Characteristic FAN(2)

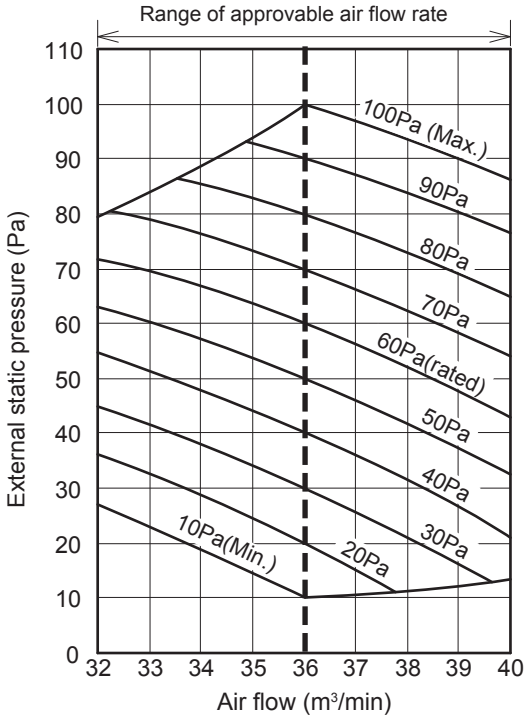


Model FDUM112KXE6F-W

Characteristic FAN(1)

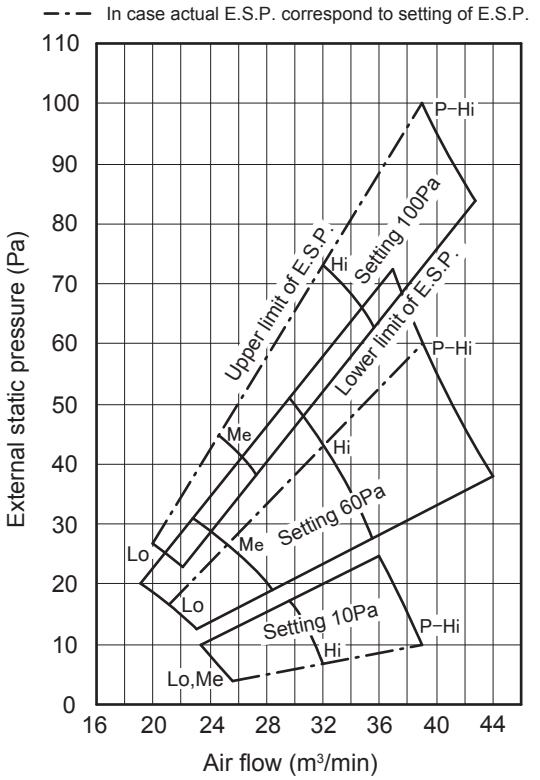


Characteristic FAN(2)

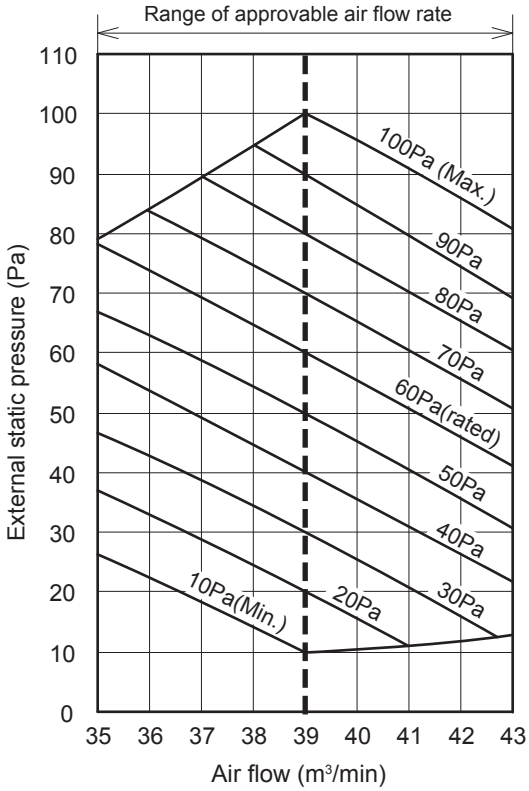


Model FDUM140KXE6F-W

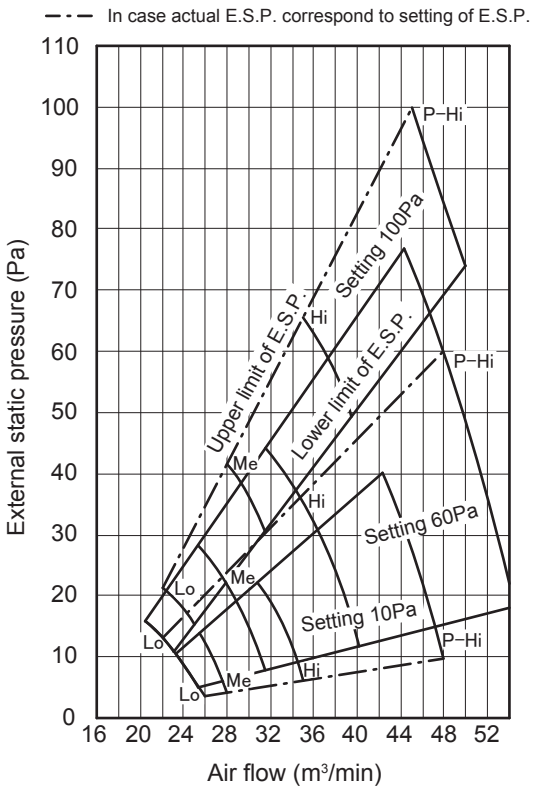
Characteristic FAN(1)



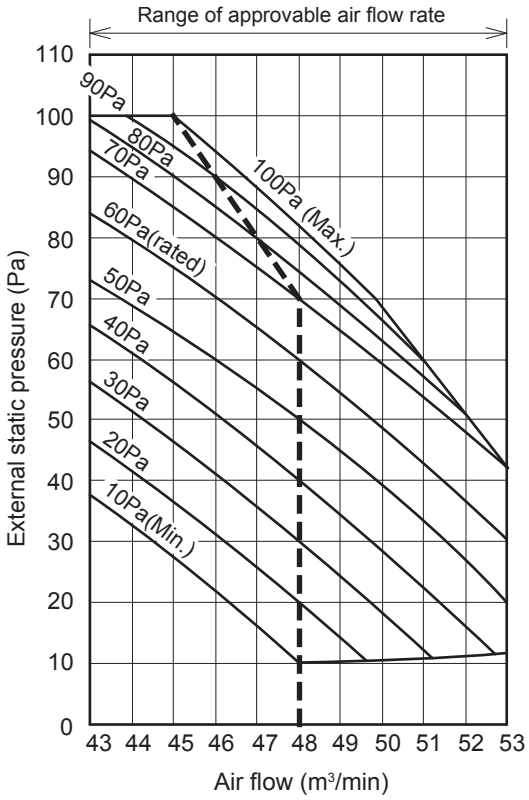
Characteristic FAN(2)



Model FDUM160KXE6F-W
Characteristic FAN(1)

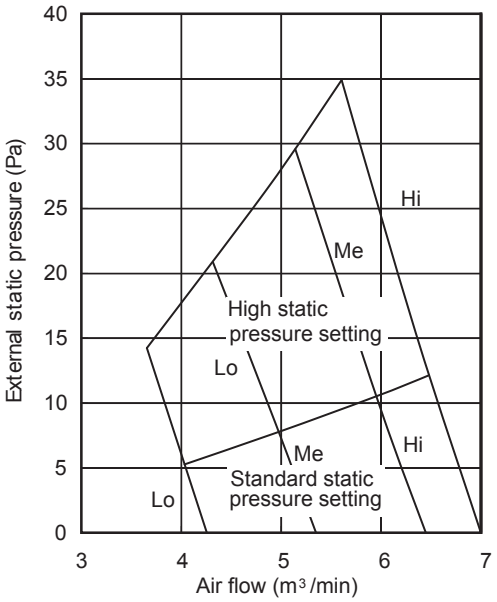


Characteristic FAN(2)

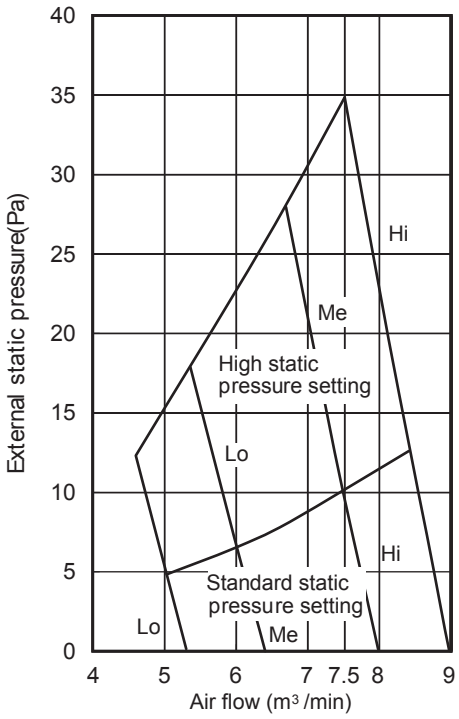


(3) Duct connected (thin)-Low static pressure type (FDUT)

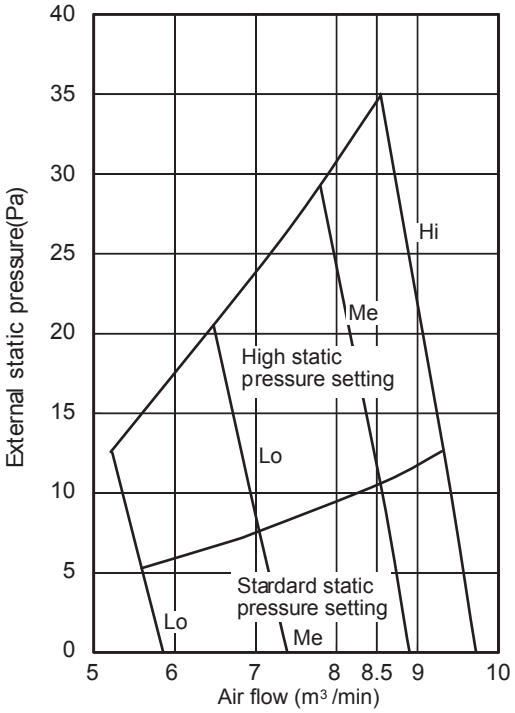
Model FDUT15KXE6F-W



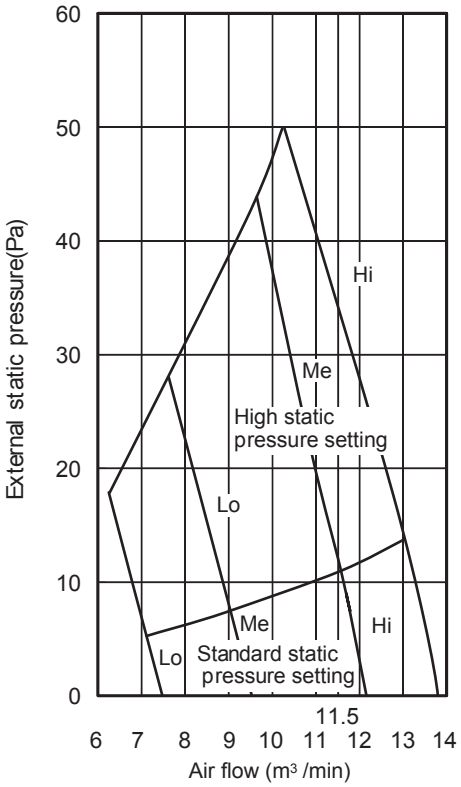
Models FDUT22, 28KXE6F-W



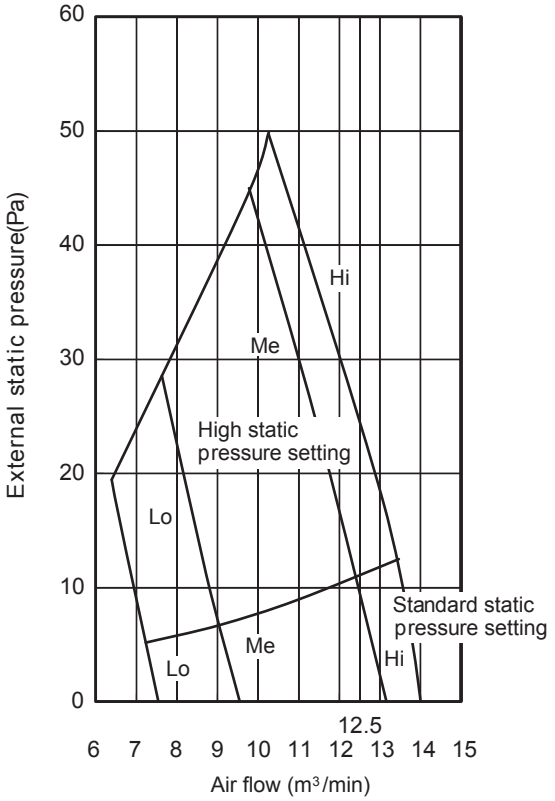
Model FDUT36KXE6F-W



Model FDUT45KXE6F-W



Model FDUT56KXE6F-W



Model FDUT71KXE6F-W

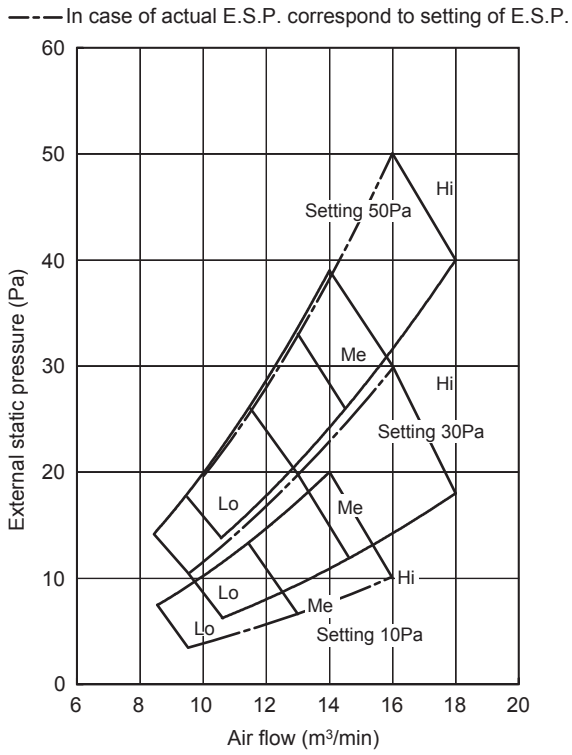
Characteristic FAN(1) shows air flow vs External Static Pressure(E.S.P.) range where settings of E.S.P. are maximun E.S.P.(50Pa), E.S.P.(30Pa), and minimum E.S.P.(10Pa).

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.

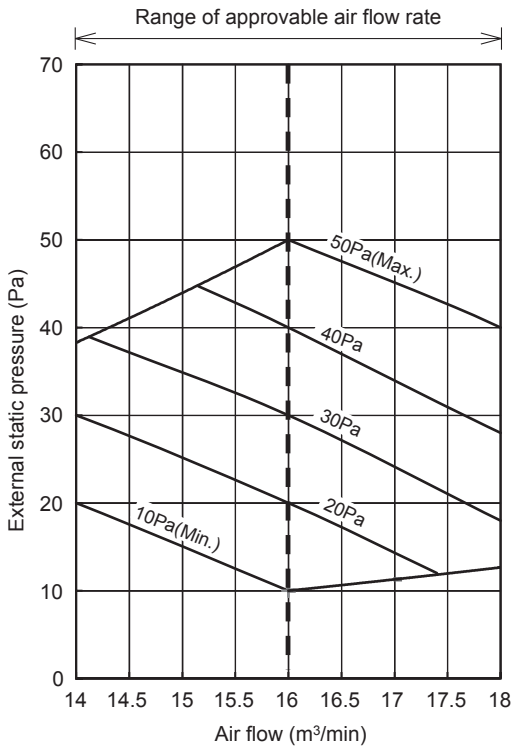
External Static Pressure(E.S.P.) can be set by wired remote control.

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)



7. 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) Duct connected-High static pressure type (FDU)

Model **FDU45KXE6F-W** Cooling mode (kW)

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
P-Hi	10			4.94	3.82	5.23	4.03	5.38	4.00	5.53	3.98	5.84	4.17	6.17	4.10
	12			4.87	3.79	5.16	4.00	5.30	3.97	5.45	3.95	5.76	4.14	6.08	4.07
	14			4.81	3.76	5.08	3.97	5.23	3.94	5.38	3.92	5.68	4.11	6.00	4.05
	16			4.74	3.73	5.02	3.94	5.16	3.92	5.30	3.89	5.60	4.08	5.92	4.02
	18			4.68	3.70	4.95	3.91	5.09	3.89	5.23	3.86	5.53	4.05	5.83	3.99
	20			4.62	3.68	4.88	3.88	5.02	3.86	5.16	3.83	5.45	4.02	5.75	3.96
	22			4.56	3.65	4.82	3.86	4.95	3.83	5.09	3.81	5.37	4.00	5.67	3.94
13 (m³/min)	24			4.50	3.62	4.75	3.83	4.88	3.80	5.02	3.78	5.30	3.97	5.59	3.91
	26	4.20	3.63	4.44	3.60	4.69	3.80	4.81	3.77	4.95	3.75	5.22	3.94	5.54	3.89
	28	4.14	3.60	4.38	3.57	4.62	3.77	4.75	3.75	4.88	3.72	5.14	3.91		
	30	4.08	3.57	4.31	3.54	4.55	3.75	4.68	3.72	4.80	3.69	5.06	3.89		
	32	4.01	3.54	4.24	3.51	4.48	3.72	4.61	3.70	4.73	3.67	4.98	3.86		
	34	3.95	3.51	4.17	3.48	4.41	3.69	4.53	3.66	4.66	3.64	4.90	3.83		
	35	3.91	3.49	4.14	3.46	4.37	3.67	4.50	3.65	4.62	3.63	4.87	3.82		
	36	3.83	3.45	4.05	3.42	4.28	3.64	4.40	3.61	4.51	3.58	4.71	3.77		
	38	3.68	3.39	3.88	3.34	4.10	3.56	4.22	3.54	4.29	3.50	4.41	3.66		
	39	3.60	3.35	3.80	3.31	4.00	3.52	4.13	3.51	4.18	3.46	4.26	3.61		
	41	3.38	3.24	3.57	3.21	3.75	3.42	3.84	3.39	3.86	3.35	3.90	3.47		
	43	3.12	3.00	3.30	3.10	3.42	3.28	3.44	3.24	3.46	3.20	3.48	3.33		

Heating mode (kW)

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
P-Hi	-19.8	-20	2.80	2.78	2.75	2.73	2.71
	-17.8	-18	2.98	2.96	2.93	2.91	2.89
	-15.7	-16	3.16	3.14	3.11	3.09	3.06
	-13.7	-14	3.36	3.34	3.31	3.28	3.25
	-11.7	-12	3.56	3.54	3.51	3.48	3.45
	-9.6	-10	3.76	3.74	3.71	3.68	3.65
	-7.5	-8	3.99	3.96	3.94	3.90	3.87
13 (m³/min)	-5.5	-6	4.22	4.19	4.16	4.12	4.09
	-3.4	-4	4.34	4.30	4.27	4.23	4.20
	-1.3	-2	4.34	4.29	4.26	4.22	4.18
	0.8	0	4.34	4.29	4.25	4.21	4.16
	3.9	3	4.71	4.66	4.62	4.57	4.51
	7.0	6	5.10	5.05	5.00	4.91	4.77
	10.1	9	5.53	5.48	5.42	5.20	4.83
	13.2	12	5.98	5.88	5.64	5.31	4.84
	16.9	15.5	6.45	6.26	5.78	5.31	4.83

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
Hi	10			4.80	3.42	5.07	3.57	5.22	3.55	5.37	3.52	5.67	3.66	5.99	3.60
	12			4.73	3.38	5.01	3.54	5.15	3.52	5.29	3.49	5.60	3.63	5.91	3.57
	14			4.67	3.35	4.94	3.51	5.08	3.49	5.22	3.46	5.52	3.60	5.83	3.54
	16			4.61	3.32	4.87	3.48	5.01	3.46	5.15	3.43	5.44	3.57	5.74	3.51
	18			4.55	3.29	4.81	3.45	4.94	3.42	5.08	3.40	5.37	3.54	5.66	3.48
	20			4.48	3.26	4.74	3.41	4.88	3.39	5.01	3.37	5.29	3.51	5.58	3.45
	22			4.43	3.23	4.68	3.39	4.81	3.36	4.94	3.34	5.22	3.48	5.50	3.42
10 (m³/min)	24			4.37	3.21	4.62	3.36	4.74	3.33	4.87	3.31	5.15	3.45	5.43	3.40
	26	4.08	3.21	4.31	3.18	4.55	3.33	4.68	3.31	4.80	3.28	5.07	3.42	5.38	3.38
	28	4.02	3.18	4.25	3.15	4.49	3.30	4.61	3.28	4.74	3.25	4.99	3.39		
	30	3.96	3.15	4.19	3.12	4.42	3.27	4.54	3.25	4.67	3.23	4.92	3.36		
	32	3.90	3.12	4.12	3.09	4.35	3.24	4.47	3.22	4.59	3.19	4.84	3.33		
	34	3.83	3.09	4.05	3.06	4.28	3.21	4.40	3.19	4.52	3.17	4.76	3.30		
	35	3.80	3.07	4.02	3.04	4.25	3.20	4.37	3.18	4.48	3.15	4.72	3.29		
	36	3.72	3.03	3.93	3.00	4.16	3.16	4.28	3.14	4.38	3.11	4.58	3.24		
	38	3.57	2.96	3.77	2.93	3.98	3.08	4.10	3.07	4.16	3.02	4.28	3.13		
	39	3.49	2.92	3.69	2.89	3.89	3.04	4.01	3.03	4.06	2.98	4.14	3.08		
	41	3.29	2.82	3.47	2.79	3.64	2.94	3.73	2.92	3.75	2.86	3.79	2.95		
	43	3.03	2.70	3.20	2.67	3.32	2.81	3.34	2.76	3.36	2.72	3.38	2.81		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
Hi	-19.8	-20	2.70	2.68	2.66	2.64	2.62
	-17.8	-18	2.88	2.86	2.83	2.81	2.79
	-15.7	-16	3.06	3.04	3.01	2.99	2.96
	-13.7	-14	3.24	3.22	3.19	3.17	3.14
	-11.7	-12	3.44	3.42	3.39	3.36	3.33
	-9.6	-10	3.63	3.61	3.59	3.55	3.53
	-7.5	-8	3.86	3.83	3.80	3.77	3.74
10 (m³/min)	-5.5	-6	4.08	4.05	4.02	3.98	3.96
	-3.4	-4	4.19	4.15	4.13	4.09	4.05
	-1.3	-2	4.19	4.15	4.12	4.08	4.04
	0.8	0	4.19	4.14	4.11	4.06	4.02
	3.9	3	4.55	4.50	4.46	4.41	4.36
	7.0	6	4.93	4.88	4.83	4.74	4.61
	10.1	9	5.34	5.29	5.23	5.03	4.66
	13.2	12	5.78	5.68	5.45	5.13	4.67
	16.9	15.5	6.23	6.05	5.58	5.13	4.66

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
Me	10			4.48	3.16	4.74	3.29	4.88	3.27	5.01	3.25	5.30	3.37	5.59	3.31
	12			4.42	3.13	4.67	3.26	4.81	3.24	4.94	3.22	5.22	3.34	5.52	3.29
	14			4.36	3.10	4.61	3.23	4.74	3.21	4.88	3.19	5.15	3.31	5.44	3.26
	16			4.30	3.06	4.55	3.21	4.68	3.19	4.81	3.16	5.08	3.28	5.36	3.23
	18			4.24	3.03	4.49	3.18	4.62	3.16	4.74	3.13	5.01	3.26	5.29	3.20
	20			4.19	3.01	4.43	3.15	4.55	3.13	4.68	3.11	4.94	3.23	5.21	3.17
	22			4.13	2.98	4.37	3.12	4.49	3.10	4.61	3.08	4.87	3.20	5.14	3.15
9 (m³/min)	24			4.08	2.96	4.31	3.09	4.43	3.08	4.55	3.05	4.81	3.18	5.07	3.12
	26	3.81	2.96	4.02	2.93	4.25	3.07	4.36	3.04	4.49	3.03	4.74	3.15	5.02	3.10
	28	3.75	2.93	3.97	2.90	4.19	3.04	4.30	3.01	4.42	2.99	4.66	3.12		
	30	3.70	2.91	3.91	2.87	4.13	3.01	4.24	2.99	4.36	2.97	4.59	3.09		
	32	3.64	2.88	3.85	2.85	4.06	2.98	4.18	2.96	4.29	2.94	4.52	3.06		
	34	3.58	2.85	3.78	2.81	4.00	2.95	4.11	2.93	4.22	2.91	4.45	3.03		
	35	3.55	2.83	3.75	2.80	3.96	2.94	4.08	2.92	4.19	2.90	4.41	3.02		
	36	3.48	2.80	3.67	2.76	3.88	2.90	3.99	2.88	4.09	2.86	4.27	2.97		
	38	3.33	2.72	3.52	2.69	3.71	2.83	3.82	2.81	3.89	2.78	4.00	2.87		
	39	3.26	2.69	3.44	2.65	3.63	2.79	3.74	2.78	3.79	2.74	3.86	2.82		
	41	3.07	2.59	3.24	2.56	3.40	2.70	3.48	2.67	3.50	2.62	3.54	2.70		
	43	2.83	2.48	2.99	2.45	3.10	2.57	3.12	2.53	3.13	2.48	3.16	2.57		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
Me	-19.8	-20	2.51	2.50	2.47	2.45	2.43
	-17.8	-18	2.68	2.66	2.63	2.62	2.59
	-15.7	-16	2.84	2.82	2.80	2.78	2.75
	-13.7	-14	3.01	2.99	2.97	2.95	2.92
	-11.7	-12	3.20	3.18	3.15	3.13	3.10
	-9.6	-10	3.38	3.36	3.33	3.30	3.28
	-7.5	-8	3.59	3.56	3.54	3.50	3.48
9 (m³/min)	-5.5	-6	3.79	3.76	3.74	3.70	3.68
	-3.4	-4	3.90	3.86	3.84	3.80	3.77
	-1.3	-2	3.89	3.86	3.83	3.79	3.75
	0.8	0	3.89	3.85	3.82	3.78	3.73
	3.9	3	4.23	4.18	4.15	4.10	4.05
	7.0	6	4.58	4.53	4.49	4.41	4.28
	10.1	9	4.97	4.92	4.86	4.67	4.33
	13.2	12	5.37	5.28	5.07	4.76	4.34
	16.9	15.5	5.79	5.62	5.19	4.77	4.33

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
Lo	10			4.19	2.91	4.44	3.04	4.56	3.01	4.69	2.99	4.96	3.10	5.24	3.05
	12			4.14	2.89	4.38	3.01	4.50	2.99	4.63	2.97	4.89	3.07	5.16	3.01
	14			4.08	2.86	4.32	2.98	4.44	2.96	4.56	2.93	4.82	3.04	5.09	2.99
	16			4.03	2.83	4.26	2.95	4.38	2.93	4.50	2.91	4.76	3.02	5.02	2.96
	18			3.97	2.80	4.20	2.92	4.32	2.90	4.44	2.88	4.69	2.99	4.95	2.94
	20			3.92	2.78	4.14	2.89	4.26	2.88	4.38	2.86	4.63	2.96	4.88	2.91
	22			3.87	2.75	4.09	2.87	4.20	2.85	4.32	2.83	4.56	2.94	4.81	2.88
8 (m³/min)	24			3.82	2.72	4.03	2.84	4.14	2.82	4.26	2.80	4.50	2.91	4.74	2.86
	26	3.56	2.72	3.77	2.70	3.98	2.82	4.09	2.80	4.20	2.78	4.43	2.88	4.70	2.84
	28	3.51	2.70	3.71	2.67	3.92	2.79	4.03	2.77	4.14	2.75	4.37	2.86		
	30	3.46	2.67	3.66	2.64	3.86	2.76	3.97	2.75	4.08	2.73	4.30	2.83		
	32	3.41	2.65	3.60	2.62	3.80	2.73	3.91	2.72	4.02	2.70	4.23	2.81		
	34	3.35	2.62	3.54	2.59	3.74	2.71	3.85	2.69	3.95	2.67	4.16	2.78		
	35	3.32	2.60	3.51	2.57	3.71	2.69	3.82	2.68	3.92	2.66	4.13	2.77		
	36	3.26	2.57	3.44	2.54	3.63	2.66	3.74	2.64	3.83	2.62	4.00	2.71		
	38	3.12	2.50	3.30	2.47	3.48	2.59	3.58	2.58	3.64	2.54	3.74	2.62		
	39	3.05	2.46	3.22	2.43	3.40	2.56	3.50	2.54	3.55	2.51	3.62	2.57		
	41	2.87	2.38	3.03	2.35	3.18	2.46	3.26	2.44	3.28	2.40	3.31	2.46		
	43	2.65	2.26	2.80	2.24	2.91	2.35	2.92	2.31	2.93	2.26	2.95	2.33		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
Lo	-19.8	-20	2.36	2.34	2.32	2.30	2.28
	-17.8	-18	2.51	2.49	2.47	2.45	2.43
	-15.7	-16	2.66	2.65	2.62	2.60	2.58
	-13.7	-14	2.83	2.81	2.78	2.76	2.74
	-11.7	-12	3.00	2.98	2.96	2.93	2.91
	-9.6	-10	3.17	3.15	3.13	3.10	3.07
	-7.5	-8	3.36	3.34	3.32	3.29	3.26
8 (m³/min)	-5.5	-6	3.56	3.53	3.51	3.47	3.45
	-3.4	-4	3.65	3.62	3.60	3.56	3.53
	-1.3	-2	3.65	3.62	3.59	3.55	3.52
	0.8	0	3.65	3.61	3.58	3.54	3.50
	3.9	3	3.97	3.92	3.89	3.85	3.80
	7.0	6	4.30	4.25	4.21	4.13	4.01
	10.1	9	4.66	4.61	4.56	4.38	4.06
	13.2	12	5.04	4.95	4.75	4.47	4.07
	16.9	15.5	5.43	5.27	4.86	4.47	4.06

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)

PJG000Z774

Model **FDU56KXE6F-W** Cooling mode (kW)

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
P-Hi	10			6.15	4.40	6.50	4.60	6.69	4.57	6.88	4.54	7.27	4.72	7.68	4.64
	12			6.06	4.35	6.42	4.56	6.60	4.53	6.79	4.50	7.17	4.68	7.57	4.60
	14			5.98	4.31	6.33	4.52	6.51	4.49	6.69	4.46	7.07	4.64	7.47	4.56
	16			5.90	4.27	6.24	4.47	6.42	4.45	6.60	4.42	6.97	4.60	7.36	4.52
	18			5.82	4.24	6.16	4.44	6.34	4.41	6.51	4.38	6.88	4.56	7.26	4.49
	20			5.75	4.20	6.08	4.40	6.25	4.37	6.42	4.34	6.78	4.52	7.15	4.45
	22			5.67	4.16	5.99	4.36	6.16	4.33	6.33	4.30	6.69	4.49	7.05	4.41
13	24			5.60	4.13	5.91	4.33	6.08	4.30	6.25	4.27	6.60	4.46	6.95	4.38
(m³/min)	26	5.22	4.14	5.52	4.09	5.83	4.29	5.99	4.26	6.16	4.23	6.50	4.41	6.89	4.36
	28	5.15	4.10	5.44	4.05	5.75	4.26	5.91	4.23	6.07	4.19	6.40	4.37		
	30	5.08	4.07	5.37	4.02	5.66	4.22	5.82	4.19	5.98	4.16	6.30	4.34		
	32	4.99	4.02	5.28	3.98	5.58	4.18	5.73	4.15	5.89	4.12	6.20	4.30		
	34	4.91	3.98	5.19	3.94	5.49	4.14	5.64	4.11	5.79	4.08	6.10	4.26		
	35	4.87	3.96	5.15	3.92	5.44	4.12	5.60	4.10	5.75	4.06	6.05	4.24		
	36	4.77	3.91	5.04	3.87	5.33	4.07	5.48	4.05	5.61	4.01	5.87	4.18		
	38	4.57	3.81	4.83	3.77	5.10	3.97	5.25	3.95	5.33	3.90	5.49	4.04		
	39	4.48	3.77	4.72	3.72	4.98	3.92	5.13	3.90	5.20	3.85	5.30	3.97		
	41	4.21	3.63	4.45	3.60	4.66	3.79	4.77	3.76	4.81	3.70	4.85	3.81		
	43	3.88	3.48	4.11	3.44	4.26	3.63	4.29	3.57	4.30	3.51	4.33	3.64		

Heating mode (kW)

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
P-Hi	-19.8	-20	3.52	3.50	3.47	3.44	3.42
	-17.8	-18	3.76	3.73	3.70	3.67	3.64
	-15.7	-16	3.99	3.96	3.92	3.90	3.86
	-13.7	-14	4.23	4.20	4.17	4.14	4.10
	-11.7	-12	4.48	4.46	4.42	4.39	4.35
	-9.6	-10	4.74	4.71	4.68	4.64	4.60
	-7.5	-8	5.03	4.99	4.96	4.92	4.88
13	-5.5	-6	5.32	5.28	5.25	5.20	5.16
(m³/min)	-3.4	-4	5.47	5.42	5.38	5.33	5.29
	-1.3	-2	5.46	5.41	5.37	5.32	5.26
	0.8	0	5.46	5.40	5.36	5.30	5.24
	3.9	3	5.94	5.87	5.82	5.75	5.69
	7.0	6	6.43	6.36	6.30	6.18	6.01
	10.1	9	6.97	6.90	6.82	6.56	6.08
	13.2	12	7.54	7.40	7.11	6.69	6.10
	16.9	15.5	8.12	7.89	7.28	6.69	6.08

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
Hi	10			5.90	3.99	6.25	4.14	6.43	4.12	6.61	4.09	6.98	4.21	7.38	4.14
	12			5.83	3.95	6.16	4.10	6.34	4.07	6.52	4.04	6.89	4.17	7.27	4.09
	14			5.75	3.91	6.08	4.06	6.25	4.03	6.43	4.00	6.79	4.13	7.17	4.05
	16			5.67	3.86	6.00	4.02	6.17	3.99	6.34	3.96	6.70	4.09	7.07	4.01
	18			5.60	3.83	5.92	3.98	6.09	3.95	6.25	3.92	6.61	4.05	6.97	3.97
	20			5.52	3.79	5.84	3.94	6.00	3.91	6.17	3.88	6.51	4.01	6.87	3.94
	22			5.45	3.75	5.76	3.90	5.92	3.87	6.08	3.84	6.43	3.97	6.78	3.90
10	24			5.38	3.71	5.68	3.86	5.84	3.83	6.00	3.80	6.34	3.94	6.68	3.86
(m³/min)	26	5.02	3.71	5.31	3.68	5.60	3.82	5.76	3.79	5.92	3.76	6.24	3.89	6.62	3.84
	28	4.95	3.68	5.23	3.64	5.52	3.78	5.67	3.75	5.83	3.72	6.15	3.85		
	30	4.88	3.64	5.16	3.60	5.44	3.74	5.59	3.72	5.74	3.69	6.05	3.81		
	32	4.80	3.59	5.07	3.55	5.36	3.70	5.51	3.68	5.65	3.65	5.96	3.77		
	34	4.72	3.55	4.99	3.51	5.27	3.66	5.42	3.64	5.57	3.61	5.86	3.73		
	35	4.68	3.53	4.95	3.49	5.23	3.64	5.38	3.62	5.52	3.59	5.82	3.72		
	36	4.58	3.47	4.84	3.44	5.12	3.59	5.27	3.57	5.39	3.53	5.64	3.65		
	38	4.39	3.37	4.64	3.34	4.90	3.49	5.04	3.47	5.12	3.42	5.27	3.50		
	39	4.30	3.33	4.54	3.29	4.79	3.44	4.93	3.42	4.99	3.36	5.09	3.43		
	41	4.05	3.20	4.27	3.16	4.48	3.30	4.59	3.27	4.62	3.21	4.66	3.27		
	43	3.73	3.04	3.94	3.00	4.09	3.13	4.12	3.07	4.13	3.01	4.16	3.08		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
Hi	-19.8	-20	3.40	3.37	3.34	3.32	3.29
	-17.8	-18	3.62	3.60	3.56	3.54	3.50
	-15.7	-16	3.84	3.82	3.78	3.75	3.72
	-13.7	-14	4.08	4.05	4.01	3.98	3.95
	-11.7	-12	4.32	4.29	4.26	4.23	4.19
	-9.6	-10	4.57	4.54	4.51	4.47	4.43
	-7.5	-8	4.85	4.81	4.78	4.74	4.70
10	-5.5	-6	5.13	5.09	5.05	5.01	4.97
(m³/min)	-3.4	-4	5.27	5.22	5.19	5.14	5.09
	-1.3	-2	5.27	5.21	5.17	5.12	5.07
	0.8	0	5.26	5.21	5.16	5.11	5.05
	3.9	3	5.72	5.66	5.61	5.54	5.48
	7.0	6	6.20	6.13	6.07	5.96	5.79
	10.1	9	6.72	6.65	6.57	6.32	5.86
	13.2	12	7.26	7.13	6.85	6.44	5.87
	16.9	15.5	7.83	7.60	7.01	6.45	5.86

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
Me	10			5.51	3.70	5.83	3.83	6.00	3.81	6.17	3.78	6.52	3.90	6.88	3.83
	12			5.44	3.66	5.75	3.79	5.92	3.77	6.08	3.74	6.43	3.85	6.79	3.79
	14			5.36	3.62	5.67	3.75	5.84	3.73	6.00	3.70	6.34	3.81	6.69	3.74
	16			5.29	3.58	5.60	3.72	5.76	3.69	5.92	3.66	6.25	3.78	6.60	3.71
	18			5.22	3.54	5.52	3.68	5.68	3.65	5.84	3.63	6.16	3.74	6.51	3.67
	20			5.15	3.50	5.45	3.64	5.60	3.62	5.76	3.59	6.08	3.70	6.41	3.63
	22			5.08	3.47	5.37	3.60	5.52	3.58	5.68	3.55	6.00	3.67	6.32	3.60
9	24			5.02	3.43	5.30	3.56	5.45	3.54	5.60	3.52	5.91	3.63	6.23	3.56
(m³/min)	26	4.68	3.43	4.95	3.40	5.23	3.53	5.37	3.50	5.52	3.48	5.83	3.59	6.17	3.54
	28	4.62	3.40	4.88	3.36	5.15	3.49	5.29	3.46	5.44	3.44	5.74	3.56		
	30	4.55	3.36	4.81	3.33	5.08	3.46	5.22	3.43	5.36	3.40	5.65	3.52		
	32	4.48	3.32	4.73	3.28	5.00	3.42	5.14	3.39	5.28	3.37	5.56	3.48		
	34	4.40	3.28	4.65	3.24	4.92	3.38	5.06	3.36	5.19	3.33	5.47	3.44		
	35	4.37	3.26	4.61	3.22	4.88	3.36	5.02	3.34	5.15	3.31	5.43	3.42		
	36	4.28	3.21	4.52	3.18	4.77	3.31	4.91	3.29	5.03	3.26	5.26	3.36		
	38	4.10	3.11	4.33	3.08	4.57	3.22	4.71	3.20	4.78	3.15	4.92	3.22		
	39	4.01	3.07	4.24	3.03	4.47	3.17	4.60	3.15	4.66	3.10	4.75	3.15		
	41	3.78	2.95	3.99	2.91	4.18	3.03	4.28	3.01	4.31	2.95	4.35	3.00		
	43	3.48	2.80	3.68	2.77	3.82	2.88	3.84	2.82	3.86	2.77	3.88	2.82		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
Me	-19.8	-20	3.11	3.09	3.06	3.04	3.01
	-17.8	-18	3.31	3.29	3.26	3.24	3.21
	-15.7	-16	3.52	3.50	3.46	3.44	3.41
	-13.7	-14	3.73	3.71	3.68	3.65	3.61
	-11.7	-12	3.96	3.93	3.90	3.87	3.84
	-9.6	-10	4.18	4.16	4.13	4.09	4.06
	-7.5	-8	4.44	4.41	4.38	4.34	4.31
9	-5.5	-6	4.70	4.66	4.63	4.59	4.55
(m³/min)	-3.4	-4	4.82	4.78	4.75	4.70	4.67
	-1.3	-2	4.82	4.78	4.74	4.69	4.65
	0.8	0	4.82	4.77	4.73	4.68	4.62
	3.9	3	5.24	5.18	5.14	5.08	5.02
	7.0	6	5.68	5.61	5.56	5.46	5.30
	10.1	9	6.15	6.09	6.02	5.79	5.37
	13.2	12	6.65	6.53	6.27	5.90	5.38
	16.9	15.5	7.17	6.96	6.42	5.91	5.37

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
Lo	10			5.09	3.40	5.39	3.52	5.54	3.50	5.70	3.47	6.02	3.57	6.36	3.50
	12			5.02	3.36	5.32	3.48	5.47	3.46	5.62	3.43	5.94	3.53	6.27	3.47
	14			4.96	3.32	5.24	3.44	5.39	3.42	5.54	3.39	5.86	3.49	6.19	3.43
	16			4.89	3.29	5.17	3.40	5.32	3.38	5.47	3.36	5.78	3.46	6.10	3.39
	18			4.83	3.25	5.10	3.37	5.25	3.35	5.39	3.32	5.70	3.42	6.01	3.36
	20			4.76	3.22	5.03	3.33	5.18	3.31	5.32	3.28	5.62	3.38	5.93	3.32
	22			4.70	3.18	4.97	3.30	5.11	3.28	5.25	3.25	5.54	3.35	5.84	3.28
8	24			4.64	3.15	4.90	3.27	5.03	3.24	5.17	3.21	5.46	3.31	5.76	3.25
(m³/min)	26	4.33	3.15	4.58	3.12	4.83	3.23	4.96	3.20	5.10	3.18	5.39	3.28	5.71	3.23
	28	4.27	3.11	4.51	3.08	4.76	3.19	4.89	3.17	5.03	3.15	5.30	3.25		
	30	4.21	3.08	4.45	3.05	4.69	3.16	4.82	3.14	4.95	3.11	5.22	3.21		
	32	4.14	3.04	4.37	3.00	4.62	3.12	4.75	3.10	4.88	3.08	5.14	3.18		
	34	4.07	3.00	4.30	2.97	4.55	3.09	4.67	3.06	4.80	3.04	5.06	3.14		
	35	4.04	2.98	4.27	2.95	4.51	3.07	4.64	3.05	4.76	3.02	5.02	3.13		
	36	3.95	2.94	4.18	2.91	4.41	3.02	4.54	3.00	4.65	2.97	4.86	3.06		
	38	3.79	2.85	4.00	2.82	4.22	2.93	4.35	2.92	4.42	2.87	4.55	2.93		
	39	3.71	2.80	3.91	2.77	4.13	2.89	4.25	2.87	4.31	2.82	4.39	2.87		
	41	3.49	2.69	3.69	2.66	3.87	2.77	3.96	2.74	3.98	2.69	4.02	2.72		
	43	3.22	2.55	3.40	2.52	3.53	2.61	3.55	2.56	3.56	2.51	3.59	2.56		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
Lo	-19.8	-20	2.89	2.87	2.85	2.82	2.80
	-17.8	-18	3.08	3.06	3.03	3.01	2.98
	-15.7	-16	3.27	3.25	3.22	3.20	3.17
	-13.7	-14	3.47	3.45	3.42	3.39	3.36
	-11.7	-12	3.68	3.66	3.63	3.60	3.57
	-9.6	-10	3.89	3.87	3.84	3.80	3.78
	-7.5	-8	4.13	4.10	4.07	4.03	4.00
8	-5.5	-6	4.37	4.33	4.30	4.27	4.23
(m³/min)	-3.4	-4	4.49	4.45	4.42	4.37	4.34
	-1.3	-2	4.48	4.44	4.41	4.36	4.32
	0.8	0	4.48	4.43	4.40	4.35	4.30
	3.9	3	4.87	4.82	4.78	4.72	4.67
	7.0	6	5.28	5.22	5.17	5.07	4.93
	10.1	9	5.72	5.66	5.60	5.38	4.99
	13.2	12	6.19	6.08	5.83	5.49	5.00
	16.9	15.5	6.67	6.47	5.97	5.49	4.99

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)

PJG000Z774

Model **FDU71KXE6F-W** Cooling mode (kW)

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
	10			7.79	6.19	8.24	6.54	8.48	6.50	8.72	6.46	9.22	6.78	9.73	6.68
	12			7.69	6.14	8.13	6.50	8.37	6.46	8.60	6.41	9.09	6.74	9.60	6.64
	14			7.58	6.09	8.02	6.44	8.25	6.41	8.48	6.37	8.96	6.69	9.47	6.60
	16			7.48	6.05	7.91	6.40	8.14	6.36	8.37	6.32	8.84	6.66	9.33	6.56
	18			7.38	6.01	7.81	6.36	8.03	6.32	8.25	6.27	8.72	6.60	9.20	6.50
P-Hi	20			7.29	5.96	7.70	6.32	7.92	6.28	8.14	6.24	8.60	6.56	9.07	6.47
	22			7.19	5.92	7.60	6.27	7.81	6.24	8.03	6.20	8.48	6.52	8.94	6.43
24	24			7.10	5.88	7.50	6.23	7.70	6.18	7.92	6.14	8.36	6.47	8.82	6.39
(m³/min)	26	6.62	5.89	7.00	5.84	7.40	6.19	7.60	6.15	7.81	6.10	8.24	6.43	8.73	6.35
	28	6.53	5.85	6.90	5.79	7.29	6.15	7.49	6.11	7.69	6.06	8.11	6.39		
	30	6.44	5.81	6.80	5.74	7.18	6.10	7.38	6.07	7.58	6.02	7.99	6.35		
	32	6.33	5.76	6.69	5.70	7.07	6.05	7.27	6.01	7.46	5.97	7.86	6.31		
	34	6.23	5.72	6.58	5.65	6.96	6.01	7.15	5.97	7.34	5.93	7.74	6.26		
	35	6.18	5.68	6.53	5.63	6.90	5.99	7.10	5.95	7.29	5.91	7.68	6.24		
	36	6.05	5.63	6.39	5.56	6.75	5.93	6.95	5.90	7.11	5.85	7.44	6.16		
	38	5.80	5.51	6.12	5.45	6.46	5.81	6.66	5.78	6.76	5.71	6.96	6.00		
	39	5.67	5.44	5.99	5.40	6.32	5.75	6.51	5.72	6.59	5.65	6.72	5.92		
	41	5.34	5.13	5.64	5.25	5.91	5.59	6.05	5.55	6.09	5.47	6.15	5.73		
	43	4.92	4.72	5.20	4.99	5.40	5.18	5.43	5.21	5.45	5.23	5.49	5.27		

Heating mode (kW)

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
	-19.8	-20	4.48	4.45	4.40	4.37	4.34
	-17.8	-18	4.77	4.74	4.69	4.66	4.62
	-15.7	-16	5.06	5.03	4.98	4.95	4.90
	-13.7	-14	5.37	5.34	5.29	5.25	5.20
	-11.7	-12	5.69	5.66	5.62	5.57	5.52
P-Hi	-9.6	-10	6.02	5.98	5.94	5.89	5.84
	-7.5	-8	6.39	6.34	6.30	6.24	6.20
24	-5.5	-6	6.76	6.70	6.66	6.60	6.55
(m³/min)	-3.4	-4	6.94	6.88	6.83	6.77	6.71
	-1.3	-2	6.94	6.87	6.82	6.75	6.68
	0.8	0	6.94	6.86	6.81	6.73	6.65
	3.9	3	7.54	7.46	7.39	7.31	7.22
	7.0	6	8.17	8.08	8.00	7.85	7.63
	10.1	9	8.85	8.76	8.66	8.32	7.72
	13.2	12	9.57	9.40	9.03	8.49	7.74
	16.9	15.5	10.31	10.02	9.24	8.50	7.72

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
	10			7.56	5.59	8.00	5.87	8.23	5.83	8.46	5.79	8.95	6.04	9.45	5.94
	12			7.46	5.54	7.89	5.82	8.12	5.79	8.35	5.74	8.82	5.99	9.32	5.90
	14			7.36	5.49	7.79	5.77	8.01	5.74	8.23	5.70	8.70	5.95	9.19	5.86
	16			7.26	5.45	7.68	5.73	7.90	5.69	8.12	5.65	8.58	5.91	9.06	5.82
	18			7.17	5.40	7.58	5.68	7.80	5.65	8.01	5.61	8.46	5.86	8.93	5.76
Hi	20			7.07	5.36	7.47	5.64	7.69	5.61	7.90	5.56	8.34	5.81	8.80	5.72
	22			6.98	5.32	7.38	5.59	7.58	5.55	7.79	5.51	8.23	5.78	8.68	5.68
19	24			6.89	5.28	7.28	5.55	7.48	5.51	7.68	5.47	8.11	5.73	8.55	5.63
(m³/min)	26	6.43	5.29	6.79	5.22	7.18	5.51	7.37	5.47	7.58	5.43	8.00	5.69	8.47	5.61
	28	6.34	5.25	6.70	5.19	7.07	5.46	7.27	5.42	7.47	5.39	7.87	5.64		
	30	6.25	5.20	6.60	5.14	6.97	5.42	7.16	5.38	7.36	5.34	7.75	5.59		
	32	6.14	5.14	6.50	5.10	6.86	5.37	7.05	5.34	7.24	5.30	7.63	5.55		
	34	6.04	5.10	6.39	5.04	6.75	5.33	6.94	5.29	7.13	5.26	7.51	5.51		
	35	5.99	5.07	6.33	5.02	6.69	5.30	6.89	5.27	7.07	5.24	7.45	5.49		
	36	5.87	5.00	6.20	4.94	6.55	5.24	6.74	5.21	6.90	5.16	7.22	5.40		
	38	5.63	4.89	5.94	4.83	6.27	5.12	6.46	5.09	6.56	5.03	6.75	5.24		
	39	5.51	4.84	5.81	4.78	6.13	5.07	6.32	5.04	6.39	4.97	6.52	5.16		
	41	5.18	4.69	5.47	4.63	5.74	4.89	5.87	4.84	5.91	4.77	5.97	4.97		
	43	4.78	4.50	5.05	4.45	5.24	4.69	5.27	4.62	5.29	4.55	5.33	4.72		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
	-19.8	-20	4.33	4.30	4.26	4.23	4.20
	-17.8	-18	4.61	4.58	4.54	4.51	4.47
	-15.7	-16	4.90	4.87	4.82	4.79	4.74
	-13.7	-14	5.20	5.16	5.12	5.08	5.03
	-11.7	-12	5.51	5.47	5.43	5.39	5.34
Hi	-9.6	-10	5.82	5.79	5.75	5.69	5.65
	-7.5	-8	6.18	6.14	6.10	6.04	5.99
19	-5.5	-6	6.54	6.49	6.44	6.39	6.34
(m³/min)	-3.4	-4	6.72	6.66	6.61	6.55	6.50
	-1.3	-2	6.71	6.65	6.60	6.53	6.47
	0.8	0	6.71	6.64	6.59	6.51	6.44
	3.9	3	7.29	7.21	7.15	7.07	6.98
	7.0	6	7.90	7.82	7.74	7.59	7.38
	10.1	9	8.56	8.48	8.38	8.05	7.47
	13.2	12	9.26	9.10	8.73	8.21	7.49
	16.9	15.5	9.98	9.69	8.94	8.22	7.47

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
	10			7.19	5.04	7.61	5.27	7.83	5.23	8.05	5.20	8.50	5.38	8.98	5.29
	12			7.09	4.99	7.50	5.21	7.72	5.18	7.94	5.15	8.39	5.34	8.86	5.25
	14			7.00	4.95	7.40	5.17	7.61	5.13	7.83	5.10	8.27	5.29	8.73	5.20
	16			6.90	4.90	7.30	5.12	7.51	5.09	7.72	5.05	8.16	5.25	8.61	5.16
	18			6.81	4.86	7.20	5.07	7.41	5.04	7.62	5.00	8.04	5.20	8.49	5.11
Me	20			6.72	4.81	7.11	5.03	7.31	5.00	7.51	4.96	7.93	5.15	8.37	5.06
	22			6.63	4.77	7.01	4.98	7.21	4.96	7.41	4.92	7.82	5.11	8.25	5.02
15	24			6.55	4.73	6.92	4.94	7.11	4.91	7.31	4.87	7.71	5.07	8.13	4.98
(m³/min)	26	6.11	4.73	6.46	4.68	6.82	4.90	7.01	4.87	7.20	4.83	7.60	5.02	8.06	4.95
	28	6.02	4.69	6.37	4.64	6.72	4.85	6.91	4.82	7.10	4.79	7.49	4.98		
	30	5.94	4.64	6.28	4.60	6.63	4.81	6.81	4.78	6.99	4.74	7.37	4.93		
	32	5.84	4.59	6.18	4.55	6.52	4.75	6.70	4.72	6.88	4.68	7.25	4.89		
	34	5.75	4.55	6.07	4.49	6.42	4.71	6.60	4.68	6.78	4.64	7.14	4.85		
	35	5.70	4.52	6.02	4.47	6.36	4.68	6.55	4.66	6.72	4.62	7.08	4.83		
	36	5.58	4.46	5.90	4.42	6.23	4.63	6.41	4.60	6.56	4.55	6.86	4.74		
	38	5.35	4.34	5.65	4.30	5.96	4.52	6.14	4.49	6.24	4.43	6.42	4.58		
	39	5.24	4.29	5.53	4.24	5.83	4.46	6.00	4.43	6.08	4.37	6.20	4.49		
	41	4.93	4.14	5.20	4.09	5.46	4.30	5.58	4.26	5.62	4.19	5.68	4.29		
	43	4.54	3.95	4.80	3.91	4.98	4.10	5.01	4.04	5.03	3.96	5.07	4.08		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
	-19.8	-20	4.07	4.04	4.00	3.97	3.94
	-17.8	-18	4.33	4.31	4.27	4.23	4.20
	-15.7	-16	4.60	4.57	4.53	4.50	4.45
	-13.7	-14	4.88	4.85	4.81	4.77	4.73
	-11.7	-12	5.17	5.14	5.10	5.06	5.02
Me	-9.6	-10	5.47	5.44	5.40	5.35	5.31
	-7.5	-8	5.80	5.76	5.73	5.67	5.63
15	-5.5	-6	6.14	6.09	6.05	6.00	5.95
(m³/min)	-3.4	-4	6.31	6.25	6.21	6.15	6.10
	-1.3	-2	6.31	6.24	6.20	6.13	6.07
	0.8	0	6.30	6.24	6.19	6.12	6.05
	3.9	3	6.85	6.77	6.72	6.64	6.56
	7.0	6	7.42	7.34	7.27	7.13	6.93
	10.1	9	8.04	7.96	7.87	7.57	7.02
	13.2	12	8.70	8.54	8.20	7.71	7.03
	16.9	15.5	9.37	9.10	8.40	7.72	7.02

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
	10			6.44	4.27	6.82	4.42	7.01	4.39	7.21	4.36	7.62	4.48	8.05	4.40
	12			6.36	4.23	6.72	4.37	6.92	4.34	7.11	4.31	7.52	4.43	7.94	4.35
	14			6.27	4.18	6.63	4.32	6.82	4.29	7.01	4.26	7.41	4.38	7.83	4.30
	16			6.19	4.13	6.54	4.27	6.73	4.25	6.92	4.22	7.31	4.33	7.72	4.25
	18			6.11	4.09	6.46	4.23	6.64	4.20	6.82	4.16	7.21	4.28	7.61	4.20
Lo	20			6.02	4.03	6.37	4.18	6.55	4.15	6.73	4.12	7.11	4.24	7.50	4.16
	22			5.95	4.00	6.28	4.13	6.46	4.11	6.64	4.07	7.01	4.20	7.39	4.11
10	24			5.87	3.95	6.20	4.09	6.37	4.06	6.55	4.03	6.91	4.15	7.29	4.07
(m³/min)	26	5.48	3.95	5.79	3.91	6.11	4.05	6.28	4.02	6.45	3.98	6.81	4.11	7.22	4.04
	28	5.40	3.90	5.71	3.86	6.03	4.00	6.19	3.97	6.36	3.94	6.71	4.06		
	30	5.32	3.86	5.63	3.82	5.94	3.95	6.10	3.92	6.27	3.89	6.60	4.01		
	32	5.23	3.80	5.53	3.77	5.84	3.91	6.01	3.88	6.17	3.85	6.50	3.97		
	34	5.15	3.76	5.44	3.72	5.75	3.86	5.91	3.83	6.07	3.80	6.40	3.93		
	35	5.11	3.74	5.40	3.70	5.70	3.84	5.87	3.82	6.02	3.78	6.35	3.90		
	36	5.00	3.67	5.29	3.64	5.58	3.78	5.75	3.76	5.88	3.72	6.15	3.82		
	38	4.80	3.56	5.06	3.52	5.34	3.66	5.50	3.64	5.59	3.58	5.75	3.65		
	39	4.69	3.50	4.95	3.46	5.22	3.60	5.38	3.59	5.45	3.52	5.56	3.57		
	41	4.42	3.36	4.66	3.32	4.89	3.45	5.00	3.41	5.04	3.34	5.09	3.38		
	43	4.07	3.18	4.30	3.14	4.46	3.25	4.49	3.19	4.51	3.13	4.54	3.18		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
	-19.8	-20	3.64	3.61	3.58	3.55	3.52
	-17.8	-18	3.87	3.85	3.81	3.79	3.75
	-15.7	-16	4.11	4.09	4.05	4.02	3.98
	-13.7	-14	4.36	4.34	4.30	4.27	4.23
	-11.7	-12	4.63	4.60	4.56	4.52	4.49
Lo	-9.6	-10	4.89	4.86	4.83	4.78	4.75
	-7.5	-8	5.19	5.15	5.12	5.07	5.03
10	-5.5	-6	5.49	5.45	5.41	5.36	5.32
(m³/min)	-3.4	-4	5.64	5.59	5.55	5.50	5.45
	-1.3	-2	5.64	5.58	5.54	5.49	5.43
	0.8	0	5.64	5.58	5.53	5.47	5.41
	3.9	3	6.12	6.06	6.00	5.94	5.87
	7.0	6	6.64	6.56	6.50	6.38	6.20
	10.1	9	7.19	7.12	7.04	6.76	6.27
	13.2	12	7.78	7.64	7.34	6.90	6.29
	16.9	15.5	8.38	8.14	7.51	6.90	6.27

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)

PJG000Z774

Model **FDU90KXE6F-W** Cooling mode (kW)

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	SHC	23 ℃DB 16 ℃WB TC	SHC	26 ℃DB 18 ℃WB TC	SHC	27 ℃DB 19 ℃WB TC	SHC	28 ℃DB 20 ℃WB TC	SHC	31 ℃DB 22 ℃WB TC	SHC	33 ℃DB 24 ℃WB TC	SHC
P-Hi	10			9.88	7.17	10.45	7.51	10.75	7.46	11.06	7.41	11.68	7.71	12.34	7.59
	12			9.75	7.11	10.31	7.44	10.61	7.39	10.90	7.34	11.52	7.65	12.17	7.53
	14			9.61	7.04	10.17	7.38	10.46	7.34	10.75	7.28	11.36	7.58	12.00	7.46
	16			9.49	6.98	10.03	7.32	10.32	7.27	10.61	7.23	11.21	7.53	11.83	7.41
	18			9.36	6.91	9.90	7.26	10.18	7.21	10.46	7.16	11.05	7.47	11.66	7.34
	20			9.24	6.86	9.76	7.19	10.04	7.15	10.32	7.11	10.90	7.41	11.50	7.29
	22			9.12	6.80	9.63	7.14	9.90	7.09	10.18	7.04	10.75	7.35	11.33	7.23
24	24			9.00	6.75	9.51	7.08	9.77	7.04	10.04	6.99	10.60	7.30	11.17	7.18
(m³/min)	26	8.40	6.76	8.88	6.69	9.37	7.02	9.63	6.98	9.90	6.92	10.45	7.25	11.07	7.14
	28	8.28	6.70	8.75	6.62	9.24	6.97	9.49	6.92	9.75	6.87	10.29	7.18		
	30	8.16	6.63	8.63	6.57	9.10	6.90	9.36	6.86	9.61	6.81	10.13	7.13		
	32	8.03	6.57	8.48	6.49	8.96	6.82	9.21	6.78	9.46	6.73	9.97	7.03		
	34	7.89	6.50	8.34	6.43	8.82	6.77	9.07	6.72	9.31	6.67	9.81	6.98		
	35	7.83	6.47	8.27	6.40	8.75	6.74	9.00	6.70	9.24	6.65	9.73	6.95		
	36	7.67	6.40	8.10	6.32	8.56	6.66	8.81	6.62	9.01	6.56	9.43	6.85		
	38	7.35	6.24	7.76	6.18	8.19	6.52	8.44	6.48	8.57	6.40	8.82	6.64		
	39	7.19	6.17	7.59	6.09	8.01	6.44	8.25	6.41	8.35	6.31	8.52	6.54		
	41	6.77	5.97	7.15	5.90	7.50	6.23	7.67	6.17	7.73	6.08	7.80	6.28		
	43	6.24	5.72	6.60	5.66	6.85	5.97	6.89	5.88	6.91	5.76	6.96	6.00		

Heating mode (kW)

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
P-Hi	-19.8	-20	5.59	5.56	5.51	5.46	5.42
	-17.8	-18	5.96	5.92	5.87	5.82	5.77
	-15.7	-16	6.33	6.29	6.23	6.19	6.12
	-13.7	-14	6.71	6.67	6.61	6.56	6.50
	-11.7	-12	7.12	7.07	7.02	6.96	6.90
	-9.6	-10	7.52	7.48	7.43	7.36	7.30
	-7.5	-8	7.98	7.93	7.88	7.80	7.75
24	-5.5	-6	8.45	8.38	8.33	8.25	8.19
(m³/min)	-3.4	-4	8.68	8.60	8.54	8.46	8.39
	-1.3	-2	8.67	8.59	8.53	8.44	8.35
	0.8	0	8.67	8.58	8.51	8.42	8.32
	3.9	3	9.42	9.32	9.24	9.13	9.02
	7.0	6	10.21	10.10	10.00	9.81	9.54
	10.1	9	11.06	10.95	10.83	10.41	9.65
	13.2	12	11.97	11.75	11.29	10.61	9.68
	16.9	15.5	12.89	12.52	11.55	10.62	9.65

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	SHC	23 ℃DB 16 ℃WB TC	SHC	26 ℃DB 18 ℃WB TC	SHC	27 ℃DB 19 ℃WB TC	SHC	28 ℃DB 20 ℃WB TC	SHC	31 ℃DB 22 ℃WB TC	SHC	33 ℃DB 24 ℃WB TC	SHC
Hi	10			9.71	6.67	10.28	6.94	10.57	6.90	10.87	6.85	11.49	7.07	12.13	6.95
	12			9.58	6.60	10.14	6.87	10.43	6.83	10.72	6.77	11.33	7.01	11.97	6.89
	14			9.45	6.53	10.00	6.80	10.29	6.76	10.57	6.71	11.17	6.94	11.80	6.82
	16			9.33	6.47	9.87	6.74	10.15	6.70	10.43	6.65	11.02	6.87	11.63	6.75
	18			9.20	6.40	9.73	6.67	10.01	6.63	10.29	6.58	10.87	6.82	11.47	6.70
	20			9.08	6.35	9.60	6.61	9.88	6.57	10.15	6.52	10.72	6.75	11.30	6.63
	22			8.96	6.27	9.47	6.55	9.74	6.51	10.01	6.46	10.57	6.70	11.15	6.58
19	24			8.85	6.22	9.35	6.49	9.60	6.44	9.87	6.40	10.42	6.63	10.99	6.51
(m³/min)	26	8.26	6.23	8.73	6.16	9.22	6.43	9.47	6.38	9.73	6.33	10.27	6.56	10.89	6.48
	28	8.14	6.17	8.60	6.10	9.08	6.36	9.33	6.32	9.59	6.27	10.11	6.51		
	30	8.02	6.10	8.48	6.04	8.95	6.29	9.20	6.24	9.45	6.19	9.96	6.44		
	32	7.89	6.04	8.34	5.97	8.81	6.23	9.06	6.19	9.30	6.13	9.80	6.38		
	34	7.76	5.96	8.20	5.90	8.67	6.17	8.92	6.13	9.16	6.08	9.65	6.32		
	35	7.70	5.93	8.14	5.87	8.60	6.14	8.85	6.10	9.08	6.05	9.57	6.29		
	36	7.54	5.85	7.97	5.79	8.42	6.06	8.66	6.02	8.86	5.96	9.27	6.15		
	38	7.23	5.69	7.63	5.62	8.06	5.89	8.30	5.87	8.43	5.78	8.68	5.94		
	39	7.07	5.61	7.47	5.54	7.87	5.81	8.11	5.78	8.21	5.69	8.38	5.83		
	41	6.66	5.41	7.03	5.34	7.37	5.59	7.54	5.54	7.60	5.44	7.67	5.56		
	43	6.14	5.14	6.49	5.09	6.73	5.31	6.77	5.22	6.80	5.13	6.84	5.26		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
Hi	-19.8	-20	5.46	5.42	5.37	5.33	5.29
	-17.8	-18	5.81	5.77	5.72	5.68	5.63
	-15.7	-16	6.17	6.13	6.07	6.03	5.97
	-13.7	-14	6.55	6.50	6.45	6.40	6.34
	-11.7	-12	6.94	6.90	6.84	6.79	6.73
	-9.6	-10	7.33	7.29	7.24	7.17	7.12
	-7.5	-8	7.78	7.73	7.68	7.61	7.55
19	-5.5	-6	8.24	8.17	8.12	8.04	7.98
(m³/min)	-3.4	-4	8.46	8.39	8.33	8.25	8.18
	-1.3	-2	8.46	8.38	8.31	8.23	8.15
	0.8	0	8.45	8.36	8.30	8.21	8.11
	3.9	3	9.19	9.09	9.01	8.91	8.80
	7.0	6	9.95	9.85	9.75	9.57	9.30
	10.1	9	10.79	10.68	10.56	10.15	9.41
	13.2	12	11.67	11.46	11.00	10.35	9.43
	16.9	15.5	12.57	12.21	11.26	10.36	9.41

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	SHC	23 ℃DB 16 ℃WB TC	SHC	26 ℃DB 18 ℃WB TC	SHC	27 ℃DB 19 ℃WB TC	SHC	28 ℃DB 20 ℃WB TC	SHC	31 ℃DB 22 ℃WB TC	SHC	33 ℃DB 24 ℃WB TC	SHC
Me	10			9.22	6.14	9.75	6.35	10.04	6.32	10.32	6.27	10.91	6.44	11.52	6.33
	12			9.10	6.07	9.62	6.28	9.90	6.24	10.18	6.20	10.76	6.37	11.36	6.25
	14			8.97	6.00	9.49	6.21	9.76	6.17	10.04	6.13	10.61	6.30	11.20	6.19
	16			8.85	5.93	9.36	6.14	9.63	6.11	9.90	6.06	10.46	6.23	11.04	6.13
	18			8.74	5.87	9.24	6.08	9.50	6.04	9.77	6.00	10.32	6.17	10.89	6.06
	20			8.62	5.81	9.11	6.01	9.37	5.97	9.63	5.93	10.17	6.10	10.73	5.99
	22			8.51	5.74	8.99	5.95	9.24	5.91	9.50	5.87	10.03	6.04	10.58	5.93
15	24			8.40	5.69	8.87	5.88	9.11	5.85	9.37	5.80	9.89	5.98	10.43	5.87
(m³/min)	26	7.84	5.68	8.28	5.62	8.75	5.82	8.99	5.78	9.24	5.73	9.75	5.92	10.33	5.83
	28	7.73	5.62	8.17	5.56	8.62	5.76	8.86	5.72	9.10	5.67	9.60	5.85		
	30	7.61	5.55	8.05	5.50	8.50	5.70	8.73	5.66	8.97	5.61	9.45	5.78		
	32	7.49	5.48	7.92	5.42	8.36	5.63	8.60	5.59	8.83	5.55	9.30	5.72		
	34	7.37	5.41	7.79	5.36	8.23	5.57	8.46	5.53	8.69	5.49	9.16	5.66		
	35	7.31	5.38	7.72	5.32	8.16	5.53	8.40	5.50	8.62	5.45	9.08	5.63		
	36	7.16	5.30	7.56	5.24	7.99	5.45	8.22	5.42	8.41	5.36	8.80	5.50		
	38	6.86	5.13	7.25	5.07	7.65	5.29	7.87	5.25	8.00	5.18	8.23	5.27		
	39	6.71	5.05	7.09	4.99	7.47	5.20	7.70	5.17	7.80	5.09	7.95	5.16		
	41	6.32	4.85	6.67	4.79	7.00	4.98	7.16	4.93	7.21	4.83	7.28	4.90		
	43	5.82	4.58	6.16	4.54	6.39	4.70	6.43	4.61	6.45	4.51	6.50	4.60		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
Me	-19.8	-20	5.15	5.11	5.07	5.03	4.99
	-17.8	-18	5.48	5.45	5.40	5.36	5.31
	-15.7	-16	5.82	5.78	5.73	5.69	5.63
	-13.7	-14	6.18	6.14	6.08	6.04	5.98
	-11.7	-12	6.55	6.51	6.46	6.40	6.35
	-9.6	-10	6.92	6.88	6.83	6.77	6.72
	-7.5	-8	7.35	7.29	7.25	7.18	7.13
15	-5.5	-6	7.77	7.71	7.66	7.59	7.53
(m³/min)	-3.4	-4	7.98	7.91	7.86	7.78	7.72
	-1.3	-2	7.98	7.90	7.84	7.76	7.69
	0.8	0	7.98	7.89	7.83	7.74	7.65
	3.9	3	8.67	8.57	8.50	8.40	8.30
	7.0	6	9.39	9.29	9.20	9.03	8.77
	10.1	9	10.18	10.08	9.96	9.57	8.88
	13.2	12	11.01	10.81	10.38	9.76	8.90
	16.9	15.5	11.86	11.52	10.63	9.77	8.88

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	SHC	23 ℃DB 16 ℃WB TC	SHC	26 ℃DB 18 ℃WB TC	SHC	27 ℃DB 19 ℃WB TC	SHC	28 ℃DB 20 ℃WB TC	SHC	31 ℃DB 22 ℃WB TC	SHC	33 ℃DB 24 ℃WB TC	SHC
Lo	10			8.02	5.22	8.49	5.38	8.73	5.36	8.98	5.33	9.49	5.45	10.02	5.35
	12			7.92	5.15	8.37	5.31	8.62	5.29	8.86	5.27	9.36	5.38	9.88	5.28
	14			7.81	5.08	8.26	5.24	8.50	5.22	8.73	5.19	9.23	5.31	9.75	5.21
	16			7.70	5.01	8.15	5.17	8.38	5.16	8.61	5.12	9.10	5.23	9.61	5.14
	18			7.60	4.95	8.04	5.11	8.27	5.09	8.50	5.06	8.98	5.17	9.47	5.07
	20			7.50	4.89	7.93	5.05	8.16	5.03	8.38	4.99	8.85	5.10	9.34	5.00
	22			7.40	4.83	7.83	4.99	8.04	4.96	8.27	4.93	8.73	5.03	9.21	4.94
10	24			7.31	4.77	7.72	4.93	7.93	4.90	8.15	4.86	8.61	4.97	9.08	4.87
(m³/min)	26	6.82	4.74	7.21	4.72	7.61	4.87	7.82	4.84	8.04	4.80	8.48	4.90	8.99	4.83
	28	6.72	4.68	7.11	4.66	7.50	4.80	7.71	4.77	7.92	4.73	8.35	4.84		
	30	6.63	4.62	7.01	4.60	7.39	4.74	7.60	4.71	7.80	4.67	8.23	4.78		
	32	6.52	4.56	6.89	4.53	7.28	4.68	7.48	4.64	7.68	4.61	8.10	4.71		
	34	6.41	4.49	6.78	4.47	7.16	4.61	7.36	4.58	7.56	4.54	7.97	4.65		
	35	6.36	4.46	6.72	4.43	7.10	4.58	7.31	4.55	7.50	4.51	7.90	4.61		
	36	6.23	4.38	6.58	4.36	6.95	4.49	7.15	4.47	7.32	4.42	7.66	4.50		
	38	5.97	4.23	6.31	4.20	6.65	4.33	6.85	4.31	6.96	4.23	7.17	4.26		
	39	5.84	4.15	6.17	4.12	6.50	4.25	6.70	4.23	6.78	4.14	6.92	4.15		
	41	5.50	3.96	5.81	3.92	6.09	4.04	6.23	3.99	6.27	3.89	6.33	3.89		
	43	5.07	3.71	5.36	3.68	5.56	3.77	5.59	3.68	5.61	3.59	5.65	3.61		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
Lo	-19.8	-20	4.43	4.40	4.36	4.33	4.29
	-17.8	-18	4.72	4.69	4.65	4.61	4.57
	-15.7	-16	5.01	4.98	4.93	4.90	4.85
	-13.7	-14	5.32	5.28	5.24	5.20	5.15
	-11.7	-12	5.64	5.60	5.56	5.51	5.47
	-9.6	-10	5.96	5.92	5.88	5.83	5.78
	-7.5	-8	6.32	6.28	6.24	6.18	6.13
10	-5.5	-6	6.69	6.64	6.59	6.53	6.49
(m³/min)	-3.4	-4	6.87	6.81	6.77	6.70	6.65
	-1.3	-2	6.87	6.80	6.75	6.68	6.62
	0.8	0	6.87	6.79	6.74	6.67	6.59
	3.9	3	7.46	7.38	7.32	7.23	7.15
	7.0	6	8.09	8.00	7.92	7.77	7.55
	10.1	9	8.76	8.67	8.58	8.24	7.65
	13.2	12	9.48	9.31	8.94	8.40	7.66
	16.9	15.5	10.21	9.92	9.15	8.41	7.64

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)

PJG000Z774

Model **FDU112KXE6F-W** Cooling mode (kW)

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	SHC	23 ℃DB 16 ℃WB TC	SHC	26 ℃DB 18 ℃WB TC	SHC	27 ℃DB 19 ℃WB TC	SHC	28 ℃DB 20 ℃WB TC	SHC	31 ℃DB 22 ℃WB TC	SHC	33 ℃DB 24 ℃WB TC	SHC
P-Hi	10			12.29	9.14	13.01	9.59	13.38	9.55	13.76	9.48	14.54	9.89	15.35	9.74
	12			12.13	9.06	12.83	9.53	13.20	9.46	13.57	9.40	14.34	9.81	15.14	9.66
	14			11.96	8.98	12.66	9.45	13.02	9.38	13.38	9.31	14.14	9.75	14.93	9.60
	16			11.80	8.88	12.48	9.36	12.84	9.32	13.20	9.25	13.94	9.67	14.72	9.52
	18			11.65	8.82	12.32	9.27	12.67	9.20	13.02	9.14	13.75	9.55	14.51	9.40
	20			11.49	8.75	12.15	9.20	12.50	9.15	12.84	9.08	13.56	9.49	14.31	9.34
	22			11.34	8.69	11.99	9.15	12.33	9.08	12.67	9.02	13.38	9.44	14.11	9.29
36	24			11.20	8.62	11.83	9.09	12.15	9.02	12.49	8.96	13.19	9.38	13.91	9.23
(m³/min)	26	10.45	8.64	11.05	8.56	11.67	9.01	11.98	8.94	12.31	8.88	13.00	9.32	13.78	9.20
	28	10.30	8.56	10.89	8.48	11.50	8.95	11.81	8.89	12.14	8.82	12.80	9.24		
	30	10.15	8.50	10.73	8.42	11.33	8.87	11.64	8.81	11.96	8.74	12.60	9.16		
	32	9.99	8.41	10.56	8.33	11.15	8.78	11.46	8.74	11.77	8.68	12.40	9.10		
	34	9.82	8.34	10.38	8.24	10.97	8.72	11.28	8.66	11.59	8.60	12.21	9.02		
	35	9.74	8.31	10.30	8.21	10.88	8.69	11.20	8.63	11.49	8.57	12.11	8.99		
	36	9.54	8.20	10.08	8.11	10.65	8.59	10.96	8.53	11.22	8.46	11.73	8.86		
	38	9.15	8.02	9.66	7.92	10.19	8.38	10.50	8.36	10.67	8.24	10.98	8.59		
	39	8.95	7.92	9.45	7.83	9.96	8.30	10.27	8.26	10.39	8.15	10.60	8.46		
	41	8.42	7.65	8.90	7.56	9.33	8.00	9.55	7.94	9.61	7.81	9.71	8.13		
	43	7.77	7.37	8.21	7.29	8.52	7.71	8.57	7.60	8.60	7.47	8.66	7.80		

Heating mode (kW)

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
P-Hi	-19.8	-20	6.99	6.95	6.88	6.83	6.78
	-17.8	-18	7.45	7.40	7.33	7.28	7.22
	-15.7	-16	7.91	7.86	7.79	7.73	7.66
	-13.7	-14	8.39	8.34	8.27	8.21	8.13
	-11.7	-12	8.90	8.84	8.77	8.70	8.63
	-9.6	-10	9.40	9.35	9.28	9.20	9.13
	-7.5	-8	9.98	9.91	9.84	9.75	9.68
36	-5.5	-6	10.56	10.48	10.41	10.31	10.24
(m³/min)	-3.4	-4	10.85	10.75	10.68	10.58	10.49
	-1.3	-2	10.84	10.74	10.66	10.55	10.44
	0.8	0	10.84	10.72	10.64	10.52	10.40
	3.9	3	11.78	11.65	11.55	11.42	11.28
	7.0	6	12.76	12.62	12.50	12.26	11.92
	10.1	9	13.83	13.69	13.54	13.01	12.07
	13.2	12	14.96	14.69	14.11	13.26	12.09
	16.9	15.5	16.12	15.65	14.44	13.28	12.06

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	SHC	23 ℃DB 16 ℃WB TC	SHC	26 ℃DB 18 ℃WB TC	SHC	27 ℃DB 19 ℃WB TC	SHC	28 ℃DB 20 ℃WB TC	SHC	31 ℃DB 22 ℃WB TC	SHC	33 ℃DB 24 ℃WB TC	SHC
Hi	10			11.97	8.35	12.67	8.70	13.04	8.66	13.40	8.61	14.16	8.91	14.96	8.76
	12			11.81	8.27	12.50	8.63	12.86	8.57	13.22	8.50	13.97	8.83	14.75	8.69
	14			11.65	8.19	12.33	8.56	12.68	8.50	13.04	8.44	13.77	8.75	14.55	8.61
	16			11.50	8.12	12.16	8.48	12.51	8.42	12.86	8.36	13.58	8.65	14.34	8.50
	18			11.35	8.04	12.00	8.41	12.34	8.35	12.68	8.28	13.40	8.59	14.14	8.45
	20			11.20	7.97	11.84	8.33	12.18	8.27	12.51	8.21	13.21	8.53	13.93	8.37
	22			11.05	7.90	11.68	8.25	12.01	8.20	12.34	8.13	13.03	8.46	13.74	8.30
28	24			10.91	7.83	11.52	8.18	11.84	8.12	12.17	8.06	12.85	8.38	13.55	8.23
(m³/min)	26	10.18	7.83	10.76	7.74	11.36	8.10	11.67	8.04	11.99	7.98	12.66	8.31	13.42	8.19
	28	10.03	7.75	10.61	7.68	11.20	8.03	11.51	7.97	11.82	7.91	12.47	8.23		
	30	9.89	7.68	10.46	7.60	11.04	7.95	11.34	7.89	11.65	7.83	12.28	8.16		
	32	9.73	7.59	10.29	7.52	10.86	7.86	11.17	7.80	11.47	7.74	12.08	8.08		
	34	9.57	7.52	10.11	7.43	10.69	7.79	10.99	7.74	11.29	7.68	11.89	8.00		
	35	9.49	7.47	10.03	7.39	10.60	7.76	10.91	7.71	11.20	7.65	11.80	7.93		
	36	9.30	7.38	9.82	7.30	10.38	7.66	10.68	7.61	10.93	7.54	11.43	7.81		
	38	8.91	7.18	9.41	7.10	9.93	7.46	10.23	7.42	10.39	7.31	10.70	7.55		
	39	8.72	7.08	9.20	7.00	9.71	7.37	10.00	7.32	10.12	7.20	10.33	7.41		
	41	8.21	6.83	8.67	6.75	9.09	7.09	9.30	7.03	9.36	6.87	9.45	7.09		
	43	7.56	6.52	8.00	6.45	8.30	6.76	8.35	6.64	8.38	6.53	8.44	6.74		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
Hi	-19.8	-20	6.80	6.76	6.69	6.64	6.59
	-17.8	-18	7.25	7.20	7.13	7.08	7.02
	-15.7	-16	7.69	7.64	7.57	7.52	7.45
	-13.7	-14	8.16	8.11	8.04	7.98	7.90
	-11.7	-12	8.65	8.60	8.54	8.46	8.39
	-9.6	-10	9.15	9.09	9.03	8.95	8.88
	-7.5	-8	9.71	9.64	9.58	9.49	9.42
28	-5.5	-6	10.27	10.19	10.12	10.03	9.96
(m³/min)	-3.4	-4	10.55	10.46	10.39	10.29	10.20
	-1.3	-2	10.55	10.45	10.37	10.26	10.16
	0.8	0	10.54	10.43	10.35	10.23	10.11
	3.9	3	11.46	11.33	11.23	11.11	10.97
	7.0	6	12.41	12.28	12.16	11.93	11.60
	10.1	9	13.45	13.32	13.17	12.65	11.74
	13.2	12	14.55	14.29	13.72	12.90	11.77
	16.9	15.5	15.68	15.23	14.05	12.92	11.74

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	SHC	23 ℃DB 16 ℃WB TC	SHC	26 ℃DB 18 ℃WB TC	SHC	27 ℃DB 19 ℃WB TC	SHC	28 ℃DB 20 ℃WB TC	SHC	31 ℃DB 22 ℃WB TC	SHC	33 ℃DB 24 ℃WB TC	SHC
Me	10			11.28	7.82	11.94	8.14	12.28	8.10	12.63	8.04	13.35	8.32	14.09	8.18
	12			11.13	7.73	11.78	8.06	12.12	8.02	12.46	7.96	13.16	8.22	13.90	8.08
	14			10.98	7.67	11.62	7.99	11.95	7.93	12.28	7.88	12.98	8.16	13.71	8.02
	16			10.83	7.59	11.46	7.91	11.79	7.86	12.12	7.81	12.80	8.09	13.51	7.95
	18			10.69	7.52	11.31	7.84	11.63	7.78	11.95	7.73	12.62	8.01	13.32	7.88
	20			10.55	7.44	11.15	7.76	11.47	7.71	11.79	7.66	12.45	7.94	13.13	7.81
	22			10.41	7.37	11.01	7.68	11.31	7.63	11.63	7.57	12.28	7.87	12.95	7.74
25	24			10.28	7.30	10.86	7.62	11.15	7.56	11.46	7.51	12.11	7.80	12.76	7.67
(m³/min)	26	9.59	7.31	10.14	7.23	10.71	7.55	11.00	7.51	11.30	7.45	11.93	7.73	12.64	7.62
	28	9.45	7.24	10.00	7.17	10.55	7.48	10.84	7.43	11.14	7.38	11.75	7.66		
	30	9.32	7.17	9.85	7.10	10.40	7.42	10.69	7.36	10.98	7.31	11.57	7.56		
	32	9.17	7.08	9.69	7.02	10.23	7.34	10.52	7.29	10.80	7.23	11.39	7.50		
	34	9.02	7.01	9.53	6.92	10.07	7.26	10.36	7.22	10.63	7.16	11.20	7.44		
	35	8.94	6.97	9.45	6.89	9.99	7.22	10.28	7.19	10.55	7.13	11.11	7.41		
	36	8.76	6.88	9.26	6.81	9.78	7.13	10.06	7.08	10.30	7.01	10.77	7.27		
	38	8.40	6.69	8.87	6.62	9.36	6.94	9.64	6.90	9.79	6.78	10.08	7.01		
	39	8.22	6.60	8.67	6.53	9.15	6.84	9.42	6.79	9.54	6.69	9.73	6.89		
	41	7.73	6.36	8.16	6.28	8.56	6.60	8.76	6.54	8.82	6.42	8.91	6.57		
	43	7.13	6.05	7.54	5.98	7.82	6.28	7.87	6.17	7.90	6.06	7.95	6.25		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
Me	-19.8	-20	6.36	6.31	6.25	6.21	6.16
	-17.8	-18	6.77	6.73	6.67	6.62	6.56
	-15.7	-16	7.19	7.14	7.08	7.03	6.96
	-13.7	-14	7.63	7.58	7.51	7.46	7.38
	-11.7	-12	8.09	8.04	7.97	7.91	7.84
	-9.6	-10	8.54	8.49	8.44	8.36	8.29
	-7.5	-8	9.07	9.01	8.95	8.86	8.80
25	-5.5	-6	9.60	9.52	9.46	9.37	9.30
(m³/min)	-3.4	-4	9.86	9.77	9.70	9.61	9.53
	-1.3	-2	9.85	9.76	9.68	9.59	9.49
	0.8	0	9.85	9.74	9.67	9.56	9.45
	3.9	3	10.70	10.59	10.49	10.38	10.25
	7.0	6	11.60	11.47	11.36	11.15	10.83
	10.1	9	12.57	12.44	12.30	11.82	10.97
	13.2	12	13.59	13.35	12.82	12.05	10.99
	16.9	15.5	14.65	14.22	13.12	12.07	10.96

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	SHC	23 ℃DB 16 ℃WB TC	SHC	26 ℃DB 18 ℃WB TC	SHC	27 ℃DB 19 ℃WB TC	SHC	28 ℃DB 20 ℃WB TC	SHC	31 ℃DB 22 ℃WB TC	SHC	33 ℃DB 24 ℃WB TC	SHC
Lo	10			10.09	6.79	10.67	7.03	10.98	6.99	11.29	6.94	11.93	7.14	12.60	7.02
	12			9.95	6.71	10.53	6.95	10.83	6.90	11.14	6.87	11.77	7.08	12.43	6.95
	14			9.82	6.64	10.38	6.88	10.68	6.84	10.98	6.79	11.60	7.00	12.25	6.87
	16			9.69	6.56	10.24	6.81	10.54	6.77	10.83	6.72	11.44	6.93	12.08	6.81
	18			9.56	6.50	10.11	6.75	10.40	6.70	10.68	6.65	11.29	6.86	11.91	6.73
	20			9.43	6.43	9.97	6.67	10.26	6.63	10.54	6.58	11.13	6.79	11.74	6.67
	22			9.31	6.36	9.84	6.61	10.11	6.56	10.39	6.51	10.98	6.71	11.57	6.58
19	24			9.19	6.30	9.71	6.54	9.97	6.50	10.25	6.45	10.82	6.65	11.41	6.53
(m³/min)	26	8.57	6.29	9.06	6.23	9.57	6.47	9.83	6.42	10.10	6.38	10.67	6.59	11.30	6.49
	28	8.45	6.22	8.94	6.17	9.43	6.40	9.69	6.35	9.96	6.30	10.50	6.52		
	30	8.33	6.16	8.81	6.10	9.30	6.34	9.55	6.29	9.81	6.24	10.34	6.45		
	32	8.20	6.09	8.66	6.01	9.15	6.27	9.41	6.23	9.66	6.17	10.18	6.39		
	34	8.06	6.01	8.52	5.95	9.00	6.19	9.26	6.16	9.51	6.11	10.02	6.31		
	35	7.99	5.97	8.45	5.91	8.93	6.16	9.19	6.12	9.43	6.07	9.94	6.29		
	36	7.83	5.88	8.27	5.82	8.74	6.07	8.99	6.03	9.21	5.98	9.63	6.14		
	38	7.51	5.71	7.93	5.65	8.36	5.89	8.61	5.86	8.75	5.78	9.01	5.91		
	39	7.35	5.63	7.75	5.56	8.18	5.79	8.42	5.76	8.53	5.67	8.70	5.79		
	41	6.91	5.39	7.30	5.34	7.66	5.57	7.83	5.51	7.89	5.41	7.96	5.48		
	43	6.37	5.12	6.74	5.07	6.99	5.28	7.03	5.17	7.06	5.07	7.11	5.18		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
Lo	-19.8	-20	5.69	5.65	5.60	5.56	5.51
	-17.8	-18	6.06	6.02	5.97	5.92	5.87
	-15.7	-16	6.44	6.39	6.34	6.29	6.23
	-13.7	-14	6.83	6.78	6.73	6.68	6.61
	-11.7	-12	7.24	7.19	7.14	7.08	7.02
	-9.6	-10	7.65	7.60	7.55	7.48	7.43
	-7.5	-8	8.12	8.06	8.01	7.94	7.88
19	-5.5	-6	8.59	8.52	8.47	8.39	8.33
(m³/min)	-3.4	-4	8.82	8.75	8.69	8.61	8.53
	-1.3	-2	8.82	8.74	8.67	8.58	8.50
	0.8	0	8.82	8.72	8.65	8.56	8.46
	3.9	3	9.58	9.48	9.40	9.29	9.18
	7.0	6	10.38	10.27	10.17	9.98	9.70
	10.1	9	11.25	11.14	11.01	10.58	9.82
	13.2	12	12.17	11.95	11.48	10.79	9.84
	16.9	15.5	13.11	12.73	11.75	10.80	9.81

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)

PJG000Z774

Model **FDU140KXE6F-W** Cooling mode (kW)

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
	10			15.36	11.71	16.26	12.34	16.73	12.26	17.20	12.17	18.18	12.74	19.19	12.54
	12			15.16	11.62	16.04	12.24	16.50	12.16	16.96	12.08	17.93	12.65	18.93	12.45
	14			14.96	11.53	15.82	12.15	16.27	12.07	16.73	11.99	17.68	12.55	18.66	12.36
	16			14.76	11.44	15.61	12.06	16.05	11.98	16.50	11.89	17.43	12.46	18.40	12.27
	18			14.56	11.35	15.40	11.97	15.84	11.89	16.28	11.81	17.19	12.38	18.14	12.18
P-Hi	20			14.37	11.26	15.19	11.88	15.62	11.80	16.05	11.72	16.95	12.29	17.88	12.09
	22			14.18	11.17	14.99	11.79	15.41	11.72	15.83	11.63	16.72	12.21	17.63	12.01
39	24			14.00	11.09	14.79	11.71	15.19	11.63	15.61	11.55	16.49	12.12	17.38	11.93
(m³/min)	26	13.06	11.11	13.81	11.01	14.58	11.62	14.98	11.54	15.39	11.46	16.25	12.04	17.22	11.88
	28	12.88	11.02	13.61	10.92	14.37	11.54	14.77	11.46	15.17	11.38	16.00	11.95		
	30	12.69	10.93	13.42	10.83	14.16	11.45	14.56	11.38	14.95	11.29	15.75	11.86		
	32	12.48	10.83	13.20	10.73	13.94	11.36	14.33	11.28	14.71	11.20	15.51	11.77		
	34	12.28	10.74	12.98	10.64	13.72	11.27	14.10	11.19	14.48	11.11	15.26	11.69		
	35	12.18	10.69	12.87	10.59	13.60	11.22	14.00	11.15	14.37	11.07	15.14	11.65		
	36	11.93	10.57	12.60	10.47	13.32	11.10	13.70	11.04	14.02	10.94	14.67	11.48		
	38	11.44	10.34	12.08	10.22	12.74	10.87	13.12	10.81	13.34	10.68	13.72	11.15		
	39	11.19	10.23	11.81	10.11	12.46	10.76	12.83	10.70	12.99	10.55	13.25	10.99		
	41	10.53	9.92	11.12	9.81	11.66	10.42	11.93	10.35	12.02	10.20	12.13	10.55		
	43	9.71	9.32	10.26	9.45	10.65	10.02	10.72	9.88	10.75	9.72	10.83	10.12		

Heating mode (kW)

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
	-19.8	-20	8.95	8.89	8.81	8.74	8.68
	-17.8	-18	9.54	9.48	9.39	9.32	9.24
	-15.7	-16	10.12	10.06	9.97	9.90	9.80
	-13.7	-14	10.74	10.67	10.58	10.50	10.40
	-11.7	-12	11.39	11.32	11.23	11.14	11.04
P-Hi	-9.6	-10	12.03	11.96	11.88	11.77	11.68
	-7.5	-8	12.78	12.69	12.60	12.49	12.39
39	-5.5	-6	13.52	13.41	13.32	13.20	13.10
(m³/min)	-3.4	-4	13.88	13.76	13.67	13.54	13.43
	-1.3	-2	13.88	13.74	13.64	13.50	13.37
	0.8	0	13.87	13.72	13.61	13.47	13.31
	3.9	3	15.08	14.91	14.78	14.61	14.44
	7.0	6	16.33	16.16	16.00	15.70	15.26
	10.1	9	17.70	17.52	17.33	16.65	15.45
	13.2	12	19.15	18.80	18.06	16.98	15.48
	16.9	15.5	20.63	20.03	18.48	17.00	15.44

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
	10			15.11	10.81	15.99	11.31	16.45	11.24	16.92	11.16	17.88	11.60	18.88	11.41
	12			14.91	10.71	15.77	11.21	16.23	11.14	16.68	11.06	17.63	11.50	18.62	11.31
	14			14.71	10.61	15.56	11.10	16.01	11.05	16.45	10.96	17.39	11.41	18.36	11.22
	16			14.51	10.51	15.35	11.01	15.79	10.95	16.23	10.87	17.14	11.31	18.10	11.13
	18			14.32	10.42	15.14	10.91	15.58	10.84	16.01	10.78	16.91	11.22	17.84	11.03
Hi	20			14.13	10.33	14.94	10.82	15.37	10.76	15.79	10.69	16.67	11.13	17.59	10.94
	22			13.95	10.24	14.74	10.73	15.15	10.66	15.57	10.58	16.45	11.05	17.34	10.85
32	24			13.77	10.16	14.54	10.64	14.94	10.57	15.36	10.49	16.22	10.96	17.10	10.77
(m³/min)	26	12.85	10.18	13.58	10.07	14.34	10.56	14.73	10.48	15.14	10.40	15.98	10.85	16.94	10.71
	28	12.66	10.09	13.39	9.98	14.14	10.47	14.52	10.39	14.92	10.31	15.74	10.76		
	30	12.48	10.00	13.20	9.89	13.93	10.38	14.32	10.31	14.70	10.23	15.49	10.67		
	32	12.28	9.89	12.98	9.79	13.71	10.28	14.09	10.21	14.47	10.13	15.25	10.58		
	34	12.08	9.79	12.77	9.69	13.49	10.19	13.87	10.12	14.24	10.04	15.01	10.49		
	35	11.98	9.75	12.66	9.64	13.38	10.14	13.77	10.08	14.13	10.00	14.89	10.44		
	36	11.73	9.62	12.40	9.52	13.10	10.02	13.48	9.96	13.79	9.86	14.42	10.27		
	38	11.25	9.39	11.88	9.28	12.53	9.77	12.91	9.72	13.12	9.60	13.50	9.93		
	39	11.01	9.27	11.62	9.16	12.25	9.66	12.62	9.60	12.78	9.46	13.04	9.77		
	41	10.36	8.94	10.94	8.86	11.47	9.33	11.74	9.25	11.82	9.10	11.93	9.38		
	43	9.55	8.56	10.09	8.47	10.47	8.92	10.54	8.78	10.58	8.63	10.65	8.95		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
	-19.8	-20	8.77	8.72	8.63	8.57	8.50
	-17.8	-18	9.35	9.29	9.20	9.13	9.05
	-15.7	-16	9.92	9.86	9.77	9.70	9.60
	-13.7	-14	10.53	10.46	10.37	10.29	10.19
	-11.7	-12	11.16	11.09	11.01	10.91	10.82
Hi	-9.6	-10	11.79	11.72	11.64	11.54	11.45
	-7.5	-8	12.52	12.43	12.35	12.24	12.14
32	-5.5	-6	13.25	13.14	13.06	12.94	12.84
(m³/min)	-3.4	-4	13.61	13.49	13.39	13.27	13.16
	-1.3	-2	13.60	13.47	13.37	13.23	13.10
	0.8	0	13.60	13.45	13.34	13.20	13.04
	3.9	3	14.78	14.61	14.49	14.32	14.15
	7.0	6	16.01	15.83	15.68	15.38	14.95
	10.1	9	17.35	17.17	16.98	16.32	15.14
	13.2	12	18.76	18.43	17.70	16.64	15.17
	16.9	15.5	20.22	19.63	18.11	16.66	15.13

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
	10			14.40	9.87	15.23	10.26	15.68	10.21	16.12	10.13	17.03	10.46	17.99	10.28
	12			14.21	9.77	15.03	10.16	15.46	10.09	15.90	10.03	16.80	10.37	17.74	10.18
	14			14.02	9.67	14.83	10.06	15.25	9.99	15.68	9.92	16.56	10.26	17.49	10.09
	16			13.83	9.57	14.63	9.96	15.04	9.89	15.46	9.82	16.34	10.17	17.25	9.99
	18			13.65	9.48	14.43	9.87	14.84	9.80	15.25	9.73	16.11	10.06	17.00	9.90
Me	20			13.46	9.38	14.23	9.77	14.64	9.71	15.05	9.64	15.89	9.98	16.76	9.80
	22			13.29	9.30	14.05	9.69	14.44	9.62	14.84	9.54	15.67	9.89	16.52	9.70
26	24			13.12	9.21	13.86	9.60	14.24	9.53	14.63	9.45	15.45	9.80	16.29	9.62
(m³/min)	26	12.24	9.21	12.94	9.12	13.67	9.51	14.04	9.44	14.42	9.36	15.23	9.71	16.14	9.56
	28	12.07	9.12	12.76	9.03	13.47	9.41	13.84	9.34	14.22	9.27	14.99	9.61		
	30	11.89	9.02	12.57	8.92	13.27	9.32	13.64	9.26	14.01	9.18	14.76	9.52		
	32	11.70	8.92	12.37	8.83	13.06	9.22	13.43	9.16	13.79	9.09	14.53	9.43		
	34	11.51	8.82	12.16	8.72	12.85	9.13	13.22	9.07	13.57	8.99	14.30	9.34		
	35	11.41	8.77	12.06	8.67	12.75	9.08	13.12	9.02	13.46	8.95	14.18	9.29		
	36	11.18	8.65	11.81	8.55	12.48	8.95	12.84	8.90	13.14	8.81	13.74	9.12		
	38	10.72	8.41	11.32	8.32	11.94	8.71	12.30	8.66	12.50	8.53	12.86	8.77		
	39	10.49	8.30	11.07	8.20	11.67	8.59	12.03	8.54	12.18	8.40	12.42	8.60		
	41	9.87	7.99	10.42	7.89	10.93	8.26	11.18	8.18	11.26	8.03	11.37	8.22		
	43	9.10	7.61	9.62	7.52	9.98	7.86	10.04	7.72	10.08	7.57	10.15	7.78		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
	-19.8	-20	8.31	8.25	8.18	8.11	8.05
	-17.8	-18	8.85	8.80	8.71	8.65	8.57
	-15.7	-16	9.40	9.34	9.25	9.19	9.10
	-13.7	-14	9.97	9.91	9.82	9.75	9.65
	-11.7	-12	10.57	10.50	10.42	10.34	10.25
Me	-9.6	-10	11.17	11.10	11.03	10.93	10.84
	-7.5	-8	11.86	11.77	11.70	11.59	11.50
26	-5.5	-6	12.54	12.45	12.36	12.25	12.16
(m³/min)	-3.4	-4	12.89	12.77	12.69	12.57	12.46
	-1.3	-2	12.88	12.76	12.66	12.53	12.41
	0.8	0	12.88	12.74	12.63	12.50	12.35
	3.9	3	13.99	13.84	13.72	13.56	13.40
	7.0	6	15.16	15.00	14.85	14.57	14.16
	10.1	9	16.43	16.26	16.08	15.45	14.34
	13.2	12	17.77	17.45	16.76	15.76	14.37
	16.9	15.5	19.15	18.59	17.16	15.77	14.33

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
	10			12.87	8.57	13.62	8.88	14.02	8.83	14.41	8.76	15.23	9.00	16.08	8.84
	12			12.70	8.48	13.44	8.77	13.83	8.73	14.21	8.66	15.02	8.90	15.86	8.74
	14			12.53	8.38	13.25	8.67	13.64	8.62	14.02	8.57	14.81	8.81	15.64	8.65
	16			12.36	8.29	13.08	8.59	13.45	8.53	13.82	8.46	14.60	8.71	15.42	8.56
	18			12.20	8.20	12.90	8.49	13.27	8.44	13.64	8.37	14.40	8.62	15.20	8.47
Lo	20			12.04	8.11	12.73	8.41	13.09	8.35	13.45	8.28	14.20	8.53	14.98	8.38
	22			11.88	8.03	12.56	8.32	12.91	8.26	13.27	8.20	14.01	8.44	14.77	8.28
20	24			11.73	7.94	12.39	8.23	12.73	8.17	13.08	8.11	13.82	8.36	14.56	8.20
(m³/min)	26	10.94	7.93	11.57	7.85	12.22	8.15	12.55	8.08	12.90	8.02	13.61	8.27	14.43	8.14
	28	10.79	7.85	11.41	7.77	12.04	8.06	12.37	8.00	12.71	7.94	13.41	8.18		
	30	10.63	7.76	11.24	7.68	11.87	7.97	12.20	7.92	12.52	7.85	13.20	8.09		
	32	10.46	7.66	11.06	7.58	11.68	7.87	12.01	7.82	12.33	7.76	12.99	8.00		
	34	10.29	7.57	10.87	7.48	11.49	7.78	11.82	7.73	12.13	7.66	12.79	7.92		
	35	10.20	7.52	10.78	7.44	11.40	7.73	11.73	7.69	12.04	7.62	12.68	7.87		
	36	10.00	7.41	10.56	7.32	11.16	7.62	11.48	7.57	11.75	7.49	12.29	7.70		
	38	9.58	7.17	10.12	7.10	10.68	7.39	11.00	7.35	11.17	7.23	11.50	7.38		
	39	9.38	7.07	9.90	6.99	10.44	7.28	10.75	7.23	10.89	7.11	11.10	7.22		
	41	8.82	6.77	9.32	6.69	9.77	6.97	10.00	6.90	10.07	6.76	10.16	6.86		
	43	8.13	6.41	8.60	6.35	8.92	6.58	8.98	6.45	9.01	6.32	9.07	6.44		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
	-19.8	-20	7.41	7.36	7.29	7.23	7.18
	-17.8	-18	7.89	7.84	7.77	7.71	7.64
	-15.7	-16	8.38	8.32	8.25	8.19	8.11
	-13.7	-14	8.89	8.83	8.76	8.69	8.61
	-11.7	-12	9.42	9.36	9.29	9.22	9.14
Lo	-9.6	-10	9.96	9.90	9.83	9.74	9.67
	-7.5	-8	10.57	10.50	10.43	10.33	10.25
20	-5.5	-6	11.18	11.10	11.02	10.92	10.84
(m³/min)	-3.4	-4	11.49	11.39	11.31	11.20	11.11
	-1.3	-2	11.48	11.37	11.29	11.17	11.06
	0.8	0	11.48	11.36	11.26	11.14	11.01
	3.9	3	12.48	12.34	12.23	12.09	11.95
	7.0	6	13.52	13.37	13.24	12.99	12.62
	10.1	9	14.65	14.50	14.34	13.78	12.78
	13.2	12	15.84	15.56	14.94	14.05	12.81
	16.9	15.5	17.07	16.58	15.30	14.06	12.78

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)

PJG000Z774

Model **FDU160KXE6F-W** Cooling mode (kW)

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
	10			17.56	13.10	18.58	13.74	19.12	13.65	19.66	13.55	20.77	14.20	21.94	13.97
	12			17.32	13.00	18.33	13.64	18.86	13.55	19.39	13.45	20.49	14.10	21.63	13.88
	14			17.09	12.88	18.08	13.54	18.60	13.45	19.12	13.35	20.20	13.98	21.33	13.76
	16			16.86	12.78	17.84	13.44	18.35	13.35	18.86	13.26	19.92	13.89	21.03	13.68
	18			16.64	12.69	17.60	13.35	18.10	13.26	18.60	13.17	19.65	13.77	20.73	13.56
P-Hi	20			16.42	12.57	17.36	13.23	17.86	13.17	18.35	13.08	19.37	13.68	20.44	13.47
	22			16.21	12.44	17.13	13.14	17.61	13.05	18.10	12.96	19.11	13.57	20.15	13.36
48	24			16.00	12.35	16.90	13.05	17.36	12.96	17.84	12.87	18.84	13.49	19.87	13.27
(m³/min)	26	14.93	12.40	15.78	12.26	16.66	12.94	17.12	12.85	17.59	12.75	18.57	13.37	19.68	13.19
	28	14.72	12.31	15.56	12.17	16.42	12.84	16.88	12.76	17.34	12.67	18.29	13.28		
	30	14.50	12.21	15.33	12.07	16.18	12.73	16.63	12.64	17.08	12.55	18.00	13.16		
	32	14.27	12.08	15.08	11.97	15.93	12.63	16.38	12.55	16.82	12.46	17.72	13.07		
	34	14.03	11.98	14.83	11.84	15.67	12.51	16.12	12.45	16.55	12.36	17.44	12.98		
	35	13.92	11.93	14.71	11.79	15.55	12.46	16.00	12.39	16.42	12.29	17.30	12.91		
	36	13.63	11.78	14.41	11.67	15.22	12.34	15.66	12.26	16.03	12.16	16.76	12.65		
	38	13.07	11.51	13.80	11.39	14.56	12.06	15.00	12.00	15.24	11.86	15.69	12.31		
	39	12.79	11.38	13.50	11.25	14.23	11.92	14.67	11.85	14.85	11.70	15.15	12.15		
	41	12.04	11.03	12.71	10.90	13.33	11.55	13.64	11.46	13.73	11.28	13.86	11.72		
	43	11.09	10.60	11.73	10.49	12.17	11.05	12.25	10.89	12.29	10.72	12.37	11.23		

Heating mode (kW)

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃DB	18 ℃DB	20 ℃DB	22 ℃DB	24 ℃DB
	-19.8	-20	10.07	10.01	9.91	9.83	9.76
	-17.8	-18	10.73	10.66	10.56	10.48	10.39
	-15.7	-16	11.39	11.32	11.21	11.13	11.02
	-13.7	-14	12.08	12.01	11.90	11.82	11.70
	-11.7	-12	12.81	12.73	12.63	12.53	12.42
P-Hi	-9.6	-10	13.54	13.46	13.37	13.24	13.14
	-7.5	-8	14.37	14.27	14.18	14.05	13.94
48	-5.5	-6	15.21	15.09	14.99	14.85	14.74
(m³/min)	-3.4	-4	15.62	15.48	15.38	15.23	15.11
	-1.3	-2	15.61	15.46	15.35	15.19	15.04
	0.8	0	15.61	15.44	15.31	15.15	14.97
	3.9	3	16.96	16.77	16.63	16.44	16.24
	7.0	6	18.38	18.18	18.00	17.66	17.16
	10.1	9	19.91	19.71	19.49	18.73	17.38
	13.2	12	21.54	21.15	20.31	19.10	17.42
	16.9	15.5	23.21	22.54	20.80	19.12	17.37

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
	10			17.27	11.84	18.28	12.31	18.81	12.23	19.34	12.15	20.44	12.55	21.58	12.33
	12			17.04	11.72	18.03	12.19	18.55	12.10	19.07	12.03	20.15	12.39	21.28	12.18
	14			16.81	11.60	17.79	12.07	18.30	11.99	18.81	11.91	19.87	12.29	20.98	12.07
	16			16.59	11.48	17.55	11.93	18.05	11.85	18.55	11.76	19.60	12.19	20.69	11.98
	18			16.37	11.35	17.31	11.83	17.81	11.75	18.30	11.66	19.33	12.08	20.40	11.87
Hi	20			16.15	11.24	17.08	11.72	17.57	11.65	18.05	11.56	19.06	11.96	20.10	11.75
	22			15.94	11.15	16.85	11.60	17.32	11.54	17.80	11.45	18.80	11.86	19.82	11.64
35	24			15.74	11.04	16.62	11.51	17.08	11.42	17.55	11.33	18.54	11.75	19.54	11.53
(m³/min)	26	14.69	11.04	15.52	10.93	16.39	11.39	16.84	11.31	17.31	11.22	18.27	11.63	19.36	11.48
	28	14.48	10.93	15.30	10.81	16.16	11.28	16.60	11.20	17.05	11.11	17.99	11.53		
	30	14.27	10.83	15.09	10.72	15.92	11.17	16.36	11.08	16.80	11.01	17.71	11.42		
	32	14.04	10.70	14.84	10.59	15.67	11.05	16.11	10.98	16.54	10.89	17.43	11.30		
	34	13.81	10.57	14.59	10.46	15.42	10.94	15.86	10.87	16.28	10.78	17.16	11.15		
	35	13.69	10.52	14.47	10.41	15.29	10.87	15.74	10.82	16.15	10.73	17.02	11.11		
	36	13.41	10.37	14.17	10.26	14.97	10.73	15.41	10.67	15.77	10.57	16.49	10.92		
	38	12.86	10.06	13.58	9.97	14.33	10.43	14.75	10.37	14.99	10.23	15.43	10.51		
	39	12.58	9.93	13.28	9.81	14.00	10.30	14.43	10.24	14.61	10.07	14.90	10.31		
	41	11.84	9.57	12.50	9.45	13.11	9.90	13.42	9.81	13.51	9.63	13.64	9.84		
	43	10.91	9.10	11.54	9.01	11.97	9.41	12.05	9.24	12.09	9.07	12.17	9.30		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃DB	18 ℃DB	20 ℃DB	22 ℃DB	24 ℃DB
	-19.8	-20	9.87	9.81	9.71	9.64	9.56
	-17.8	-18	10.52	10.45	10.35	10.27	10.18
	-15.7	-16	11.16	11.09	10.99	10.91	10.80
	-13.7	-14	11.84	11.77	11.67	11.58	11.47
	-11.7	-12	12.56	12.48	12.38	12.28	12.17
Hi	-9.6	-10	13.27	13.19	13.10	12.98	12.88
	-7.5	-8	14.08	13.99	13.89	13.77	13.66
35	-5.5	-6	14.90	14.78	14.69	14.55	14.44
(m³/min)	-3.4	-4	15.31	15.17	15.07	14.93	14.80
	-1.3	-2	15.30	15.15	15.04	14.89	14.74
	0.8	0	15.30	15.13	15.01	14.85	14.67
	3.9	3	16.62	16.44	16.30	16.11	15.92
	7.0	6	18.01	17.81	17.64	17.31	16.82
	10.1	9	19.52	19.32	19.10	18.36	17.03
	13.2	12	21.11	20.73	19.91	18.72	17.07
	16.9	15.5	22.74	22.09	20.38	18.74	17.02

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
	10			16.15	10.76	17.09	11.15	17.59	11.09	18.08	11.00	19.11	11.31	20.18	11.12
	12			15.94	10.65	16.86	11.02	17.35	10.95	17.84	10.89	18.85	11.17	19.90	10.96
	14			15.72	10.53	16.63	10.90	17.11	10.84	17.59	10.75	18.58	11.06	19.62	10.86
	16			15.51	10.41	16.41	10.79	16.88	10.72	17.35	10.64	18.33	10.95	19.35	10.75
	18			15.31	10.30	16.19	10.67	16.65	10.60	17.11	10.53	18.08	10.84	19.08	10.65
Me	20			15.11	10.19	15.97	10.56	16.43	10.49	16.88	10.42	17.82	10.72	18.80	10.52
	22			14.91	10.08	15.76	10.45	16.20	10.38	16.65	10.30	17.58	10.61	18.54	10.42
28	24			14.72	9.97	15.55	10.34	15.97	10.27	16.42	10.19	17.34	10.51	18.28	10.31
(m³/min)	26	13.73	9.96	14.52	9.86	15.33	10.23	15.75	10.16	16.18	10.08	17.08	10.40	18.11	10.24
	28	13.54	9.86	14.31	9.74	15.11	10.10	15.53	10.03	15.95	9.97	16.82	10.26		
	30	13.34	9.74	14.11	9.65	14.89	10.01	15.30	9.93	15.72	9.85	16.56	10.16		
	32	13.13	9.62	13.88	9.52	14.66	9.89	15.07	9.83	15.47	9.75	16.30	10.05		
	34	12.91	9.50	13.65	9.40	14.42	9.77	14.83	9.71	15.23	9.64	16.04	9.94		
	35	12.80	9.43	13.53	9.35	14.30	9.72	14.72	9.66	15.11	9.58	15.91	9.88		
	36	12.54	9.29	13.25	9.19	14.00	9.57	14.41	9.52	14.74	9.42	15.42	9.68		
	38	12.02	9.01	12.70	8.91	13.40	9.28	13.80	9.23	14.02	9.09	14.43	9.25		
	39	11.77	8.87	12.42	8.77	13.10	9.15	13.49	9.09	13.66	8.93	13.94	9.08		
	41	11.07	8.51	11.69	8.40	12.26	8.74	12.55	8.66	12.63	8.49	12.76	8.61		
	43	10.21	8.06	10.79	7.97	11.20	8.27	11.27	8.11	11.31	7.95	11.38	8.06		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃DB	18 ℃DB	20 ℃DB	22 ℃DB	24 ℃DB
	-19.8	-20	9.27	9.21	9.12	9.05	8.98
	-17.8	-18	9.87	9.81	9.72	9.65	9.56
	-15.7	-16	10.48	10.41	10.32	10.24	10.14
	-13.7	-14	11.12	11.05	10.95	10.87	10.77
	-11.7	-12	11.79	11.71	11.62	11.53	11.43
Me	-9.6	-10	12.46	12.38	12.30	12.18	12.09
	-7.5	-8	13.22	13.13	13.04	12.92	12.83
28	-5.5	-6	13.99	13.88	13.79	13.66	13.56
(m³/min)	-3.4	-4	14.37	14.24	14.15	14.01	13.90
	-1.3	-2	14.36	14.22	14.12	13.97	13.83
	0.8	0	14.36	14.21	14.09	13.94	13.77
	3.9	3	15.60	15.43	15.30	15.13	14.94
	7.0	6	16.91	16.72	16.56	16.25	15.79
	10.1	9	18.32	18.14	17.94	17.23	15.99
	13.2	12	19.82	19.46	18.69	17.57	16.02
	16.9	15.5	21.35	20.74	19.13	17.59	15.98

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
	10			14.72	9.63	15.57	9.96	16.02	9.91	16.47	9.84	17.41	10.07	18.38	9.89
	12			14.52	9.52	15.36	9.84	15.81	9.79	16.25	9.71	17.17	9.95	18.13	9.77
	14			14.32	9.40	15.15	9.72	15.59	9.67	16.02	9.60	16.93	9.83	17.88	9.65
	16			14.13	9.29	14.95	9.61	15.38	9.55	15.80	9.48	16.70	9.71	17.63	9.53
	18			13.95	9.19	14.75	9.49	15.17	9.43	15.59	9.36	16.47	9.60	17.38	9.42
Lo	20			13.76	9.08	14.55	9.38	14.97	9.33	15.38	9.25	16.24	9.48	17.13	9.30
	22			13.58	8.98	14.36	9.27	14.76	9.20	15.17	9.15	16.02	9.38	16.89	9.19
22	24			13.41	8.88	14.16	9.16	14.55	9.10	14.96	9.04	15.79	9.26	16.65	9.08
(m³/min)	26	12.51	8.83	13.22	8.77	13.97	9.06	14.35	9.00	14.74	8.92	15.56	9.15	16.49	9.01
	28	12.33	8.71	13.04	8.67	13.77	8.95	14.14	8.88	14.53	8.82	15.33	9.05		
	30	12.16	8.62	12.85	8.56	13.56	8.84	13.94	8.77	14.32	8.71	15.09	8.93		
	32	11.96	8.50	12.64	8.44	13.35	8.72	13.73	8.67	14.09	8.59	14.85	8.82		
	34	11.76	8.39	12.43	8.32	13.14	8.60	13.51	8.54	13.87	8.47	14.62	8.70		
	35	11.66	8.33	12.33	8.26	13.03	8.55	13.41	8.50	13.76	8.42	14.50	8.65		
	36	11.43	8.21	12.07	8.12	12.76	8.41	13.12	8.36	13.43	8.27	14.05	8.45		
	38	10.95	7.93	11.57	7.84	12.21	8.12	12.57	8.08	12.77	7.95	13.15	8.03		
	39	10.72	7.79	11.31	7.70	11.93	7.99	12.29	7.94	12.45	7.79	12.70	7.86		
	41	10.09	7.44	10.65	7.36	11.17	7.60	11.43	7.53	11.51	7.36	11.62	7.41		
	43	9.30	7.00	9.83	6.93	10.20	7.14	10.26	6.99	10.30	6.82	10.37	6.91		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃DB	18 ℃DB	20 ℃DB	22 ℃DB	24 ℃DB
	-19.8	-20	8.10	8.04	7.97	7.91	7.85
	-17.8	-18	8.63	8.57	8.49	8.43	8.35
	-15.7	-16	9.16	9.10	9.01	8.95	8.86
	-13.7	-14	9.71	9.65	9.57	9.50	9.41
	-11.7	-12	10.30	10.23	10.16	10.07	9.99
Lo	-9.6	-10	10.88	10.82	10.74	10.65	10.57
	-7.5	-8	11.55	11.47	11.40	11.29	11.21
22	-5.5	-6	12.22	12.13	12.05	11.94	11.85
(m³/min)	-3.4	-4	12.56	12.45	12.36	12.24	12.14
	-1.3	-2	12.55	12.43	12.34	12.21	12.09
	0.8	0	12.55	12.41	12.31	12.18	12.03
	3.9	3	13.63	13.48	13.37	13.22	13.06
	7.0	6	14.77	14.61	14.47	14.20	13.80
	10.1	9	16.01	15.85	15.67	15.06	13.97
	13.2	12	17.31	17.00	16.33	15.35	14.00
	16.9	15.5	18.66	18.12	16.72	15.37	13.96

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)

PJG000Z774

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

Model **FDUM22KXE6F-W** Cooling mode (kW)

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	SHC	23 ℃DB 16 ℃WB TC	SHC	26 ℃DB 18 ℃WB TC	SHC	27 ℃DB 19 ℃WB TC	SHC	28 ℃DB 20 ℃WB TC	SHC	31 ℃DB 22 ℃WB TC	SHC	33 ℃DB 24 ℃WB TC	SHC
P-Hi	10			2.41	2.31	2.55	2.45	2.63	2.52	2.70	2.59	2.86	2.75	3.02	2.90
	12			2.38	2.28	2.52	2.42	2.59	2.49	2.67	2.56	2.82	2.71	2.97	2.85
	14			2.35	2.26	2.49	2.39	2.56	2.46	2.63	2.52	2.78	2.67	2.93	2.81
	16			2.32	2.23	2.45	2.35	2.52	2.42	2.59	2.49	2.74	2.63	2.89	2.77
	18			2.29	2.20	2.42	2.32	2.49	2.39	2.56	2.46	2.70	2.59	2.85	2.74
	20			2.26	2.17	2.39	2.29	2.46	2.36	2.52	2.42	2.66	2.55	2.81	2.70
	22			2.23	2.14	2.36	2.27	2.42	2.32	2.49	2.39	2.63	2.52	2.77	2.66
13	24			2.20	2.11	2.32	2.23	2.39	2.29	2.45	2.35	2.59	2.49	2.73	2.62
(m³/min)	26	2.05	1.97	2.17	2.08	2.29	2.20	2.35	2.26	2.42	2.32	2.55	2.45	2.71	2.60
	28	2.02	1.94	2.14	2.05	2.26	2.17	2.32	2.23	2.38	2.28	2.51	2.41		
	30	1.99	1.91	2.11	2.03	2.23	2.14	2.29	2.20	2.35	2.26	2.48	2.38		
	32	1.96	1.88	2.07	1.99	2.19	2.10	2.25	2.16	2.31	2.22	2.44	2.34		
	34	1.93	1.85	2.04	1.96	2.16	2.07	2.22	2.13	2.28	2.19	2.40	2.30		
	35	1.91	1.83	2.02	1.94	2.14	2.05	2.20	2.11	2.26	2.17	2.38	2.28		
	36	1.87	1.80	1.98	1.90	2.09	2.01	2.15	2.06	2.20	2.11	2.30	2.21		
	38	1.80	1.73	1.90	1.82	2.00	1.92	2.06	1.98	2.10	2.02	2.16	2.07		
	39	1.76	1.69	1.86	1.79	1.96	1.88	2.02	1.94	2.04	1.96	2.08	2.00		
	41	1.65	1.58	1.75	1.68	1.83	1.76	1.88	1.80	1.89	1.81	1.91	1.83		
	43	1.53	1.47	1.61	1.55	1.67	1.60	1.68	1.61	1.69	1.62	1.70	1.63		

Heating mode (kW)

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
P-Hi	-19.8	-20	1.40	1.39	1.38	1.37	1.36
	-17.8	-18	1.49	1.48	1.47	1.46	1.44
	-15.7	-16	1.58	1.57	1.56	1.55	1.53
	-13.7	-14	1.68	1.67	1.65	1.64	1.63
	-11.7	-12	1.78	1.77	1.75	1.74	1.73
	-9.6	-10	1.88	1.87	1.86	1.84	1.83
	-7.5	-8	2.00	1.98	1.97	1.95	1.94
13	-5.5	-6	2.11	2.10	2.08	2.06	2.05
(m³/min)	-3.4	-4	2.17	2.15	2.14	2.12	2.10
	-1.3	-2	2.17	2.15	2.13	2.11	2.09
	0.8	0	2.17	2.14	2.13	2.10	2.08
	3.9	3	2.36	2.33	2.31	2.28	2.26
	7.0	6	2.55	2.52	2.50	2.45	2.38
	10.1	9	2.77	2.74	2.71	2.60	2.41
	13.2	12	2.99	2.94	2.82	2.65	2.42
	16.9	15.5	3.22	3.13	2.89	2.66	2.41

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	SHC	23 ℃DB 16 ℃WB TC	SHC	26 ℃DB 18 ℃WB TC	SHC	27 ℃DB 19 ℃WB TC	SHC	28 ℃DB 20 ℃WB TC	SHC	31 ℃DB 22 ℃WB TC	SHC	33 ℃DB 24 ℃WB TC	SHC
Hi	10			2.38	2.28	2.52	2.42	2.59	2.47	2.67	2.46	2.82	2.61	2.97	2.57
	12			2.35	2.26	2.49	2.39	2.56	2.46	2.63	2.45	2.78	2.60	2.93	2.56
	14			2.32	2.23	2.45	2.35	2.52	2.42	2.59	2.43	2.74	2.58	2.89	2.55
	16			2.29	2.20	2.42	2.32	2.49	2.39	2.56	2.42	2.70	2.57	2.85	2.54
	18			2.26	2.17	2.39	2.29	2.46	2.36	2.52	2.41	2.66	2.55	2.81	2.52
	20			2.23	2.14	2.35	2.26	2.42	2.32	2.49	2.39	2.63	2.52	2.77	2.51
	22			2.20	2.11	2.32	2.23	2.39	2.29	2.45	2.35	2.59	2.49	2.73	2.50
10	24			2.17	2.08	2.29	2.20	2.35	2.26	2.42	2.32	2.56	2.46	2.69	2.49
(m³/min)	26	2.02	1.94	2.14	2.05	2.26	2.17	2.32	2.23	2.39	2.29	2.52	2.42	2.67	2.48
	28	2.00	1.92	2.11	2.03	2.23	2.14	2.29	2.20	2.35	2.26	2.48	2.38		
	30	1.97	1.89	2.08	2.00	2.20	2.11	2.26	2.17	2.32	2.23	2.44	2.34		
	32	1.94	1.86	2.05	1.97	2.16	2.07	2.22	2.13	2.28	2.19	2.40	2.30		
	34	1.90	1.82	2.01	1.93	2.13	2.04	2.19	2.10	2.24	2.15	2.37	2.28		
	35	1.89	1.81	1.99	1.91	2.11	2.03	2.17	2.08	2.23	2.14	2.35	2.26		
	36	1.85	1.78	1.95	1.87	2.06	1.98	2.12	2.04	2.17	2.08	2.27	2.18		
	38	1.77	1.70	1.87	1.80	1.98	1.90	2.03	1.95	2.07	1.99	2.13	2.04		
	39	1.73	1.66	1.83	1.76	1.93	1.85	1.99	1.91	2.01	1.93	2.05	1.97		
	41	1.63	1.56	1.72	1.65	1.81	1.74	1.85	1.78	1.86	1.79	1.88	1.80		
	43	1.50	1.44	1.59	1.53	1.65	1.58	1.66	1.59	1.67	1.60	1.68	1.61		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
Hi	-19.8	-20	1.38	1.37	1.35	1.34	1.33
	-17.8	-18	1.47	1.46	1.44	1.43	1.42
	-15.7	-16	1.56	1.55	1.53	1.52	1.51
	-13.7	-14	1.65	1.64	1.63	1.61	1.60
	-11.7	-12	1.75	1.74	1.73	1.71	1.70
	-9.6	-10	1.85	1.84	1.83	1.81	1.80
	-7.5	-8	1.96	1.95	1.94	1.92	1.91
10	-5.5	-6	2.08	2.06	2.05	2.03	2.01
(m³/min)	-3.4	-4	2.13	2.12	2.10	2.08	2.06
	-1.3	-2	2.13	2.11	2.10	2.08	2.06
	0.8	0	2.13	2.11	2.09	2.07	2.05
	3.9	3	2.32	2.29	2.27	2.25	2.22
	7.0	6	2.51	2.48	2.46	2.41	2.35
	10.1	9	2.72	2.69	2.66	2.56	2.37
	13.2	12	2.94	2.89	2.78	2.61	2.38
	16.9	15.5	3.17	3.08	2.84	2.61	2.37

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	SHC	23 ℃DB 16 ℃WB TC	SHC	26 ℃DB 18 ℃WB TC	SHC	27 ℃DB 19 ℃WB TC	SHC	28 ℃DB 20 ℃WB TC	SHC	31 ℃DB 22 ℃WB TC	SHC	33 ℃DB 24 ℃WB TC	SHC
Me	10			2.28	2.14	2.42	2.30	2.49	2.28	2.56	2.27	2.70	2.40	2.85	2.37
	12			2.25	2.13	2.38	2.28	2.45	2.27	2.52	2.26	2.66	2.39	2.81	2.36
	14			2.22	2.12	2.35	2.26	2.42	2.26	2.49	2.25	2.63	2.38	2.77	2.34
	16			2.19	2.10	2.32	2.23	2.39	2.25	2.45	2.23	2.59	2.37	2.73	2.33
	18			2.16	2.07	2.29	2.20	2.35	2.23	2.42	2.22	2.55	2.35	2.70	2.32
	20			2.13	2.04	2.26	2.17	2.32	2.22	2.39	2.21	2.52	2.34	2.66	2.31
	22			2.11	2.03	2.23	2.14	2.29	2.20	2.35	2.20	2.48	2.33	2.62	2.30
9	24			2.08	2.00	2.20	2.11	2.26	2.17	2.32	2.19	2.45	2.32	2.58	2.29
(m³/min)	26	1.94	1.86	2.05	1.97	2.17	2.08	2.23	2.14	2.29	2.18	2.41	2.31	2.56	2.28
	28	1.91	1.83	2.02	1.94	2.14	2.05	2.19	2.10	2.25	2.16	2.38	2.28		
	30	1.89	1.81	1.99	1.91	2.10	2.02	2.16	2.07	2.22	2.13	2.34	2.25		
	32	1.85	1.78	1.96	1.88	2.07	1.99	2.13	2.04	2.19	2.10	2.30	2.21		
	34	1.82	1.75	1.93	1.85	2.04	1.96	2.10	2.02	2.15	2.06	2.27	2.18		
	35	1.81	1.74	1.91	1.83	2.02	1.94	2.08	2.00	2.13	2.04	2.25	2.16		
	36	1.77	1.70	1.87	1.80	1.98	1.90	2.04	1.96	2.08	2.00	2.18	2.09		
	38	1.70	1.63	1.79	1.72	1.89	1.81	1.95	1.87	1.98	1.90	2.04	1.96		
	39	1.66	1.59	1.75	1.68	1.85	1.78	1.91	1.83	1.93	1.85	1.97	1.89		
	41	1.56	1.50	1.65	1.58	1.73	1.66	1.77	1.70	1.79	1.72	1.80	1.73		
	43	1.44	1.38	1.52	1.46	1.58	1.52	1.59	1.53	1.60	1.54	1.61	1.55		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
Me	-19.8	-20	1.31	1.31	1.29	1.28	1.27
	-17.8	-18	1.40	1.39	1.38	1.37	1.36
	-15.7	-16	1.49	1.48	1.46	1.45	1.44
	-13.7	-14	1.58	1.57	1.55	1.54	1.53
	-11.7	-12	1.67	1.66	1.65	1.64	1.62
	-9.6	-10	1.77	1.76	1.74	1.73	1.72
	-7.5	-8	1.88	1.86	1.85	1.83	1.82
9	-5.5	-6	1.99	1.97	1.96	1.94	1.92
(m³/min)	-3.4	-4	2.04	2.02	2.01	1.99	1.97
	-1.3	-2	2.04	2.02	2.00	1.98	1.96
	0.8	0	2.04	2.02	2.00	1.98	1.95
	3.9	3	2.21	2.19	2.17	2.15	2.12
	7.0	6	2.40	2.37	2.35	2.31	2.24
	10.1	9	2.60	2.57	2.55	2.45	2.27
	13.2	12	2.81	2.76	2.65	2.49	2.27
	16.9	15.5	3.03	2.94	2.71	2.50	2.27

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	SHC	23 ℃DB 16 ℃WB TC	SHC	26 ℃DB 18 ℃WB TC	SHC	27 ℃DB 19 ℃WB TC	SHC	28 ℃DB 20 ℃WB TC	SHC	31 ℃DB 22 ℃WB TC	SHC	33 ℃DB 24 ℃WB TC	SHC
Lo	10			2.13	1.95	2.25	2.08	2.32	2.07	2.38	2.06	2.52	2.17	2.66	2.14
	12			2.10	1.94	2.22	2.07	2.29	2.06	2.35	2.05	2.48	2.16	2.62	2.13
	14			2.07	1.92	2.19	2.06	2.26	2.05	2.32	2.03	2.45	2.15	2.59	2.12
	16			2.04	1.91	2.16	2.05	2.22	2.03	2.29	2.02	2.42	2.14	2.55	2.11
	18			2.02	1.90	2.13	2.03	2.19	2.02	2.26	2.01	2.38	2.13	2.51	2.10
	20			1.99	1.89	2.10	2.02	2.17	2.02	2.22	2.00	2.35	2.12	2.48	2.09
	22			1.97	1.88	2.08	2.00	2.14	2.00	2.19	1.99	2.32	2.11	2.44	2.08
8	24			1.94	1.86	2.05	1.97	2.11	1.99	2.16	1.98	2.28	2.10	2.41	2.07
(m³/min)	26	1.81	1.74	1.91	1.83	2.02	1.94	2.08	1.98	2.13	1.97	2.25	2.09	2.39	2.06
	28	1.78	1.71	1.89	1.81	1.99	1.91	2.05	1.97	2.10	1.96	2.22	2.08		
	30	1.76	1.69	1.86	1.79	1.96	1.88	2.02	1.94	2.07	1.95	2.18	2.06		
	32	1.73	1.66	1.83	1.76	1.93	1.85	1.99	1.91	2.04	1.94	2.15	2.05		
	34	1.70	1.63	1.80	1.73	1.90	1.82	1.95	1.87	2.01	1.92	2.11	2.03		
	35	1.69	1.62	1.78	1.71	1.89	1.81	1.94	1.86	1.99	1.91	2.10	2.02		
	36	1.65	1.58	1.75	1.68	1.85	1.78	1.90	1.82	1.94	1.86	2.03	1.95		
	38	1.58	1.52	1.67	1.60	1.77	1.70	1.82	1.75	1.85	1.78	1.90	1.82		
	39	1.55	1.49	1.64	1.57	1.73	1.66	1.78	1.71	1.80	1.73	1.84	1.77		
	41	1.46	1.40	1.54	1.48	1.62	1.56	1.65	1.58	1.67	1.60	1.68	1.61		
	43	1.35	1.30	1.42	1.36	1.48	1.42	1.48	1.42	1.49	1.43	1.50	1.44		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
Lo	-19.8	-20	1.22	1.21	1.20	1.19	1.18
	-17.8	-18	1.30	1.29	1.28	1.27	1.26
	-15.7	-16	1.38	1.37	1.36	1.35	1.34
	-13.7	-14	1.46	1.45	1.44	1.43	1.42
	-11.7	-12	1.55	1.54	1.53	1.52	1.50
	-9.6	-10	1.64	1.63	1.62	1.60	1.59
	-7.5	-8	1.74	1.73	1.72	1.70	1.69
8	-5.5	-6	1.84	1.83	1.82	1.80	1.79
(m³/min)	-3.4	-4	1.89	1.88	1.86	1.84	1.83
	-1.3	-2	1.89	1.87	1.86	1.84	1.82
	0.8	0	1.89	1.87	1.85	1.83	1.81
	3.9	3	2.05	2.03	2.01	1.99	1.97
	7.0	6	2.23	2.20	2.18	2.14	2.08
	10.1	9	2.41	2.39	2.36	2.27	2.10
	13.2	12	2.61	2.56	2.46	2.31	2.11
	16.9	15.5	2.81	2.73	2.52	2.32	2.10

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)

PJG000Z773

Model **FDUM28KXE6F-W** Cooling mode (kW)

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
P-Hi	10			3.07	2.95	3.25	3.12	3.35	3.21	3.44	3.19	3.64	3.38	3.84	3.34
	12			3.03	2.91	3.21	3.08	3.30	3.17	3.39	3.17	3.59	3.37	3.79	3.32
	14			2.99	2.87	3.16	3.03	3.25	3.12	3.35	3.16	3.54	3.35	3.73	3.30
	16			2.95	2.83	3.12	3.00	3.21	3.08	3.30	3.14	3.49	3.33	3.68	3.29
	18			2.91	2.79	3.08	2.96	3.17	3.04	3.26	3.12	3.44	3.30	3.63	3.27
	20			2.87	2.76	3.04	2.92	3.12	3.00	3.21	3.08	3.39	3.25	3.58	3.26
	22			2.84	2.73	3.00	2.88	3.08	2.96	3.17	3.04	3.34	3.21	3.53	3.25
13	24			2.80	2.69	2.96	2.84	3.04	2.92	3.12	3.00	3.30	3.17	3.48	3.23
(m³/min)	26	2.61	2.51	2.76	2.65	2.92	2.80	3.00	2.88	3.08	2.96	3.25	3.12	3.44	3.22
	28	2.58	2.48	2.72	2.61	2.87	2.76	2.95	2.83	3.03	2.91	3.20	3.07		
	30	2.54	2.44	2.68	2.57	2.83	2.72	2.91	2.79	2.99	2.87	3.15	3.02		
	32	2.50	2.40	2.64	2.53	2.79	2.68	2.87	2.76	2.94	2.82	3.10	2.98		
	34	2.46	2.36	2.60	2.50	2.74	2.63	2.82	2.71	2.90	2.78	3.05	2.93		
	35	2.44	2.34	2.57	2.47	2.72	2.61	2.80	2.69	2.87	2.76	3.03	2.91		
	36	2.39	2.29	2.52	2.42	2.66	2.55	2.74	2.63	2.80	2.69	2.93	2.81		
	38	2.29	2.20	2.42	2.32	2.55	2.45	2.62	2.52	2.67	2.56	2.74	2.63		
	39	2.24	2.15	2.36	2.27	2.49	2.39	2.57	2.47	2.60	2.50	2.65	2.54		
	41	2.11	2.03	2.22	2.13	2.33	2.24	2.39	2.29	2.40	2.30	2.43	2.33		
	43	1.94	1.86	2.05	1.97	2.13	2.04	2.14	2.05	2.15	2.06	2.17	2.08		

Heating mode (kW)

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
P-Hi	-19.8	-20	1.79	1.78	1.76	1.75	1.74
	-17.8	-18	1.91	1.90	1.88	1.86	1.85
	-15.7	-16	2.02	2.01	1.99	1.98	1.96
	-13.7	-14	2.15	2.13	2.12	2.10	2.08
	-11.7	-12	2.28	2.26	2.25	2.23	2.21
	-9.6	-10	2.41	2.39	2.38	2.35	2.34
	-7.5	-8	2.56	2.54	2.52	2.50	2.48
13	-5.5	-6	2.70	2.68	2.66	2.64	2.62
(m³/min)	-3.4	-4	2.78	2.75	2.73	2.71	2.69
	-1.3	-2	2.78	2.75	2.73	2.70	2.67
	0.8	0	2.77	2.74	2.72	2.69	2.66
	3.9	3	3.02	2.98	2.96	2.92	2.89
	7.0	6	3.27	3.23	3.20	3.14	3.05
	10.1	9	3.54	3.50	3.47	3.33	3.09
	13.2	12	3.83	3.76	3.61	3.40	3.10
	16.9	15.5	4.13	4.01	3.70	3.40	3.09

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
Hi	10			3.04	2.60	3.22	2.77	3.31	2.75	3.40	2.73	3.60	2.89	3.80	2.85
	12			3.00	2.58	3.17	2.75	3.26	2.73	3.36	2.72	3.55	2.87	3.75	2.83
	14			2.96	2.56	3.13	2.73	3.22	2.72	3.31	2.70	3.50	2.85	3.69	2.81
	16			2.92	2.54	3.09	2.72	3.18	2.70	3.26	2.68	3.45	2.84	3.64	2.80
	18			2.88	2.53	3.05	2.70	3.13	2.68	3.22	2.66	3.40	2.82	3.59	2.78
	20			2.84	2.51	3.01	2.68	3.09	2.67	3.18	2.65	3.35	2.80	3.54	2.75
	22			2.81	2.50	2.97	2.66	3.05	2.65	3.13	2.63	3.31	2.79	3.49	2.73
10	24			2.77	2.48	2.93	2.65	3.01	2.64	3.09	2.62	3.26	2.77	3.44	2.72
(m³/min)	26	2.58	2.48	2.73	2.46	2.89	2.63	2.96	2.61	3.05	2.60	3.21	2.74	3.41	2.71
	28	2.55	2.45	2.69	2.45	2.84	2.61	2.92	2.60	3.00	2.58	3.17	2.73		
	30	2.51	2.41	2.65	2.43	2.80	2.60	2.88	2.58	2.96	2.57	3.12	2.71		
	32	2.47	2.37	2.61	2.41	2.76	2.58	2.84	2.57	2.91	2.55	3.07	2.69		
	34	2.43	2.33	2.57	2.40	2.71	2.56	2.79	2.55	2.87	2.53	3.02	2.67		
	35	2.41	2.31	2.55	2.39	2.69	2.55	2.77	2.54	2.84	2.52	2.99	2.66		
	36	2.36	2.27	2.49	2.36	2.63	2.52	2.71	2.52	2.77	2.50	2.90	2.63		
	38	2.26	2.17	2.39	2.29	2.52	2.42	2.60	2.48	2.64	2.45	2.72	2.58		
	39	2.21	2.12	2.34	2.25	2.46	2.36	2.54	2.44	2.57	2.43	2.62	2.52		
	41	2.08	2.00	2.20	2.11	2.31	2.22	2.36	2.27	2.38	2.28	2.40	2.30		
	43	1.92	1.84	2.03	1.95	2.11	2.03	2.12	2.04	2.13	2.04	2.14	2.05		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
Hi	-19.8	-20	1.76	1.75	1.73	1.72	1.71
	-17.8	-18	1.88	1.87	1.85	1.83	1.82
	-15.7	-16	1.99	1.98	1.96	1.95	1.93
	-13.7	-14	2.11	2.10	2.08	2.07	2.05
	-11.7	-12	2.24	2.23	2.21	2.19	2.17
	-9.6	-10	2.37	2.35	2.34	2.32	2.30
	-7.5	-8	2.52	2.50	2.48	2.46	2.44
10	-5.5	-6	2.66	2.64	2.62	2.60	2.58
(m³/min)	-3.4	-4	2.73	2.71	2.69	2.67	2.64
	-1.3	-2	2.73	2.71	2.69	2.66	2.63
	0.8	0	2.73	2.70	2.68	2.65	2.62
	3.9	3	2.97	2.94	2.91	2.88	2.84
	7.0	6	3.22	3.18	3.15	3.09	3.00
	10.1	9	3.48	3.45	3.41	3.28	3.04
	13.2	12	3.77	3.70	3.55	3.34	3.05
	16.9	15.5	4.06	3.94	3.64	3.35	3.04

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
Me	10			2.95	2.43	3.12	2.58	3.21	2.57	3.30	2.55	3.49	2.69	3.69	2.65
	12			2.91	2.42	3.08	2.56	3.17	2.55	3.26	2.53	3.44	2.67	3.64	2.63
	14			2.87	2.40	3.04	2.55	3.13	2.53	3.21	2.51	3.40	2.65	3.59	2.62
	16			2.84	2.38	3.00	2.53	3.08	2.51	3.17	2.50	3.35	2.64	3.54	2.60
	18			2.80	2.36	2.96	2.52	3.04	2.50	3.13	2.48	3.30	2.62	3.49	2.58
	20			2.76	2.35	2.92	2.50	3.00	2.48	3.08	2.47	3.26	2.61	3.44	2.57
	22			2.72	2.33	2.88	2.48	2.96	2.47	3.04	2.45	3.21	2.59	3.39	2.55
9	24			2.69	2.32	2.84	2.47	2.92	2.45	3.00	2.44	3.17	2.58	3.34	2.54
(m³/min)	26	2.51	2.33	2.65	2.30	2.80	2.45	2.88	2.44	2.96	2.42	3.12	2.56	3.31	2.53
	28	2.47	2.31	2.62	2.29	2.76	2.44	2.84	2.42	2.91	2.40	3.07	2.54		
	30	2.44	2.29	2.58	2.27	2.72	2.42	2.80	2.41	2.87	2.39	3.03	2.53		
	32	2.40	2.28	2.54	2.25	2.68	2.40	2.75	2.39	2.83	2.37	2.98	2.51		
	34	2.36	2.26	2.49	2.23	2.64	2.38	2.71	2.37	2.78	2.36	2.93	2.49		
	35	2.34	2.25	2.47	2.22	2.61	2.37	2.69	2.36	2.76	2.35	2.91	2.49		
	36	2.29	2.20	2.42	2.20	2.56	2.35	2.63	2.34	2.69	2.32	2.82	2.44		
	38	2.20	2.11	2.32	2.16	2.45	2.31	2.52	2.30	2.56	2.27	2.64	2.38		
	39	2.15	2.06	2.27	2.14	2.39	2.29	2.47	2.28	2.50	2.25	2.55	2.35		
	41	2.02	1.94	2.14	2.05	2.24	2.15	2.29	2.20	2.31	2.18	2.33	2.24		
	43	1.87	1.80	1.97	1.89	2.05	1.97	2.06	1.98	2.07	1.99	2.08	2.00		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
Me	-19.8	-20	1.70	1.69	1.67	1.66	1.65
	-17.8	-18	1.81	1.80	1.78	1.77	1.76
	-15.7	-16	1.92	1.91	1.89	1.88	1.86
	-13.7	-14	2.04	2.03	2.01	2.00	1.98
	-11.7	-12	2.16	2.15	2.13	2.12	2.10
	-9.6	-10	2.29	2.27	2.26	2.24	2.22
	-7.5	-8	2.43	2.41	2.39	2.37	2.35
9	-5.5	-6	2.57	2.55	2.53	2.51	2.49
(m³/min)	-3.4	-4	2.64	2.61	2.60	2.57	2.55
	-1.3	-2	2.64	2.61	2.59	2.57	2.54
	0.8	0	2.64	2.61	2.59	2.56	2.53
	3.9	3	2.86	2.83	2.81	2.78	2.74
	7.0	6	3.10	3.07	3.04	2.98	2.90
	10.1	9	3.36	3.33	3.29	3.16	2.93
	13.2	12	3.64	3.57	3.43	3.23	2.94
	16.9	15.5	3.92	3.81	3.51	3.23	2.93

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
Lo	10			2.79	2.24	2.95	2.37	3.03	2.35	3.12	2.34	3.30	2.46	3.48	2.42
	12			2.75	2.22	2.91	2.35	2.99	2.33	3.08	2.32	3.25	2.44	3.43	2.40
	14			2.71	2.20	2.87	2.33	2.95	2.32	3.03	2.30	3.21	2.43	3.39	2.39
	16			2.68	2.19	2.83	2.32	2.91	2.30	2.99	2.29	3.16	2.41	3.34	2.37
	18			2.64	2.17	2.79	2.30	2.87	2.29	2.95	2.27	3.12	2.39	3.29	2.36
	20			2.61	2.16	2.76	2.29	2.83	2.27	2.91	2.26	3.08	2.38	3.24	2.34
	22			2.57	2.14	2.72	2.27	2.80	2.26	2.87	2.24	3.03	2.36	3.20	2.33
8	24			2.54	2.12	2.68	2.26	2.76	2.24	2.83	2.23	2.99	2.35	3.15	2.31
(m³/min)	26	2.37	2.13	2.50	2.11	2.65	2.24	2.72	2.23	2.79	2.21	2.95	2.33	3.12	2.30
	28	2.34	2.12	2.47	2.09	2.61	2.23	2.68	2.21	2.75	2.20	2.90	2.32		
	30	2.30	2.10	2.43	2.08	2.57	2.21	2.64	2.20	2.71	2.18	2.86	2.30		
	32	2.27	2.09	2.39	2.06	2.53	2.20	2.60	2.18	2.67	2.17	2.81	2.29		
	34	2.23	2.07	2.35	2.04	2.49	2.18	2.56	2.17	2.63	2.15	2.77	2.27		
	35	2.21	2.06	2.33	2.03	2.47	2.17	2.54	2.16	2.61	2.14	2.75	2.27		
	36	2.16	2.04	2.29	2.02	2.42	2.15	2.49	2.14	2.54	2.12	2.66	2.24		
	38	2.07	1.99	2.19	1.97	2.31	2.10	2.38	2.09	2.42	2.08	2.49	2.16		
	39	2.03	1.95	2.14	1.95	2.26	2.09	2.33	2.07	2.36	2.05	2.40	2.13		
	41	1.91	1.83	2.02	1.90	2.12	2.03	2.17	2.02	2.18	1.98	2.20	2.07		
	43	1.76	1.69	1.86	1.79	1.93	1.85	1.94	1.86	1.95	1.87	1.96	1.88		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
Lo	-19.8	-20	1.61	1.60	1.59	1.57	1.56
	-17.8	-18	1.72	1.71	1.69	1.68	1.66
	-15.7	-16	1.82	1.81	1.79	1.78	1.76
	-13.7	-14	1.93	1.92	1.90	1.89	1.87
	-11.7	-12	2.05	2.04	2.02	2.00	1.99
	-9.6	-10	2.17	2.15	2.14	2.12	2.10
	-7.5	-8	2.30	2.28	2.27	2.25	2.23
8	-5.5	-6	2.43	2.41	2.40	2.38	2.36
(m³/min)	-3.4	-4	2.50	2.48	2.46	2.44	2.42
	-1.3	-2	2.50	2.47	2.46	2.43	2.41
	0.8	0	2.50	2.47	2.45	2.42	2.40
	3.9	3	2.71	2.68	2.66	2.63	2.60
	7.0	6	2.94	2.91	2.88	2.83	2.75
	10.1	9	3.19	3.15	3.12	3.00	2.78
	13.2	12	3.45	3.38	3.25	3.06	2.79
	16.9	15.5	3.71	3.61	3.33	3.06	2.78

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)

PJG000Z773

Model **FDUM36KXE6F-W** Cooling mode (kW)

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
P-Hi	10			3.95	3.38	4.18	3.60	4.30	3.57	4.42	3.55	4.67	3.75	4.94	3.70
	12			3.90	3.35	4.12	3.57	4.24	3.55	4.36	3.53	4.61	3.73	4.87	3.68
	14			3.85	3.33	4.07	3.55	4.18	3.53	4.30	3.51	4.55	3.71	4.80	3.66
	16			3.79	3.31	4.01	3.53	4.13	3.51	4.24	3.48	4.48	3.69	4.73	3.63
	18			3.74	3.28	3.96	3.50	4.07	3.49	4.19	3.47	4.42	3.67	4.67	3.62
	20			3.69	3.26	3.91	3.48	4.02	3.47	4.13	3.44	4.36	3.65	4.60	3.57
	22			3.65	3.25	3.85	3.46	3.96	3.44	4.07	3.42	4.30	3.63	4.53	3.55
13	24			3.60	3.22	3.80	3.44	3.91	3.43	4.01	3.40	4.24	3.61	4.47	3.53
(m³/min)	26	3.36	3.23	3.55	3.20	3.75	3.42	3.85	3.39	3.96	3.38	4.18	3.59	4.43	3.52
	28	3.31	3.18	3.50	3.18	3.70	3.40	3.80	3.38	3.90	3.36	4.11	3.54		
	30	3.26	3.13	3.45	3.16	3.64	3.38	3.74	3.35	3.84	3.34	4.05	3.52		
	32	3.21	3.08	3.39	3.14	3.58	3.35	3.68	3.33	3.78	3.31	3.99	3.50		
	34	3.16	3.03	3.34	3.12	3.53	3.33	3.63	3.31	3.72	3.29	3.92	3.48		
	35	3.13	3.00	3.31	3.10	3.50	3.32	3.60	3.30	3.69	3.28	3.89	3.47		
	36	3.07	2.95	3.24	3.07	3.42	3.28	3.52	3.27	3.61	3.25	3.77	3.43		
	38	2.94	2.82	3.11	2.99	3.28	3.15	3.37	3.22	3.43	3.18	3.53	3.35		
	39	2.88	2.76	3.04	2.92	3.20	3.07	3.30	3.17	3.34	3.15	3.41	3.27		
	41	2.71	2.60	2.86	2.75	3.00	2.88	3.07	2.95	3.09	2.97	3.12	3.00		
	43	2.50	2.40	2.64	2.53	2.74	2.63	2.76	2.65	2.76	2.65	2.78	2.67		

Heating mode (kW)

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
P-Hi	-19.8	-20	2.24	2.22	2.20	2.19	2.17
	-17.8	-18	2.38	2.37	2.35	2.33	2.31
	-15.7	-16	2.53	2.51	2.49	2.47	2.45
	-13.7	-14	2.69	2.67	2.65	2.63	2.60
	-11.7	-12	2.85	2.83	2.81	2.78	2.76
	-9.6	-10	3.01	2.99	2.97	2.94	2.92
	-7.5	-8	3.19	3.17	3.15	3.12	3.10
13	-5.5	-6	3.38	3.35	3.33	3.30	3.28
(m³/min)	-3.4	-4	3.47	3.44	3.42	3.38	3.36
	-1.3	-2	3.47	3.44	3.41	3.38	3.34
	0.8	0	3.47	3.43	3.40	3.37	3.33
	3.9	3	3.77	3.73	3.70	3.65	3.61
	7.0	6	4.08	4.04	4.00	3.92	3.81
	10.1	9	4.43	4.38	4.33	4.16	3.86
	13.2	12	4.79	4.70	4.51	4.24	3.87
	16.9	15.5	5.16	5.01	4.62	4.25	3.86

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
Hi	10			3.90	2.99	4.12	3.14	4.24	3.12	4.36	3.10	4.61	3.25	4.87	3.20
	12			3.84	2.96	4.07	3.12	4.18	3.10	4.30	3.08	4.55	3.23	4.80	3.17
	14			3.79	2.94	4.01	3.09	4.13	3.08	4.24	3.05	4.48	3.20	4.73	3.15
	16			3.74	2.91	3.96	3.07	4.07	3.05	4.18	3.03	4.42	3.18	4.67	3.13
	18			3.69	2.89	3.90	3.05	4.02	3.03	4.13	3.01	4.36	3.16	4.60	3.11
	20			3.64	2.87	3.85	3.03	3.96	3.01	4.07	2.99	4.30	3.13	4.53	3.08
	22			3.60	2.85	3.80	3.01	3.91	2.99	4.02	2.97	4.24	3.11	4.47	3.06
10	24			3.55	2.83	3.75	2.98	3.85	2.96	3.96	2.94	4.18	3.09	4.41	3.04
(m³/min)	26	3.31	2.83	3.50	2.80	3.70	2.96	3.80	2.94	3.90	2.92	4.12	3.07	4.37	3.03
	28	3.27	2.81	3.45	2.78	3.64	2.94	3.74	2.92	3.85	2.90	4.06	3.05		
	30	3.22	2.79	3.40	2.76	3.59	2.92	3.69	2.90	3.79	2.88	3.99	3.02		
	32	3.17	2.76	3.35	2.74	3.53	2.89	3.63	2.88	3.73	2.86	3.93	3.00		
	34	3.11	2.73	3.29	2.71	3.48	2.87	3.58	2.86	3.67	2.83	3.87	2.98		
	35	3.09	2.73	3.26	2.70	3.45	2.86	3.55	2.84	3.64	2.82	3.84	2.97		
	36	3.03	2.70	3.20	2.67	3.38	2.83	3.47	2.81	3.56	2.79	3.72	2.93		
	38	2.90	2.64	3.06	2.61	3.23	2.77	3.33	2.76	3.38	2.72	3.48	2.85		
	39	2.84	2.61	3.00	2.58	3.16	2.74	3.25	2.73	3.29	2.69	3.36	2.81		
	41	2.67	2.53	2.82	2.50	2.96	2.66	3.03	2.64	3.05	2.60	3.08	2.69		
	43	2.46	2.36	2.60	2.41	2.70	2.56	2.72	2.52	2.73	2.48	2.75	2.59		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
Hi	-19.8	-20	2.20	2.18	2.16	2.15	2.13
	-17.8	-18	2.34	2.33	2.31	2.29	2.27
	-15.7	-16	2.49	2.47	2.45	2.43	2.41
	-13.7	-14	2.64	2.62	2.60	2.58	2.55
	-11.7	-12	2.80	2.78	2.76	2.74	2.71
	-9.6	-10	2.96	2.94	2.92	2.89	2.87
	-7.5	-8	3.14	3.12	3.10	3.07	3.04
10	-5.5	-6	3.32	3.29	3.27	3.24	3.22
(m³/min)	-3.4	-4	3.41	3.38	3.36	3.33	3.30
	-1.3	-2	3.41	3.38	3.35	3.32	3.28
	0.8	0	3.41	3.37	3.34	3.31	3.27
	3.9	3	3.70	3.66	3.63	3.59	3.55
	7.0	6	4.01	3.97	3.93	3.86	3.75
	10.1	9	4.35	4.30	4.26	4.09	3.79
	13.2	12	4.70	4.62	4.44	4.17	3.80
	16.9	15.5	5.07	4.92	4.54	4.17	3.79

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
Me	10			3.73	2.79	3.95	2.93	4.06	2.91	4.18	2.89	4.41	3.02	4.66	2.97
	12			3.68	2.77	3.89	2.91	4.01	2.89	4.12	2.87	4.35	3.00	4.60	2.95
	14			3.63	2.74	3.84	2.88	3.95	2.87	4.06	2.85	4.29	2.97	4.53	2.93
	16			3.58	2.72	3.79	2.86	3.90	2.85	4.01	2.83	4.23	2.95	4.47	2.91
	18			3.54	2.70	3.74	2.84	3.85	2.82	3.95	2.80	4.18	2.93	4.41	2.89
	20			3.49	2.68	3.69	2.82	3.79	2.80	3.90	2.78	4.12	2.91	4.34	2.86
	22			3.44	2.65	3.64	2.80	3.74	2.78	3.85	2.76	4.06	2.89	4.28	2.84
9	24			3.40	2.64	3.59	2.78	3.69	2.76	3.79	2.74	4.00	2.87	4.22	2.82
(m³/min)	26	3.17	2.64	3.35	2.61	3.54	2.76	3.64	2.74	3.74	2.72	3.95	2.85	4.18	2.81
	28	3.13	2.62	3.31	2.60	3.49	2.73	3.59	2.72	3.68	2.70	3.89	2.83		
	30	3.08	2.60	3.26	2.57	3.44	2.71	3.53	2.69	3.63	2.68	3.83	2.81		
	32	3.03	2.58	3.21	2.55	3.39	2.69	3.48	2.67	3.57	2.65	3.77	2.79		
	34	2.98	2.55	3.15	2.52	3.33	2.67	3.43	2.65	3.52	2.63	3.71	2.76		
	35	2.96	2.54	3.13	2.51	3.30	2.66	3.40	2.64	3.49	2.62	3.68	2.75		
	36	2.90	2.51	3.06	2.48	3.23	2.63	3.33	2.61	3.41	2.59	3.56	2.71		
	38	2.78	2.45	2.93	2.43	3.09	2.57	3.19	2.56	3.24	2.53	3.33	2.63		
	39	2.72	2.42	2.87	2.40	3.02	2.54	3.12	2.53	3.16	2.50	3.22	2.59		
	41	2.56	2.35	2.70	2.32	2.83	2.46	2.90	2.44	2.92	2.41	2.95	2.50		
	43	2.36	2.26	2.49	2.23	2.59	2.36	2.60	2.33	2.61	2.29	2.63	2.38		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
Me	-19.8	-20	2.10	2.08	2.06	2.05	2.03
	-17.8	-18	2.24	2.22	2.20	2.18	2.17
	-15.7	-16	2.37	2.36	2.34	2.32	2.30
	-13.7	-14	2.52	2.50	2.48	2.46	2.44
	-11.7	-12	2.67	2.65	2.63	2.61	2.59
	-9.6	-10	2.82	2.80	2.78	2.76	2.74
	-7.5	-8	2.99	2.97	2.95	2.93	2.90
9	-5.5	-6	3.17	3.14	3.12	3.09	3.07
(m³/min)	-3.4	-4	3.25	3.23	3.20	3.17	3.15
	-1.3	-2	3.25	3.22	3.20	3.16	3.13
	0.8	0	3.25	3.22	3.19	3.16	3.12
	3.9	3	3.53	3.49	3.46	3.43	3.38
	7.0	6	3.83	3.79	3.75	3.68	3.58
	10.1	9	4.15	4.11	4.06	3.90	3.62
	13.2	12	4.49	4.41	4.23	3.98	3.63
	16.9	15.5	4.84	4.70	4.33	3.98	3.62

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
Lo	10			3.46	2.55	3.66	2.67	3.76	2.65	3.87	2.64	4.09	2.75	4.32	2.71
	12			3.41	2.52	3.61	2.65	3.71	2.63	3.82	2.62	4.03	2.73	4.26	2.69
	14			3.36	2.50	3.56	2.63	3.66	2.61	3.76	2.59	3.98	2.71	4.20	2.67
	16			3.32	2.48	3.51	2.61	3.61	2.59	3.71	2.57	3.92	2.68	4.14	2.64
	18			3.28	2.46	3.46	2.58	3.56	2.57	3.66	2.55	3.87	2.67	4.08	2.62
	20			3.23	2.44	3.42	2.57	3.52	2.55	3.61	2.53	3.81	2.64	4.02	2.60
	22			3.19	2.42	3.37	2.55	3.47	2.53	3.56	2.51	3.76	2.62	3.97	2.58
8	24			3.15	2.40	3.33	2.53	3.42	2.51	3.51	2.49	3.71	2.61	3.91	2.56
(m³/min)	26	2.94	2.41	3.11	2.38	3.28	2.51	3.37	2.49	3.46	2.47	3.66	2.59	3.87	2.55
	28	2.90	2.39	3.06	2.36	3.23	2.49	3.32	2.47	3.41	2.45	3.60	2.57		
	30	2.86	2.37	3.02	2.34	3.19	2.47	3.27	2.45	3.36	2.43	3.54	2.54		
	32	2.81	2.35	2.97	2.32	3.14	2.45	3.22	2.43	3.31	2.41	3.49	2.53		
	34	2.76	2.32	2.92	2.30	3.09	2.43	3.17	2.41	3.26	2.39	3.43	2.50		
	35	2.74	2.31	2.90	2.29	3.06	2.41	3.15	2.40	3.23	2.38	3.41	2.50		
	36	2.68	2.28	2.84	2.26	3.00	2.39	3.08	2.37	3.16	2.35	3.30	2.46		
	38	2.57	2.23	2.72	2.21	2.87	2.33	2.95	2.32	3.00	2.29	3.09	2.38		
	39	2.52	2.20	2.66	2.18	2.80	2.31	2.89	2.29	2.92	2.26	2.98	2.34		
	41	2.37	2.13	2.50	2.11	2.62	2.23	2.69	2.22	2.70	2.18	2.73	2.26		
	43	2.18	2.04	2.31	2.03	2.40	2.14	2.41	2.11	2.42	2.08	2.44	2.15		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
Lo	-19.8	-20	1.96	1.95	1.93	1.91	1.90
	-17.8	-18	2.09	2.07	2.05	2.04	2.02
	-15.7	-16	2.21	2.20	2.18	2.16	2.14
	-13.7	-14	2.35	2.33	2.31	2.30	2.28
	-11.7	-12	2.49	2.48	2.46	2.44	2.42
	-9.6	-10	2.63	2.62	2.60	2.58	2.56
	-7.5	-8	2.79	2.77	2.76	2.73	2.71
8	-5.5	-6	2.96	2.93	2.91	2.89	2.87
(m³/min)	-3.4	-4	3.04	3.01	2.99	2.96	2.94
	-1.3	-2	3.04	3.01	2.98	2.95	2.92
	0.8	0	3.03	3.00	2.98	2.95	2.91
	3.9	3	3.30	3.26	3.23	3.20	3.16
	7.0	6	3.57	3.53	3.50	3.43	3.34
	10.1	9	3.87	3.83	3.79	3.64	3.38
	13.2	12	4.19	4.11	3.95	3.71	3.39
	16.9	15.5	4.51	4.38	4.04	3.72	3.38

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)

PJG000Z773

Model **FDUM45KXE6F-W** Cooling mode (kW)

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
P-Hi	10			4.94	3.82	5.23	4.03	5.38	4.00	5.53	3.98	5.84	4.17	6.17	4.10
	12			4.87	3.79	5.16	4.00	5.30	3.97	5.45	3.95	5.76	4.14	6.08	4.07
	14			4.81	3.76	5.08	3.97	5.23	3.94	5.38	3.92	5.68	4.11	6.00	4.05
	16			4.74	3.73	5.02	3.94	5.16	3.92	5.30	3.89	5.60	4.08	5.92	4.02
	18			4.68	3.70	4.95	3.91	5.09	3.89	5.23	3.86	5.53	4.05	5.83	3.99
	20			4.62	3.68	4.88	3.88	5.02	3.86	5.16	3.83	5.45	4.02	5.75	3.96
	22			4.56	3.65	4.82	3.86	4.95	3.83	5.09	3.81	5.37	4.00	5.67	3.94
13	24			4.50	3.62	4.75	3.83	4.88	3.80	5.02	3.78	5.30	3.97	5.59	3.91
(m³/min)	26	4.20	3.63	4.44	3.60	4.69	3.80	4.81	3.77	4.95	3.75	5.22	3.94	5.54	3.89
	28	4.14	3.60	4.38	3.57	4.62	3.77	4.75	3.75	4.88	3.72	5.14	3.91		
	30	4.08	3.57	4.31	3.54	4.55	3.75	4.68	3.72	4.80	3.69	5.06	3.89		
	32	4.01	3.54	4.24	3.51	4.48	3.72	4.61	3.70	4.73	3.67	4.98	3.86		
	34	3.95	3.51	4.17	3.48	4.41	3.69	4.53	3.66	4.66	3.64	4.90	3.83		
	35	3.91	3.49	4.14	3.46	4.37	3.67	4.50	3.65	4.62	3.63	4.87	3.82		
	36	3.83	3.45	4.05	3.42	4.28	3.64	4.40	3.61	4.51	3.58	4.71	3.77		
	38	3.68	3.39	3.88	3.34	4.10	3.56	4.22	3.54	4.29	3.50	4.41	3.66		
	39	3.60	3.35	3.80	3.31	4.00	3.52	4.13	3.51	4.18	3.46	4.26	3.61		
	41	3.38	3.24	3.57	3.21	3.75	3.42	3.84	3.39	3.86	3.35	3.90	3.47		
	43	3.12	3.00	3.30	3.10	3.42	3.28	3.44	3.24	3.46	3.20	3.48	3.33		

Heating mode (kW)

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
P-Hi	-19.8	-20	2.80	2.78	2.75	2.73	2.71
	-17.8	-18	2.98	2.96	2.93	2.91	2.89
	-15.7	-16	3.16	3.14	3.11	3.09	3.06
	-13.7	-14	3.36	3.34	3.31	3.28	3.25
	-11.7	-12	3.56	3.54	3.51	3.48	3.45
	-9.6	-10	3.76	3.74	3.71	3.68	3.65
	-7.5	-8	3.99	3.96	3.94	3.90	3.87
13	-5.5	-6	4.22	4.19	4.16	4.12	4.09
(m³/min)	-3.4	-4	4.34	4.30	4.27	4.23	4.20
	-1.3	-2	4.34	4.29	4.26	4.22	4.18
	0.8	0	4.34	4.29	4.25	4.21	4.16
	3.9	3	4.71	4.66	4.62	4.57	4.51
	7.0	6	5.10	5.05	5.00	4.91	4.77
	10.1	9	5.53	5.48	5.42	5.20	4.83
	13.2	12	5.98	5.88	5.64	5.31	4.84
	16.9	15.5	6.45	6.26	5.78	5.31	4.83

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
Hi	10			4.80	3.42	5.07	3.57	5.22	3.55	5.37	3.52	5.67	3.66	5.99	3.60
	12			4.73	3.38	5.01	3.54	5.15	3.52	5.29	3.49	5.60	3.63	5.91	3.57
	14			4.67	3.35	4.94	3.51	5.08	3.49	5.22	3.46	5.52	3.60	5.83	3.54
	16			4.61	3.32	4.87	3.48	5.01	3.46	5.15	3.43	5.44	3.57	5.74	3.51
	18			4.55	3.29	4.81	3.45	4.94	3.42	5.08	3.40	5.37	3.54	5.66	3.48
	20			4.48	3.26	4.74	3.41	4.88	3.39	5.01	3.37	5.29	3.51	5.58	3.45
	22			4.43	3.23	4.68	3.39	4.81	3.36	4.94	3.34	5.22	3.48	5.50	3.42
10	24			4.37	3.21	4.62	3.36	4.74	3.33	4.87	3.31	5.15	3.45	5.43	3.40
(m³/min)	26	4.08	3.21	4.31	3.18	4.55	3.33	4.68	3.31	4.80	3.28	5.07	3.42	5.38	3.38
	28	4.02	3.18	4.25	3.15	4.49	3.30	4.61	3.28	4.74	3.25	4.99	3.39		
	30	3.96	3.15	4.19	3.12	4.42	3.27	4.54	3.25	4.67	3.23	4.92	3.36		
	32	3.90	3.12	4.12	3.09	4.35	3.24	4.47	3.22	4.59	3.19	4.84	3.33		
	34	3.83	3.09	4.05	3.06	4.28	3.21	4.40	3.19	4.52	3.17	4.76	3.30		
	35	3.80	3.07	4.02	3.04	4.25	3.20	4.37	3.18	4.48	3.15	4.72	3.29		
	36	3.72	3.03	3.93	3.00	4.16	3.16	4.28	3.14	4.38	3.11	4.58	3.24		
	38	3.57	2.96	3.77	2.93	3.98	3.08	4.10	3.07	4.16	3.02	4.28	3.13		
	39	3.49	2.92	3.69	2.89	3.89	3.04	4.01	3.03	4.06	2.98	4.14	3.08		
	41	3.29	2.82	3.47	2.79	3.64	2.94	3.73	2.92	3.75	2.86	3.79	2.95		
	43	3.03	2.70	3.20	2.67	3.32	2.81	3.34	2.76	3.36	2.72	3.38	2.81		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
Hi	-19.8	-20	2.70	2.68	2.66	2.64	2.62
	-17.8	-18	2.88	2.86	2.83	2.81	2.79
	-15.7	-16	3.06	3.04	3.01	2.99	2.96
	-13.7	-14	3.24	3.22	3.19	3.17	3.14
	-11.7	-12	3.44	3.42	3.39	3.36	3.33
	-9.6	-10	3.63	3.61	3.59	3.55	3.53
	-7.5	-8	3.86	3.83	3.80	3.77	3.74
10	-5.5	-6	4.08	4.05	4.02	3.98	3.96
(m³/min)	-3.4	-4	4.19	4.15	4.13	4.09	4.05
	-1.3	-2	4.19	4.15	4.12	4.08	4.04
	0.8	0	4.19	4.14	4.11	4.06	4.02
	3.9	3	4.55	4.50	4.46	4.41	4.36
	7.0	6	4.93	4.88	4.83	4.74	4.61
	10.1	9	5.34	5.29	5.23	5.03	4.66
	13.2	12	5.78	5.68	5.45	5.13	4.67
	16.9	15.5	6.23	6.05	5.58	5.13	4.66

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
Me	10			4.48	3.16	4.74	3.29	4.88	3.27	5.01	3.25	5.30	3.37	5.59	3.31
	12			4.42	3.13	4.67	3.26	4.81	3.24	4.94	3.22	5.22	3.34	5.52	3.29
	14			4.36	3.10	4.61	3.23	4.74	3.21	4.88	3.19	5.15	3.31	5.44	3.26
	16			4.30	3.06	4.55	3.21	4.68	3.19	4.81	3.16	5.08	3.28	5.36	3.23
	18			4.24	3.03	4.49	3.18	4.62	3.16	4.74	3.13	5.01	3.26	5.29	3.20
	20			4.19	3.01	4.43	3.15	4.55	3.13	4.68	3.11	4.94	3.23	5.21	3.17
	22			4.13	2.98	4.37	3.12	4.49	3.10	4.61	3.08	4.87	3.20	5.14	3.15
9	24			4.08	2.96	4.31	3.09	4.43	3.08	4.55	3.05	4.81	3.18	5.07	3.12
(m³/min)	26	3.81	2.96	4.02	2.93	4.25	3.07	4.36	3.04	4.49	3.03	4.74	3.15	5.02	3.10
	28	3.75	2.93	3.97	2.90	4.19	3.04	4.30	3.01	4.42	2.99	4.66	3.12		
	30	3.70	2.91	3.91	2.87	4.13	3.01	4.24	2.99	4.36	2.97	4.59	3.09		
	32	3.64	2.88	3.85	2.85	4.06	2.98	4.18	2.96	4.29	2.94	4.52	3.06		
	34	3.58	2.85	3.78	2.81	4.00	2.95	4.11	2.93	4.22	2.91	4.45	3.03		
	35	3.55	2.83	3.75	2.80	3.96	2.94	4.08	2.92	4.19	2.90	4.41	3.02		
	36	3.48	2.80	3.67	2.76	3.88	2.90	3.99	2.88	4.09	2.86	4.27	2.97		
	38	3.33	2.72	3.52	2.69	3.71	2.83	3.82	2.81	3.89	2.78	4.00	2.87		
	39	3.26	2.69	3.44	2.65	3.63	2.79	3.74	2.78	3.79	2.74	3.86	2.82		
	41	3.07	2.59	3.24	2.56	3.40	2.70	3.48	2.67	3.50	2.62	3.54	2.70		
	43	2.83	2.48	2.99	2.45	3.10	2.57	3.12	2.53	3.13	2.48	3.16	2.57		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
Me	-19.8	-20	2.51	2.50	2.47	2.45	2.43
	-17.8	-18	2.68	2.66	2.63	2.62	2.59
	-15.7	-16	2.84	2.82	2.80	2.78	2.75
	-13.7	-14	3.01	2.99	2.97	2.95	2.92
	-11.7	-12	3.20	3.18	3.15	3.13	3.10
	-9.6	-10	3.38	3.36	3.33	3.30	3.28
	-7.5	-8	3.59	3.56	3.54	3.50	3.48
9	-5.5	-6	3.79	3.76	3.74	3.70	3.68
(m³/min)	-3.4	-4	3.90	3.86	3.84	3.80	3.77
	-1.3	-2	3.89	3.86	3.83	3.79	3.75
	0.8	0	3.89	3.85	3.82	3.78	3.73
	3.9	3	4.23	4.18	4.15	4.10	4.05
	7.0	6	4.58	4.53	4.49	4.41	4.28
	10.1	9	4.97	4.92	4.86	4.67	4.33
	13.2	12	5.37	5.28	5.07	4.76	4.34
	16.9	15.5	5.79	5.62	5.19	4.77	4.33

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
Lo	10			4.19	2.91	4.44	3.04	4.56	3.01	4.69	2.99	4.96	3.10	5.24	3.05
	12			4.14	2.89	4.38	3.01	4.50	2.99	4.63	2.97	4.89	3.07	5.16	3.01
	14			4.08	2.86	4.32	2.98	4.44	2.96	4.56	2.93	4.82	3.04	5.09	2.99
	16			4.03	2.83	4.26	2.95	4.38	2.93	4.50	2.91	4.76	3.02	5.02	2.96
	18			3.97	2.80	4.20	2.92	4.32	2.90	4.44	2.88	4.69	2.99	4.95	2.94
	20			3.92	2.78	4.14	2.89	4.26	2.88	4.38	2.86	4.63	2.96	4.88	2.91
	22			3.87	2.75	4.09	2.87	4.20	2.85	4.32	2.83	4.56	2.94	4.81	2.88
8	24			3.82	2.72	4.03	2.84	4.14	2.82	4.26	2.80	4.50	2.91	4.74	2.86
(m³/min)	26	3.56	2.72	3.77	2.70	3.98	2.82	4.09	2.80	4.20	2.78	4.43	2.88	4.70	2.84
	28	3.51	2.70	3.71	2.67	3.92	2.79	4.03	2.77	4.14	2.75	4.37	2.86		
	30	3.46	2.67	3.66	2.64	3.86	2.76	3.97	2.75	4.08	2.73	4.30	2.83		
	32	3.41	2.65	3.60	2.62	3.80	2.73	3.91	2.72	4.02	2.70	4.23	2.81		
	34	3.35	2.62	3.54	2.59	3.74	2.71	3.85	2.69	3.95	2.67	4.16	2.78		
	35	3.32	2.60	3.51	2.57	3.71	2.69	3.82	2.68	3.92	2.66	4.13	2.77		
	36	3.26	2.57	3.44	2.54	3.63	2.66	3.74	2.64	3.83	2.62	4.00	2.71		
	38	3.12	2.50	3.30	2.47	3.48	2.59	3.58	2.58	3.64	2.54	3.74	2.62		
	39	3.05	2.46	3.22	2.43	3.40	2.56	3.50	2.54	3.55	2.51	3.62	2.57		
	41	2.87	2.38	3.03	2.35	3.18	2.46	3.26	2.44	3.28	2.40	3.31	2.46		
	43	2.65	2.26	2.80	2.24	2.91	2.35	2.92	2.31	2.93	2.26	2.95	2.33		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
Lo	-19.8	-20	2.36	2.34	2.32	2.30	2.28
	-17.8	-18	2.51	2.49	2.47	2.45	2.43
	-15.7	-16	2.66	2.65	2.62	2.60	2.58
	-13.7	-14	2.83	2.81	2.78	2.76	2.74
	-11.7	-12	3.00	2.98	2.96	2.93	2.91
	-9.6	-10	3.17	3.15	3.13	3.10	3.07
	-7.5	-8	3.36	3.34	3.32	3.29	3.26
8	-5.5	-6	3.56	3.53	3.51	3.47	3.45
(m³/min)	-3.4	-4	3.65	3.62	3.60	3.56	3.53
	-1.3	-2	3.65	3.62	3.59	3.55	3.52
	0.8	0	3.65	3.61	3.58	3.54	3.50
	3.9	3	3.97	3.92	3.89	3.85	3.80
	7.0	6	4.30	4.25	4.21	4.13	4.01
	10.1	9	4.66	4.61	4.56	4.38	4.06
	13.2	12	5.04	4.95	4.75	4.47	4.07
	16.9	15.5	5.43	5.27	4.86	4.47	4.06

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)

PJG000Z773

Model **FDUM56KXE6F-W** Cooling mode (kW)

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
P-Hi	10			6.15	4.40	6.50	4.60	6.69	4.57	6.88	4.54	7.27	4.72	7.68	4.64
	12			6.06	4.35	6.42	4.56	6.60	4.53	6.79	4.50	7.17	4.68	7.57	4.60
	14			5.98	4.31	6.33	4.52	6.51	4.49	6.69	4.46	7.07	4.64	7.47	4.56
	16			5.90	4.27	6.24	4.47	6.42	4.45	6.60	4.42	6.97	4.60	7.36	4.52
	18			5.82	4.24	6.16	4.44	6.34	4.41	6.51	4.38	6.88	4.56	7.26	4.49
	20			5.75	4.20	6.08	4.40	6.25	4.37	6.42	4.34	6.78	4.52	7.15	4.45
	22			5.67	4.16	5.99	4.36	6.16	4.33	6.33	4.30	6.69	4.49	7.05	4.41
13 (m³/min)	24			5.60	4.13	5.91	4.33	6.08	4.30	6.25	4.27	6.60	4.46	6.95	4.38
	26	5.22	4.14	5.52	4.09	5.83	4.29	5.99	4.26	6.16	4.23	6.50	4.41	6.89	4.36
	28	5.15	4.10	5.44	4.05	5.75	4.26	5.91	4.23	6.07	4.19	6.40	4.37		
	30	5.08	4.07	5.37	4.02	5.66	4.22	5.82	4.19	5.98	4.16	6.30	4.34		
	32	4.99	4.02	5.28	3.98	5.58	4.18	5.73	4.15	5.89	4.12	6.20	4.30		
	34	4.91	3.98	5.19	3.94	5.49	4.14	5.64	4.11	5.79	4.08	6.10	4.26		
	35	4.87	3.96	5.15	3.92	5.44	4.12	5.60	4.10	5.75	4.06	6.05	4.24		
	36	4.77	3.91	5.04	3.87	5.33	4.07	5.48	4.05	5.61	4.01	5.87	4.18		
	38	4.57	3.81	4.83	3.77	5.10	3.97	5.25	3.95	5.33	3.90	5.49	4.04		
	39	4.48	3.77	4.72	3.72	4.98	3.92	5.13	3.90	5.20	3.85	5.30	3.97		
	41	4.21	3.63	4.45	3.60	4.66	3.79	4.77	3.76	4.81	3.70	4.85	3.81		
	43	3.88	3.48	4.11	3.44	4.26	3.63	4.29	3.57	4.30	3.51	4.33	3.64		

Heating mode (kW)

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃DB	18 ℃DB	20 ℃DB	22 ℃DB	24 ℃DB
P-Hi	-19.8	-20	3.52	3.50	3.47	3.44	3.42
	-17.8	-18	3.76	3.73	3.70	3.67	3.64
	-15.7	-16	3.99	3.96	3.92	3.90	3.86
	-13.7	-14	4.23	4.20	4.17	4.14	4.10
	-11.7	-12	4.48	4.46	4.42	4.39	4.35
	-9.6	-10	4.74	4.71	4.68	4.64	4.60
	-7.5	-8	5.03	4.99	4.96	4.92	4.88
13 (m³/min)	-5.5	-6	5.32	5.28	5.25	5.20	5.16
	-3.4	-4	5.47	5.42	5.38	5.33	5.29
	-1.3	-2	5.46	5.41	5.37	5.32	5.26
	0.8	0	5.46	5.40	5.36	5.30	5.24
	3.9	3	5.94	5.87	5.82	5.75	5.69
	7.0	6	6.43	6.36	6.30	6.18	6.01
	10.1	9	6.97	6.90	6.82	6.56	6.08
	13.2	12	7.54	7.40	7.11	6.69	6.10
	16.9	15.5	8.12	7.89	7.28	6.69	6.08

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
Hi	10			5.90	3.99	6.25	4.14	6.43	4.12	6.61	4.09	6.98	4.21	7.38	4.14
	12			5.83	3.95	6.16	4.10	6.34	4.07	6.52	4.04	6.89	4.17	7.27	4.09
	14			5.75	3.91	6.08	4.06	6.25	4.03	6.43	4.00	6.79	4.13	7.17	4.05
	16			5.67	3.86	6.00	4.02	6.17	3.99	6.34	3.96	6.70	4.09	7.07	4.01
	18			5.60	3.83	5.92	3.98	6.09	3.95	6.25	3.92	6.61	4.05	6.97	3.97
	20			5.52	3.79	5.84	3.94	6.00	3.91	6.17	3.88	6.51	4.01	6.87	3.94
	22			5.45	3.75	5.76	3.90	5.92	3.87	6.08	3.84	6.43	3.97	6.78	3.90
10 (m³/min)	24			5.38	3.71	5.68	3.86	5.84	3.83	6.00	3.80	6.34	3.94	6.68	3.86
	26	5.02	3.71	5.31	3.68	5.60	3.82	5.76	3.79	5.92	3.76	6.24	3.89	6.62	3.84
	28	4.95	3.68	5.23	3.64	5.52	3.78	5.67	3.75	5.83	3.72	6.15	3.85		
	30	4.88	3.64	5.16	3.60	5.44	3.74	5.59	3.72	5.74	3.69	6.05	3.81		
	32	4.80	3.59	5.07	3.55	5.36	3.70	5.51	3.68	5.65	3.65	5.96	3.77		
	34	4.72	3.55	4.99	3.51	5.27	3.66	5.42	3.64	5.57	3.61	5.86	3.73		
	35	4.68	3.53	4.95	3.49	5.23	3.64	5.38	3.62	5.52	3.59	5.82	3.72		
	36	4.58	3.47	4.84	3.44	5.12	3.59	5.27	3.57	5.39	3.53	5.64	3.65		
	38	4.39	3.37	4.64	3.34	4.90	3.49	5.04	3.47	5.12	3.42	5.27	3.50		
	39	4.30	3.33	4.54	3.29	4.79	3.44	4.93	3.42	4.99	3.36	5.09	3.43		
	41	4.05	3.20	4.27	3.16	4.48	3.30	4.59	3.27	4.62	3.21	4.66	3.27		
	43	3.73	3.04	3.94	3.00	4.09	3.13	4.12	3.07	4.13	3.01	4.16	3.08		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃DB	18 ℃DB	20 ℃DB	22 ℃DB	24 ℃DB
Hi	-19.8	-20	3.40	3.37	3.34	3.32	3.29
	-17.8	-18	3.62	3.60	3.56	3.54	3.50
	-15.7	-16	3.84	3.82	3.78	3.75	3.72
	-13.7	-14	4.08	4.05	4.01	3.98	3.95
	-11.7	-12	4.32	4.29	4.26	4.23	4.19
	-9.6	-10	4.57	4.54	4.51	4.47	4.43
	-7.5	-8	4.85	4.81	4.78	4.74	4.70
10 (m³/min)	-5.5	-6	5.13	5.09	5.05	5.01	4.97
	-3.4	-4	5.27	5.22	5.19	5.14	5.09
	-1.3	-2	5.27	5.21	5.17	5.12	5.07
	0.8	0	5.26	5.21	5.16	5.11	5.05
	3.9	3	5.72	5.66	5.61	5.54	5.48
	7.0	6	6.20	6.13	6.07	5.96	5.79
	10.1	9	6.72	6.65	6.57	6.32	5.86
	13.2	12	7.26	7.13	6.85	6.44	5.87
	16.9	15.5	7.83	7.60	7.01	6.45	5.86

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
Me	10			5.51	3.70	5.83	3.83	6.00	3.81	6.17	3.78	6.52	3.90	6.88	3.83
	12			5.44	3.66	5.75	3.79	5.92	3.77	6.08	3.74	6.43	3.85	6.79	3.79
	14			5.36	3.62	5.67	3.75	5.84	3.73	6.00	3.70	6.34	3.81	6.69	3.74
	16			5.29	3.58	5.60	3.72	5.76	3.69	5.92	3.66	6.25	3.78	6.60	3.71
	18			5.22	3.54	5.52	3.68	5.68	3.65	5.84	3.63	6.16	3.74	6.51	3.67
	20			5.15	3.50	5.45	3.64	5.60	3.62	5.76	3.59	6.08	3.70	6.41	3.63
	22			5.08	3.47	5.37	3.60	5.52	3.58	5.68	3.55	6.00	3.67	6.32	3.60
9 (m³/min)	24			5.02	3.43	5.30	3.56	5.45	3.54	5.60	3.52	5.91	3.63	6.23	3.56
	26	4.68	3.43	4.95	3.40	5.23	3.53	5.37	3.50	5.52	3.48	5.83	3.59	6.17	3.54
	28	4.62	3.40	4.88	3.36	5.15	3.49	5.29	3.46	5.44	3.44	5.74	3.56		
	30	4.55	3.36	4.81	3.33	5.08	3.46	5.22	3.43	5.36	3.40	5.65	3.52		
	32	4.48	3.32	4.73	3.28	5.00	3.42	5.14	3.39	5.28	3.37	5.56	3.48		
	34	4.40	3.28	4.65	3.24	4.92	3.38	5.06	3.36	5.19	3.33	5.47	3.44		
	35	4.37	3.26	4.61	3.22	4.88	3.36	5.02	3.34	5.15	3.31	5.43	3.42		
	36	4.28	3.21	4.52	3.18	4.77	3.31	4.91	3.29	5.03	3.26	5.26	3.36		
	38	4.10	3.11	4.33	3.08	4.57	3.22	4.71	3.20	4.78	3.15	4.92	3.22		
	39	4.01	3.07	4.24	3.03	4.47	3.17	4.60	3.15	4.66	3.10	4.75	3.15		
	41	3.78	2.95	3.99	2.91	4.18	3.03	4.28	3.01	4.31	2.95	4.35	3.00		
	43	3.48	2.80	3.68	2.77	3.82	2.88	3.84	2.82	3.86	2.77	3.88	2.82		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃DB	18 ℃DB	20 ℃DB	22 ℃DB	24 ℃DB
Me	-19.8	-20	3.11	3.09	3.06	3.04	3.01
	-17.8	-18	3.31	3.29	3.26	3.24	3.21
	-15.7	-16	3.52	3.50	3.46	3.44	3.41
	-13.7	-14	3.73	3.71	3.68	3.65	3.61
	-11.7	-12	3.96	3.93	3.90	3.87	3.84
	-9.6	-10	4.18	4.16	4.13	4.09	4.06
	-7.5	-8	4.44	4.41	4.38	4.34	4.31
9 (m³/min)	-5.5	-6	4.70	4.66	4.63	4.59	4.55
	-3.4	-4	4.82	4.78	4.75	4.70	4.67
	-1.3	-2	4.82	4.78	4.74	4.69	4.65
	0.8	0	4.82	4.77	4.73	4.68	4.62
	3.9	3	5.24	5.18	5.14	5.08	5.02
	7.0	6	5.68	5.61	5.56	5.46	5.30
	10.1	9	6.15	6.09	6.02	5.79	5.37
	13.2	12	6.65	6.53	6.27	5.90	5.38
	16.9	15.5	7.17	6.96	6.42	5.91	5.37

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
Lo	10			5.09	3.40	5.39	3.52	5.54	3.50	5.70	3.47	6.02	3.57	6.36	3.50
	12			5.02	3.36	5.32	3.48	5.47	3.46	5.62	3.43	5.94	3.53	6.27	3.47
	14			4.96	3.32	5.24	3.44	5.39	3.42	5.54	3.39	5.86	3.49	6.19	3.43
	16			4.89	3.29	5.17	3.40	5.32	3.38	5.47	3.36	5.78	3.46	6.10	3.39
	18			4.83	3.25	5.10	3.37	5.25	3.35	5.39	3.32	5.70	3.42	6.01	3.36
	20			4.76	3.22	5.03	3.33	5.18	3.31	5.32	3.28	5.62	3.38	5.93	3.32
	22			4.70	3.18	4.97	3.30	5.11	3.28	5.25	3.25	5.54	3.35	5.84	3.28
8 (m³/min)	24			4.64	3.15	4.90	3.27	5.03	3.24	5.17	3.21	5.46	3.31	5.76	3.25
	26	4.33	3.15	4.58	3.12	4.83	3.23	4.96	3.20	5.10	3.18	5.39	3.28	5.71	3.23
	28	4.27	3.11	4.51	3.08	4.76	3.19	4.89	3.17	5.03	3.15	5.30	3.25		
	30	4.21	3.08	4.45	3.05	4.69	3.16	4.82	3.14	4.95	3.11	5.22	3.21		
	32	4.14	3.04	4.37	3.00	4.62	3.12	4.75	3.10	4.88	3.08	5.14	3.18		
	34	4.07	3.00	4.30	2.97	4.55	3.09	4.67	3.06	4.80	3.04	5.06	3.14		
	35	4.04	2.98	4.27	2.95	4.51	3.07	4.64	3.05	4.76	3.02	5.02	3.13		
	36	3.95	2.94	4.18	2.91	4.41	3.02	4.54	3.00	4.65	2.97	4.86	3.06		
	38	3.79	2.85	4.00	2.82	4.22	2.93	4.35	2.92	4.42	2.87	4.55	2.93		
	39	3.71	2.80	3.91	2.77	4.13	2.89	4.25	2.87	4.31	2.82	4.39	2.87		
	41	3.49	2.69	3.69	2.66	3.87	2.77	3.96	2.74	3.98	2.69	4.02	2.72		
	43	3.22	2.55	3.40	2.52	3.53	2.61	3.55	2.56	3.56	2.51	3.59	2.56		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃DB	18 ℃DB	20 ℃DB	22 ℃DB	24 ℃DB
Lo	-19.8	-20	2.89	2.87	2.85	2.82	2.80
	-17.8	-18	3.08	3.06	3.03	3.01	2.98
	-15.7	-16	3.27	3.25	3.22	3.20	3.17
	-13.7	-14	3.47	3.45	3.42	3.39	3.36
	-11.7	-12	3.68	3.66	3.63	3.60	3.57
	-9.6	-10	3.89	3.87	3.84	3.80	3.78
	-7.5	-8	4.13	4.10	4.07	4.03	4.00
8 (m³/min)	-5.5	-6	4.37	4.33	4.30	4.27	4.23
	-3.4	-4	4.49	4.45	4.42	4.37	4.34
	-1.3	-2	4.48	4.44	4.41	4.36	4.32
	0.8	0	4.48	4.43	4.40	4.35	4.30
	3.9	3	4.87	4.82	4.78	4.72	4.67
	7.0	6	5.28	5.22	5.17	5.07	4.93
	10.1	9	5.72	5.66	5.60	5.38	4.99
	13.2	12	6.19	6.08	5.83	5.49	5.00
	16.9	15.5	6.67	6.47	5.97	5.49	4.99

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)

PJG000Z773

Model **FDUM71KXE6F-W** Cooling mode (kW)

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
	10			7.79	6.19	8.24	6.54	8.48	6.50	8.72	6.46	9.22	6.78	9.73	6.68
	12			7.69	6.14	8.13	6.50	8.37	6.46	8.60	6.41	9.09	6.74	9.60	6.64
	14			7.58	6.09	8.02	6.44	8.25	6.41	8.48	6.37	8.96	6.69	9.47	6.60
	16			7.48	6.05	7.91	6.40	8.14	6.36	8.37	6.32	8.84	6.66	9.33	6.56
	18			7.38	6.01	7.81	6.36	8.03	6.32	8.25	6.27	8.72	6.60	9.20	6.50
P-Hi	20			7.29	5.96	7.70	6.32	7.92	6.28	8.14	6.24	8.60	6.56	9.07	6.47
	22			7.19	5.92	7.60	6.27	7.81	6.24	8.03	6.20	8.48	6.52	8.94	6.43
24	24			7.10	5.88	7.50	6.23	7.70	6.18	7.92	6.14	8.36	6.47	8.82	6.39
(m³/min)	26	6.62	5.89	7.00	5.84	7.40	6.19	7.60	6.15	7.81	6.10	8.24	6.43	8.73	6.35
	28	6.53	5.85	6.90	5.79	7.29	6.15	7.49	6.11	7.69	6.06	8.11	6.39		
	30	6.44	5.81	6.80	5.74	7.18	6.10	7.38	6.07	7.58	6.02	7.99	6.35		
	32	6.33	5.76	6.69	5.70	7.07	6.05	7.27	6.01	7.46	5.97	7.86	6.31		
	34	6.23	5.72	6.58	5.65	6.96	6.01	7.15	5.97	7.34	5.93	7.74	6.26		
	35	6.18	5.68	6.53	5.63	6.90	5.99	7.10	5.95	7.29	5.91	7.68	6.24		
	36	6.05	5.63	6.39	5.56	6.75	5.93	6.95	5.90	7.11	5.85	7.44	6.16		
	38	5.80	5.51	6.12	5.45	6.46	5.81	6.66	5.78	6.76	5.71	6.96	6.00		
	39	5.67	5.44	5.99	5.40	6.32	5.75	6.51	5.72	6.59	5.65	6.72	5.92		
	41	5.34	5.13	5.64	5.25	5.91	5.59	6.05	5.55	6.09	5.47	6.15	5.73		
	43	4.92	4.72	5.20	4.99	5.40	5.18	5.43	5.21	5.45	5.23	5.49	5.27		

Heating mode (kW)

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
	-19.8	-20	4.48	4.45	4.40	4.37	4.34
	-17.8	-18	4.77	4.74	4.69	4.66	4.62
	-15.7	-16	5.06	5.03	4.98	4.95	4.90
	-13.7	-14	5.37	5.34	5.29	5.25	5.20
	-11.7	-12	5.69	5.66	5.62	5.57	5.52
P-Hi	-9.6	-10	6.02	5.98	5.94	5.89	5.84
	-7.5	-8	6.39	6.34	6.30	6.24	6.20
24	-5.5	-6	6.76	6.70	6.66	6.60	6.55
(m³/min)	-3.4	-4	6.94	6.88	6.83	6.77	6.71
	-1.3	-2	6.94	6.87	6.82	6.75	6.68
	0.8	0	6.94	6.86	6.81	6.73	6.65
	3.9	3	7.54	7.46	7.39	7.31	7.22
	7.0	6	8.17	8.08	8.00	7.85	7.63
	10.1	9	8.85	8.76	8.66	8.32	7.72
	13.2	12	9.57	9.40	9.03	8.49	7.74
	16.9	15.5	10.31	10.02	9.24	8.50	7.72

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
	10			7.56	5.59	8.00	5.87	8.23	5.83	8.46	5.79	8.95	6.04	9.45	5.94
	12			7.46	5.54	7.89	5.82	8.12	5.79	8.35	5.74	8.82	5.99	9.32	5.90
	14			7.36	5.49	7.79	5.77	8.01	5.74	8.23	5.70	8.70	5.95	9.19	5.86
	16			7.26	5.45	7.68	5.73	7.90	5.69	8.12	5.65	8.58	5.91	9.06	5.82
	18			7.17	5.40	7.58	5.68	7.80	5.65	8.01	5.61	8.46	5.86	8.93	5.76
Hi	20			7.07	5.36	7.47	5.64	7.69	5.61	7.90	5.56	8.34	5.81	8.80	5.72
	22			6.98	5.32	7.38	5.59	7.58	5.55	7.79	5.51	8.23	5.78	8.68	5.68
19	24			6.89	5.28	7.28	5.55	7.48	5.51	7.68	5.47	8.11	5.73	8.55	5.63
(m³/min)	26	6.43	5.29	6.79	5.22	7.18	5.51	7.37	5.47	7.58	5.43	8.00	5.69	8.47	5.61
	28	6.34	5.25	6.70	5.19	7.07	5.46	7.27	5.42	7.47	5.39	7.87	5.64		
	30	6.25	5.20	6.60	5.14	6.97	5.42	7.16	5.38	7.36	5.34	7.75	5.59		
	32	6.14	5.14	6.50	5.10	6.86	5.37	7.05	5.34	7.24	5.30	7.63	5.55		
	34	6.04	5.10	6.39	5.04	6.75	5.33	6.94	5.29	7.13	5.26	7.51	5.51		
	35	5.99	5.07	6.33	5.02	6.69	5.30	6.89	5.27	7.07	5.24	7.45	5.49		
	36	5.87	5.00	6.20	4.94	6.55	5.24	6.74	5.21	6.90	5.16	7.22	5.40		
	38	5.63	4.89	5.94	4.83	6.27	5.12	6.46	5.09	6.56	5.03	6.75	5.24		
	39	5.51	4.84	5.81	4.78	6.13	5.07	6.32	5.04	6.39	4.97	6.52	5.16		
	41	5.18	4.69	5.47	4.63	5.74	4.89	5.87	4.84	5.91	4.77	5.97	4.97		
	43	4.78	4.50	5.05	4.45	5.24	4.69	5.27	4.62	5.29	4.55	5.33	4.72		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
	-19.8	-20	4.33	4.30	4.26	4.23	4.20
	-17.8	-18	4.61	4.58	4.54	4.51	4.47
	-15.7	-16	4.90	4.87	4.82	4.79	4.74
	-13.7	-14	5.20	5.16	5.12	5.08	5.03
	-11.7	-12	5.51	5.47	5.43	5.39	5.34
Hi	-9.6	-10	5.82	5.79	5.75	5.69	5.65
	-7.5	-8	6.18	6.14	6.10	6.04	5.99
19	-5.5	-6	6.54	6.49	6.44	6.39	6.34
(m³/min)	-3.4	-4	6.72	6.66	6.61	6.55	6.50
	-1.3	-2	6.71	6.65	6.60	6.53	6.47
	0.8	0	6.71	6.64	6.59	6.51	6.44
	3.9	3	7.29	7.21	7.15	7.07	6.98
	7.0	6	7.90	7.82	7.74	7.59	7.38
	10.1	9	8.56	8.48	8.38	8.05	7.47
	13.2	12	9.26	9.10	8.73	8.21	7.49
	16.9	15.5	9.98	9.69	8.94	8.22	7.47

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
	10			7.19	5.04	7.61	5.27	7.83	5.23	8.05	5.20	8.50	5.38	8.98	5.29
	12			7.09	4.99	7.50	5.21	7.72	5.18	7.94	5.15	8.39	5.34	8.86	5.25
	14			7.00	4.95	7.40	5.17	7.61	5.13	7.83	5.10	8.27	5.29	8.73	5.20
	16			6.90	4.90	7.30	5.12	7.51	5.09	7.72	5.05	8.16	5.25	8.61	5.16
	18			6.81	4.86	7.20	5.07	7.41	5.04	7.62	5.00	8.04	5.20	8.49	5.11
Me	20			6.72	4.81	7.11	5.03	7.31	5.00	7.51	4.96	7.93	5.15	8.37	5.06
	22			6.63	4.77	7.01	4.98	7.21	4.96	7.41	4.92	7.82	5.11	8.25	5.02
15	24			6.55	4.73	6.92	4.94	7.11	4.91	7.31	4.87	7.71	5.07	8.13	4.98
(m³/min)	26	6.11	4.73	6.46	4.68	6.82	4.90	7.01	4.87	7.20	4.83	7.60	5.02	8.06	4.95
	28	6.02	4.69	6.37	4.64	6.72	4.85	6.91	4.82	7.10	4.79	7.49	4.98		
	30	5.94	4.64	6.28	4.60	6.63	4.81	6.81	4.78	6.99	4.74	7.37	4.93		
	32	5.84	4.59	6.18	4.55	6.52	4.75	6.70	4.72	6.88	4.68	7.25	4.89		
	34	5.75	4.55	6.07	4.49	6.42	4.71	6.60	4.68	6.78	4.64	7.14	4.85		
	35	5.70	4.52	6.02	4.47	6.36	4.68	6.55	4.66	6.72	4.62	7.08	4.83		
	36	5.58	4.46	5.90	4.42	6.23	4.63	6.41	4.60	6.56	4.55	6.86	4.74		
	38	5.35	4.34	5.65	4.30	5.96	4.52	6.14	4.49	6.24	4.43	6.42	4.58		
	39	5.24	4.29	5.53	4.24	5.83	4.46	6.00	4.43	6.08	4.37	6.20	4.49		
	41	4.93	4.14	5.20	4.09	5.46	4.30	5.58	4.26	5.62	4.19	5.68	4.29		
	43	4.54	3.95	4.80	3.91	4.98	4.10	5.01	4.04	5.03	3.96	5.07	4.08		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
	-19.8	-20	4.07	4.04	4.00	3.97	3.94
	-17.8	-18	4.33	4.31	4.27	4.23	4.20
	-15.7	-16	4.60	4.57	4.53	4.50	4.45
	-13.7	-14	4.88	4.85	4.81	4.77	4.73
	-11.7	-12	5.17	5.14	5.10	5.06	5.02
Me	-9.6	-10	5.47	5.44	5.40	5.35	5.31
	-7.5	-8	5.80	5.76	5.73	5.67	5.63
15	-5.5	-6	6.14	6.09	6.05	6.00	5.95
(m³/min)	-3.4	-4	6.31	6.25	6.21	6.15	6.10
	-1.3	-2	6.31	6.24	6.20	6.13	6.07
	0.8	0	6.30	6.24	6.19	6.12	6.05
	3.9	3	6.85	6.77	6.72	6.64	6.56
	7.0	6	7.42	7.34	7.27	7.13	6.93
	10.1	9	8.04	7.96	7.87	7.57	7.02
	13.2	12	8.70	8.54	8.20	7.71	7.03
	16.9	15.5	9.37	9.10	8.40	7.72	7.02

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
	10			6.44	4.27	6.82	4.42	7.01	4.39	7.21	4.36	7.62	4.48	8.05	4.40
	12			6.36	4.23	6.72	4.37	6.92	4.34	7.11	4.31	7.52	4.43	7.94	4.35
	14			6.27	4.18	6.63	4.32	6.82	4.29	7.01	4.26	7.41	4.38	7.83	4.30
	16			6.19	4.13	6.54	4.27	6.73	4.25	6.92	4.22	7.31	4.33	7.72	4.25
	18			6.11	4.09	6.46	4.23	6.64	4.20	6.82	4.16	7.21	4.28	7.61	4.20
Lo	20			6.02	4.03	6.37	4.18	6.55	4.15	6.73	4.12	7.11	4.24	7.50	4.16
	22			5.95	4.00	6.28	4.13	6.46	4.11	6.64	4.07	7.01	4.20	7.39	4.11
10	24			5.87	3.95	6.20	4.09	6.37	4.06	6.55	4.03	6.91	4.15	7.29	4.07
(m³/min)	26	5.48	3.95	5.79	3.91	6.11	4.05	6.28	4.02	6.45	3.98	6.81	4.11	7.22	4.04
	28	5.40	3.90	5.71	3.86	6.03	4.00	6.19	3.97	6.36	3.94	6.71	4.06		
	30	5.32	3.86	5.63	3.82	5.94	3.95	6.10	3.92	6.27	3.89	6.60	4.01		
	32	5.23	3.80	5.53	3.77	5.84	3.91	6.01	3.88	6.17	3.85	6.50	3.97		
	34	5.15	3.76	5.44	3.72	5.75	3.86	5.91	3.83	6.07	3.80	6.40	3.93		
	35	5.11	3.74	5.40	3.70	5.70	3.84	5.87	3.82	6.02	3.78	6.35	3.90		
	36	5.00	3.67	5.29	3.64	5.58	3.78	5.75	3.76	5.88	3.72	6.15	3.82		
	38	4.80	3.56	5.06	3.52	5.34	3.66	5.50	3.64	5.59	3.58	5.75	3.65		
	39	4.69	3.50	4.95	3.46	5.22	3.60	5.38	3.59	5.45	3.52	5.56	3.57		
	41	4.42	3.36	4.66	3.32	4.89	3.45	5.00	3.41	5.04	3.34	5.09	3.38		
	43	4.07	3.18	4.30	3.14	4.46	3.25	4.49	3.19	4.51	3.13	4.54	3.18		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
	-19.8	-20	3.64	3.61	3.58	3.55	3.52
	-17.8	-18	3.87	3.85	3.81	3.79	3.75
	-15.7	-16	4.11	4.09	4.05	4.02	3.98
	-13.7	-14	4.36	4.34	4.30	4.27	4.23
	-11.7	-12	4.63	4.60	4.56	4.52	4.49
Lo	-9.6	-10	4.89	4.86	4.83	4.78	4.75
	-7.5	-8	5.19	5.15	5.12	5.07	5.03
10	-5.5	-6	5.49	5.45	5.41	5.36	5.32
(m³/min)	-3.4	-4	5.64	5.59	5.55	5.50	5.45
	-1.3	-2	5.64	5.58	5.54	5.49	5.43
	0.8	0	5.64	5.58	5.53	5.47	5.41
	3.9	3	6.12	6.06	6.00	5.94	5.87
	7.0	6	6.64	6.56	6.50	6.38	6.20
	10.1	9	7.19	7.12	7.04	6.76	6.27
	13.2	12	7.78	7.64	7.34	6.90	6.29
	16.9	15.5	8.38	8.14	7.51	6.90	6.27

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)

PJG000Z773

Model **FDUM90KXE6F-W** Cooling mode (kW)

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	SHC	23 ℃DB 16 ℃WB TC	SHC	26 ℃DB 18 ℃WB TC	SHC	27 ℃DB 19 ℃WB TC	SHC	28 ℃DB 20 ℃WB TC	SHC	31 ℃DB 22 ℃WB TC	SHC	33 ℃DB 24 ℃WB TC	SHC
P-Hi	10			9.88	7.17	10.45	7.51	10.75	7.46	11.06	7.41	11.68	7.71	12.34	7.59
	12			9.75	7.11	10.31	7.44	10.61	7.39	10.90	7.34	11.52	7.65	12.17	7.53
	14			9.61	7.04	10.17	7.38	10.46	7.34	10.75	7.28	11.36	7.58	12.00	7.46
	16			9.49	6.98	10.03	7.32	10.32	7.27	10.61	7.23	11.21	7.53	11.83	7.41
	18			9.36	6.91	9.90	7.26	10.18	7.21	10.46	7.16	11.05	7.47	11.66	7.34
	20			9.24	6.86	9.76	7.19	10.04	7.15	10.32	7.11	10.90	7.41	11.50	7.29
	22			9.12	6.80	9.63	7.14	9.90	7.09	10.18	7.04	10.75	7.35	11.33	7.23
24	24			9.00	6.75	9.51	7.08	9.77	7.04	10.04	6.99	10.60	7.30	11.17	7.18
(m³/min)	26	8.40	6.76	8.88	6.69	9.37	7.02	9.63	6.98	9.90	6.92	10.45	7.25	11.07	7.14
	28	8.28	6.70	8.75	6.62	9.24	6.97	9.49	6.92	9.75	6.87	10.29	7.18		
	30	8.16	6.63	8.63	6.57	9.10	6.90	9.36	6.86	9.61	6.81	10.13	7.13		
	32	8.03	6.57	8.48	6.49	8.96	6.82	9.21	6.78	9.46	6.73	9.97	7.03		
	34	7.89	6.50	8.34	6.43	8.82	6.77	9.07	6.72	9.31	6.67	9.81	6.98		
	35	7.83	6.47	8.27	6.40	8.75	6.74	9.00	6.70	9.24	6.65	9.73	6.95		
	36	7.67	6.40	8.10	6.32	8.56	6.66	8.81	6.62	9.01	6.56	9.43	6.85		
	38	7.35	6.24	7.76	6.18	8.19	6.52	8.44	6.48	8.57	6.40	8.82	6.64		
	39	7.19	6.17	7.59	6.09	8.01	6.44	8.25	6.41	8.35	6.31	8.52	6.54		
	41	6.77	5.97	7.15	5.90	7.50	6.23	7.67	6.17	7.73	6.08	7.80	6.28		
	43	6.24	5.72	6.60	5.66	6.85	5.97	6.89	5.88	6.91	5.76	6.96	6.00		

Heating mode (kW)

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
P-Hi	-19.8	-20	5.59	5.56	5.51	5.46	5.42
	-17.8	-18	5.96	5.92	5.87	5.82	5.77
	-15.7	-16	6.33	6.29	6.23	6.19	6.12
	-13.7	-14	6.71	6.67	6.61	6.56	6.50
	-11.7	-12	7.12	7.07	7.02	6.96	6.90
	-9.6	-10	7.52	7.48	7.43	7.36	7.30
	-7.5	-8	7.98	7.93	7.88	7.80	7.75
24	-5.5	-6	8.45	8.38	8.33	8.25	8.19
(m³/min)	-3.4	-4	8.68	8.60	8.54	8.46	8.39
	-1.3	-2	8.67	8.59	8.53	8.44	8.35
	0.8	0	8.67	8.58	8.51	8.42	8.32
	3.9	3	9.42	9.32	9.24	9.13	9.02
	7.0	6	10.21	10.10	10.00	9.81	9.54
	10.1	9	11.06	10.95	10.83	10.41	9.65
	13.2	12	11.97	11.75	11.29	10.61	9.68
	16.9	15.5	12.89	12.52	11.55	10.62	9.65

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	SHC	23 ℃DB 16 ℃WB TC	SHC	26 ℃DB 18 ℃WB TC	SHC	27 ℃DB 19 ℃WB TC	SHC	28 ℃DB 20 ℃WB TC	SHC	31 ℃DB 22 ℃WB TC	SHC	33 ℃DB 24 ℃WB TC	SHC
Hi	10			9.71	6.67	10.28	6.94	10.57	6.90	10.87	6.85	11.49	7.07	12.13	6.95
	12			9.58	6.60	10.14	6.87	10.43	6.83	10.72	6.77	11.33	7.01	11.97	6.89
	14			9.45	6.53	10.00	6.80	10.29	6.76	10.57	6.71	11.17	6.94	11.80	6.82
	16			9.33	6.47	9.87	6.74	10.15	6.70	10.43	6.65	11.02	6.87	11.63	6.75
	18			9.20	6.40	9.73	6.67	10.01	6.63	10.29	6.58	10.87	6.82	11.47	6.70
	20			9.08	6.35	9.60	6.61	9.88	6.57	10.15	6.52	10.72	6.75	11.30	6.63
	22			8.96	6.27	9.47	6.55	9.74	6.51	10.01	6.46	10.57	6.70	11.15	6.58
19	24			8.85	6.22	9.35	6.49	9.60	6.44	9.87	6.40	10.42	6.63	10.99	6.51
(m³/min)	26	8.26	6.23	8.73	6.16	9.22	6.43	9.47	6.38	9.73	6.33	10.27	6.56	10.89	6.48
	28	8.14	6.17	8.60	6.10	9.08	6.36	9.33	6.32	9.59	6.27	10.11	6.51		
	30	8.02	6.10	8.48	6.04	8.95	6.29	9.20	6.24	9.45	6.19	9.96	6.44		
	32	7.89	6.04	8.34	5.97	8.81	6.23	9.06	6.19	9.30	6.13	9.80	6.38		
	34	7.76	5.96	8.20	5.90	8.67	6.17	8.92	6.13	9.16	6.08	9.65	6.32		
	35	7.70	5.93	8.14	5.87	8.60	6.14	8.85	6.10	9.08	6.05	9.57	6.29		
	36	7.54	5.85	7.97	5.79	8.42	6.06	8.66	6.02	8.86	5.96	9.27	6.15		
	38	7.23	5.69	7.63	5.62	8.06	5.89	8.30	5.87	8.43	5.78	8.68	5.94		
	39	7.07	5.61	7.47	5.54	7.87	5.81	8.11	5.78	8.21	5.69	8.38	5.83		
	41	6.66	5.41	7.03	5.34	7.37	5.59	7.54	5.54	7.60	5.44	7.67	5.56		
	43	6.14	5.14	6.49	5.09	6.73	5.31	6.77	5.22	6.80	5.13	6.84	5.26		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
Hi	-19.8	-20	5.46	5.42	5.37	5.33	5.29
	-17.8	-18	5.81	5.77	5.72	5.68	5.63
	-15.7	-16	6.17	6.13	6.07	6.03	5.97
	-13.7	-14	6.55	6.50	6.45	6.40	6.34
	-11.7	-12	6.94	6.90	6.84	6.79	6.73
	-9.6	-10	7.33	7.29	7.24	7.17	7.12
	-7.5	-8	7.78	7.73	7.68	7.61	7.55
19	-5.5	-6	8.24	8.17	8.12	8.04	7.98
(m³/min)	-3.4	-4	8.46	8.39	8.33	8.25	8.18
	-1.3	-2	8.46	8.38	8.31	8.23	8.15
	0.8	0	8.45	8.36	8.30	8.21	8.11
	3.9	3	9.19	9.09	9.01	8.91	8.80
	7.0	6	9.95	9.85	9.75	9.57	9.30
	10.1	9	10.79	10.68	10.56	10.15	9.41
	13.2	12	11.67	11.46	11.00	10.35	9.43
	16.9	15.5	12.57	12.21	11.26	10.36	9.41

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	SHC	23 ℃DB 16 ℃WB TC	SHC	26 ℃DB 18 ℃WB TC	SHC	27 ℃DB 19 ℃WB TC	SHC	28 ℃DB 20 ℃WB TC	SHC	31 ℃DB 22 ℃WB TC	SHC	33 ℃DB 24 ℃WB TC	SHC
Me	10			9.22	6.14	9.75	6.35	10.04	6.32	10.32	6.27	10.91	6.44	11.52	6.33
	12			9.10	6.07	9.62	6.28	9.90	6.24	10.18	6.20	10.76	6.37	11.36	6.25
	14			8.97	6.00	9.49	6.21	9.76	6.17	10.04	6.13	10.61	6.30	11.20	6.19
	16			8.85	5.93	9.36	6.14	9.63	6.11	9.90	6.06	10.46	6.23	11.04	6.13
	18			8.74	5.87	9.24	6.08	9.50	6.04	9.77	6.00	10.32	6.17	10.89	6.06
	20			8.62	5.81	9.11	6.01	9.37	5.97	9.63	5.93	10.17	6.10	10.73	5.99
	22			8.51	5.74	8.99	5.95	9.24	5.91	9.50	5.87	10.03	6.04	10.58	5.93
15	24			8.40	5.69	8.87	5.88	9.11	5.85	9.37	5.80	9.89	5.98	10.43	5.87
(m³/min)	26	7.84	5.68	8.28	5.62	8.75	5.82	8.99	5.78	9.24	5.73	9.75	5.92	10.33	5.83
	28	7.73	5.62	8.17	5.56	8.62	5.76	8.86	5.72	9.10	5.67	9.60	5.85		
	30	7.61	5.55	8.05	5.50	8.50	5.70	8.73	5.66	8.97	5.61	9.45	5.78		
	32	7.49	5.48	7.92	5.42	8.36	5.63	8.60	5.59	8.83	5.55	9.30	5.72		
	34	7.37	5.41	7.79	5.36	8.23	5.57	8.46	5.53	8.69	5.49	9.16	5.66		
	35	7.31	5.38	7.72	5.32	8.16	5.53	8.40	5.50	8.62	5.45	9.08	5.63		
	36	7.16	5.30	7.56	5.24	7.99	5.45	8.22	5.42	8.41	5.36	8.80	5.50		
	38	6.86	5.13	7.25	5.07	7.65	5.29	7.87	5.25	8.00	5.18	8.23	5.27		
	39	6.71	5.05	7.09	4.99	7.47	5.20	7.70	5.17	7.80	5.09	7.95	5.16		
	41	6.32	4.85	6.67	4.79	7.00	4.98	7.16	4.93	7.21	4.83	7.28	4.90		
	43	5.82	4.58	6.16	4.54	6.39	4.70	6.43	4.61	6.45	4.51	6.50	4.60		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
Me	-19.8	-20	5.15	5.11	5.07	5.03	4.99
	-17.8	-18	5.48	5.45	5.40	5.36	5.31
	-15.7	-16	5.82	5.78	5.73	5.69	5.63
	-13.7	-14	6.18	6.14	6.08	6.04	5.98
	-11.7	-12	6.55	6.51	6.46	6.40	6.35
	-9.6	-10	6.92	6.88	6.83	6.77	6.72
	-7.5	-8	7.35	7.29	7.25	7.18	7.13
15	-5.5	-6	7.77	7.71	7.66	7.59	7.53
(m³/min)	-3.4	-4	7.98	7.91	7.86	7.78	7.72
	-1.3	-2	7.98	7.90	7.84	7.76	7.69
	0.8	0	7.98	7.89	7.83	7.74	7.65
	3.9	3	8.67	8.57	8.50	8.40	8.30
	7.0	6	9.39	9.29	9.20	9.03	8.77
	10.1	9	10.18	10.08	9.96	9.57	8.88
	13.2	12	11.01	10.81	10.38	9.76	8.90
	16.9	15.5	11.86	11.52	10.63	9.77	8.88

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	SHC	23 ℃DB 16 ℃WB TC	SHC	26 ℃DB 18 ℃WB TC	SHC	27 ℃DB 19 ℃WB TC	SHC	28 ℃DB 20 ℃WB TC	SHC	31 ℃DB 22 ℃WB TC	SHC	33 ℃DB 24 ℃WB TC	SHC
Lo	10			8.02	5.22	8.49	5.38	8.73	5.36	8.98	5.33	9.49	5.45	10.02	5.35
	12			7.92	5.15	8.37	5.31	8.62	5.29	8.86	5.27	9.36	5.38	9.88	5.28
	14			7.81	5.08	8.26	5.24	8.50	5.22	8.73	5.19	9.23	5.31	9.75	5.21
	16			7.70	5.01	8.15	5.17	8.38	5.16	8.61	5.12	9.10	5.23	9.61	5.14
	18			7.60	4.95	8.04	5.11	8.27	5.09	8.50	5.06	8.98	5.17	9.47	5.07
	20			7.50	4.89	7.93	5.05	8.16	5.03	8.38	4.99	8.85	5.10	9.34	5.00
	22			7.40	4.83	7.83	4.99	8.04	4.96	8.27	4.93	8.73	5.03	9.21	4.94
10	24			7.31	4.77	7.72	4.93	7.93	4.90	8.15	4.86	8.61	4.97	9.08	4.87
(m³/min)	26	6.82	4.74	7.21	4.72	7.61	4.87	7.82	4.84	8.04	4.80	8.48	4.90	8.99	4.83
	28	6.72	4.68	7.11	4.66	7.50	4.80	7.71	4.77	7.92	4.73	8.35	4.84		
	30	6.63	4.62	7.01	4.60	7.39	4.74	7.60	4.71	7.80	4.67	8.23	4.78		
	32	6.52	4.56	6.89	4.53	7.28	4.68	7.48	4.64	7.68	4.61	8.10	4.71		
	34	6.41	4.49	6.78	4.47	7.16	4.61	7.36	4.58	7.56	4.54	7.97	4.65		
	35	6.36	4.46	6.72	4.43	7.10	4.58	7.31	4.55	7.50	4.51	7.90	4.61		
	36	6.23	4.38	6.58	4.36	6.95	4.49	7.15	4.47	7.32	4.42	7.66	4.50		
	38	5.97	4.23	6.31	4.20	6.65	4.33	6.85	4.31	6.96	4.23	7.17	4.26		
	39	5.84	4.15	6.17	4.12	6.50	4.25	6.70	4.23	6.78	4.14	6.92	4.15		
	41	5.50	3.96	5.81	3.92	6.09	4.04	6.23	3.99	6.27	3.89	6.33	3.89		
	43	5.07	3.71	5.36	3.68	5.56	3.77	5.59	3.68	5.61	3.59	5.65	3.61		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
Lo	-19.8	-20	4.43	4.40	4.36	4.33	4.29
	-17.8	-18	4.72	4.69	4.65	4.61	4.57
	-15.7	-16	5.01	4.98	4.93	4.90	4.85
	-13.7	-14	5.32	5.28	5.24	5.20	5.15
	-11.7	-12	5.64	5.60	5.56	5.51	5.47
	-9.6	-10	5.96	5.92	5.88	5.83	5.78
	-7.5	-8	6.32	6.28	6.24	6.18	6.13
10	-5.5	-6	6.69	6.64	6.59	6.53	6.49
(m³/min)	-3.4	-4	6.87	6.81	6.77	6.70	6.65
	-1.3	-2	6.87	6.80	6.75	6.68	6.62
	0.8	0	6.87	6.79	6.74	6.67	6.59
	3.9	3	7.46	7.38	7.32	7.23	7.15
	7.0	6	8.09	8.00	7.92	7.77	7.55
	10.1	9	8.76	8.67	8.58	8.24	7.65
	13.2	12	9.48	9.31	8.94	8.40	7.66
	16.9	15.5	10.21	9.92	9.15	8.41	7.64

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)

PJG000Z773

Model **FDUM112KXE6F-W** Cooling mode (kW)

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
	10			12.29	9.14	13.01	9.59	13.38	9.55	13.76	9.48	14.54	9.89	15.35	9.74
	12			12.13	9.06	12.83	9.53	13.20	9.46	13.57	9.40	14.34	9.81	15.14	9.66
	14			11.96	8.98	12.66	9.45	13.02	9.38	13.38	9.31	14.14	9.75	14.93	9.60
	16			11.80	8.88	12.48	9.36	12.84	9.32	13.20	9.25	13.94	9.67	14.72	9.52
	18			11.65	8.82	12.32	9.27	12.67	9.20	13.02	9.14	13.75	9.55	14.51	9.40
P-Hi	20			11.49	8.75	12.15	9.20	12.50	9.15	12.84	9.08	13.56	9.49	14.31	9.34
	22			11.34	8.69	11.99	9.15	12.33	9.08	12.67	9.02	13.38	9.44	14.11	9.29
36	24			11.20	8.62	11.83	9.09	12.15	9.02	12.49	8.96	13.19	9.38	13.91	9.23
(m³/min)	26	10.45	8.64	11.05	8.56	11.67	9.01	11.98	8.94	12.31	8.88	13.00	9.32	13.78	9.20
	28	10.30	8.56	10.89	8.48	11.50	8.95	11.81	8.89	12.14	8.82	12.80	9.24		
	30	10.15	8.50	10.73	8.42	11.33	8.87	11.64	8.81	11.96	8.74	12.60	9.16		
	32	9.99	8.41	10.56	8.33	11.15	8.78	11.46	8.74	11.77	8.68	12.40	9.10		
	34	9.82	8.34	10.38	8.24	10.97	8.72	11.28	8.66	11.59	8.60	12.21	9.02		
	35	9.74	8.31	10.30	8.21	10.88	8.69	11.20	8.63	11.49	8.57	12.11	8.99		
	36	9.54	8.20	10.08	8.11	10.65	8.59	10.96	8.53	11.22	8.46	11.73	8.86		
	38	9.15	8.02	9.66	7.92	10.19	8.38	10.50	8.36	10.67	8.24	10.98	8.59		
	39	8.95	7.92	9.45	7.83	9.96	8.30	10.27	8.26	10.39	8.15	10.60	8.46		
	41	8.42	7.65	8.90	7.56	9.33	8.00	9.55	7.94	9.61	7.81	9.71	8.13		
	43	7.77	7.37	8.21	7.29	8.52	7.71	8.57	7.60	8.60	7.47	8.66	7.80		

Heating mode (kW)

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
	-19.8	-20	6.99	6.95	6.88	6.83	6.78
	-17.8	-18	7.45	7.40	7.33	7.28	7.22
	-15.7	-16	7.91	7.86	7.79	7.73	7.66
	-13.7	-14	8.39	8.34	8.27	8.21	8.13
	-11.7	-12	8.90	8.84	8.77	8.70	8.63
P-Hi	-9.6	-10	9.40	9.35	9.28	9.20	9.13
	-7.5	-8	9.98	9.91	9.84	9.75	9.68
36	-5.5	-6	10.56	10.48	10.41	10.31	10.24
(m³/min)	-3.4	-4	10.85	10.75	10.68	10.58	10.49
	-1.3	-2	10.84	10.74	10.66	10.55	10.44
	0.8	0	10.84	10.72	10.64	10.52	10.40
	3.9	3	11.78	11.65	11.55	11.42	11.28
	7.0	6	12.76	12.62	12.50	12.26	11.92
	10.1	9	13.83	13.69	13.54	13.01	12.07
	13.2	12	14.96	14.69	14.11	13.26	12.09
	16.9	15.5	16.12	15.65	14.44	13.28	12.06

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
	10			11.97	8.35	12.67	8.70	13.04	8.66	13.40	8.61	14.16	8.91	14.96	8.76
	12			11.81	8.27	12.50	8.63	12.86	8.57	13.22	8.50	13.97	8.83	14.75	8.69
	14			11.65	8.19	12.33	8.56	12.68	8.50	13.04	8.44	13.77	8.75	14.55	8.61
	16			11.50	8.12	12.16	8.48	12.51	8.42	12.86	8.36	13.58	8.65	14.34	8.50
	18			11.35	8.04	12.00	8.41	12.34	8.35	12.68	8.28	13.40	8.59	14.14	8.45
Hi	20			11.20	7.97	11.84	8.33	12.18	8.27	12.51	8.21	13.21	8.53	13.93	8.37
	22			11.05	7.90	11.68	8.25	12.01	8.20	12.34	8.13	13.03	8.46	13.74	8.30
28	24			10.91	7.83	11.52	8.18	11.84	8.12	12.17	8.06	12.85	8.38	13.55	8.23
(m³/min)	26	10.18	7.83	10.76	7.74	11.36	8.10	11.67	8.04	11.99	7.98	12.66	8.31	13.42	8.19
	28	10.03	7.75	10.61	7.68	11.20	8.03	11.51	7.97	11.82	7.91	12.47	8.23		
	30	9.89	7.68	10.46	7.60	11.04	7.95	11.34	7.89	11.65	7.83	12.28	8.16		
	32	9.73	7.59	10.29	7.52	10.86	7.86	11.17	7.80	11.47	7.74	12.08	8.08		
	34	9.57	7.52	10.11	7.43	10.69	7.79	10.99	7.74	11.29	7.68	11.89	8.00		
	35	9.49	7.47	10.03	7.39	10.60	7.76	10.91	7.71	11.20	7.65	11.80	7.93		
	36	9.30	7.38	9.82	7.30	10.38	7.66	10.68	7.61	10.93	7.54	11.43	7.81		
	38	8.91	7.18	9.41	7.10	9.93	7.46	10.23	7.42	10.39	7.31	10.70	7.55		
	39	8.72	7.08	9.20	7.00	9.71	7.37	10.00	7.32	10.12	7.20	10.33	7.41		
	41	8.21	6.83	8.67	6.75	9.09	7.09	9.30	7.03	9.36	6.87	9.45	7.09		
	43	7.56	6.52	8.00	6.45	8.30	6.76	8.35	6.64	8.38	6.53	8.44	6.74		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
	-19.8	-20	6.80	6.76	6.69	6.64	6.59
	-17.8	-18	7.25	7.20	7.13	7.08	7.02
	-15.7	-16	7.69	7.64	7.57	7.52	7.45
	-13.7	-14	8.16	8.11	8.04	7.98	7.90
	-11.7	-12	8.65	8.60	8.54	8.46	8.39
Hi	-9.6	-10	9.15	9.09	9.03	8.95	8.88
	-7.5	-8	9.71	9.64	9.58	9.49	9.42
28	-5.5	-6	10.27	10.19	10.12	10.03	9.96
(m³/min)	-3.4	-4	10.55	10.46	10.39	10.29	10.20
	-1.3	-2	10.55	10.45	10.37	10.26	10.16
	0.8	0	10.54	10.43	10.35	10.23	10.11
	3.9	3	11.46	11.33	11.23	11.11	10.97
	7.0	6	12.41	12.28	12.16	11.93	11.60
	10.1	9	13.45	13.32	13.17	12.65	11.74
	13.2	12	14.55	14.29	13.72	12.90	11.77
	16.9	15.5	15.68	15.23	14.05	12.92	11.74

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
	10			11.28	7.82	11.94	8.14	12.28	8.10	12.63	8.04	13.35	8.32	14.09	8.18
	12			11.13	7.73	11.78	8.06	12.12	8.02	12.46	7.96	13.16	8.22	13.90	8.08
	14			10.98	7.67	11.62	7.99	11.95	7.93	12.28	7.88	12.98	8.16	13.71	8.02
	16			10.83	7.59	11.46	7.91	11.79	7.86	12.12	7.81	12.80	8.09	13.51	7.95
	18			10.69	7.52	11.31	7.84	11.63	7.78	11.95	7.73	12.62	8.01	13.32	7.88
Me	20			10.55	7.44	11.15	7.76	11.47	7.71	11.79	7.66	12.45	7.94	13.13	7.81
	22			10.41	7.37	11.01	7.68	11.31	7.63	11.63	7.57	12.28	7.87	12.95	7.74
25	24			10.28	7.30	10.86	7.62	11.15	7.56	11.46	7.51	12.11	7.80	12.76	7.67
(m³/min)	26	9.59	7.31	10.14	7.23	10.71	7.55	11.00	7.51	11.30	7.45	11.93	7.73	12.64	7.62
	28	9.45	7.24	10.00	7.17	10.55	7.48	10.84	7.43	11.14	7.38	11.75	7.66		
	30	9.32	7.17	9.85	7.10	10.40	7.42	10.69	7.36	10.98	7.31	11.57	7.56		
	32	9.17	7.08	9.69	7.02	10.23	7.34	10.52	7.29	10.80	7.23	11.39	7.50		
	34	9.02	7.01	9.53	6.92	10.07	7.26	10.36	7.22	10.63	7.16	11.20	7.44		
	35	8.94	6.97	9.45	6.89	9.99	7.22	10.28	7.19	10.55	7.13	11.11	7.41		
	36	8.76	6.88	9.26	6.81	9.78	7.13	10.06	7.08	10.30	7.01	10.77	7.27		
	38	8.40	6.69	8.87	6.62	9.36	6.94	9.64	6.90	9.79	6.78	10.08	7.01		
	39	8.22	6.60	8.67	6.53	9.15	6.84	9.42	6.79	9.54	6.69	9.73	6.89		
	41	7.73	6.36	8.16	6.28	8.56	6.60	8.76	6.54	8.82	6.42	8.91	6.57		
	43	7.13	6.05	7.54	5.98	7.82	6.28	7.87	6.17	7.90	6.06	7.95	6.25		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
	-19.8	-20	6.36	6.31	6.25	6.21	6.16
	-17.8	-18	6.77	6.73	6.67	6.62	6.56
	-15.7	-16	7.19	7.14	7.08	7.03	6.96
	-13.7	-14	7.63	7.58	7.51	7.46	7.38
	-11.7	-12	8.09	8.04	7.97	7.91	7.84
Me	-9.6	-10	8.54	8.49	8.44	8.36	8.29
	-7.5	-8	9.07	9.01	8.95	8.86	8.80
25	-5.5	-6	9.60	9.52	9.46	9.37	9.30
(m³/min)	-3.4	-4	9.86	9.77	9.70	9.61	9.53
	-1.3	-2	9.85	9.76	9.68	9.59	9.49
	0.8	0	9.85	9.74	9.67	9.56	9.45
	3.9	3	10.70	10.59	10.49	10.38	10.25
	7.0	6	11.60	11.47	11.36	11.15	10.83
	10.1	9	12.57	12.44	12.30	11.82	10.97
	13.2	12	13.59	13.35	12.82	12.05	10.99
	16.9	15.5	14.65	14.22	13.12	12.07	10.96

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
	10			10.09	6.79	10.67	7.03	10.98	6.99	11.29	6.94	11.93	7.14	12.60	7.02
	12			9.95	6.71	10.53	6.95	10.83	6.90	11.14	6.87	11.77	7.08	12.43	6.95
	14			9.82	6.64	10.38	6.88	10.68	6.84	10.98	6.79	11.60	7.00	12.25	6.87
	16			9.69	6.56	10.24	6.81	10.54	6.77	10.83	6.72	11.44	6.93	12.08	6.81
	18			9.56	6.50	10.11	6.75	10.40	6.70	10.68	6.65	11.29	6.86	11.91	6.73
Lo	20			9.43	6.43	9.97	6.67	10.26	6.63	10.54	6.58	11.13	6.79	11.74	6.67
	22			9.31	6.36	9.84	6.61	10.11	6.56	10.39	6.51	10.98	6.71	11.57	6.58
19	24			9.19	6.30	9.71	6.54	9.97	6.50	10.25	6.45	10.82	6.65	11.41	6.53
(m³/min)	26	8.57	6.29	9.06	6.23	9.57	6.47	9.83	6.42	10.10	6.38	10.67	6.59	11.30	6.49
	28	8.45	6.22	8.94	6.17	9.43	6.40	9.69	6.35	9.96	6.30	10.50	6.52		
	30	8.33	6.16	8.81	6.10	9.30	6.34	9.55	6.29	9.81	6.24	10.34	6.45		
	32	8.20	6.09	8.66	6.01	9.15	6.27	9.41	6.23	9.66	6.17	10.18	6.39		
	34	8.06	6.01	8.52	5.95	9.00	6.19	9.26	6.16	9.51	6.11	10.02	6.31		
	35	7.99	5.97	8.45	5.91	8.93	6.16	9.19	6.12	9.43	6.07	9.94	6.29		
	36	7.83	5.88	8.27	5.82	8.74	6.07	8.99	6.03	9.21	5.98	9.63	6.14		
	38	7.51	5.71	7.93	5.65	8.36	5.89	8.61	5.86	8.75	5.78	9.01	5.91		
	39	7.35	5.63	7.75	5.56	8.18	5.79	8.42	5.76	8.53	5.67	8.70	5.79		
	41	6.91	5.39	7.30	5.34	7.66	5.57	7.83	5.51	7.89	5.41	7.96	5.48		
	43	6.37	5.12	6.74	5.07	6.99	5.28	7.03	5.17	7.06	5.07	7.11	5.18		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
	-19.8	-20	5.69	5.65	5.60	5.56	5.51
	-17.8	-18	6.06	6.02	5.97	5.92	5.87
	-15.7	-16	6.44	6.39	6.34	6.29	6.23
	-13.7	-14	6.83	6.78	6.73	6.68	6.61
	-11.7	-12	7.24	7.19	7.14	7.08	7.02
Lo	-9.6	-10	7.65	7.60	7.55	7.48	7.43
	-7.5	-8	8.12	8.06	8.01	7.94	7.88
19	-5.5	-6	8.59	8.52	8.47	8.39	8.33
(m³/min)	-3.4	-4	8.82	8.75	8.69	8.61	8.53
	-1.3	-2	8.82	8.74	8.67	8.58	8.50
	0.8	0	8.82	8.72	8.65	8.56	8.46
	3.9	3	9.58	9.48	9.40	9.29	9.18
	7.0	6	10.38	10.27	10.17	9.98	9.70
	10.1	9	11.25	11.14	11.01	10.58	9.82
	13.2	12	12.17	11.95	11.48	10.79	9.84
	16.9	15.5	13.11	12.73	11.75	10.80	9.81

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)

PJG000Z773

Model **FDUM140KXE6F-W** Cooling mode (kW)

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	SHC	23 ℃DB 16 ℃WB TC	SHC	26 ℃DB 18 ℃WB TC	SHC	27 ℃DB 19 ℃WB TC	SHC	28 ℃DB 20 ℃WB TC	SHC	31 ℃DB 22 ℃WB TC	SHC	33 ℃DB 24 ℃WB TC	SHC
P-Hi	10			15.36	11.71	16.26	12.34	16.73	12.26	17.20	12.17	18.18	12.74	19.19	12.54
	12			15.16	11.62	16.04	12.24	16.50	12.16	16.96	12.08	17.93	12.65	18.93	12.45
	14			14.96	11.53	15.82	12.15	16.27	12.07	16.73	11.99	17.68	12.55	18.66	12.36
	16			14.76	11.44	15.61	12.06	16.05	11.98	16.50	11.89	17.43	12.46	18.40	12.27
	18			14.56	11.35	15.40	11.97	15.84	11.89	16.28	11.81	17.19	12.38	18.14	12.18
	20			14.37	11.26	15.19	11.88	15.62	11.80	16.05	11.72	16.95	12.29	17.88	12.09
	22			14.18	11.17	14.99	11.79	15.41	11.72	15.83	11.63	16.72	12.21	17.63	12.01
39	24			14.00	11.09	14.79	11.71	15.19	11.63	15.61	11.55	16.49	12.12	17.38	11.93
(m³/min)	26	13.06	11.11	13.81	11.01	14.58	11.62	14.98	11.54	15.39	11.46	16.25	12.04	17.22	11.88
	28	12.88	11.02	13.61	10.92	14.37	11.54	14.77	11.46	15.17	11.38	16.00	11.95		
	30	12.69	10.93	13.42	10.83	14.16	11.45	14.56	11.38	14.95	11.29	15.75	11.86		
	32	12.48	10.83	13.20	10.73	13.94	11.36	14.33	11.28	14.71	11.20	15.51	11.77		
	34	12.28	10.74	12.98	10.64	13.72	11.27	14.10	11.19	14.48	11.11	15.26	11.69		
	35	12.18	10.69	12.87	10.59	13.60	11.22	14.00	11.15	14.37	11.07	15.14	11.65		
	36	11.93	10.57	12.60	10.47	13.32	11.10	13.70	11.04	14.02	10.94	14.67	11.48		
	38	11.44	10.34	12.08	10.22	12.74	10.87	13.12	10.81	13.34	10.68	13.72	11.15		
	39	11.19	10.23	11.81	10.11	12.46	10.76	12.83	10.70	12.99	10.55	13.25	10.99		
	41	10.53	9.92	11.12	9.81	11.66	10.42	11.93	10.35	12.02	10.20	12.13	10.55		
	43	9.71	9.32	10.26	9.45	10.65	10.02	10.72	9.88	10.75	9.72	10.83	10.12		

Heating mode (kW)

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
P-Hi	-19.8	-20	8.95	8.89	8.81	8.74	8.68
	-17.8	-18	9.54	9.48	9.39	9.32	9.24
	-15.7	-16	10.12	10.06	9.97	9.90	9.80
	-13.7	-14	10.74	10.67	10.58	10.50	10.40
	-11.7	-12	11.39	11.32	11.23	11.14	11.04
	-9.6	-10	12.03	11.96	11.88	11.77	11.68
	-7.5	-8	12.78	12.69	12.60	12.49	12.39
39	-5.5	-6	13.52	13.41	13.32	13.20	13.10
(m³/min)	-3.4	-4	13.88	13.76	13.67	13.54	13.43
	-1.3	-2	13.88	13.74	13.64	13.50	13.37
	0.8	0	13.87	13.72	13.61	13.47	13.31
	3.9	3	15.08	14.91	14.78	14.61	14.44
	7.0	6	16.33	16.16	16.00	15.70	15.26
	10.1	9	17.70	17.52	17.33	16.65	15.45
	13.2	12	19.15	18.80	18.06	16.98	15.48
	16.9	15.5	20.63	20.03	18.48	17.00	15.44

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	SHC	23 ℃DB 16 ℃WB TC	SHC	26 ℃DB 18 ℃WB TC	SHC	27 ℃DB 19 ℃WB TC	SHC	28 ℃DB 20 ℃WB TC	SHC	31 ℃DB 22 ℃WB TC	SHC	33 ℃DB 24 ℃WB TC	SHC
Hi	10			15.11	10.81	15.99	11.31	16.45	11.24	16.92	11.16	17.88	11.60	18.88	11.41
	12			14.91	10.71	15.77	11.21	16.23	11.14	16.68	11.06	17.63	11.50	18.62	11.31
	14			14.71	10.61	15.56	11.10	16.01	11.05	16.45	10.96	17.39	11.41	18.36	11.22
	16			14.51	10.51	15.35	11.01	15.79	10.95	16.23	10.87	17.14	11.31	18.10	11.13
	18			14.32	10.42	15.14	10.91	15.58	10.84	16.01	10.78	16.91	11.22	17.84	11.03
	20			14.13	10.33	14.94	10.82	15.37	10.76	15.79	10.69	16.67	11.13	17.59	10.94
	22			13.95	10.24	14.74	10.73	15.15	10.66	15.57	10.58	16.45	11.05	17.34	10.85
32	24			13.77	10.16	14.54	10.64	14.94	10.57	15.36	10.49	16.22	10.96	17.10	10.77
(m³/min)	26	12.85	10.18	13.58	10.07	14.34	10.56	14.73	10.48	15.14	10.40	15.98	10.85	16.94	10.71
	28	12.66	10.09	13.39	9.98	14.14	10.47	14.52	10.39	14.92	10.31	15.74	10.76		
	30	12.48	10.00	13.20	9.89	13.93	10.38	14.32	10.31	14.70	10.23	15.49	10.67		
	32	12.28	9.89	12.98	9.79	13.71	10.28	14.09	10.21	14.47	10.13	15.25	10.58		
	34	12.08	9.79	12.77	9.69	13.49	10.19	13.87	10.12	14.24	10.04	15.01	10.49		
	35	11.98	9.75	12.66	9.64	13.38	10.14	13.77	10.08	14.13	10.00	14.89	10.44		
	36	11.73	9.62	12.40	9.52	13.10	10.02	13.48	9.96	13.79	9.86	14.42	10.27		
	38	11.25	9.39	11.88	9.28	12.53	9.77	12.91	9.72	13.12	9.60	13.50	9.93		
	39	11.01	9.27	11.62	9.16	12.25	9.66	12.62	9.60	12.78	9.46	13.04	9.77		
	41	10.36	8.94	10.94	8.86	11.47	9.33	11.74	9.25	11.82	9.10	11.93	9.38		
	43	9.55	8.56	10.09	8.47	10.47	8.92	10.54	8.78	10.58	8.63	10.65	8.95		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
Hi	-19.8	-20	8.77	8.72	8.63	8.57	8.50
	-17.8	-18	9.35	9.29	9.20	9.13	9.05
	-15.7	-16	9.92	9.86	9.77	9.70	9.60
	-13.7	-14	10.53	10.46	10.37	10.29	10.19
	-11.7	-12	11.16	11.09	11.01	10.91	10.82
	-9.6	-10	11.79	11.72	11.64	11.54	11.45
	-7.5	-8	12.52	12.43	12.35	12.24	12.14
32	-5.5	-6	13.25	13.14	13.06	12.94	12.84
(m³/min)	-3.4	-4	13.61	13.49	13.39	13.27	13.16
	-1.3	-2	13.60	13.47	13.37	13.23	13.10
	0.8	0	13.60	13.45	13.34	13.20	13.04
	3.9	3	14.78	14.61	14.49	14.32	14.15
	7.0	6	16.01	15.83	15.68	15.38	14.95
	10.1	9	17.35	17.17	16.98	16.32	15.14
	13.2	12	18.76	18.43	17.70	16.64	15.17
	16.9	15.5	20.22	19.63	18.11	16.66	15.13

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	SHC	23 ℃DB 16 ℃WB TC	SHC	26 ℃DB 18 ℃WB TC	SHC	27 ℃DB 19 ℃WB TC	SHC	28 ℃DB 20 ℃WB TC	SHC	31 ℃DB 22 ℃WB TC	SHC	33 ℃DB 24 ℃WB TC	SHC
Me	10			14.40	9.87	15.23	10.26	15.68	10.21	16.12	10.13	17.03	10.46	17.99	10.28
	12			14.21	9.77	15.03	10.16	15.46	10.09	15.90	10.03	16.80	10.37	17.74	10.18
	14			14.02	9.67	14.83	10.06	15.25	9.99	15.68	9.92	16.56	10.26	17.49	10.09
	16			13.83	9.57	14.63	9.96	15.04	9.89	15.46	9.82	16.34	10.17	17.25	9.99
	18			13.65	9.48	14.43	9.87	14.84	9.80	15.25	9.73	16.11	10.06	17.00	9.90
	20			13.46	9.38	14.23	9.77	14.64	9.71	15.05	9.64	15.89	9.98	16.76	9.80
	22			13.29	9.30	14.05	9.69	14.44	9.62	14.84	9.54	15.67	9.89	16.52	9.70
26	24			13.12	9.21	13.86	9.60	14.24	9.53	14.63	9.45	15.45	9.80	16.29	9.62
(m³/min)	26	12.24	9.21	12.94	9.12	13.67	9.51	14.04	9.44	14.42	9.36	15.23	9.71	16.14	9.56
	28	12.07	9.12	12.76	9.03	13.47	9.41	13.84	9.34	14.22	9.27	14.99	9.61		
	30	11.89	9.02	12.57	8.92	13.27	9.32	13.64	9.26	14.01	9.18	14.76	9.52		
	32	11.70	8.92	12.37	8.83	13.06	9.22	13.43	9.16	13.79	9.09	14.53	9.43		
	34	11.51	8.82	12.16	8.72	12.85	9.13	13.22	9.07	13.57	8.99	14.30	9.34		
	35	11.41	8.77	12.06	8.67	12.75	9.08	13.12	9.02	13.46	8.95	14.18	9.29		
	36	11.18	8.65	11.81	8.55	12.48	8.95	12.84	8.90	13.14	8.81	13.74	9.12		
	38	10.72	8.41	11.32	8.32	11.94	8.71	12.30	8.66	12.50	8.53	12.86	8.77		
	39	10.49	8.30	11.07	8.20	11.67	8.59	12.03	8.54	12.18	8.40	12.42	8.60		
	41	9.87	7.99	10.42	7.89	10.93	8.26	11.18	8.18	11.26	8.03	11.37	8.22		
	43	9.10	7.61	9.62	7.52	9.98	7.86	10.04	7.72	10.08	7.57	10.15	7.78		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
Me	-19.8	-20	8.31	8.25	8.18	8.11	8.05
	-17.8	-18	8.85	8.80	8.71	8.65	8.57
	-15.7	-16	9.40	9.34	9.25	9.19	9.10
	-13.7	-14	9.97	9.91	9.82	9.75	9.65
	-11.7	-12	10.57	10.50	10.42	10.34	10.25
	-9.6	-10	11.17	11.10	11.03	10.93	10.84
	-7.5	-8	11.86	11.77	11.70	11.59	11.50
26	-5.5	-6	12.54	12.45	12.36	12.25	12.16
(m³/min)	-3.4	-4	12.89	12.77	12.69	12.57	12.46
	-1.3	-2	12.88	12.76	12.66	12.53	12.41
	0.8	0	12.88	12.74	12.63	12.50	12.35
	3.9	3	13.99	13.84	13.72	13.56	13.40
	7.0	6	15.16	15.00	14.85	14.57	14.16
	10.1	9	16.43	16.26	16.08	15.45	14.34
	13.2	12	17.77	17.45	16.76	15.76	14.37
	16.9	15.5	19.15	18.59	17.16	15.77	14.33

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	SHC	23 ℃DB 16 ℃WB TC	SHC	26 ℃DB 18 ℃WB TC	SHC	27 ℃DB 19 ℃WB TC	SHC	28 ℃DB 20 ℃WB TC	SHC	31 ℃DB 22 ℃WB TC	SHC	33 ℃DB 24 ℃WB TC	SHC
Lo	10			12.87	8.57	13.62	8.88	14.02	8.83	14.41	8.76	15.23	9.00	16.08	8.84
	12			12.70	8.48	13.44	8.77	13.83	8.73	14.21	8.66	15.02	8.90	15.86	8.74
	14			12.53	8.38	13.25	8.67	13.64	8.62	14.02	8.57	14.81	8.81	15.64	8.65
	16			12.36	8.29	13.08	8.59	13.45	8.53	13.82	8.46	14.60	8.71	15.42	8.56
	18			12.20	8.20	12.90	8.49	13.27	8.44	13.64	8.37	14.40	8.62	15.20	8.47
	20			12.04	8.11	12.73	8.41	13.09	8.35	13.45	8.28	14.20	8.53	14.98	8.38
	22			11.88	8.03	12.56	8.32	12.91	8.26	13.27	8.20	14.01	8.44	14.77	8.28
20	24			11.73	7.94	12.39	8.23	12.73	8.17	13.08	8.11	13.82	8.36	14.56	8.20
(m³/min)	26	10.94	7.93	11.57	7.85	12.22	8.15	12.55	8.08	12.90	8.02	13.61	8.27	14.43	8.14
	28	10.79	7.85	11.41	7.77	12.04	8.06	12.37	8.00	12.71	7.94	13.41	8.18		
	30	10.63	7.76	11.24	7.68	11.87	7.97	12.20	7.92	12.52	7.85	13.20	8.09		
	32	10.46	7.66	11.06	7.58	11.68	7.87	12.01	7.82	12.33	7.76	12.99	8.00		
	34	10.29	7.57	10.87	7.48	11.49	7.78	11.82	7.73	12.13	7.66	12.79	7.92		
	35	10.20	7.52	10.78	7.44	11.40	7.73	11.73	7.69	12.04	7.62	12.68	7.87		
	36	10.00	7.41	10.56	7.32	11.16	7.62	11.48	7.57	11.75	7.49	12.29	7.70		
	38	9.58	7.17	10.12	7.10	10.68	7.39	11.00	7.35	11.17	7.23	11.50	7.38		
	39	9.38	7.07	9.90	6.99	10.44	7.28	10.75	7.23	10.89	7.11	11.10	7.22		
	41	8.82	6.77	9.32	6.69	9.77	6.97	10.00	6.90	10.07	6.76	10.16	6.86		
	43	8.13	6.41	8.60	6.35	8.92	6.58	8.98	6.45	9.01	6.32	9.07	6.44		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
Lo	-19.8	-20	7.41	7.36	7.29	7.23	7.18
	-17.8	-18	7.89	7.84	7.77	7.71	7.64
	-15.7	-16	8.38	8.32	8.25	8.19	8.11
	-13.7	-14	8.89	8.83	8.76	8.69	8.61
	-11.7	-12	9.42	9.36	9.29	9.22	9.14
	-9.6	-10	9.96	9.90	9.83	9.74	9.67
	-7.5	-8	10.57	10.50	10.43	10.33	10.25
20	-5.5	-6	11.18	11.10	11.02	10.92	10.84
(m³/min)	-3.4	-4	11.49	11.39	11.31	11.20	11.11
	-1.3	-2	11.48	11.37	11.29	11.17	11.06
	0.8	0	11.48	11.36	11.26	11.14	11.01
	3.9	3	12.48	12.34	12.23	12.09	11.95
	7.0	6	13.52	13.37	13.24	12.99	12.62
	10.1	9	14.65	14.50	14.34	13.78	12.78
	13.2	12	15.84	15.56	14.94	14.05	12.81
	16.9	15.5	17.07	16.58	15.30	14.06	12.78

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)

PJG000Z773

Model **FDUM160KXE6F-W** Cooling mode (kW)

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	SHC	23 ℃DB 16 ℃WB TC	SHC	26 ℃DB 18 ℃WB TC	SHC	27 ℃DB 19 ℃WB TC	SHC	28 ℃DB 20 ℃WB TC	SHC	31 ℃DB 22 ℃WB TC	SHC	33 ℃DB 24 ℃WB TC	SHC
P-Hi	10			17.56	13.10	18.58	13.74	19.12	13.65	19.66	13.55	20.77	14.20	21.94	13.97
	12			17.32	13.00	18.33	13.64	18.86	13.55	19.39	13.45	20.49	14.10	21.63	13.88
	14			17.09	12.88	18.08	13.54	18.60	13.45	19.12	13.35	20.20	13.98	21.33	13.76
	16			16.86	12.78	17.84	13.44	18.35	13.35	18.86	13.26	19.92	13.89	21.03	13.68
	18			16.64	12.69	17.60	13.35	18.10	13.26	18.60	13.17	19.65	13.77	20.73	13.56
	20			16.42	12.57	17.36	13.23	17.86	13.17	18.35	13.08	19.37	13.68	20.44	13.47
	22			16.21	12.44	17.13	13.14	17.61	13.05	18.10	12.96	19.11	13.57	20.15	13.36
48	24			16.00	12.35	16.90	13.05	17.36	12.96	17.84	12.87	18.84	13.49	19.87	13.27
(m³/min)	26	14.93	12.40	15.78	12.26	16.66	12.94	17.12	12.85	17.59	12.75	18.57	13.37	19.68	13.19
	28	14.72	12.31	15.56	12.17	16.42	12.84	16.88	12.76	17.34	12.67	18.29	13.28		
	30	14.50	12.21	15.33	12.07	16.18	12.73	16.63	12.64	17.08	12.55	18.00	13.16		
	32	14.27	12.08	15.08	11.97	15.93	12.63	16.38	12.55	16.82	12.46	17.72	13.07		
	34	14.03	11.98	14.83	11.84	15.67	12.51	16.12	12.45	16.55	12.36	17.44	12.98		
	35	13.92	11.93	14.71	11.79	15.55	12.46	16.00	12.39	16.42	12.29	17.30	12.91		
	36	13.63	11.78	14.41	11.67	15.22	12.34	15.66	12.26	16.03	12.16	16.76	12.65		
	38	13.07	11.51	13.80	11.39	14.56	12.06	15.00	12.00	15.24	11.86	15.69	12.31		
	39	12.79	11.38	13.50	11.25	14.23	11.92	14.67	11.85	14.85	11.70	15.15	12.15		
	41	12.04	11.03	12.71	10.90	13.33	11.55	13.64	11.46	13.73	11.28	13.86	11.72		
	43	11.09	10.60	11.73	10.49	12.17	11.05	12.25	10.89	12.29	10.72	12.37	11.23		

Heating mode (kW)

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
P-Hi	-19.8	-20	10.07	10.01	9.91	9.83	9.76
	-17.8	-18	10.73	10.66	10.56	10.48	10.39
	-15.7	-16	11.39	11.32	11.21	11.13	11.02
	-13.7	-14	12.08	12.01	11.90	11.82	11.70
	-11.7	-12	12.81	12.73	12.63	12.53	12.42
	-9.6	-10	13.54	13.46	13.37	13.24	13.14
	-7.5	-8	14.37	14.27	14.18	14.05	13.94
48	-5.5	-6	15.21	15.09	14.99	14.85	14.74
(m³/min)	-3.4	-4	15.62	15.48	15.38	15.23	15.11
	-1.3	-2	15.61	15.46	15.35	15.19	15.04
	0.8	0	15.61	15.44	15.31	15.15	14.97
	3.9	3	16.96	16.77	16.63	16.44	16.24
	7.0	6	18.38	18.18	18.00	17.66	17.16
	10.1	9	19.91	19.71	19.49	18.73	17.38
	13.2	12	21.54	21.15	20.31	19.10	17.42
	16.9	15.5	23.21	22.54	20.80	19.12	17.37

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	SHC	23 ℃DB 16 ℃WB TC	SHC	26 ℃DB 18 ℃WB TC	SHC	27 ℃DB 19 ℃WB TC	SHC	28 ℃DB 20 ℃WB TC	SHC	31 ℃DB 22 ℃WB TC	SHC	33 ℃DB 24 ℃WB TC	SHC
Hi	10			17.27	11.84	18.28	12.31	18.81	12.23	19.34	12.15	20.44	12.55	21.58	12.33
	12			17.04	11.72	18.03	12.19	18.55	12.10	19.07	12.03	20.15	12.39	21.28	12.18
	14			16.81	11.60	17.79	12.07	18.30	11.99	18.81	11.91	19.87	12.29	20.98	12.07
	16			16.59	11.48	17.55	11.93	18.05	11.85	18.55	11.76	19.60	12.19	20.69	11.98
	18			16.37	11.35	17.31	11.83	17.81	11.75	18.30	11.66	19.33	12.08	20.40	11.87
	20			16.15	11.24	17.08	11.72	17.57	11.65	18.05	11.56	19.06	11.96	20.10	11.75
	22			15.94	11.15	16.85	11.60	17.32	11.54	17.80	11.45	18.80	11.86	19.82	11.64
35	24			15.74	11.04	16.62	11.51	17.08	11.42	17.55	11.33	18.54	11.75	19.54	11.53
(m³/min)	26	14.69	11.04	15.52	10.93	16.39	11.39	16.84	11.31	17.31	11.22	18.27	11.63	19.36	11.48
	28	14.48	10.93	15.30	10.81	16.16	11.28	16.60	11.20	17.05	11.11	17.99	11.53		
	30	14.27	10.83	15.09	10.72	15.92	11.17	16.36	11.08	16.80	11.01	17.71	11.42		
	32	14.04	10.70	14.84	10.59	15.67	11.05	16.11	10.98	16.54	10.89	17.43	11.30		
	34	13.81	10.57	14.59	10.46	15.42	10.94	15.86	10.87	16.28	10.78	17.16	11.15		
	35	13.69	10.52	14.47	10.41	15.29	10.87	15.74	10.82	16.15	10.73	17.02	11.11		
	36	13.41	10.37	14.17	10.26	14.97	10.73	15.41	10.67	15.77	10.57	16.49	10.92		
	38	12.86	10.06	13.58	9.97	14.33	10.43	14.75	10.37	14.99	10.23	15.43	10.51		
	39	12.58	9.93	13.28	9.81	14.00	10.30	14.43	10.24	14.61	10.07	14.90	10.31		
	41	11.84	9.57	12.50	9.45	13.11	9.90	13.42	9.81	13.51	9.63	13.64	9.84		
	43	10.91	9.10	11.54	9.01	11.97	9.41	12.05	9.24	12.09	9.07	12.17	9.30		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
Hi	-19.8	-20	9.87	9.81	9.71	9.64	9.56
	-17.8	-18	10.52	10.45	10.35	10.27	10.18
	-15.7	-16	11.16	11.09	10.99	10.91	10.80
	-13.7	-14	11.84	11.77	11.67	11.58	11.47
	-11.7	-12	12.56	12.48	12.38	12.28	12.17
	-9.6	-10	13.27	13.19	13.10	12.98	12.88
	-7.5	-8	14.08	13.99	13.89	13.77	13.66
35	-5.5	-6	14.90	14.78	14.69	14.55	14.44
(m³/min)	-3.4	-4	15.31	15.17	15.07	14.93	14.80
	-1.3	-2	15.30	15.15	15.04	14.89	14.74
	0.8	0	15.30	15.13	15.01	14.85	14.67
	3.9	3	16.62	16.44	16.30	16.11	15.92
	7.0	6	18.01	17.81	17.64	17.31	16.82
	10.1	9	19.52	19.32	19.10	18.36	17.03
	13.2	12	21.11	20.73	19.91	18.72	17.07
	16.9	15.5	22.74	22.09	20.38	18.74	17.02

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	SHC	23 ℃DB 16 ℃WB TC	SHC	26 ℃DB 18 ℃WB TC	SHC	27 ℃DB 19 ℃WB TC	SHC	28 ℃DB 20 ℃WB TC	SHC	31 ℃DB 22 ℃WB TC	SHC	33 ℃DB 24 ℃WB TC	SHC
Me	10			16.15	10.76	17.09	11.15	17.59	11.09	18.08	11.00	19.11	11.31	20.18	11.12
	12			15.94	10.65	16.86	11.02	17.35	10.95	17.84	10.89	18.85	11.17	19.90	10.96
	14			15.72	10.53	16.63	10.90	17.11	10.84	17.59	10.75	18.58	11.06	19.62	10.86
	16			15.51	10.41	16.41	10.79	16.88	10.72	17.35	10.64	18.33	10.95	19.35	10.75
	18			15.31	10.30	16.19	10.67	16.65	10.60	17.11	10.53	18.08	10.84	19.08	10.65
	20			15.11	10.19	15.97	10.56	16.43	10.49	16.88	10.42	17.82	10.72	18.80	10.52
	22			14.91	10.08	15.76	10.45	16.20	10.38	16.65	10.30	17.58	10.61	18.54	10.42
28	24			14.72	9.97	15.55	10.34	15.97	10.27	16.42	10.19	17.34	10.51	18.28	10.31
(m³/min)	26	13.73	9.96	14.52	9.86	15.33	10.23	15.75	10.16	16.18	10.08	17.08	10.40	18.11	10.24
	28	13.54	9.86	14.31	9.74	15.11	10.10	15.53	10.03	15.95	9.97	16.82	10.26		
	30	13.34	9.74	14.11	9.65	14.89	10.01	15.30	9.93	15.72	9.85	16.56	10.16		
	32	13.13	9.62	13.88	9.52	14.66	9.89	15.07	9.83	15.47	9.75	16.30	10.05		
	34	12.91	9.50	13.65	9.40	14.42	9.77	14.83	9.71	15.23	9.64	16.04	9.94		
	35	12.80	9.43	13.53	9.35	14.30	9.72	14.72	9.66	15.11	9.58	15.91	9.88		
	36	12.54	9.29	13.25	9.19	14.00	9.57	14.41	9.52	14.74	9.42	15.42	9.68		
	38	12.02	9.01	12.70	8.91	13.40	9.28	13.80	9.23	14.02	9.09	14.43	9.25		
	39	11.77	8.87	12.42	8.77	13.10	9.15	13.49	9.09	13.66	8.93	13.94	9.08		
	41	11.07	8.51	11.69	8.40	12.26	8.74	12.55	8.66	12.63	8.49	12.76	8.61		
	43	10.21	8.06	10.79	7.97	11.20	8.27	11.27	8.11	11.31	7.95	11.38	8.06		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
Me	-19.8	-20	9.27	9.21	9.12	9.05	8.98
	-17.8	-18	9.87	9.81	9.72	9.65	9.56
	-15.7	-16	10.48	10.41	10.32	10.24	10.14
	-13.7	-14	11.12	11.05	10.95	10.87	10.77
	-11.7	-12	11.79	11.71	11.62	11.53	11.43
	-9.6	-10	12.46	12.38	12.30	12.18	12.09
	-7.5	-8	13.22	13.13	13.04	12.92	12.83
28	-5.5	-6	13.99	13.88	13.79	13.66	13.56
(m³/min)	-3.4	-4	14.37	14.24	14.15	14.01	13.90
	-1.3	-2	14.36	14.22	14.12	13.97	13.83
	0.8	0	14.36	14.21	14.09	13.94	13.77
	3.9	3	15.60	15.43	15.30	15.13	14.94
	7.0	6	16.91	16.72	16.56	16.25	15.79
	10.1	9	18.32	18.14	17.94	17.23	15.99
	13.2	12	19.82	19.46	18.69	17.57	16.02
	16.9	15.5	21.35	20.74	19.13	17.59	15.98

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	SHC	23 ℃DB 16 ℃WB TC	SHC	26 ℃DB 18 ℃WB TC	SHC	27 ℃DB 19 ℃WB TC	SHC	28 ℃DB 20 ℃WB TC	SHC	31 ℃DB 22 ℃WB TC	SHC	33 ℃DB 24 ℃WB TC	SHC
Lo	10			14.72	9.63	15.57	9.96	16.02	9.91	16.47	9.84	17.41	10.07	18.38	9.89
	12			14.52	9.52	15.36	9.84	15.81	9.79	16.25	9.71	17.17	9.95	18.13	9.77
	14			14.32	9.40	15.15	9.72	15.59	9.67	16.02	9.60	16.93	9.83	17.88	9.65
	16			14.13	9.29	14.95	9.61	15.38	9.55	15.80	9.48	16.70	9.71	17.63	9.53
	18			13.95	9.19	14.75	9.49	15.17	9.43	15.59	9.36	16.47	9.60	17.38	9.42
	20			13.76	9.08	14.55	9.38	14.97	9.33	15.38	9.25	16.24	9.48	17.13	9.30
	22			13.58	8.98	14.36	9.27	14.76	9.20	15.17	9.15	16.02	9.38	16.89	9.19
22	24			13.41	8.88	14.16	9.16	14.55	9.10	14.96	9.04	15.79	9.26	16.65	9.08
(m³/min)	26	12.51	8.83	13.22	8.77	13.97	9.06	14.35	9.00	14.74	8.92	15.56	9.15	16.49	9.01
	28	12.33	8.71	13.04	8.67	13.77	8.95	14.14	8.88	14.53	8.82	15.33	9.05		
	30	12.16	8.62	12.85	8.56	13.56	8.84	13.94	8.77	14.32	8.71	15.09	8.93		
	32	11.96	8.50	12.64	8.44	13.35	8.72	13.73	8.67	14.09	8.59	14.85	8.82		
	34	11.76	8.39	12.43	8.32	13.14	8.60	13.51	8.54	13.87	8.47	14.62	8.70		
	35	11.66	8.33	12.33	8.26	13.03	8.55	13.41	8.50	13.76	8.42	14.50	8.65		
	36	11.43	8.21	12.07	8.12	12.76	8.41	13.12	8.36	13.43	8.27	14.05	8.45		
	38	10.95	7.93	11.57	7.84	12.21	8.12	12.57	8.08	12.77	7.95	13.15	8.03		
	39	10.72	7.79	11.31	7.70	11.93	7.99	12.29	7.94	12.45	7.79	12.70	7.86		
	41	10.09	7.44	10.65	7.36	11.17	7.60	11.43	7.53	11.51	7.36	11.62	7.41		
	43	9.30	7.00	9.83	6.93	10.20	7.14	10.26	6.99	10.30	6.82	10.37	6.91		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
Lo	-19.8	-20	8.10	8.04	7.97	7.91	7.85
	-17.8	-18	8.63	8.57	8.49	8.43	8.35
	-15.7	-16	9.16	9.10	9.01	8.95	8.86
	-13.7	-14	9.71	9.65	9.57	9.50	9.41
	-11.7	-12	10.30	10.23	10.16	10.07	9.99
	-9.6	-10	10.88	10.82	10.74	10.65	10.57
	-7.5	-8	11.55	11.47	11.40	11.29	11.21
22	-5.5	-6	12.22	12.13	12.05	11.94	11.85
(m³/min)	-3.4	-4	12.56	12.45	12.36	12.24	12.14
	-1.3	-2	12.55	12.43	12.34	12.21	12.09
	0.8	0	12.55	12.41	12.31	12.18	12.03
	3.9	3	13.63	13.48	13.37	13.22	13.06
	7.0	6	14.77	14.61	14.47	14.20	13.80
	10.1	9	16.01	15.85	15.67	15.06	13.97
	13.2	12	17.31	17.00	16.33	15.35	14.00
	16.9	15.5	18.66	18.12	16.72	15.37	13.96

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)

PJG000Z773

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

Model **FDUT15KXE6F-W** Cooling mode (kW)

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
Hi	10			1.65	1.24	1.74	1.31	1.79	1.30	1.84	1.29	1.95	1.34	2.06	1.32
	12			1.62	1.23	1.72	1.30	1.77	1.29	1.82	1.28	1.92	1.34	2.03	1.32
	14			1.60	1.22	1.69	1.28	1.74	1.27	1.79	1.27	1.89	1.33	2.00	1.31
	16			1.58	1.21	1.67	1.27	1.72	1.26	1.77	1.25	1.87	1.32	1.97	1.30
	18			1.56	1.20	1.65	1.26	1.70	1.26	1.74	1.25	1.84	1.31	1.94	1.29
	20			1.54	1.19	1.63	1.26	1.67	1.25	1.72	1.24	1.82	1.30	1.92	1.28
	22			1.52	1.18	1.61	1.25	1.65	1.24	1.70	1.23	1.79	1.29	1.89	1.27
6	24			1.50	1.17	1.58	1.24	1.63	1.23	1.67	1.22	1.77	1.28	1.86	1.26
(m³/min)	26	1.40	1.18	1.48	1.16	1.56	1.23	1.60	1.22	1.65	1.21	1.74	1.27	1.85	1.26
	28	1.38	1.17	1.46	1.16	1.54	1.22	1.58	1.21	1.63	1.20	1.71	1.26		
	30	1.36	1.16	1.44	1.15	1.52	1.21	1.56	1.20	1.60	1.19	1.69	1.25		
	32	1.34	1.15	1.41	1.13	1.49	1.20	1.54	1.20	1.58	1.19	1.66	1.23		
	34	1.32	1.14	1.39	1.12	1.47	1.19	1.51	1.18	1.55	1.17	1.63	1.23		
	35	1.30	1.13	1.38	1.12	1.46	1.18	1.50	1.18	1.54	1.17	1.62	1.22		
	36	1.28	1.12	1.35	1.11	1.43	1.17	1.47	1.17	1.50	1.15	1.57	1.21		
	38	1.23	1.09	1.29	1.08	1.37	1.14	1.41	1.14	1.43	1.12	1.47	1.17		
	39	1.20	1.08	1.27	1.07	1.33	1.13	1.38	1.13	1.39	1.11	1.42	1.16		
	41	1.13	1.04	1.19	1.03	1.25	1.10	1.28	1.09	1.29	1.07	1.30	1.11		
	43	1.04	1.00	1.10	1.00	1.14	1.06	1.15	1.04	1.15	1.02	1.16	1.07		

Heating mode (kW)

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
Hi	-19.8	-20	0.95	0.94	0.94	0.93	0.92
	-17.8	-18	1.01	1.01	1.00	0.99	0.98
	-15.7	-16	1.08	1.07	1.06	1.05	1.04
	-13.7	-14	1.14	1.13	1.12	1.12	1.11
	-11.7	-12	1.21	1.20	1.19	1.18	1.17
	-9.6	-10	1.28	1.27	1.26	1.25	1.24
	-7.5	-8	1.36	1.35	1.34	1.33	1.32
6	-5.5	-6	1.44	1.42	1.42	1.40	1.39
(m³/min)	-3.4	-4	1.48	1.46	1.45	1.44	1.43
	-1.3	-2	1.47	1.46	1.45	1.43	1.42
	0.8	0	1.47	1.46	1.45	1.43	1.41
	3.9	3	1.60	1.58	1.57	1.55	1.53
	7.0	6	1.74	1.72	1.70	1.67	1.62
	10.1	9	1.88	1.86	1.84	1.77	1.64
	13.2	12	2.03	2.00	1.92	1.80	1.64
	16.9	15.5	2.19	2.13	1.96	1.81	1.64

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
Me	10			1.45	1.08	1.54	1.14	1.58	1.13	1.63	1.13	1.72	1.18	1.81	1.15
	12			1.43	1.07	1.52	1.13	1.56	1.12	1.60	1.11	1.69	1.16	1.79	1.15
	14			1.41	1.06	1.50	1.12	1.54	1.11	1.58	1.11	1.67	1.16	1.76	1.14
	16			1.40	1.06	1.48	1.11	1.52	1.11	1.56	1.10	1.65	1.15	1.74	1.13
	18			1.38	1.05	1.46	1.10	1.50	1.10	1.54	1.09	1.63	1.14	1.72	1.12
	20			1.36	1.04	1.44	1.10	1.48	1.09	1.52	1.08	1.60	1.13	1.69	1.11
	22			1.34	1.03	1.42	1.09	1.46	1.08	1.50	1.07	1.58	1.12	1.67	1.11
5	24			1.32	1.02	1.40	1.08	1.44	1.07	1.48	1.06	1.56	1.11	1.64	1.09
(m³/min)	26	1.24	1.03	1.31	1.02	1.38	1.07	1.42	1.06	1.46	1.06	1.54	1.10	1.63	1.09
	28	1.22	1.02	1.29	1.01	1.36	1.06	1.40	1.05	1.43	1.04	1.51	1.09		
	30	1.20	1.00	1.27	1.00	1.34	1.05	1.38	1.04	1.41	1.03	1.49	1.09		
	32	1.18	1.00	1.25	0.99	1.32	1.04	1.35	1.03	1.39	1.03	1.47	1.08		
	34	1.16	0.99	1.23	0.98	1.30	1.04	1.33	1.03	1.37	1.02	1.44	1.07		
	35	1.15	0.98	1.22	0.97	1.29	1.03	1.32	1.02	1.36	1.02	1.43	1.07		
	36	1.13	0.97	1.19	0.96	1.26	1.02	1.30	1.01	1.33	1.00	1.39	1.05		
	38	1.08	0.95	1.14	0.94	1.20	0.99	1.24	0.99	1.26	0.98	1.30	1.02		
	39	1.06	0.94	1.12	0.93	1.18	0.99	1.21	0.98	1.23	0.97	1.25	0.99		
	41	1.00	0.91	1.05	0.90	1.10	0.95	1.13	0.95	1.14	0.93	1.15	0.97		
	43	0.92	0.87	0.97	0.86	1.01	0.91	1.01	0.90	1.02	0.89	1.02	0.92		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
Me	-19.8	-20	0.83	0.83	0.82	0.81	0.81
	-17.8	-18	0.89	0.88	0.87	0.86	0.86
	-15.7	-16	0.94	0.93	0.92	0.92	0.91
	-13.7	-14	1.00	0.99	0.98	0.97	0.97
	-11.7	-12	1.06	1.05	1.04	1.03	1.02
	-9.6	-10	1.12	1.11	1.10	1.09	1.08
	-7.5	-8	1.19	1.18	1.17	1.16	1.15
5	-5.5	-6	1.25	1.24	1.24	1.22	1.22
(m³/min)	-3.4	-4	1.29	1.28	1.27	1.26	1.25
	-1.3	-2	1.29	1.28	1.27	1.25	1.24
	0.8	0	1.29	1.27	1.26	1.25	1.23
	3.9	3	1.40	1.38	1.37	1.36	1.34
	7.0	6	1.52	1.50	1.48	1.46	1.42
	10.1	9	1.64	1.63	1.61	1.55	1.43
	13.2	12	1.78	1.74	1.68	1.58	1.44
	16.9	15.5	1.91	1.86	1.72	1.58	1.43

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
Lo	10			1.23	0.91	1.31	0.96	1.34	0.95	1.38	0.94	1.46	0.98	1.54	0.97
	12			1.22	0.90	1.29	0.95	1.32	0.94	1.36	0.93	1.44	0.97	1.52	0.96
	14			1.20	0.89	1.27	0.94	1.31	0.93	1.34	0.92	1.42	0.97	1.50	0.95
	16			1.18	0.88	1.25	0.93	1.29	0.92	1.32	0.91	1.40	0.96	1.48	0.94
	18			1.17	0.88	1.24	0.92	1.27	0.91	1.31	0.91	1.38	0.95	1.46	0.93
	20			1.15	0.87	1.22	0.92	1.25	0.91	1.29	0.90	1.36	0.94	1.44	0.93
	22			1.14	0.86	1.20	0.91	1.24	0.90	1.27	0.89	1.34	0.94	1.42	0.92
4	24			1.12	0.85	1.19	0.90	1.22	0.89	1.25	0.89	1.32	0.93	1.40	0.92
(m³/min)	26	1.05	0.86	1.11	0.85	1.17	0.89	1.20	0.89	1.24	0.88	1.30	0.92	1.38	0.91
	28	1.03	0.85	1.09	0.84	1.15	0.88	1.19	0.88	1.22	0.87	1.28	0.91		
	30	1.02	0.84	1.08	0.84	1.14	0.88	1.17	0.87	1.20	0.87	1.26	0.91		
	32	1.00	0.83	1.06	0.83	1.12	0.87	1.15	0.87	1.18	0.86	1.24	0.90		
	34	0.99	0.83	1.04	0.82	1.10	0.86	1.13	0.86	1.16	0.85	1.23	0.90		
	35	0.98	0.82	1.03	0.81	1.09	0.86	1.12	0.85	1.15	0.85	1.22	0.89		
	36	0.96	0.81	1.01	0.80	1.07	0.85	1.10	0.84	1.13	0.84	1.18	0.88		
	38	0.92	0.80	0.97	0.79	1.02	0.83	1.05	0.82	1.07	0.81	1.10	0.85		
	39	0.90	0.79	0.95	0.78	1.00	0.82	1.03	0.82	1.04	0.81	1.06	0.83		
	41	0.85	0.76	0.89	0.75	0.94	0.80	0.96	0.79	0.96	0.77	0.97	0.80		
	43	0.78	0.73	0.82	0.72	0.85	0.76	0.86	0.75	0.86	0.74	0.87	0.77		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
Lo	-19.8	-20	0.70	0.69	0.69	0.68	0.68
	-17.8	-18	0.74	0.74	0.73	0.73	0.72
	-15.7	-16	0.79	0.79	0.78	0.77	0.77
	-13.7	-14	0.84	0.83	0.83	0.82	0.81
	-11.7	-12	0.89	0.88	0.88	0.87	0.86
	-9.6	-10	0.94	0.93	0.93	0.92	0.91
	-7.5	-8	1.00	0.99	0.98	0.97	0.97
4	-5.5	-6	1.06	1.05	1.04	1.03	1.02
(m³/min)	-3.4	-4	1.08	1.07	1.07	1.06	1.05
	-1.3	-2	1.08	1.07	1.06	1.05	1.04
	0.8	0	1.08	1.07	1.06	1.05	1.04
	3.9	3	1.18	1.16	1.15	1.14	1.13
	7.0	6	1.28	1.26	1.25	1.23	1.19
	10.1	9	1.38	1.37	1.35	1.30	1.21
	13.2	12	1.49	1.47	1.41	1.33	1.21
	16.9	15.5	1.61	1.56	1.44	1.33	1.21

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)

PJH000Z032

Model **FDUT22KXE6F-W** Cooling mode (kW)

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
Hi	10			2.41	1.77	2.55	1.86	2.63	1.85	2.70	1.84	2.86	1.91	3.02	1.88
	12			2.38	1.76	2.52	1.85	2.59	1.84	2.67	1.83	2.82	1.90	2.97	1.87
	14			2.35	1.74	2.49	1.84	2.56	1.82	2.63	1.81	2.78	1.89	2.93	1.86
	16			2.32	1.73	2.45	1.82	2.52	1.81	2.59	1.79	2.74	1.88	2.89	1.85
	18			2.29	1.72	2.42	1.80	2.49	1.80	2.56	1.78	2.70	1.86	2.85	1.83
	20			2.26	1.70	2.39	1.79	2.46	1.78	2.52	1.77	2.66	1.84	2.81	1.82
	22			2.23	1.69	2.36	1.78	2.42	1.77	2.49	1.75	2.63	1.84	2.77	1.80
7.5	24			2.20	1.68	2.32	1.76	2.39	1.74	2.45	1.73	2.59	1.82	2.73	1.79
(m³/min)	26	2.05	1.68	2.17	1.66	2.29	1.74	2.35	1.73	2.42	1.72	2.55	1.81	2.71	1.78
	28	2.02	1.67	2.14	1.65	2.26	1.73	2.32	1.72	2.38	1.71	2.51	1.79		
	30	1.99	1.65	2.11	1.64	2.23	1.72	2.29	1.71	2.35	1.70	2.48	1.78		
	32	1.96	1.63	2.07	1.62	2.19	1.71	2.25	1.69	2.31	1.68	2.44	1.75		
	34	1.93	1.62	2.04	1.60	2.16	1.69	2.22	1.68	2.28	1.67	2.40	1.74		
	35	1.91	1.61	2.02	1.59	2.14	1.69	2.20	1.67	2.26	1.66	2.38	1.74		
	36	1.87	1.59	1.98	1.58	2.09	1.66	2.15	1.65	2.20	1.64	2.30	1.71		
	38	1.80	1.55	1.90	1.53	2.00	1.63	2.06	1.62	2.10	1.60	2.16	1.66		
	39	1.76	1.54	1.86	1.52	1.96	1.61	2.02	1.60	2.04	1.58	2.08	1.63		
	41	1.65	1.49	1.75	1.47	1.83	1.55	1.88	1.54	1.89	1.51	1.91	1.57		
	43	1.53	1.43	1.61	1.41	1.67	1.49	1.68	1.47	1.69	1.44	1.70	1.50		

Heating mode (kW)

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
Hi	-19.8	-20	1.40	1.39	1.38	1.37	1.36
	-17.8	-18	1.49	1.48	1.47	1.46	1.44
	-15.7	-16	1.58	1.57	1.56	1.55	1.53
	-13.7	-14	1.68	1.67	1.65	1.64	1.63
	-11.7	-12	1.78	1.77	1.75	1.74	1.73
	-9.6	-10	1.88	1.87	1.86	1.84	1.83
	-7.5	-8	2.00	1.98	1.97	1.95	1.94
7.5	-5.5	-6	2.11	2.10	2.08	2.06	2.05
(m³/min)	-3.4	-4	2.17	2.15	2.14	2.12	2.10
	-1.3	-2	2.17	2.15	2.13	2.11	2.09
	0.8	0	2.17	2.14	2.13	2.10	2.08
	3.9	3	2.36	2.33	2.31	2.28	2.26
	7.0	6	2.55	2.52	2.50	2.45	2.38
	10.1	9	2.77	2.74	2.71	2.60	2.41
	13.2	12	2.99	2.94	2.82	2.65	2.42
	16.9	15.5	3.22	3.13	2.89	2.66	2.41

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
Me	10			2.07	1.50	2.19	1.57	2.26	1.57	2.32	1.56	2.45	1.61	2.59	1.59
	12			2.04	1.49	2.16	1.56	2.22	1.55	2.29	1.54	2.42	1.61	2.55	1.58
	14			2.02	1.48	2.13	1.55	2.19	1.54	2.26	1.53	2.38	1.59	2.52	1.57
	16			1.99	1.46	2.10	1.53	2.16	1.52	2.22	1.51	2.35	1.58	2.48	1.55
	18			1.96	1.45	2.08	1.52	2.14	1.51	2.19	1.50	2.32	1.57	2.45	1.54
	20			1.94	1.44	2.05	1.51	2.11	1.50	2.16	1.49	2.29	1.55	2.41	1.53
	22			1.91	1.42	2.02	1.50	2.08	1.49	2.13	1.48	2.25	1.54	2.38	1.52
6	24			1.89	1.42	1.99	1.48	2.05	1.48	2.11	1.47	2.22	1.53	2.34	1.50
(m³/min)	26	1.76	1.41	1.86	1.40	1.97	1.47	2.02	1.46	2.08	1.45	2.19	1.52	2.32	1.50
	28	1.74	1.41	1.84	1.39	1.94	1.46	1.99	1.45	2.05	1.44	2.16	1.51		
	30	1.71	1.39	1.81	1.38	1.91	1.45	1.96	1.44	2.02	1.43	2.12	1.49		
	32	1.68	1.38	1.78	1.36	1.88	1.43	1.93	1.43	1.98	1.42	2.09	1.48		
	34	1.66	1.37	1.75	1.35	1.85	1.42	1.90	1.41	1.95	1.40	2.06	1.47		
	35	1.64	1.36	1.74	1.34	1.83	1.41	1.89	1.41	1.94	1.40	2.04	1.46		
	36	1.61	1.34	1.70	1.33	1.80	1.40	1.85	1.39	1.89	1.38	1.98	1.44		
	38	1.54	1.31	1.63	1.30	1.72	1.36	1.77	1.35	1.80	1.34	1.85	1.39		
	39	1.51	1.29	1.59	1.28	1.68	1.35	1.73	1.34	1.75	1.32	1.79	1.37		
	41	1.42	1.25	1.50	1.24	1.57	1.30	1.61	1.29	1.62	1.27	1.64	1.31		
	43	1.31	1.20	1.38	1.18	1.44	1.25	1.44	1.23	1.45	1.21	1.46	1.25		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
Me	-19.8	-20	1.17	1.16	1.15	1.14	1.13
	-17.8	-18	1.24	1.23	1.22	1.21	1.20
	-15.7	-16	1.32	1.31	1.30	1.29	1.28
	-13.7	-14	1.40	1.39	1.38	1.37	1.35
	-11.7	-12	1.48	1.47	1.46	1.45	1.44
	-9.6	-10	1.57	1.56	1.55	1.53	1.52
	-7.5	-8	1.66	1.65	1.64	1.63	1.61
6	-5.5	-6	1.76	1.75	1.74	1.72	1.71
(m³/min)	-3.4	-4	1.81	1.79	1.78	1.76	1.75
	-1.3	-2	1.81	1.79	1.78	1.76	1.74
	0.8	0	1.81	1.79	1.77	1.75	1.73
	3.9	3	1.96	1.94	1.93	1.90	1.88
	7.0	6	2.13	2.10	2.08	2.04	1.99
	10.1	9	2.31	2.28	2.26	2.17	2.01
	13.2	12	2.49	2.45	2.35	2.21	2.02
	16.9	15.5	2.69	2.61	2.41	2.21	2.01

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
Lo	10			1.81	1.30	1.92	1.36	1.97	1.35	2.03	1.34	2.14	1.40	2.26	1.36
	12			1.79	1.29	1.89	1.35	1.94	1.34	2.00	1.33	2.11	1.38	2.23	1.36
	14			1.76	1.28	1.86	1.33	1.92	1.33	1.97	1.32	2.08	1.37	2.20	1.35
	16			1.74	1.27	1.84	1.32	1.89	1.32	1.94	1.31	2.05	1.36	2.17	1.34
	18			1.72	1.26	1.81	1.31	1.87	1.30	1.92	1.29	2.03	1.35	2.14	1.33
	20			1.69	1.24	1.79	1.30	1.84	1.29	1.89	1.28	2.00	1.34	2.11	1.32
	22			1.67	1.23	1.77	1.29	1.82	1.29	1.87	1.28	1.97	1.33	2.08	1.31
5	24			1.65	1.22	1.74	1.28	1.79	1.27	1.84	1.26	1.94	1.32	2.05	1.30
(m³/min)	26	1.54	1.22	1.63	1.21	1.72	1.27	1.76	1.26	1.81	1.25	1.91	1.31	2.03	1.29
	28	1.52	1.21	1.60	1.20	1.69	1.26	1.74	1.25	1.79	1.24	1.89	1.30		
	30	1.50	1.20	1.58	1.19	1.67	1.25	1.71	1.24	1.76	1.23	1.86	1.29		
	32	1.47	1.19	1.55	1.17	1.64	1.24	1.69	1.23	1.73	1.22	1.83	1.27		
	34	1.45	1.18	1.53	1.16	1.62	1.23	1.66	1.22	1.71	1.21	1.80	1.26		
	35	1.43	1.17	1.52	1.16	1.60	1.22	1.65	1.21	1.69	1.20	1.78	1.25		
	36	1.41	1.16	1.48	1.14	1.57	1.21	1.61	1.20	1.65	1.19	1.73	1.24		
	38	1.35	1.13	1.42	1.11	1.50	1.17	1.55	1.17	1.57	1.15	1.62	1.20		
	39	1.32	1.12	1.39	1.10	1.47	1.16	1.51	1.15	1.53	1.14	1.56	1.18		
	41	1.24	1.07	1.31	1.06	1.37	1.12	1.41	1.11	1.42	1.10	1.43	1.12		
	43	1.14	1.03	1.21	1.02	1.25	1.07	1.26	1.06	1.27	1.04	1.28	1.08		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
Lo	-19.8	-20	1.00	0.99	0.98	0.98	0.97
	-17.8	-18	1.06	1.06	1.05	1.04	1.03
	-15.7	-16	1.13	1.12	1.11	1.10	1.09
	-13.7	-14	1.20	1.19	1.18	1.17	1.16
	-11.7	-12	1.27	1.26	1.25	1.24	1.23
	-9.6	-10	1.34	1.34	1.33	1.31	1.30
	-7.5	-8	1.43	1.42	1.41	1.39	1.38
5	-5.5	-6	1.51	1.50	1.49	1.47	1.46
(m³/min)	-3.4	-4	1.55	1.54	1.53	1.51	1.50
	-1.3	-2	1.55	1.53	1.52	1.51	1.49
	0.8	0	1.55	1.53	1.52	1.50	1.49
	3.9	3	1.68	1.66	1.65	1.63	1.61
	7.0	6	1.82	1.80	1.79	1.75	1.70
	10.1	9	1.98	1.96	1.93	1.86	1.72
	13.2	12	2.14	2.10	2.02	1.90	1.73
	16.9	15.5	2.30	2.24	2.06	1.90	1.72

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)

PJH000Z032

Model **FDUT28KXE6F-W** Cooling mode (kW)

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature													
		21 ℃DB 14 ℃WB		23 ℃DB 16 ℃WB		26 ℃DB 18 ℃WB		27 ℃DB 19 ℃WB		28 ℃DB 20 ℃WB		31 ℃DB 22 ℃WB		33 ℃DB 24 ℃WB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
Hi	10			3.07	2.18	3.25	2.28	3.35	2.27	3.44	2.25	3.64	2.34	3.84	2.30
	12			3.03	2.16	3.21	2.26	3.30	2.25	3.39	2.23	3.59	2.32	3.79	2.28
	14			2.99	2.14	3.16	2.24	3.25	2.23	3.35	2.21	3.54	2.29	3.73	2.25
	16			2.95	2.12	3.12	2.22	3.21	2.21	3.30	2.19	3.49	2.28	3.68	2.24
	18			2.91	2.10	3.08	2.20	3.17	2.19	3.26	2.17	3.44	2.26	3.63	2.22
	20			2.87	2.08	3.04	2.19	3.12	2.17	3.21	2.16	3.39	2.24	3.58	2.21
	22			2.84	2.07	3.00	2.17	3.08	2.15	3.17	2.14	3.34	2.22	3.53	2.19
7.5	24			2.80	2.05	2.96	2.15	3.04	2.13	3.12	2.12	3.30	2.21	3.48	2.17
(m³/min)	26	2.61	2.05	2.76	2.03	2.92	2.13	3.00	2.12	3.08	2.10	3.25	2.19	3.44	2.15
	28	2.58	2.04	2.72	2.01	2.87	2.11	2.95	2.09	3.03	2.08	3.20	2.17		
	30	2.54	2.02	2.68	1.99	2.83	2.09	2.91	2.07	2.99	2.06	3.15	2.15		
	32	2.50	2.00	2.64	1.97	2.79	2.07	2.87	2.06	2.94	2.04	3.10	2.13		
	34	2.46	1.98	2.60	1.96	2.74	2.05	2.82	2.04	2.90	2.02	3.05	2.11		
	35	2.44	1.97	2.57	1.94	2.72	2.04	2.80	2.03	2.87	2.01	3.03	2.10		
	36	2.39	1.94	2.52	1.92	2.66	2.02	2.74	2.01	2.80	1.99	2.93	2.07		
	38	2.29	1.89	2.42	1.87	2.55	1.97	2.62	1.95	2.67	1.93	2.74	2.00		
	39	2.24	1.87	2.36	1.84	2.49	1.94	2.57	1.94	2.60	1.90	2.65	1.96		
	41	2.11	1.80	2.22	1.78	2.33	1.87	2.39	1.86	2.40	1.83	2.43	1.89		
	43	1.94	1.72	2.05	1.70	2.13	1.78	2.14	1.76	2.15	1.73	2.17	1.79		

Heating mode (kW)

Air flow	Outdoor air temperature		Indoor air temperature				
	℃DB	℃WB	16 ℃DB	18 ℃DB	20 ℃DB	22 ℃DB	24 ℃DB
Hi	-19.8	-20	1.79	1.78	1.76	1.75	1.74
	-17.8	-18	1.91	1.90	1.88	1.86	1.85
	-15.7	-16	2.02	2.01	1.99	1.98	1.96
	-13.7	-14	2.15	2.13	2.12	2.10	2.08
	-11.7	-12	2.28	2.26	2.25	2.23	2.21
	-9.6	-10	2.41	2.39	2.38	2.35	2.34
	-7.5	-8	2.56	2.54	2.52	2.50	2.48
7.5	-5.5	-6	2.70	2.68	2.66	2.64	2.62
(m³/min)	-3.4	-4	2.78	2.75	2.73	2.71	2.69
	-1.3	-2	2.78	2.75	2.73	2.70	2.67
	0.8	0	2.77	2.74	2.72	2.69	2.66
	3.9	3	3.02	2.98	2.96	2.92	2.89
	7.0	6	3.27	3.23	3.20	3.14	3.05
	10.1	9	3.54	3.50	3.47	3.33	3.09
	13.2	12	3.83	3.76	3.61	3.40	3.10
	16.9	15.5	4.13	4.01	3.70	3.40	3.09

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature													
		21 ℃DB 14 ℃WB		23 ℃DB 16 ℃WB		26 ℃DB 18 ℃WB		27 ℃DB 19 ℃WB		28 ℃DB 20 ℃WB		31 ℃DB 22 ℃WB		33 ℃DB 24 ℃WB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
Me	10			2.64	1.85	2.79	1.93	2.87	1.91	2.95	1.90	3.12	1.97	3.29	1.94
	12			2.60	1.83	2.75	1.91	2.83	1.90	2.91	1.88	3.08	1.96	3.25	1.92
	14			2.57	1.81	2.71	1.89	2.79	1.87	2.87	1.86	3.03	1.94	3.20	1.90
	16			2.53	1.79	2.68	1.87	2.75	1.86	2.83	1.85	2.99	1.92	3.16	1.89
	18			2.50	1.78	2.64	1.86	2.72	1.85	2.79	1.83	2.95	1.90	3.11	1.87
	20			2.47	1.76	2.61	1.84	2.68	1.83	2.75	1.81	2.91	1.89	3.07	1.85
	22			2.43	1.74	2.57	1.82	2.64	1.81	2.72	1.80	2.87	1.87	3.03	1.84
6	24			2.40	1.73	2.54	1.81	2.61	1.80	2.68	1.78	2.83	1.85	2.98	1.82
(m³/min)	26	2.24	1.73	2.37	1.71	2.50	1.79	2.57	1.78	2.64	1.77	2.79	1.84	2.95	1.80
	28	2.21	1.72	2.34	1.70	2.47	1.78	2.53	1.76	2.60	1.75	2.75	1.82		
	30	2.18	1.70	2.30	1.68	2.43	1.76	2.50	1.75	2.56	1.73	2.70	1.80		
	32	2.14	1.68	2.26	1.66	2.39	1.74	2.46	1.73	2.53	1.72	2.66	1.79		
	34	2.11	1.66	2.23	1.65	2.35	1.72	2.42	1.71	2.49	1.70	2.62	1.77		
	35	2.09	1.65	2.21	1.64	2.33	1.71	2.40	1.71	2.47	1.69	2.60	1.76		
	36	2.05	1.63	2.16	1.61	2.29	1.70	2.35	1.68	2.41	1.67	2.52	1.73		
	38	1.96	1.59	2.07	1.57	2.19	1.65	2.25	1.64	2.29	1.62	2.36	1.67		
	39	1.92	1.57	2.03	1.55	2.14	1.63	2.20	1.62	2.23	1.60	2.27	1.64		
	41	1.81	1.51	1.91	1.49	2.00	1.57	2.05	1.56	2.06	1.53	2.08	1.57		
	43	1.67	1.44	1.76	1.43	1.83	1.50	1.84	1.47	1.85	1.45	1.86	1.50		

Air flow	Outdoor air temperature		Indoor air temperature				
	℃DB	℃WB	16 ℃DB	18 ℃DB	20 ℃DB	22 ℃DB	24 ℃DB
Me	-19.8	-20	1.49	1.48	1.47	1.46	1.45
	-17.8	-18	1.59	1.58	1.57	1.55	1.54
	-15.7	-16	1.69	1.68	1.66	1.65	1.63
	-13.7	-14	1.79	1.78	1.76	1.75	1.73
	-11.7	-12	1.90	1.89	1.87	1.86	1.84
	-9.6	-10	2.01	1.99	1.98	1.96	1.95
	-7.5	-8	2.13	2.11	2.10	2.08	2.07
6	-5.5	-6	2.25	2.24	2.22	2.20	2.18
(m³/min)	-3.4	-4	2.31	2.29	2.28	2.26	2.24
	-1.3	-2	2.31	2.29	2.27	2.25	2.23
	0.8	0	2.31	2.29	2.27	2.24	2.22
	3.9	3	2.51	2.49	2.46	2.44	2.41
	7.0	6	2.72	2.69	2.67	2.62	2.54
	10.1	9	2.95	2.92	2.89	2.78	2.58
	13.2	12	3.19	3.13	3.01	2.83	2.58
	16.9	15.5	3.44	3.34	3.08	2.83	2.57

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature													
		21 ℃DB 14 ℃WB		23 ℃DB 16 ℃WB		26 ℃DB 18 ℃WB		27 ℃DB 19 ℃WB		28 ℃DB 20 ℃WB		31 ℃DB 22 ℃WB		33 ℃DB 24 ℃WB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
Lo	10			2.30	1.60	2.44	1.66	2.51	1.65	2.58	1.64	2.73	1.70	2.88	1.67
	12			2.27	1.58	2.40	1.65	2.47	1.64	2.54	1.62	2.69	1.69	2.84	1.66
	14			2.24	1.56	2.37	1.63	2.44	1.62	2.51	1.61	2.65	1.67	2.80	1.64
	16			2.21	1.55	2.34	1.62	2.41	1.61	2.47	1.59	2.61	1.65	2.76	1.63
	18			2.18	1.53	2.31	1.60	2.37	1.59	2.44	1.58	2.58	1.64	2.72	1.61
	20			2.15	1.52	2.28	1.59	2.34	1.58	2.41	1.57	2.54	1.62	2.68	1.60
	22			2.13	1.51	2.25	1.57	2.31	1.56	2.37	1.55	2.51	1.61	2.64	1.58
5	24			2.10	1.49	2.22	1.56	2.28	1.55	2.34	1.54	2.47	1.59	2.61	1.57
(m³/min)	26	1.96	1.50	2.07	1.48	2.19	1.55	2.25	1.54	2.31	1.52	2.44	1.58	2.58	1.56
	28	1.93	1.48	2.04	1.46	2.15	1.53	2.21	1.52	2.27	1.51	2.40	1.57		
	30	1.90	1.46	2.01	1.45	2.12	1.51	2.18	1.50	2.24	1.49	2.36	1.55		
	32	1.87	1.45	1.98	1.43	2.09	1.50	2.15	1.49	2.21	1.48	2.32	1.54		
	34	1.84	1.43	1.95	1.42	2.06	1.49	2.11	1.47	2.17	1.46	2.29	1.52		
	35	1.83	1.43	1.93	1.41	2.04	1.48	2.10	1.47	2.15	1.45	2.27	1.52		
	36	1.79	1.41	1.89	1.39	2.00	1.46	2.05	1.45	2.10	1.43	2.20	1.49		
	38	1.71	1.37	1.81	1.35	1.91	1.42	1.97	1.41	2.00	1.39	2.06	1.44		
	39	1.68	1.35	1.77	1.33	1.87	1.40	1.92	1.39	1.95	1.37	1.99	1.41		
	41	1.58	1.30	1.67	1.29	1.75	1.35	1.79	1.34	1.80	1.31	1.82	1.35		
	43	1.46	1.24	1.54	1.23	1.60	1.28	1.61	1.26	1.61	1.24	1.62	1.28		

Air flow	Outdoor air temperature		Indoor air temperature				
	℃DB	℃WB	16 ℃DB	18 ℃DB	20 ℃DB	22 ℃DB	24 ℃DB
Lo	-19.8	-20	1.28	1.27	1.26	1.25	1.24
	-17.8	-18	1.36	1.35	1.34	1.33	1.32
	-15.7	-16	1.45	1.44	1.42	1.41	1.40
	-13.7	-14	1.54	1.53	1.51	1.50	1.49
	-11.7	-12	1.63	1.62	1.61	1.59	1.58
	-9.6	-10	1.72	1.71	1.70	1.68	1.67
	-7.5	-8	1.83	1.81	1.80	1.78	1.77
5	-5.5	-6	1.93	1.92	1.90	1.89	1.87
(m³/min)	-3.4	-4	1.98	1.97	1.95	1.93	1.92
	-1.3	-2	1.98	1.96	1.95	1.93	1.91
	0.8	0	1.98	1.96	1.95	1.92	1.90
	3.9	3	2.15	2.13	2.11	2.09	2.06
	7.0	6	2.33	2.31	2.29	2.24	2.18
	10.1	9	2.53	2.50	2.48	2.38	2.21
	13.2	12	2.74	2.69	2.58	2.43	2.21
	16.9	15.5	2.95	2.86	2.64	2.43	2.21

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)

PJH000Z032

Model **FDUT36KXE6F-W** Cooling mode (kW)

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
Hi	10			3.95	2.74	4.18	2.85	4.30	2.84	4.42	2.82	4.67	2.91	4.94	2.87
	12			3.90	2.71	4.12	2.82	4.24	2.81	4.36	2.79	4.61	2.89	4.87	2.83
	14			3.85	2.69	4.07	2.80	4.18	2.78	4.30	2.76	4.55	2.86	4.80	2.81
	16			3.79	2.66	4.01	2.77	4.13	2.76	4.24	2.73	4.48	2.83	4.73	2.78
	18			3.74	2.63	3.96	2.74	4.07	2.72	4.19	2.71	4.42	2.81	4.67	2.77
	20			3.69	2.61	3.91	2.72	4.02	2.70	4.13	2.68	4.36	2.79	4.60	2.74
	22			3.65	2.59	3.85	2.70	3.96	2.68	4.07	2.66	4.30	2.76	4.53	2.71
8.5	24			3.60	2.56	3.80	2.67	3.91	2.66	4.01	2.63	4.24	2.74	4.47	2.69
(m³/min)	26	3.36	2.56	3.55	2.53	3.75	2.65	3.85	2.63	3.96	2.61	4.18	2.71	4.43	2.67
	28	3.31	2.54	3.50	2.51	3.70	2.63	3.80	2.61	3.90	2.59	4.11	2.68		
	30	3.26	2.51	3.45	2.49	3.64	2.60	3.74	2.58	3.84	2.56	4.05	2.66		
	32	3.21	2.49	3.39	2.46	3.58	2.57	3.68	2.55	3.78	2.54	3.99	2.64		
	34	3.16	2.46	3.34	2.43	3.53	2.55	3.63	2.53	3.72	2.51	3.92	2.61		
	35	3.13	2.44	3.31	2.42	3.50	2.53	3.60	2.52	3.69	2.49	3.89	2.60		
	36	3.07	2.41	3.24	2.39	3.42	2.50	3.52	2.48	3.61	2.47	3.77	2.55		
	38	2.94	2.35	3.11	2.32	3.28	2.44	3.37	2.42	3.43	2.39	3.53	2.46		
	39	2.88	2.32	3.04	2.29	3.20	2.39	3.30	2.38	3.34	2.35	3.41	2.41		
	41	2.71	2.23	2.86	2.20	3.00	2.32	3.07	2.30	3.09	2.25	3.12	2.31		
	43	2.50	2.13	2.64	2.10	2.74	2.20	2.76	2.17	2.76	2.12	2.78	2.18		

Heating mode (kW)

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
Hi	-19.8	-20	2.24	2.22	2.20	2.19	2.17
	-17.8	-18	2.38	2.37	2.35	2.33	2.31
	-15.7	-16	2.53	2.51	2.49	2.47	2.45
	-13.7	-14	2.69	2.67	2.65	2.63	2.60
	-11.7	-12	2.85	2.83	2.81	2.78	2.76
	-9.6	-10	3.01	2.99	2.97	2.94	2.92
	-7.5	-8	3.19	3.17	3.15	3.12	3.10
8.5	-5.5	-6	3.38	3.35	3.33	3.30	3.28
(m³/min)	-3.4	-4	3.47	3.44	3.42	3.38	3.36
	-1.3	-2	3.47	3.44	3.41	3.38	3.34
	0.8	0	3.47	3.43	3.40	3.37	3.33
	3.9	3	3.77	3.73	3.70	3.65	3.61
	7.0	6	4.08	4.04	4.00	3.92	3.81
	10.1	9	4.43	4.38	4.33	4.16	3.86
	13.2	12	4.79	4.70	4.51	4.24	3.87
	16.9	15.5	5.16	5.01	4.62	4.25	3.86

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
Me	10			3.38	2.33	3.57	2.42	3.68	2.41	3.78	2.39	4.00	2.48	4.22	2.43
	12			3.33	2.30	3.53	2.40	3.63	2.39	3.73	2.37	3.94	2.44	4.16	2.40
	14			3.29	2.28	3.48	2.37	3.58	2.36	3.68	2.34	3.89	2.43	4.10	2.38
	16			3.24	2.25	3.43	2.35	3.53	2.34	3.63	2.32	3.83	2.40	4.05	2.36
	18			3.20	2.23	3.39	2.33	3.48	2.31	3.58	2.30	3.78	2.38	3.99	2.34
	20			3.16	2.22	3.34	2.31	3.44	2.30	3.53	2.28	3.73	2.36	3.93	2.32
	22			3.12	2.19	3.30	2.29	3.39	2.28	3.48	2.26	3.68	2.34	3.88	2.30
7	24			3.08	2.18	3.25	2.27	3.34	2.25	3.43	2.23	3.63	2.32	3.82	2.28
(m³/min)	26	2.87	2.17	3.04	2.15	3.21	2.25	3.29	2.23	3.38	2.21	3.57	2.29	3.79	2.27
	28	2.83	2.15	2.99	2.13	3.16	2.22	3.25	2.21	3.34	2.19	3.52	2.28		
	30	2.79	2.13	2.95	2.11	3.11	2.20	3.20	2.19	3.29	2.17	3.46	2.25		
	32	2.75	2.11	2.90	2.09	3.06	2.18	3.15	2.17	3.24	2.15	3.41	2.23		
	34	2.70	2.08	2.85	2.06	3.02	2.16	3.10	2.14	3.18	2.12	3.36	2.20		
	35	2.68	2.07	2.83	2.05	2.99	2.14	3.08	2.13	3.16	2.12	3.33	2.19		
	36	2.62	2.04	2.77	2.02	2.93	2.12	3.01	2.10	3.08	2.08	3.22	2.15		
	38	2.51	1.99	2.66	1.97	2.80	2.06	2.89	2.05	2.93	2.02	3.02	2.08		
	39	2.46	1.96	2.60	1.94	2.74	2.03	2.82	2.02	2.86	1.99	2.91	2.04		
	41	2.32	1.89	2.45	1.87	2.56	1.96	2.62	1.94	2.64	1.90	2.67	1.95		
	43	2.13	1.80	2.26	1.78	2.34	1.86	2.36	1.83	2.36	1.79	2.38	1.84		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
Me	-19.8	-20	1.89	1.88	1.86	1.85	1.83
	-17.8	-18	2.02	2.00	1.98	1.97	1.95
	-15.7	-16	2.14	2.13	2.11	2.09	2.07
	-13.7	-14	2.27	2.26	2.24	2.22	2.20
	-11.7	-12	2.41	2.39	2.37	2.35	2.33
	-9.6	-10	2.54	2.53	2.51	2.49	2.47
	-7.5	-8	2.70	2.68	2.66	2.64	2.62
7	-5.5	-6	2.86	2.83	2.81	2.79	2.77
(m³/min)	-3.4	-4	2.93	2.91	2.89	2.86	2.84
	-1.3	-2	2.93	2.90	2.88	2.85	2.82
	0.8	0	2.93	2.90	2.88	2.85	2.81
	3.9	3	3.19	3.15	3.12	3.09	3.05
	7.0	6	3.45	3.41	3.38	3.32	3.22
	10.1	9	3.74	3.70	3.66	3.52	3.26
	13.2	12	4.05	3.97	3.82	3.59	3.27
	16.9	15.5	4.36	4.23	3.91	3.59	3.26

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
Lo	10			2.75	1.88	2.91	1.96	3.00	1.95	3.08	1.93	3.26	2.00	3.44	1.96
	12			2.72	1.87	2.87	1.94	2.96	1.93	3.04	1.91	3.21	1.98	3.39	1.94
	14			2.68	1.85	2.83	1.92	2.92	1.91	3.00	1.90	3.17	1.96	3.34	1.92
	16			2.64	1.82	2.80	1.90	2.88	1.89	2.96	1.88	3.12	1.94	3.30	1.91
	18			2.61	1.81	2.76	1.88	2.84	1.87	2.92	1.86	3.08	1.92	3.25	1.89
	20			2.57	1.79	2.72	1.86	2.80	1.85	2.88	1.84	3.04	1.90	3.20	1.87
	22			2.54	1.77	2.69	1.85	2.76	1.84	2.84	1.82	3.00	1.89	3.16	1.85
5.5	24			2.51	1.76	2.65	1.83	2.72	1.82	2.80	1.80	2.95	1.86	3.11	1.83
(m³/min)	26	2.34	1.76	2.47	1.74	2.61	1.81	2.68	1.80	2.76	1.79	2.91	1.85	3.09	1.82
	28	2.31	1.74	2.44	1.72	2.58	1.79	2.65	1.78	2.72	1.76	2.87	1.83		
	30	2.27	1.72	2.40	1.70	2.54	1.78	2.61	1.76	2.68	1.75	2.82	1.82		
	32	2.24	1.70	2.37	1.69	2.50	1.76	2.57	1.75	2.64	1.73	2.78	1.80		
	34	2.20	1.68	2.33	1.67	2.46	1.74	2.53	1.73	2.60	1.72	2.73	1.78		
	35	2.18	1.67	2.31	1.66	2.44	1.73	2.51	1.72	2.57	1.70	2.71	1.77		
	36	2.14	1.65	2.26	1.63	2.39	1.71	2.46	1.70	2.51	1.68	2.63	1.74		
	38	2.05	1.60	2.16	1.58	2.28	1.66	2.35	1.65	2.39	1.63	2.46	1.67		
	39	2.01	1.58	2.12	1.56	2.23	1.64	2.30	1.63	2.33	1.60	2.38	1.63		
	41	1.89	1.52	1.99	1.50	2.09	1.57	2.14	1.56	2.15	1.52	2.17	1.56		
	43	1.74	1.45	1.84	1.43	1.91	1.50	1.92	1.47	1.93	1.44	1.94	1.48		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
Lo	-19.8	-20	1.52	1.51	1.50	1.49	1.48
	-17.8	-18	1.62	1.61	1.60	1.59	1.57
	-15.7	-16	1.72	1.71	1.70	1.68	1.67
	-13.7	-14	1.83	1.82	1.80	1.79	1.77
	-11.7	-12	1.94	1.93	1.91	1.90	1.88
	-9.6	-10	2.05	2.04	2.02	2.00	1.99
	-7.5	-8	2.17	2.16	2.14	2.13	2.11
5.5	-5.5	-6	2.30	2.28	2.27	2.25	2.23
(m³/min)	-3.4	-4	2.36	2.34	2.33	2.30	2.29
	-1.3	-2	2.36	2.34	2.32	2.30	2.28
	0.8	0	2.36	2.34	2.32	2.29	2.27
	3.9	3	2.57	2.54	2.52	2.49	2.46
	7.0	6	2.78	2.75	2.72	2.67	2.60
	10.1	9	3.01	2.98	2.95	2.83	2.63
	13.2	12	3.26	3.20	3.07	2.89	2.64
	16.9	15.5	3.51	3.41	3.15	2.89	2.63

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)

PJH000Z032

Model **FDUT45KXE6F-W** Cooling mode (kW)

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	SHC	23 ℃DB 16 ℃WB TC	SHC	26 ℃DB 18 ℃WB TC	SHC	27 ℃DB 19 ℃WB TC	SHC	28 ℃DB 20 ℃WB TC	SHC	31 ℃DB 22 ℃WB TC	SHC	33 ℃DB 24 ℃WB TC	SHC
Hi	10			4.94	3.47	5.23	3.62	5.38	3.60	5.53	3.57	5.84	3.70	6.17	3.64
	12			4.87	3.43	5.16	3.59	5.30	3.56	5.45	3.54	5.76	3.67	6.08	3.61
	14			4.81	3.40	5.08	3.55	5.23	3.53	5.38	3.51	5.68	3.64	6.00	3.58
	16			4.74	3.37	5.02	3.51	5.16	3.49	5.30	3.47	5.60	3.61	5.92	3.55
	18			4.68	3.34	4.95	3.49	5.09	3.46	5.23	3.43	5.53	3.58	5.83	3.52
	20			4.62	3.31	4.88	3.46	5.02	3.43	5.16	3.41	5.45	3.54	5.75	3.48
	22			4.56	3.28	4.82	3.43	4.95	3.40	5.09	3.38	5.37	3.51	5.67	3.46
11.5	24			4.50	3.25	4.75	3.40	4.88	3.38	5.02	3.35	5.30	3.48	5.59	3.43
(m³/min)	26	4.20	3.26	4.44	3.22	4.69	3.37	4.81	3.34	4.95	3.32	5.22	3.45	5.54	3.41
	28	4.14	3.22	4.38	3.19	4.62	3.34	4.75	3.32	4.88	3.29	5.14	3.41		
	30	4.08	3.19	4.31	3.15	4.55	3.31	4.68	3.28	4.80	3.26	5.06	3.39		
	32	4.01	3.16	4.24	3.12	4.48	3.27	4.61	3.26	4.73	3.23	4.98	3.36		
	34	3.95	3.13	4.17	3.09	4.41	3.25	4.53	3.22	4.66	3.20	4.90	3.33		
	35	3.91	3.11	4.14	3.07	4.37	3.22	4.50	3.20	4.62	3.19	4.87	3.32		
	36	3.83	3.07	4.05	3.03	4.28	3.18	4.40	3.16	4.51	3.13	4.71	3.25		
	38	3.68	2.99	3.88	2.95	4.10	3.10	4.22	3.08	4.29	3.04	4.41	3.15		
	39	3.60	2.95	3.80	2.92	4.00	3.06	4.13	3.05	4.18	3.00	4.26	3.09		
	41	3.38	2.84	3.57	2.81	3.75	2.95	3.84	2.93	3.86	2.88	3.90	2.95		
	43	3.12	2.71	3.30	2.68	3.42	2.82	3.44	2.77	3.46	2.72	3.48	2.81		

Heating mode (kW)

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
Hi	-19.8	-20	2.80	2.78	2.75	2.73	2.71
	-17.8	-18	2.98	2.96	2.93	2.91	2.89
	-15.7	-16	3.16	3.14	3.11	3.09	3.06
	-13.7	-14	3.36	3.34	3.31	3.28	3.25
	-11.7	-12	3.56	3.54	3.51	3.48	3.45
	-9.6	-10	3.76	3.74	3.71	3.68	3.65
	-7.5	-8	3.99	3.96	3.94	3.90	3.87
11.5	-5.5	-6	4.22	4.19	4.16	4.12	4.09
(m³/min)	-3.4	-4	4.34	4.30	4.27	4.23	4.20
	-1.3	-2	4.34	4.29	4.26	4.22	4.18
	0.8	0	4.34	4.29	4.25	4.21	4.16
	3.9	3	4.71	4.66	4.62	4.57	4.51
	7.0	6	5.10	5.05	5.00	4.91	4.77
	10.1	9	5.53	5.48	5.42	5.20	4.83
	13.2	12	5.98	5.88	5.64	5.31	4.84
	16.9	15.5	6.45	6.26	5.78	5.31	4.83

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	SHC	23 ℃DB 16 ℃WB TC	SHC	26 ℃DB 18 ℃WB TC	SHC	27 ℃DB 19 ℃WB TC	SHC	28 ℃DB 20 ℃WB TC	SHC	31 ℃DB 22 ℃WB TC	SHC	33 ℃DB 24 ℃WB TC	SHC
Me	10			4.08	2.84	4.32	2.96	4.45	2.94	4.57	2.92	4.83	3.02	5.10	2.97
	12			4.03	2.81	4.26	2.93	4.39	2.91	4.51	2.89	4.76	2.98	5.03	2.93
	14			3.98	2.79	4.21	2.90	4.33	2.89	4.45	2.86	4.70	2.96	4.96	2.91
	16			3.92	2.76	4.15	2.87	4.27	2.86	4.39	2.84	4.63	2.94	4.89	2.89
	18			3.87	2.73	4.09	2.85	4.21	2.83	4.33	2.81	4.57	2.91	4.82	2.86
	20			3.82	2.70	4.04	2.82	4.15	2.80	4.27	2.78	4.51	2.89	4.75	2.84
	22			3.77	2.68	3.98	2.79	4.10	2.78	4.21	2.75	4.44	2.86	4.69	2.81
9	24			3.72	2.66	3.93	2.77	4.04	2.75	4.15	2.73	4.38	2.84	4.62	2.79
(m³/min)	26	3.47	2.66	3.67	2.63	3.88	2.75	3.98	2.73	4.09	2.71	4.32	2.82	4.58	2.77
	28	3.42	2.63	3.62	2.60	3.82	2.72	3.93	2.71	4.03	2.68	4.25	2.79		
	30	3.37	2.60	3.57	2.57	3.76	2.70	3.87	2.68	3.97	2.66	4.19	2.76		
	32	3.32	2.58	3.51	2.55	3.70	2.67	3.81	2.65	3.91	2.63	4.12	2.73		
	34	3.26	2.55	3.45	2.52	3.65	2.64	3.75	2.62	3.85	2.60	4.06	2.70		
	35	3.24	2.54	3.42	2.51	3.62	2.63	3.72	2.61	3.82	2.59	4.02	2.69		
	36	3.17	2.50	3.35	2.48	3.54	2.60	3.64	2.58	3.73	2.55	3.90	2.65		
	38	3.04	2.43	3.21	2.41	3.39	2.53	3.49	2.51	3.54	2.48	3.65	2.56		
	39	2.97	2.40	3.14	2.37	3.31	2.48	3.41	2.48	3.45	2.43	3.52	2.50		
	41	2.80	2.31	2.96	2.29	3.10	2.40	3.17	2.38	3.19	2.33	3.22	2.40		
	43	2.58	2.20	2.73	2.18	2.83	2.29	2.85	2.25	2.86	2.21	2.88	2.27		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
Me	-19.8	-20	2.25	2.24	2.22	2.20	2.18
	-17.8	-18	2.40	2.39	2.36	2.35	2.33
	-15.7	-16	2.55	2.53	2.51	2.49	2.47
	-13.7	-14	2.70	2.69	2.66	2.64	2.62
	-11.7	-12	2.87	2.85	2.83	2.80	2.78
	-9.6	-10	3.03	3.01	2.99	2.96	2.94
	-7.5	-8	3.22	3.19	3.17	3.14	3.12
9	-5.5	-6	3.40	3.38	3.35	3.32	3.30
(m³/min)	-3.4	-4	3.49	3.46	3.44	3.41	3.38
	-1.3	-2	3.49	3.46	3.43	3.40	3.36
	0.8	0	3.49	3.45	3.43	3.39	3.35
	3.9	3	3.79	3.75	3.72	3.68	3.63
	7.0	6	4.11	4.07	4.03	3.95	3.84
	10.1	9	4.46	4.41	4.36	4.19	3.89
	13.2	12	4.82	4.73	4.54	4.27	3.90
	16.9	15.5	5.19	5.04	4.65	4.28	3.89

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	SHC	23 ℃DB 16 ℃WB TC	SHC	26 ℃DB 18 ℃WB TC	SHC	27 ℃DB 19 ℃WB TC	SHC	28 ℃DB 20 ℃WB TC	SHC	31 ℃DB 22 ℃WB TC	SHC	33 ℃DB 24 ℃WB TC	SHC
Lo	10			3.32	2.29	3.51	2.38	3.61	2.36	3.71	2.35	3.92	2.42	4.14	2.38
	12			3.27	2.26	3.46	2.35	3.56	2.34	3.66	2.32	3.87	2.40	4.08	2.36
	14			3.23	2.24	3.41	2.33	3.51	2.31	3.61	2.30	3.81	2.38	4.03	2.34
	16			3.18	2.22	3.37	2.31	3.46	2.29	3.56	2.27	3.76	2.36	3.97	2.32
	18			3.14	2.19	3.32	2.29	3.42	2.27	3.51	2.26	3.71	2.34	3.91	2.30
	20			3.10	2.17	3.28	2.27	3.37	2.25	3.46	2.23	3.66	2.32	3.86	2.28
	22			3.06	2.15	3.23	2.24	3.32	2.23	3.42	2.21	3.61	2.30	3.80	2.25
7	24			3.02	2.13	3.19	2.23	3.28	2.21	3.37	2.19	3.56	2.28	3.75	2.23
(m³/min)	26	2.82	2.14	2.98	2.11	3.15	2.21	3.23	2.19	3.32	2.17	3.51	2.25	3.72	2.23
	28	2.78	2.11	2.94	2.09	3.10	2.18	3.19	2.17	3.27	2.15	3.45	2.22		
	30	2.74	2.09	2.90	2.07	3.06	2.17	3.14	2.15	3.23	2.13	3.40	2.21		
	32	2.69	2.07	2.85	2.05	3.01	2.14	3.09	2.13	3.18	2.11	3.35	2.19		
	34	2.65	2.05	2.80	2.02	2.96	2.12	3.04	2.10	3.13	2.09	3.29	2.17		
	35	2.63	2.04	2.78	2.01	2.94	2.11	3.02	2.09	3.10	2.08	3.27	2.16		
	36	2.57	2.01	2.72	1.98	2.87	2.07	2.96	2.06	3.03	2.04	3.16	2.12		
	38	2.47	1.95	2.61	1.93	2.75	2.02	2.83	2.01	2.88	1.98	2.96	2.04		
	39	2.41	1.92	2.55	1.90	2.69	2.00	2.77	1.99	2.80	1.95	2.86	2.00		
	41	2.27	1.85	2.40	1.83	2.52	1.92	2.58	1.90	2.59	1.87	2.62	1.91		
	43	2.09	1.76	2.21	1.74	2.30	1.83	2.31	1.79	2.32	1.76	2.34	1.81		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
Lo	-19.8	-20	1.79	1.78	1.76	1.75	1.74
	-17.8	-18	1.91	1.90	1.88	1.87	1.85
	-15.7	-16	2.03	2.01	1.99	1.98	1.96
	-13.7	-14	2.15	2.14	2.12	2.10	2.08
	-11.7	-12	2.28	2.27	2.25	2.23	2.21
	-9.6	-10	2.41	2.39	2.38	2.36	2.34
	-7.5	-8	2.56	2.54	2.52	2.50	2.48
7	-5.5	-6	2.71	2.68	2.67	2.64	2.62
(m³/min)	-3.4	-4	2.78	2.75	2.74	2.71	2.69
	-1.3	-2	2.78	2.75	2.73	2.70	2.68
	0.8	0	2.78	2.75	2.72	2.69	2.66
	3.9	3	3.02	2.98	2.96	2.93	2.89
	7.0	6	3.27	3.23	3.20	3.14	3.05
	10.1	9	3.54	3.51	3.47	3.33	3.09
	13.2	12	3.83	3.76	3.61	3.40	3.10
	16.9	15.5	4.13	4.01	3.70	3.40	3.09

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)

PJH000Z032

Model **FDUT56KXE6F-W** Cooling mode (kW)

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	SHC	23 ℃DB 16 ℃WB TC	SHC	26 ℃DB 18 ℃WB TC	SHC	27 ℃DB 19 ℃WB TC	SHC	28 ℃DB 20 ℃WB TC	SHC	31 ℃DB 22 ℃WB TC	SHC	33 ℃DB 24 ℃WB TC	SHC
Hi	10			6.15	4.24	6.50	4.42	6.69	4.39	6.88	4.36	7.27	4.51	7.68	4.43
	12			6.06	4.20	6.42	4.38	6.60	4.34	6.79	4.32	7.17	4.46	7.57	4.39
	14			5.98	4.16	6.33	4.33	6.51	4.31	6.69	4.27	7.07	4.43	7.47	4.35
	16			5.90	4.11	6.24	4.29	6.42	4.26	6.60	4.23	6.97	4.38	7.36	4.31
	18			5.82	4.08	6.16	4.25	6.34	4.22	6.51	4.19	6.88	4.34	7.26	4.27
	20			5.75	4.04	6.08	4.21	6.25	4.18	6.42	4.15	6.78	4.30	7.15	4.22
	22			5.67	3.99	5.99	4.17	6.16	4.14	6.33	4.11	6.69	4.27	7.05	4.19
12.5	24			5.60	3.96	5.91	4.13	6.08	4.10	6.25	4.07	6.60	4.23	6.95	4.15
(m³/min)	26	5.22	3.97	5.52	3.92	5.83	4.09	5.99	4.06	6.16	4.03	6.50	4.19	6.89	4.13
	28	5.15	3.93	5.44	3.88	5.75	4.05	5.91	4.02	6.07	3.99	6.40	4.14		
	30	5.08	3.89	5.37	3.85	5.66	4.01	5.82	3.99	5.98	3.96	6.30	4.10		
	32	4.99	3.84	5.28	3.81	5.58	3.98	5.73	3.95	5.89	3.92	6.20	4.07		
	34	4.91	3.80	5.19	3.76	5.49	3.94	5.64	3.91	5.79	3.88	6.10	4.03		
	35	4.87	3.78	5.15	3.74	5.44	3.92	5.60	3.89	5.75	3.86	6.05	4.01		
	36	4.77	3.72	5.04	3.69	5.33	3.86	5.48	3.84	5.61	3.80	5.87	3.94		
	38	4.57	3.62	4.83	3.59	5.10	3.76	5.25	3.74	5.33	3.68	5.49	3.79		
	39	4.48	3.58	4.72	3.53	4.98	3.71	5.13	3.69	5.20	3.63	5.30	3.72		
	41	4.21	3.44	4.45	3.41	4.66	3.57	4.77	3.54	4.81	3.48	4.85	3.56		
	43	3.88	3.27	4.11	3.24	4.26	3.38	4.29	3.33	4.30	3.27	4.33	3.36		

Heating mode (kW)

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
Hi	-19.8	-20	3.36	3.34	3.30	3.28	3.25
	-17.8	-18	3.58	3.55	3.52	3.49	3.46
	-15.7	-16	3.80	3.77	3.74	3.71	3.67
	-13.7	-14	4.03	4.00	3.97	3.94	3.90
	-11.7	-12	4.27	4.24	4.21	4.18	4.14
	-9.6	-10	4.51	4.49	4.46	4.41	4.38
	-7.5	-8	4.79	4.76	4.73	4.68	4.65
12.5	-5.5	-6	5.07	5.03	5.00	4.95	4.91
(m³/min)	-3.4	-4	5.21	5.16	5.13	5.08	5.04
	-1.3	-2	5.20	5.15	5.12	5.06	5.01
	0.8	0	5.20	5.15	5.10	5.05	4.99
	3.9	3	5.65	5.59	5.54	5.48	5.41
	7.0	6	6.13	6.06	6.00	5.89	5.72
	10.1	9	6.64	6.57	6.50	6.24	5.79
	13.2	12	7.18	7.05	6.77	6.37	5.81
	16.9	15.5	7.74	7.51	6.93	6.37	5.79

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	SHC	23 ℃DB 16 ℃WB TC	SHC	26 ℃DB 18 ℃WB TC	SHC	27 ℃DB 19 ℃WB TC	SHC	28 ℃DB 20 ℃WB TC	SHC	31 ℃DB 22 ℃WB TC	SHC	33 ℃DB 24 ℃WB TC	SHC
Me	10			4.78	3.26	5.06	3.38	5.20	3.36	5.35	3.33	5.65	3.43	5.97	3.37
	12			4.72	3.22	4.99	3.35	5.13	3.32	5.28	3.30	5.58	3.41	5.89	3.35
	14			4.65	3.18	4.92	3.31	5.06	3.29	5.20	3.27	5.50	3.38	5.81	3.32
	16			4.59	3.15	4.85	3.28	4.99	3.26	5.13	3.23	5.42	3.34	5.72	3.28
	18			4.53	3.12	4.79	3.25	4.93	3.23	5.06	3.20	5.35	3.31	5.64	3.25
	20			4.47	3.09	4.72	3.21	4.86	3.19	4.99	3.17	5.27	3.28	5.56	3.22
	22			4.41	3.06	4.66	3.18	4.79	3.16	4.93	3.14	5.20	3.25	5.48	3.19
9	24			4.35	3.02	4.60	3.16	4.73	3.13	4.86	3.11	5.13	3.22	5.41	3.16
(m³/min)	26	4.06	3.03	4.29	3.00	4.54	3.12	4.66	3.10	4.79	3.08	5.05	3.19	5.36	3.14
	28	4.01	3.00	4.23	2.97	4.47	3.09	4.59	3.07	4.72	3.05	4.98	3.16		
	30	3.95	2.97	4.17	2.93	4.41	3.06	4.53	3.04	4.65	3.01	4.90	3.12		
	32	3.88	2.93	4.11	2.91	4.34	3.03	4.46	3.00	4.58	2.98	4.82	3.09		
	34	3.82	2.90	4.04	2.87	4.27	2.99	4.39	2.97	4.51	2.95	4.75	3.06		
	35	3.79	2.88	4.00	2.85	4.23	2.98	4.35	2.96	4.47	2.93	4.71	3.05		
	36	3.71	2.84	3.92	2.81	4.14	2.94	4.26	2.92	4.36	2.89	4.56	2.98		
	38	3.56	2.76	3.76	2.73	3.96	2.85	4.08	2.84	4.15	2.80	4.27	2.87		
	39	3.48	2.72	3.67	2.69	3.87	2.81	3.99	2.80	4.04	2.75	4.12	2.81		
	41	3.28	2.62	3.46	2.59	3.63	2.71	3.71	2.68	3.74	2.63	3.77	2.68		
	43	3.02	2.48	3.19	2.46	3.31	2.57	3.33	2.52	3.34	2.47	3.37	2.54		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
Me	-19.8	-20	2.52	2.50	2.48	2.46	2.44
	-17.8	-18	2.68	2.66	2.64	2.62	2.60
	-15.7	-16	2.85	2.83	2.80	2.78	2.75
	-13.7	-14	3.02	3.00	2.97	2.95	2.92
	-11.7	-12	3.20	3.18	3.16	3.13	3.10
	-9.6	-10	3.38	3.36	3.34	3.31	3.28
	-7.5	-8	3.59	3.57	3.54	3.51	3.48
9	-5.5	-6	3.80	3.77	3.75	3.71	3.68
(m³/min)	-3.4	-4	3.90	3.87	3.84	3.81	3.77
	-1.3	-2	3.90	3.86	3.83	3.80	3.76
	0.8	0	3.90	3.86	3.83	3.79	3.74
	3.9	3	4.24	4.19	4.16	4.11	4.06
	7.0	6	4.59	4.54	4.50	4.41	4.29
	10.1	9	4.98	4.93	4.87	4.68	4.34
	13.2	12	5.38	5.29	5.08	4.77	4.35
	16.9	15.5	5.80	5.63	5.20	4.78	4.34

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	SHC	23 ℃DB 16 ℃WB TC	SHC	26 ℃DB 18 ℃WB TC	SHC	27 ℃DB 19 ℃WB TC	SHC	28 ℃DB 20 ℃WB TC	SHC	31 ℃DB 22 ℃WB TC	SHC	33 ℃DB 24 ℃WB TC	SHC
Lo	10			3.97	2.68	4.20	2.79	4.33	2.77	4.45	2.75	4.70	2.83	4.96	2.78
	12			3.92	2.66	4.15	2.76	4.27	2.74	4.39	2.72	4.64	2.81	4.90	2.76
	14			3.87	2.63	4.09	2.73	4.21	2.71	4.33	2.69	4.57	2.78	4.83	2.73
	16			3.82	2.60	4.04	2.70	4.15	2.68	4.27	2.66	4.51	2.75	4.76	2.70
	18			3.77	2.58	3.98	2.67	4.10	2.66	4.21	2.64	4.45	2.73	4.69	2.67
	20			3.72	2.55	3.93	2.65	4.04	2.63	4.15	2.61	4.38	2.69	4.62	2.64
	22			3.67	2.52	3.88	2.62	3.98	2.60	4.10	2.59	4.32	2.66	4.56	2.62
7.2	24			3.62	2.50	3.82	2.60	3.93	2.58	4.04	2.56	4.26	2.64	4.50	2.60
(m³/min)	26	3.38	2.50	3.57	2.47	3.77	2.57	3.87	2.55	3.98	2.53	4.20	2.62	4.45	2.58
	28	3.33	2.47	3.52	2.44	3.72	2.54	3.82	2.53	3.92	2.51	4.14	2.59		
	30	3.28	2.44	3.47	2.42	3.66	2.52	3.76	2.50	3.87	2.48	4.07	2.57		
	32	3.23	2.42	3.41	2.39	3.60	2.49	3.71	2.47	3.81	2.46	4.01	2.54		
	34	3.18	2.39	3.36	2.36	3.55	2.47	3.65	2.45	3.75	2.43	3.95	2.51		
	35	3.15	2.37	3.33	2.34	3.52	2.45	3.62	2.43	3.72	2.42	3.91	2.50		
	36	3.09	2.34	3.26	2.31	3.44	2.41	3.54	2.40	3.63	2.38	3.79	2.45		
	38	2.96	2.27	3.12	2.24	3.30	2.35	3.39	2.33	3.45	2.29	3.55	2.36		
	39	2.89	2.24	3.05	2.21	3.22	2.31	3.32	2.29	3.36	2.26	3.43	2.31		
	41	2.72	2.15	2.88	2.13	3.02	2.22	3.09	2.20	3.11	2.16	3.14	2.20		
	43	2.51	2.04	2.65	2.02	2.75	2.10	2.77	2.06	2.78	2.03	2.80	2.07		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
Lo	-19.8	-20	2.05	2.04	2.02	2.01	1.99
	-17.8	-18	2.19	2.17	2.15	2.14	2.12
	-15.7	-16	2.32	2.31	2.29	2.27	2.25
	-13.7	-14	2.46	2.45	2.43	2.41	2.39
	-11.7	-12	2.61	2.60	2.58	2.56	2.53
	-9.6	-10	2.76	2.74	2.73	2.70	2.68
	-7.5	-8	2.93	2.91	2.89	2.86	2.84
7.2	-5.5	-6	3.10	3.08	3.06	3.03	3.01
(m³/min)	-3.4	-4	3.19	3.16	3.14	3.11	3.08
	-1.3	-2	3.18	3.15	3.13	3.10	3.07
	0.8	0	3.18	3.15	3.12	3.09	3.05
	3.9	3	3.46	3.42	3.39	3.35	3.31
	7.0	6	3.75	3.71	3.67	3.60	3.50
	10.1	9	4.06	4.02	3.98	3.82	3.54
	13.2	12	4.39	4.31	4.14	3.90	3.55
	16.9	15.5	4.73	4.60	4.24	3.90	3.54

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)

PJH000Z032

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

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
	10			7.79	5.37	8.24	5.59	8.48	5.56	8.72	5.52	9.22	5.71	9.73	5.61
	12			7.69	5.32	8.13	5.53	8.37	5.51	8.60	5.46	9.09	5.66	9.60	5.56
	14			7.58	5.27	8.02	5.49	8.25	5.45	8.48	5.41	8.96	5.60	9.47	5.51
	16			7.48	5.21	7.91	5.43	8.14	5.40	8.37	5.36	8.84	5.55	9.33	5.45
	18			7.38	5.16	7.81	5.38	8.03	5.34	8.25	5.31	8.72	5.50	9.20	5.40
Hi	20			7.29	5.11	7.70	5.33	7.92	5.30	8.14	5.26	8.60	5.45	9.07	5.35
	22			7.19	5.07	7.60	5.28	7.81	5.25	8.03	5.21	8.48	5.40	8.94	5.30
16	24			7.10	5.02	7.50	5.23	7.70	5.19	7.92	5.16	8.36	5.35	8.82	5.26
(m³/min)	26	6.62	5.02	7.00	4.96	7.40	5.18	7.60	5.14	7.81	5.11	8.24	5.30	8.73	5.22
	28	6.53	4.97	6.90	4.92	7.29	5.14	7.49	5.10	7.69	5.06	8.11	5.23		
	30	6.44	4.92	6.80	4.87	7.18	5.07	7.38	5.05	7.58	5.01	7.99	5.19		
	32	6.33	4.86	6.69	4.80	7.07	5.02	7.27	4.99	7.46	4.95	7.86	5.14		
	34	6.23	4.81	6.58	4.75	6.96	4.98	7.15	4.94	7.34	4.90	7.74	5.10		
	35	6.18	4.79	6.53	4.73	6.90	4.95	7.10	4.92	7.29	4.88	7.68	5.08		
	36	6.05	4.72	6.39	4.67	6.75	4.89	6.95	4.86	7.11	4.81	7.44	4.98		
	38	5.80	4.59	6.12	4.53	6.46	4.76	6.66	4.73	6.76	4.67	6.96	4.80		
	39	5.67	4.52	5.99	4.48	6.32	4.69	6.51	4.67	6.59	4.60	6.72	4.71		
	41	5.34	4.36	5.64	4.31	5.91	4.51	6.05	4.47	6.09	4.40	6.15	4.50		
	43	4.92	4.15	5.20	4.11	5.40	4.30	5.43	4.22	5.45	4.13	5.49	4.26		

Heating mode (kW)

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
	-19.8	-20	4.48	4.45	4.40	4.37	4.34
	-17.8	-18	4.77	4.74	4.69	4.66	4.62
	-15.7	-16	5.06	5.03	4.98	4.95	4.90
	-13.7	-14	5.37	5.34	5.29	5.25	5.20
	-11.7	-12	5.69	5.66	5.62	5.57	5.52
Hi	-9.6	-10	6.02	5.98	5.94	5.89	5.84
	-7.5	-8	6.39	6.34	6.30	6.24	6.20
16	-5.5	-6	6.76	6.70	6.66	6.60	6.55
(m³/min)	-3.4	-4	6.94	6.88	6.83	6.77	6.71
	-1.3	-2	6.94	6.87	6.82	6.75	6.68
	0.8	0	6.94	6.86	6.81	6.73	6.65
	3.9	3	7.54	7.46	7.39	7.31	7.22
	7.0	6	8.17	8.08	8.00	7.85	7.63
	10.1	9	8.85	8.76	8.66	8.32	7.72
	13.2	12	9.57	9.40	9.03	8.49	7.74
	16.9	15.5	10.31	10.02	9.24	8.50	7.72

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
	10			6.62	4.53	7.00	4.71	7.21	4.68	7.41	4.65	7.83	4.80	8.27	4.72
	12			6.53	4.49	6.91	4.66	7.11	4.63	7.31	4.60	7.72	4.75	8.15	4.67
	14			6.44	4.44	6.82	4.62	7.01	4.58	7.21	4.56	7.61	4.70	8.04	4.62
	16			6.36	4.39	6.72	4.57	6.92	4.55	7.11	4.51	7.51	4.66	7.93	4.58
	18			6.27	4.35	6.63	4.52	6.82	4.50	7.01	4.46	7.41	4.62	7.82	4.54
Me	20			6.19	4.31	6.54	4.48	6.73	4.45	6.92	4.42	7.30	4.58	7.70	4.50
	22			6.11	4.26	6.46	4.44	6.64	4.41	6.82	4.38	7.20	4.53	7.60	4.46
13	24			6.03	4.22	6.37	4.40	6.54	4.36	6.73	4.34	7.10	4.49	7.49	4.41
(m³/min)	26	5.63	4.23	5.95	4.18	6.28	4.35	6.45	4.31	6.63	4.28	7.00	4.45	7.42	4.39
	28	5.55	4.18	5.86	4.14	6.19	4.31	6.36	4.28	6.54	4.25	6.89	4.39		
	30	5.47	4.14	5.78	4.09	6.10	4.27	6.27	4.24	6.44	4.21	6.79	4.36		
	32	5.38	4.09	5.69	4.05	6.00	4.23	6.17	4.20	6.34	4.17	6.68	4.32		
	34	5.29	4.04	5.59	4.00	5.91	4.18	6.08	4.16	6.24	4.12	6.57	4.28		
	35	5.25	4.02	5.54	3.98	5.86	4.16	6.03	4.14	6.19	4.10	6.52	4.25		
	36	5.14	3.96	5.43	3.92	5.74	4.11	5.90	4.08	6.04	4.04	6.32	4.18		
	38	4.93	3.86	5.20	3.81	5.49	3.99	5.65	3.96	5.75	3.91	5.91	4.02		
	39	4.82	3.80	5.09	3.76	5.37	3.93	5.53	3.92	5.60	3.85	5.71	3.95		
	41	4.54	3.66	4.79	3.61	5.02	3.78	5.14	3.75	5.18	3.68	5.23	3.75		
	43	4.18	3.48	4.42	3.44	4.59	3.59	4.62	3.53	4.63	3.46	4.66	3.56		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
	-19.8	-20	3.73	3.70	3.67	3.64	3.61
	-17.8	-18	3.97	3.95	3.91	3.88	3.85
	-15.7	-16	4.22	4.19	4.15	4.12	4.08
	-13.7	-14	4.47	4.45	4.41	4.37	4.33
	-11.7	-12	4.74	4.71	4.68	4.64	4.60
Me	-9.6	-10	5.01	4.98	4.95	4.90	4.87
	-7.5	-8	5.32	5.28	5.25	5.20	5.16
13	-5.5	-6	5.63	5.59	5.55	5.50	5.46
(m³/min)	-3.4	-4	5.78	5.73	5.69	5.64	5.59
	-1.3	-2	5.78	5.72	5.68	5.62	5.57
	0.8	0	5.78	5.72	5.67	5.61	5.54
	3.9	3	6.28	6.21	6.16	6.09	6.01
	7.0	6	6.80	6.73	6.66	6.54	6.35
	10.1	9	7.37	7.30	7.22	6.93	6.43
	13.2	12	7.97	7.83	7.52	7.07	6.45
	16.9	15.5	8.59	8.34	7.70	7.08	6.43

Air flow	Outdoor air temperature (℃DB)	Indoor air temperature 21 ℃DB 14 ℃WB TC	21 ℃DB 14 ℃WB SHC	23 ℃DB 16 ℃WB TC	23 ℃DB 16 ℃WB SHC	26 ℃DB 18 ℃WB TC	26 ℃DB 18 ℃WB SHC	27 ℃DB 19 ℃WB TC	27 ℃DB 19 ℃WB SHC	28 ℃DB 20 ℃WB TC	28 ℃DB 20 ℃WB SHC	31 ℃DB 22 ℃WB TC	31 ℃DB 22 ℃WB SHC	33 ℃DB 24 ℃WB TC	33 ℃DB 24 ℃WB SHC
	10			5.09	3.45	5.38	3.58	5.54	3.56	5.69	3.53	6.02	3.64	6.35	3.58
	12			5.02	3.41	5.31	3.54	5.46	3.52	5.61	3.49	5.93	3.60	6.27	3.55
	14			4.95	3.37	5.24	3.51	5.39	3.49	5.54	3.46	5.85	3.57	6.18	3.51
	16			4.88	3.34	5.17	3.47	5.31	3.45	5.46	3.42	5.77	3.54	6.09	3.47
	18			4.82	3.31	5.10	3.44	5.24	3.41	5.39	3.38	5.69	3.50	6.00	3.44
Lo	20			4.76	3.27	5.03	3.40	5.17	3.38	5.31	3.35	5.61	3.46	5.92	3.40
	22			4.69	3.24	4.96	3.37	5.10	3.35	5.24	3.32	5.53	3.43	5.84	3.37
9.5	24			4.63	3.21	4.89	3.33	5.03	3.32	5.17	3.29	5.46	3.40	5.75	3.34
(m³/min)	26	4.32	3.21	4.57	3.18	4.83	3.31	4.96	3.28	5.09	3.25	5.38	3.37	5.70	3.32
	28	4.26	3.18	4.51	3.15	4.76	3.27	4.89	3.25	5.02	3.22	5.30	3.34		
	30	4.20	3.14	4.44	3.11	4.69	3.24	4.82	3.22	4.95	3.19	5.21	3.30		
	32	4.13	3.10	4.37	3.07	4.61	3.20	4.74	3.18	4.87	3.16	5.13	3.27		
	34	4.06	3.07	4.30	3.04	4.54	3.17	4.67	3.15	4.79	3.12	5.05	3.23		
	35	4.03	3.05	4.26	3.02	4.50	3.15	4.63	3.13	4.76	3.11	5.01	3.22		
	36	3.95	3.01	4.17	2.97	4.41	3.11	4.54	3.09	4.64	3.05	4.85	3.16		
	38	3.79	2.92	4.00	2.89	4.22	3.02	4.34	3.00	4.41	2.95	4.54	3.02		
	39	3.70	2.87	3.91	2.84	4.12	2.97	4.25	2.95	4.30	2.90	4.39	2.97		
	41	3.49	2.77	3.68	2.73	3.86	2.86	3.95	2.83	3.98	2.78	4.02	2.84		
	43	3.21	2.63	3.40	2.60	3.52	2.71	3.55	2.66	3.56	2.61	3.58	2.67		

Air flow	Outdoor air temperature ℃DB	℃WB	Indoor air temperature 16 ℃CDB	18 ℃CDB	20 ℃CDB	22 ℃CDB	24 ℃CDB
	-19.8	-20	2.80	2.78	2.75	2.73	2.71
	-17.8	-18	2.98	2.96	2.94	2.91	2.89
	-15.7	-16	3.17	3.15	3.12	3.10	3.06
	-13.7	-14	3.36	3.34	3.31	3.28	3.25
	-11.7	-12	3.56	3.54	3.51	3.48	3.45
Lo	-9.6	-10	3.76	3.74	3.72	3.68	3.65
	-7.5	-8	4.00	3.97	3.94	3.90	3.88
9.5	-5.5	-6	4.23	4.19	4.17	4.13	4.10
(m³/min)	-3.4	-4	4.34	4.30	4.27	4.23	4.20
	-1.3	-2	4.34	4.30	4.27	4.22	4.18
	0.8	0	4.34	4.29	4.26	4.21	4.16
	3.9	3	4.71	4.66	4.62	4.57	4.52
	7.0	6	5.11	5.05	5.00	4.91	4.77
	10.1	9	5.54	5.48	5.42	5.21	4.83
	13.2	12	5.99	5.88	5.65	5.31	4.84
	16.9	15.5	6.45	6.27	5.78	5.32	4.83

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)

PJH000Z032

8. APPLICATION DATA

8.1 Installation of indoor unit

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

(a) Indoor unit

PJG012D041

- 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 89. For wired remote control installation, refer to page 93. For wireless kit installation, refer to page 168. 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 178.

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 following 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 referred by the formula (accordance with ISO5149).**
  If the density exceeds the limit density, please consult the dealer and install 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 or more 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

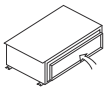
●Install correctly according to the installation manual.

●Confirm the following points:

○Unit type/Power supply 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%.
  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.

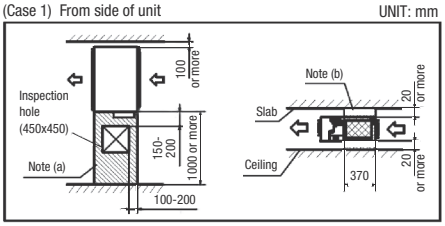
Space for installation and service

●Make installation altitude over 2.5m.

(Indoor Unit)

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

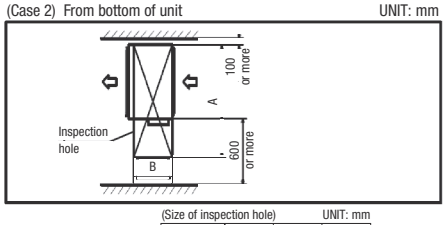
(Case 1) From side of unit UNIT: mm



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

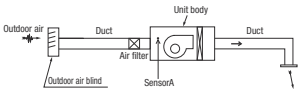


(Size of inspection hole) UNIT: mm

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

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.

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

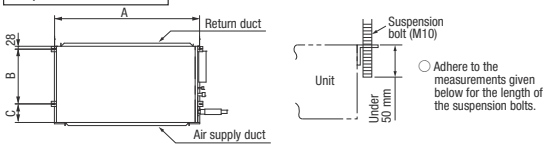
When the suspension bolt length is over 500mm, or the gap between the ceiling and roof is over 700mm, apply earthquake resistant brace to the bolt.

○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

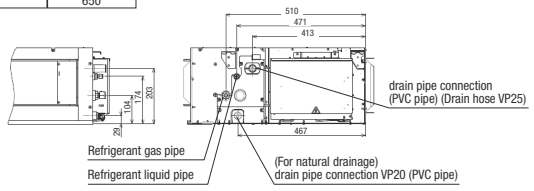


UNIT: mm

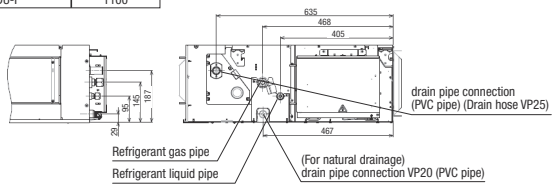
Single type	—	71	100-140
Multi type	45, 56	71, 90	112-160
FDU-F	—	650	1100
A	786	986	1404
B	472	472	530
C	135	135	180

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

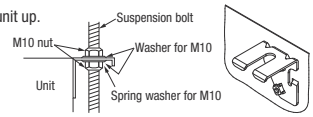
Work procedure

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.

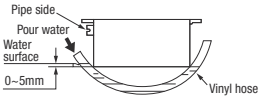


If the measurements between the unit and the ceiling hole do not match upon installation, it may be adjusted with the long holed installation tool.

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 inoperative 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.

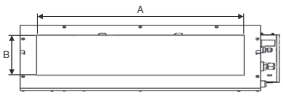
②Blowout duct

●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.

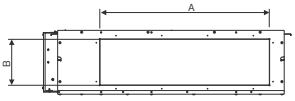
③Inlet port

●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

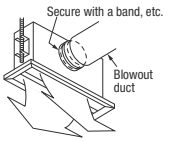


●Make sure to insulate the duct to prevent dewing on it.

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.



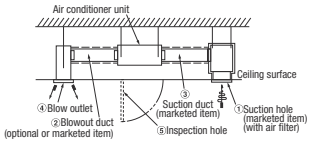
⑤Make sure provide an inspection hole on the ceiling. It is indispensable to service electric equipment, motor, functional components and cleaning of heat exchanger.

⑥Duct Work (continued)

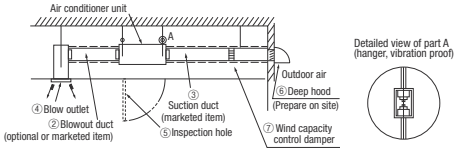
⑥Make sure to insulate ducts, in order to prevent dewing on them.

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

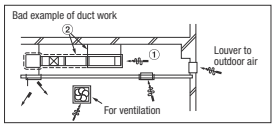
①If a duct is not provided at the suction side but it is substituted with the space over the ceiling, humidity in the space will increase by the influence of capacity of ventilation fan, strength of wind blowing against the out door air louver, weather (rainy day) and others.

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.

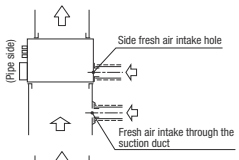


Connecting the air intake/vent ducts the case of FDU

①Fresh Air Intake

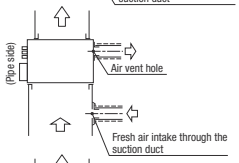
[for air intake duct only]

○Use the side fresh air intake hole, or supply through a part of the suction duct.



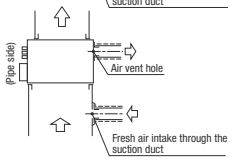
[for simultaneous air intake/vent]

○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)



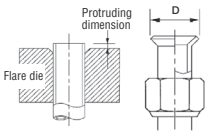
○Insulate the duct to protect it from dew condensation.

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.

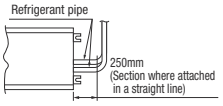
⚠WARNING : When flared joints are reused indoors, the flare part shall be re-fabricated. (only for R32)



Pipe diameter 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

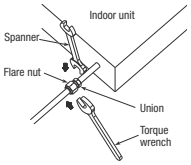


When conducting piping work, make sure to allow the pipes to be aligned in a straight line for at least 250mm, as shown in the left illustration. (This is necessary for the drain pump to function)

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.

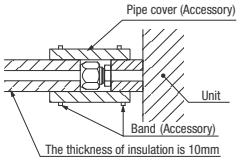
   ※Do a flare connection as follows:
   - Make sure to hold the nut on indoor unit pipe side using double spanner method as indicated when fastening / loosening flare nuts in order to prevent unintentional twisting of the copper pipe.
   - When fastening the flare nut, align the refrigeration pipe with 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.



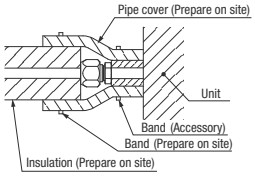
3. Cover the flare connection part of the indoor unit with attached insulation material after a gas leakage inspection, and tighten both ends with attached straps.
   - Make sure to insulate both gas pipes and liquid pipes completely.
     ※Incomplete insulation may cause dew condensation or water dropping.
   - 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 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.

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 thickness of insulation is 10mm>



<The case of using reinforced insulation>



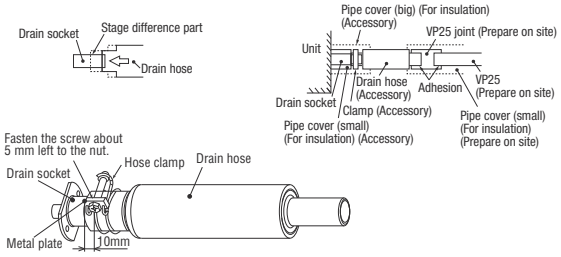
⑧Drain pipe

Caution

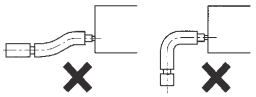
- Install the drain pipe according to the installation manual in order to drain properly.
  Imperfection in draining may cause flood indoors and wetting the household goods, etc.
- Do not put the drain pipe directly into the ditch where toxic gas such as sulfur, the other harmful and inflammable gas 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

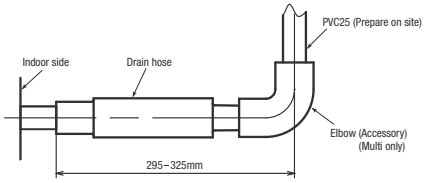
1. Make sure to insert the drain hose (the end mode of soft PVC) to the end of the step part of drain socket.
   Attach the hose clamp to the drain hose around 10mm from the end, and fasten the screw about 5mm left to the nut.
   - Do not apply adhesives on this end.
   - Do not use acetone-based adhesives to connect to the drain socket.



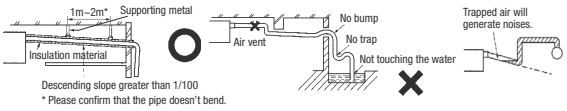
2. Prepare a joint for connecting VP25 pipe, adhere and connect the joint to the drain hose (the end made of rigid PVC), and adhere and connect VP25 pipe (prepare on site).
   ※As for drain pipe, apply VP25 made of rigid PVC which is on the market.
   - Make sure that the adhesive will not get into the 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.



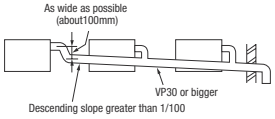
   - As for drain pipe, apply VP25 (OD32).
     If apply PVC25 (OD25), connect the expanded connector to the drain hose, with adhesive. (Multi unit only)



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.

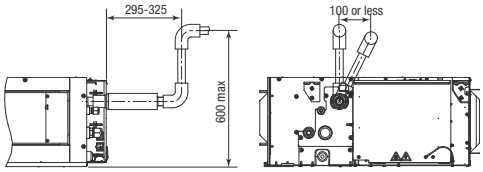


⑧Drain pipe (continued)

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.



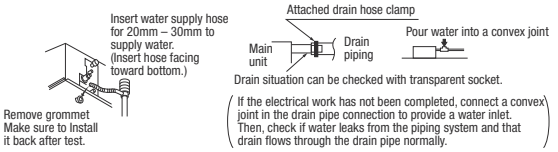
Otherwise, the construction point makes it same as drain pipe construction.

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.

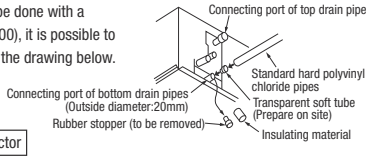
Procedures

1. Supply about 2000cc 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

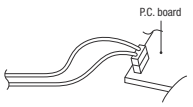
- If the bottom drain piping can be done with a descending gradient (1/50-1/100), it is possible to connect the pipes as shown in the drawing below.



Uncoupling the drain motor connector

- Uncouple the connector CNR for the drain motor as illustrated in the drawing on the right.

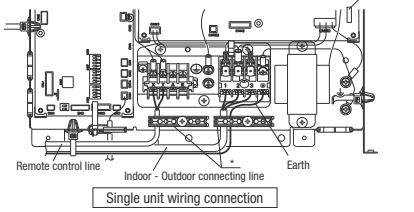
(Note: If the unit is run with the connector coupled, drain water will be discharged from the upper drain pipe joint, causing a water leak.)



⑨Wiring-out position and wiring connection

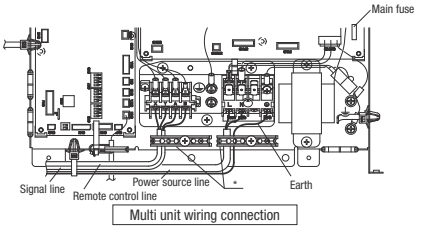
- Electrical installation work must be performed according to the installation manual by an electrical installation service provider qualified by a power provider of the country, and be executed according to the technical standards and other regulations applicable to electrical installation in the country.
  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.

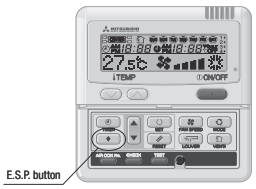
Main fuse specification

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 – 150Pa (E.S.P. setting No. 8 – 15). Be sure to use within the range of 80 – 150Pa in actual operations. If actual E.S.P. is lower than 80 Pa, it may cause water leakage.

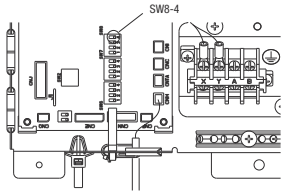
Setting No.	8	9	10	11	12	13	14	15
E.S.P (Pa)	80	90	100	110	120	130	140	150

※ 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)

If SW8-4 is turned to "ON", E.S.P. setting range can be changed to 10 – 200Pa (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.

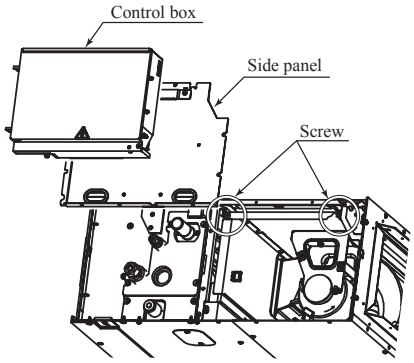
Check if	Expected trouble	Check
The indoor and outdoor units are fixed securely?	Falling, vibration, noise	
Inspection for leakage is done?	Insufficient capacity	
Insulation work is properly done?	Water leakage	
Water is drained properly?	Water leakage	
Supply voltage is same as mentioned in the model 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	

(b) Replacement procedure of the fan unit

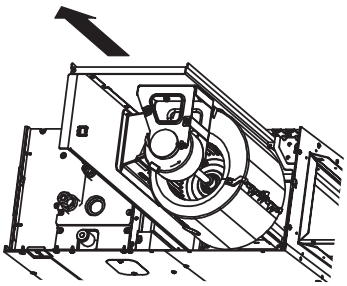
Notes(1) The unit is a heavy item. It must be supported securely and handled with care not to drop when it is necessary to replace.
(2) For the maintenance space, refer to page 74.

(i) Models FDU45, 56KXE6F-W

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

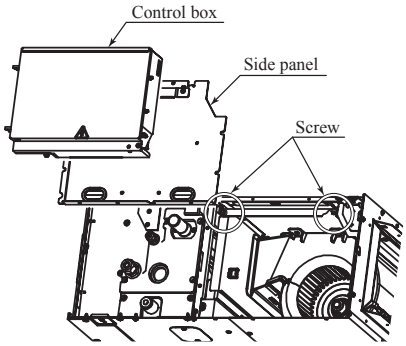


2) Take out the fan unit in the arrow direction.

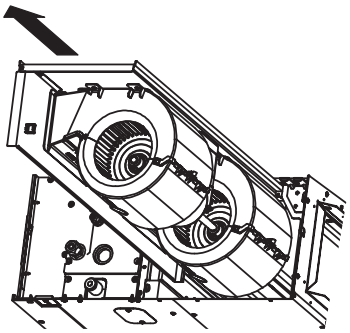


(ii) Models FDU71, 90KXE6F-W

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

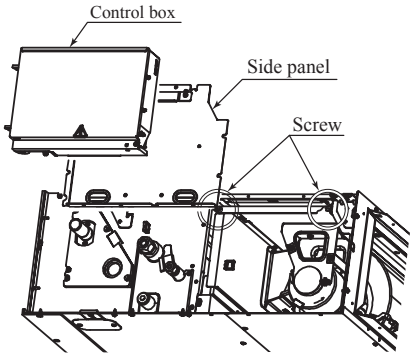


2) Take out the fan unit in the arrow direction.

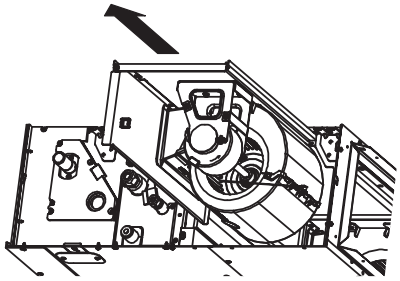


(iii) Models FDU112, 140, 160KXE6F-W

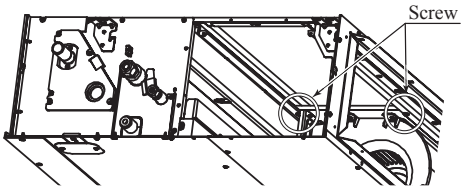
1) Remove the control box and the side panel, and remove the screws marked in the circles (2 places) from the unit located at the near side.



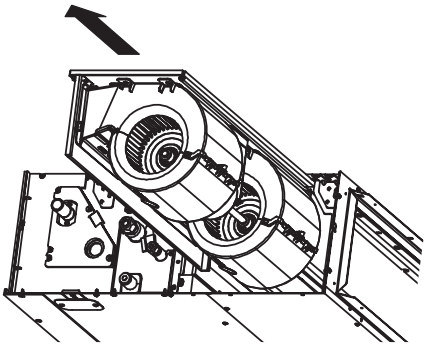
2) Take out the fan unit located at the near side in the arrow direction.



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.



(2) Duct conneted-Low/Middle static pressure type (FDUM)

(a) Indoor unit

PJG012D040

This manual is for the installation of an indoor unit.
For electrical wiring work (Indoor), refer to page 89. For wired remote control installation, refer to page 93. For wireless kit installation, refer to page 168. 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 178.

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 referred by the formula (accordance with ISO5149).**
  If the density exceeds the limit density, please consult the dealer and install 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 or more 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

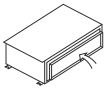
●Install correctly according to the installation manual.

●Confirm the following points:

○Unit type/Power supply 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 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%.
  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.

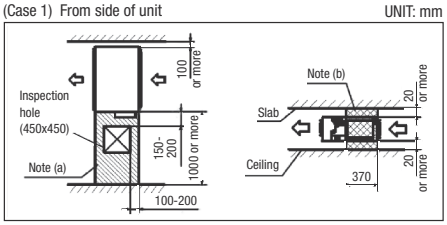
Space for installation and service

●Make installation altitude over 2.5m.

(Indoor Unit)

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

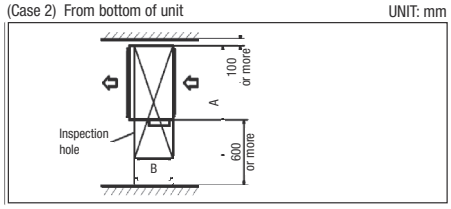
(Case 1) From side of unit UNIT: mm



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

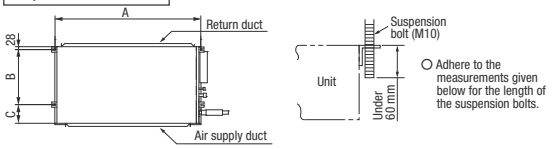
When the suspension bolt length is over 500mm, or the gap between the ceiling and roof is over 700mm, apply earthquake resistant brace to the bolt.

○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

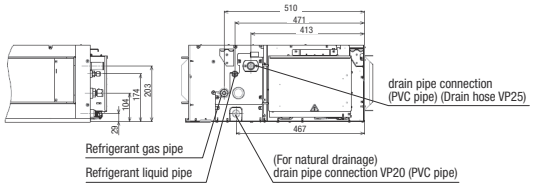


UNIT: mm

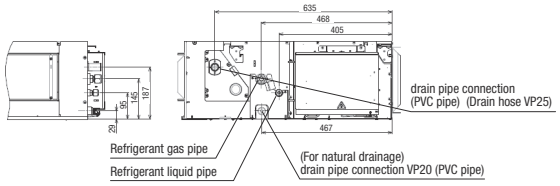
Multi type	22-56	71, 90	112-160
Single type	40-50	60, 71	100-140
A	786	986	1404
B	472	472	530
C	135	135	180

Pipe locations UNIT: mm

Multi type	22-90
Single type	40-71



Multi type	112-160
Single type	100-140

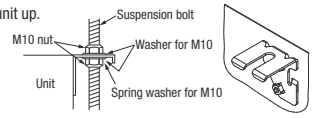


④Installation of indoor unit

Installation

[Hanging]

Hang the unit up.

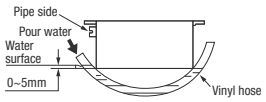


If the measurements between the unit and the ceiling hole do not match upon installation, it may be adjusted with the long holed installation tool.

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 inoperative 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.

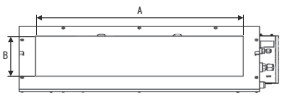
●An air filter can be provided on the main body of the air-conditioner (on the inlet port). Remove it when connecting the duct on the inlet port.

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.

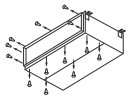
●Connect duct to unit before ceiling attachment.

③Inlet port

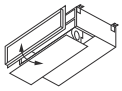
●When shipped the inlet port lies on the back.

●When connecting the duct to the inlet port, remove the air filter if it is fitted to the inlet port.

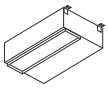
●When placing the inlet port to carry out suction from the bottom side, use the following procedure to replace the suction duct joint and the bottom plate.



●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.



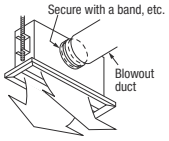
●Fit the duct join with a screw; fit the bottom plate.

●Make sure to insulate the duct to prevent dewing on it.

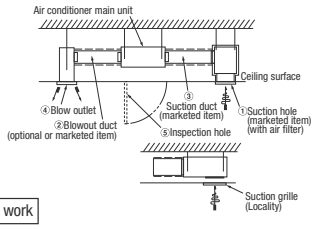
④Install the specific blowout duct in a location where the air will circulate to the entire room.

●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

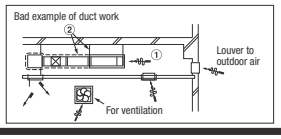
①If a duct is not provided at the suction side but it is substituted with the space over the ceiling, humidity in the space will increase by the influence of capacity of ventilation fan, strength of wind blowing against the out door air louver, weather (rainy day) and others.

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.

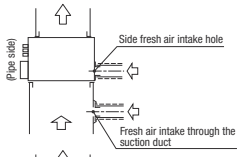
②If vibration damping is not conducted between the unit and the duct, and between the unit and the slab, vibration will be transmitted to the duct and vibration noise may occur. Also, vibration may be transmitted from the unit to the slab. Vibration damping must be performed.



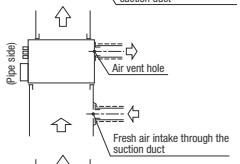
⑤Duct Work (continued)

Connecting the air intake/vent ducts

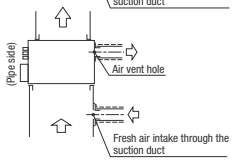
①Fresh Air Intake
[for air intake duct only]
○Use the side fresh air intake hole, or supply through a part of the suction duct.



[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)



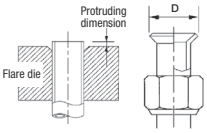
○Insulate the duct to protect it from dew condensation.

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 diameter 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

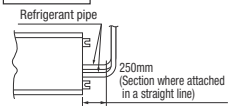
●Use phosphorus deoxidized copper alloy seamless pipe (C1220T) for refrigeration pipe installation. In addition, make sure there is no damage both inside and outside of the pipe, and no harmful substances such as sulfur, oxide, dust or a contaminant stuck on the pipes.

●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.

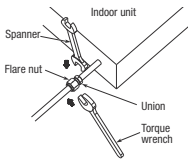
Piping work



When conducting piping work, make sure to allow the pipes to be aligned in a straight line for at least 250mm, 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.



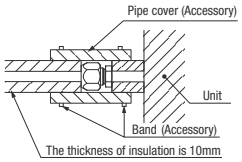
3. Cover the flare connection part of the indoor unit with attached insulation material after a gas leakage inspection, and tighten both ends with attached straps.
   ● Make sure to insulate both gas pipes and liquid pipes completely.
   ※Incomplete insulation may cause dew condensation or water dropping.
   ● 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 reinforced.

⑥Refrigerant pipe (continued)

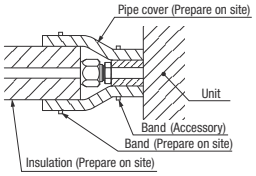
4. Refrigerant is charged in the outdoor unit.
   As for the additional refrigerant charge for the indoor unit and piping, refer to the installation manual attached to the outdoor unit.

> 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 thickness of insulation is 10mm>



<The case of using reinforced insulation>



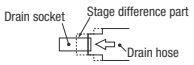
⑦Drain pipe

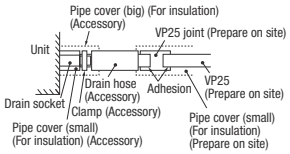
Caution

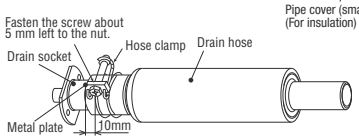
- Install the drain pipe according to the installation manual in order to drain properly.
  Imperfection in draining may cause flood indoors and wetting the household goods, etc.
- Do not put the drain pipe directly into the ditch where toxic gas such as sulfur, the other harmful and inflammable gas 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

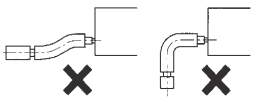
1. Make sure to insert the drain hose (the end mode of soft PVC) to the end of the step part of drain socket.
   Attach the hose clamp to the drain hose around 10mm from the end, and fasten the screw about 5mm left to the nut.
   - Do not apply adhesives on this end.
   - Do not use acetone-based adhesives to connect to the drain socket.



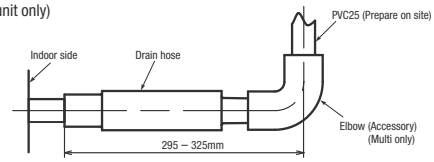




2. Prepare a joint for connecting VP25 pipe, adhere and connect the joint to the drain hose (the end made of rigid PVC), and adhere and connect VP25 pipe (prepare on site).
   ※As for drain pipe, apply VP25 made of rigid PVC which is on the market.
   - Make sure that the adhesive will not get into the 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.

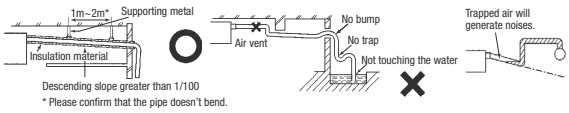


   - As for drain pipe, apply VP25 (OD32).
     If apply PVC25 (OD25), connect the expanded connector to the drain hose, with adhesive. (Multi unit only)

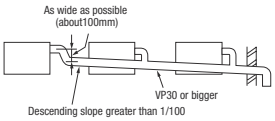


⑦Drain pipe (continued)

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.



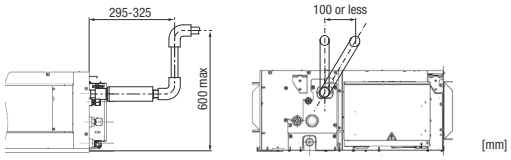
   - When sharing a drain pipe for more than one unit, lay the main pipe 100mm below the drain outlet of the unit. In addition, select VP30 or bigger size for main drain pipe.



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.



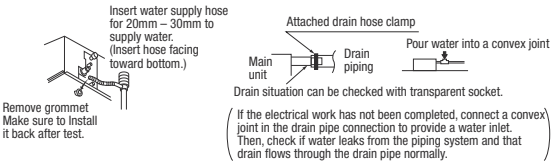
Otherwise, the construction point makes it same as drain pipe construction.

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.

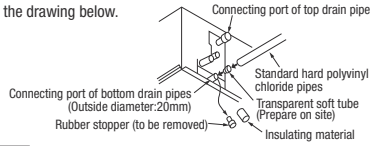
Procedures

1. Supply about 1000cc 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

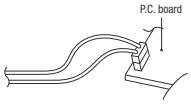
- If the bottom drain piping can be done with a descending gradient (1/50-1/100), it is possible to connect the pipes as shown in the drawing below.



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.)

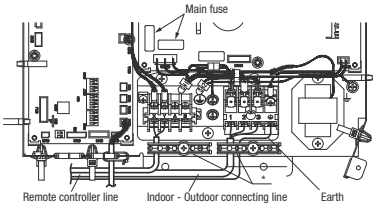


⑧Wiring-out position and wiring connection

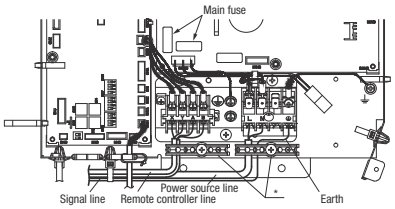
- Electrical installation work must be performed according to the installation manual by an electrical installation service provider qualified by a power provider of the country, and be executed according to the technical standards and other regulations applicable to electrical installation in the country.
  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

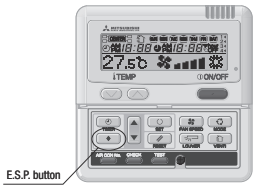
Model	Specification	Part No.
22-56	T3.15A L250V	SSA564A149AF
71-160	T5A L250V	SSA564A149AH

⑨External static pressure setting

You can set External Static Pressure (E.S.P.) by 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.

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

※ If 11-19 is selected for the setting No. on the remote control, the setting No. shows No. 10.
※ Factory default is No. 5.

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.

⑩Check list after installation

- Check the following items after all installation work completed.

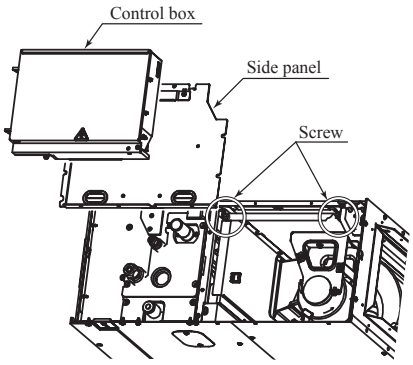
Check if	Expected trouble	Check
The indoor and outdoor units are fixed securely?	Falling, vibration, noise	
Inspection for leakage is done?	Insufficient capacity	
Insulation work is properly done?	Water leakage	
Water is drained properly?	Water leakage	
Supply voltage is same as mentioned in the model 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	

(b) Replacement procedure of the fan unit

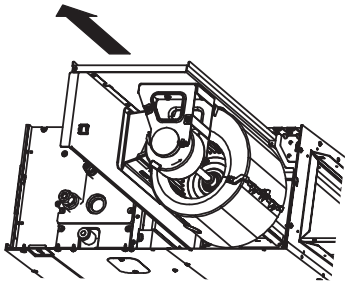
Notes(1) The unit is a heavy item. It must be supported securely and handled with care not to drop when it is necessary to replace.
(2) For the maintenance space, refer to page 80.

(i) Models FDUM22, 28, 36, 45, 56KXE6F-W

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

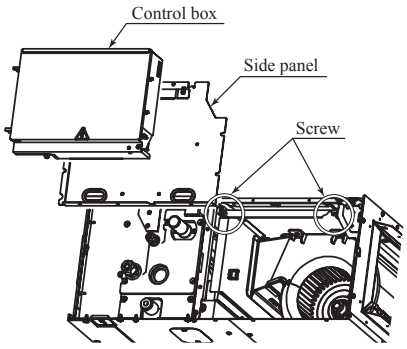


2) Take out the fan unit in the arrow direction.

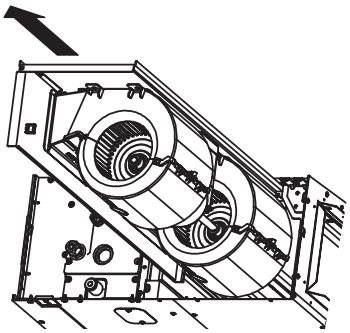


(ii) Models FDUM71, 90KXE6F-W

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

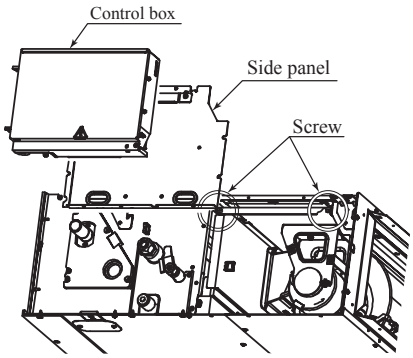


2) Take out the fan unit in the arrow direction.

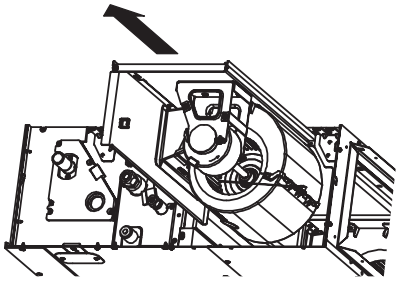


(iii) Models FDUM112, 140, 160KXE6F-W

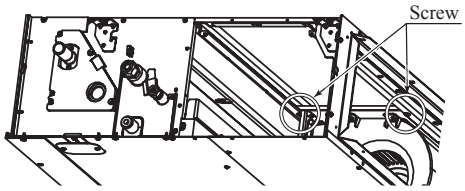
1) Remove the control box and the side panel, and remove the screws marked in the circles (2 places) from the unit located at the near side.



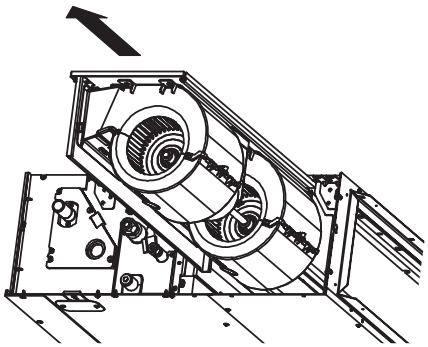
2) Take out the fan unit located at the near side in the arrow direction.



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.



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

PJH012D007

This manual is for the installation of an indoor unit.
For electrical wiring work (Indoor), refer to page 89. For wired remote control installation, refer to page 93. For wireless kit installation, refer to page 168. 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 178.

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. | ❶ 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 referred by the formula (accordance with ISO5149).**
  If the density exceeds the limit density, please consult the dealer and install 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 or more 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 supply specification ○ Pipes/Wires/Small parts ○ Accessory items

Accessory item

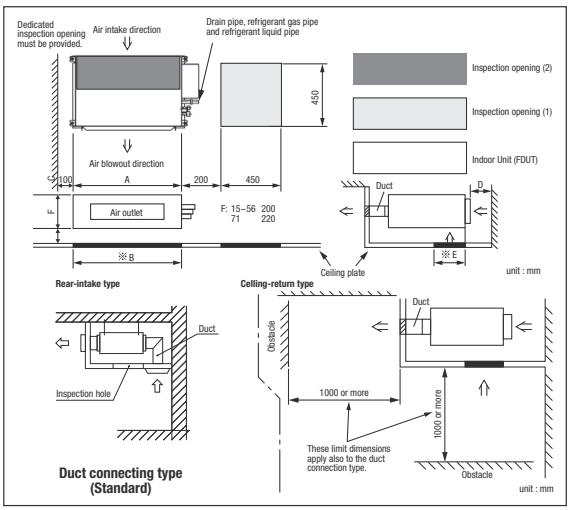
For refrigerant pipe			For drain pipe					
Pipe cover(big)	Pipe cover (small)	Strap	Pipe cover(big)	Pipe cover(small)	Drain hose	Hose clamp (big)	Hose clamp (small)	Joint
1	1	4	1 (71 only)	1 (71 only)	1 (71 only)	1	1 (15~56 only)	1 (15~56 only)
For heat insulation of gas pipe	For heat insulation of liquid 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%. 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: 100mm or more
Dimension D: 150mm or more
Dimension E: 270mm or more

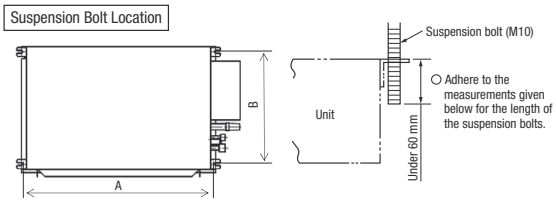
② Selection of installation location for the indoor unit

		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 supply 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.

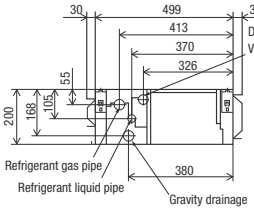
Suspension Bolt Location



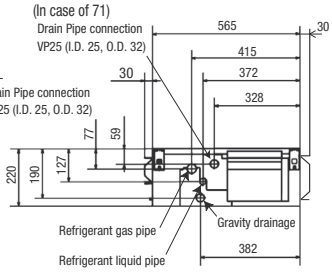
	A	B
15, 22, 28, 36	790	457
45, 56	990	457
71	1190	518

Pipe locations

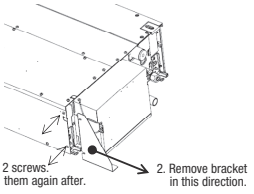
(In case of 15-56)



(In case of 71)



● Remove bracket from the unit after unpacking according to process as shown below.
(in case of 15-56 only)



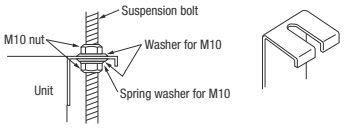
④ Installation of indoor unit

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.



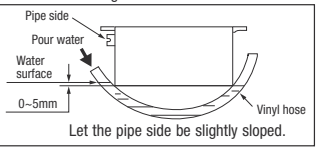
If the measurements between the unit and the ceiling hole do not match upon installation, it may be adjusted with the long holed installation tool.

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.



○ If the unit is not leveled, it may cause malfunctions or inoperative of the float switch.

⑤ Duct Work

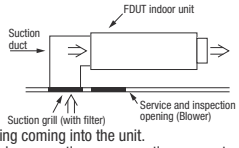
Caution

· 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 structure where airflow may be controlled.

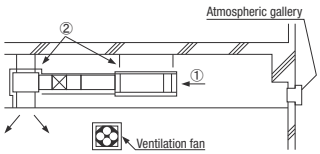
(f) An inspection hole must be made in the ceiling surface. This is necessary for the repair and maintenance of the electrical parts, motor and functional parts, as well as for cleaning the heat exchanger.

(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 conditions 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.)

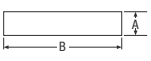
b. Operation of the unit may exceed its limits (for example, when the temperature of the suction air is 24 °C with the outdoor temperature of 35 °C DB). In such a cases, problems such as an overload of the compressor may occur.

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 performed.

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

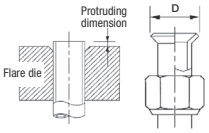
● Be sure to use new pipes for the refrigerant pipes. Use the flare nut attached to the product. Regarding whether existing pipes can be reused or not, and the washing method, refer to the instruction manual of the outdoor unit, catalogue or technical data.

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 diameter d mm	Min. pipe wall thickness mm	Protruding dimension for flare, mm: Rigid (Clutch type) For R32 For R410A	Protruding dimension for flare, mm: Rigid (Clutch type) Conventional tool	Flare O.D. D mm	Flare nut tightening torque N·m
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.

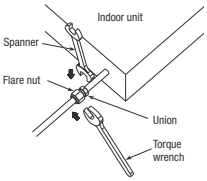
● Store the copper pipes indoors and seal the both end of them until they are brazed in order to avoid any dust, dirt or water getting into pipe. Otherwise it will cause degradation of refrigeration oil and compressor breakdown, etc.

● 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.)

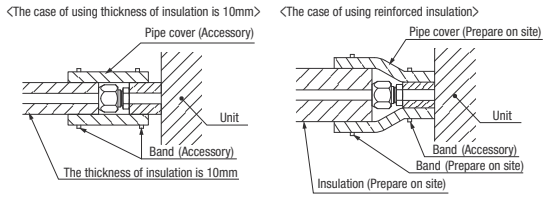
2. Make a flare on liquid pipe and gas pipe, and connect the refrigeration pipes on the indoor unit.
※Bend radius of pipe must be 4D or larger. Once a pipe is bent, do not readjust the bending. Do not twist a pipe or collapse to 2/3D or smaller.
● Make sure to use flare nuts assembled on the unions. 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.

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.



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.

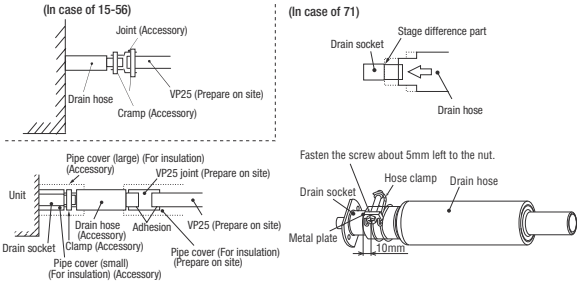
● Check if the water can flow out properly from both the drain outlet on the indoor unit and the end of the drain pipe after installation.

● 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.

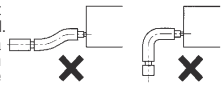
⑦ Drain pipe (continued)

Work procedure

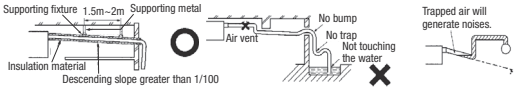
1. Insert the supplied drain hose (the end made of soft PVC) to the step of the drain socket on the indoor unit and fix it securely with the clamp.
   - Do not apply adhesives on this end.



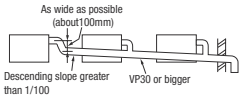
2. Prepare a joint for connecting VP25 (O.D.32) pipe, adhere and connect the joint to the drain hose (the end made of rigid PVC), and adhere and connect VP25 (O.D.32) pipe (prepare on site).
   ※As for drain pipe, apply VP25 (O.D.32) made of rigid PVC which is on the market.
   - Make sure that the adhesive 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.



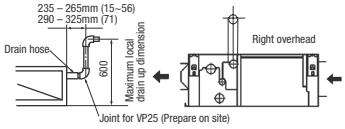
   - When sharing a drain pipe for more than one unit, lay the main pipe 100mm below the drain outlet of the unit. In addition, select VP30 or bigger size for main drain pipe.



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.

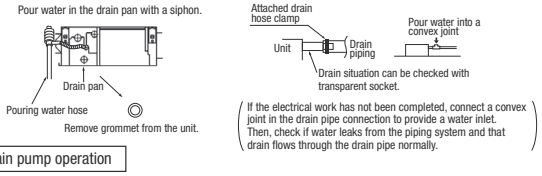


Drain test

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 1000cc 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

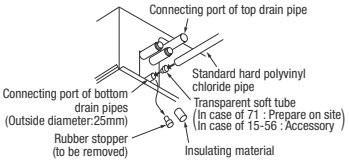
○ In case electrical wiring work finished
Drain pump can be operated by remote control (wired).
For the operation method, refer to Operation for drain pump in the installation manual for wiring work.

○ 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 supply (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

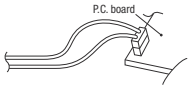
- If the bottom drain piping can be done with a descending gradient (1/50-1/100), it is possible to connect the pipes as shown in the drawing below.



Uncoupling the drain motor connector

- Uncouple the connector CNR for the drain motor as illustrated in the drawing on the right.

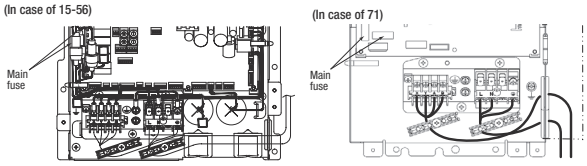
(Note: If the unit is run with the connector coupled, drain water will be discharged from the upper drain pipe joint, causing a water leak.)



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 attached 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 terminal block securely.
4. Fix the wirings with cramps.
5. Install the LID back to original position.



Main fuse specification

Model	Specification	Part No.
15-56	T3.15A L250V	SSA564A116G
71	T3.15A L250V	SSA564A149AF

⑨External static pressure setting

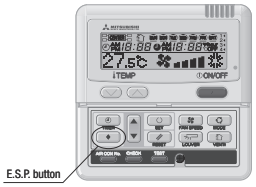
Notice

This setting is valid for model 71 only.

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.

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

※ If 6-19 is selected for the setting No. on the remote control, the setting No. shows No. 5.
※ Factory default is No. 1.

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	
Supply 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	

8.2 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 option 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)

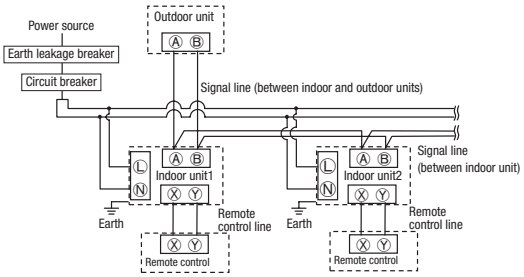
Switch No.	control content	
SW1	Indoor unit address (tens place)	
SW2	Indoor unit address (ones place)	
SW3	Outdoor unit address (tens place)	
SW4	Outdoor unit address (ones place)	
SW5－1	ON	Fixed previous version of Superlink protocol
	OFF	Automatic adjustment of Superlink protocol
SW5－2	Indoor unit 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:

Model capacity	Leakage breaker rating	Switch capacity	Fuse	Power source wire size	Wire length	Signal cable	Remote control cable	Ground wire
① Use of indoor unit's power source (Models other than ② – ③)								
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
2.0mm²	50
3.5mm²	60
5.5mm²	60
8.0mm²	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.

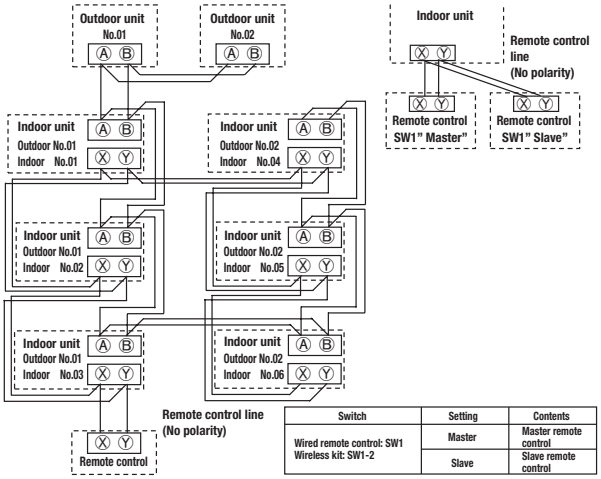
(1) Place exposed to direct sunlight
(2) Places near heat devices
(3) High humidity places
(4) Hot surface or cold surface enough to generate condensation
(5) Place exposed to oil mist or steam directly.
(6) Uneven surface

Installation and wiring of remote control

① Install remote control referring to the attached manual.
② Wiring of remote control should use 0.3mm² × 2 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 0.5mm². 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.
100-200m .....0.5mm² × 2 core
Under 300m.....0.75mm² × 2 core
Under 400m.....1.25mm² × 2 core
Under 500m.....2.0mm² × 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

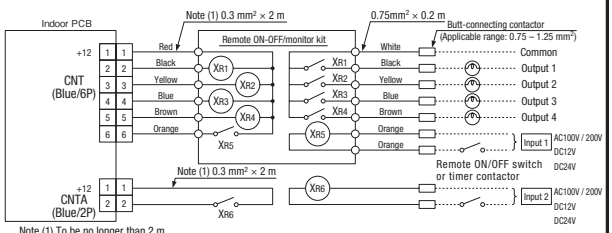
A maximum of two remote control units can be connected to one indoor unit (or one group of indoor units.)
Latest "function setting" is superior than previous one.
Acceptable combination is "two (2) wired remote controls", "one (1) wired remote control and one (1) wireless kit" or "two (2) wireless kits".
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



● 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
B : Refer to the installation manual for RC-EX series
C : Loading a utility software vie Internet

<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.

8.3 Installation of wired remote control (Option parts)
(1) Model RC-EX3A

PJZ012A171 A

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 (0.3mm^2 x 2 pcs.)	As required	See right table when longer than 100m

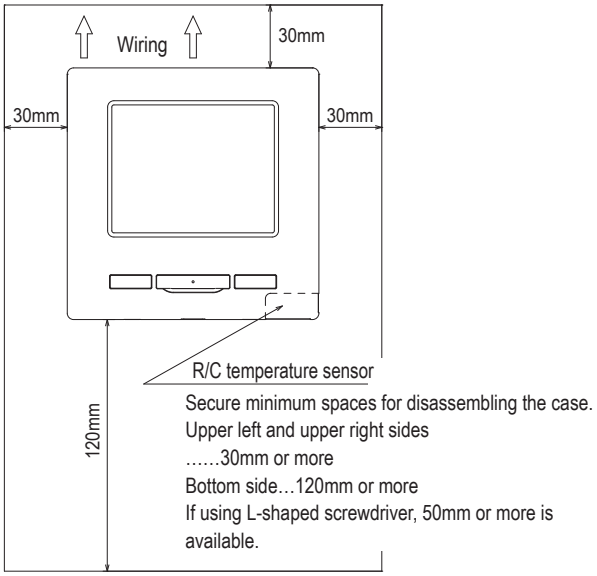
When the cable length is longer than 100m, the max size for wires used in the R/C case is 0.5mm^2 . Connect them to wires of larger size near the outside of R/C. When wires are connected, take measures to prevent water, etc. from entering inside.

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

3 . Installation place

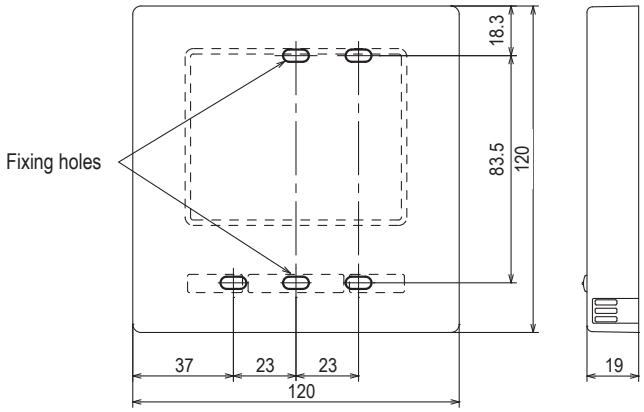
Secure the installation space shown in the figure.
For the installation method, “embedding wiring” or “exposing wiring” can be selected.
For the wiring direction, “Backward”, “Upper center” or “Upper left” can be selected.
Determine the installation place in consideration of the installation method and wiring direction.

Installation space

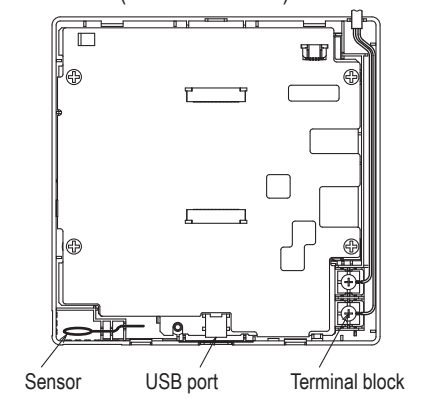


4 . Installation procedure

Perform installation and wiring work for the remote control according to the following procedure.
Dimensions (Viewed from front)



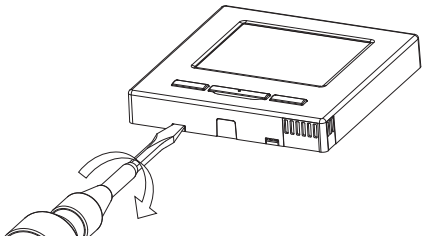
PCB side (Viewed from rear)



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.

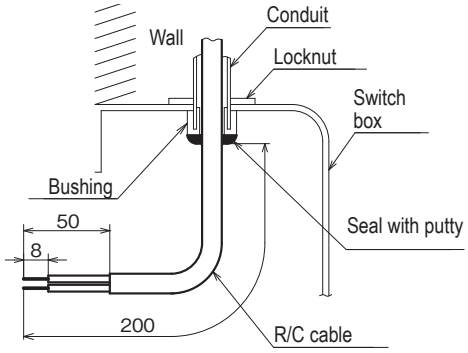


In case of embedding wiring

(When the wiring is retrieved “Backward”)

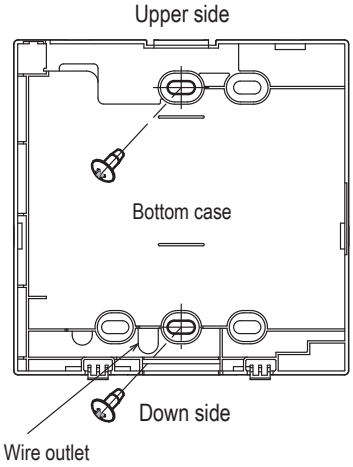
① Embed the switch box and the R/C wires beforehand.

Seal the inlet hole for the R/C wiring with putty.

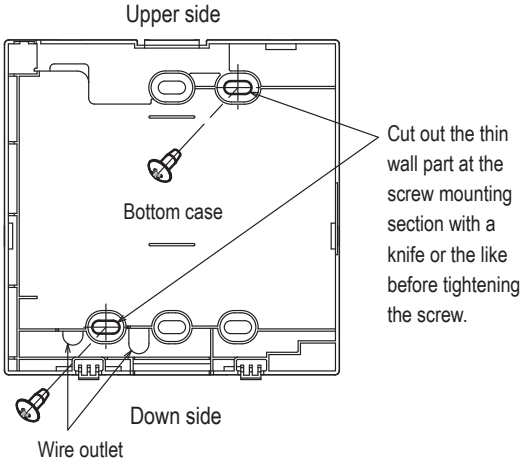


② When wires are passed through the bottom case, fix the bottom case at 2 places on the switch box.

Switch box for 1 pc.



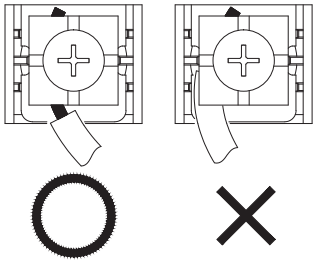
Switch box for 2 pcs.

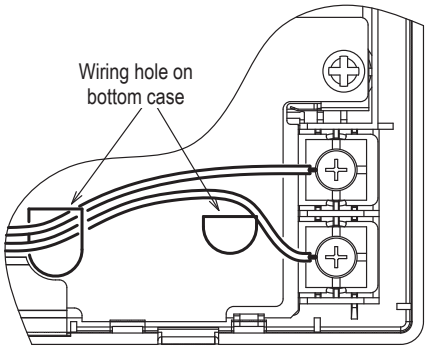


③ Connect wires from X and Y terminals of R/C to X and Y terminals of indoor unit. R/C wires (X, Y) have no polarity. Fix wires such that the wires will run around the terminal screws on the top case of R/C.
④ Install the upper case with care not to pinch wires of R/C.

Cautions for wire connection

Use wires of no larger than 0.5mm^2 for wiring running through the remote control case. Take care not to pinch the sheath.
Tighten by hand (0.7N·m or less) the wire connection. If the wire is connected using an electric driver, it may cause failure or deformation.

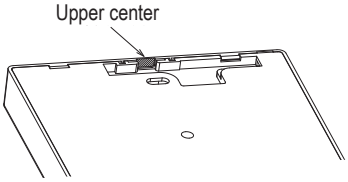


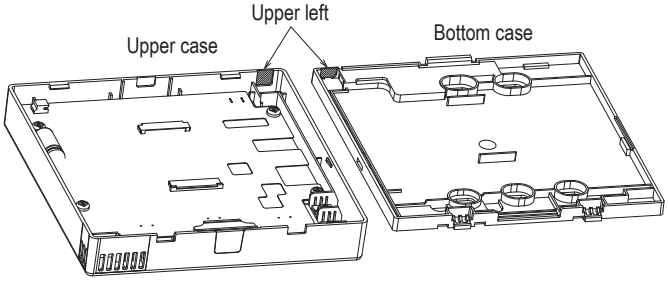


In case of exposing wiring

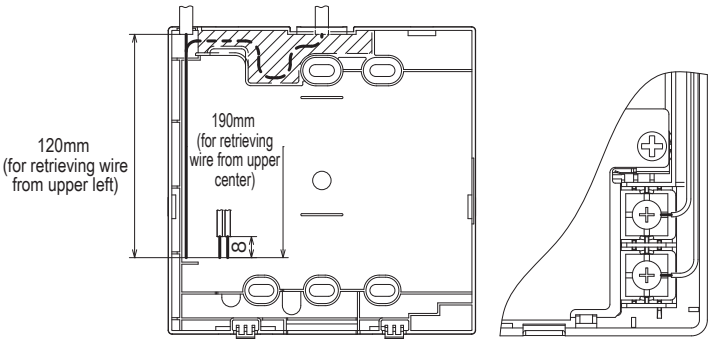
(When the wiring is taken out from the "upper center" or "upper left" of R/C)
① Cut out the thin wall sections on the cases for the size of wire.

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.



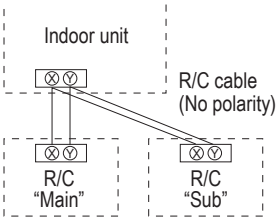


② Fix the bottom R/C case on a flat surface with two wood screws.
③ In case of the upper center, pass the wiring behind the bottom case. (Hatched section)
④ Connect wires from X and Y terminals of R/C to X and Y terminals of indoor unit. R/C wires (X, Y) have no polarity. Fix wires such that the wires 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.



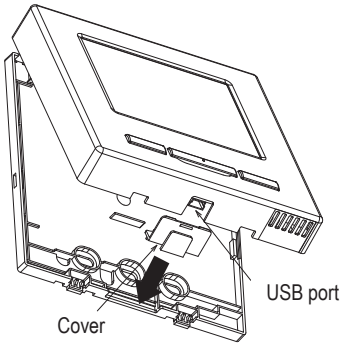
R/C operations			Main	Sub
Run/Stop, Change set temp., Change flap direction, Auto swing, Change fan speed operations			○	○
High power operation, Energy-saving operation			○	○
Silent mode control			○	×
Useful functions	Individual flap control		○	×
	Anti draft setting		○	×
	Timer		○	○
	Favorite setting		○	○
	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	○	○

○: operable ×: not operable

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.

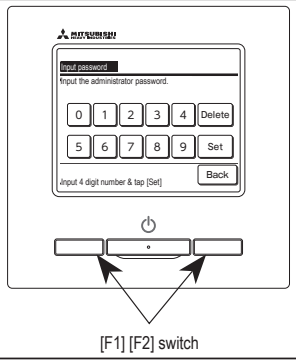


Advice: Initializing of password

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

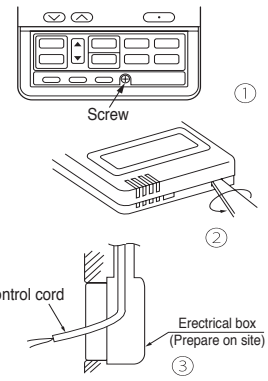
- Do not install the remote control at the following places in order to avoid malfunction.
  (1) Places exposed to direct sunlight
  (2) Places near heat devices
  (3) High humidity places
  (4) Hot surface or cold surface enough to generate condensation
  (5) Places exposed to oil mist or steam directly
  (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.

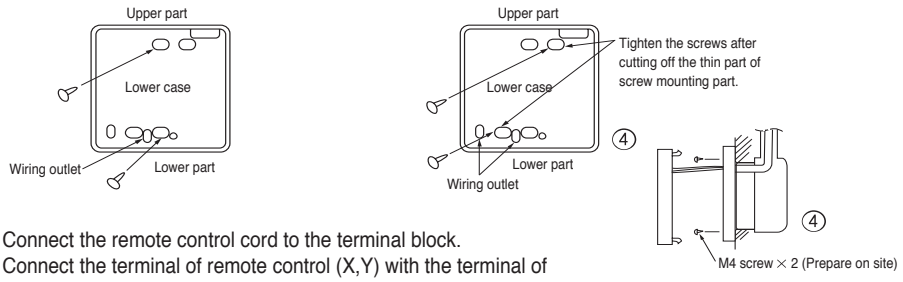
② Remove the upper case of remote control.
Insert a flat-blade screwdriver into the dented part of the upper part of the remote control, and wrench slightly.



[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.



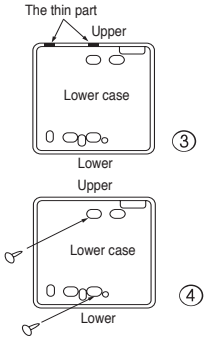
⑤ Connect the remote control cord to the terminal block.
Connect the terminal of remote control (X,Y) with the terminal of indoor unit (X,Y). (X and Y are no polarity)

⑥ Install the upper case as before so as not to catch up the remote control cord, and tighten with the screws.

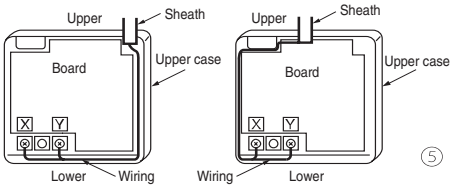
[In case of exposing cord]

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.



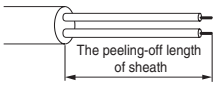
⑤ Connect the remote control cord to the terminal block.
Connect the terminal of remote control (X,Y) with the terminal of indoor unit (X,Y).
(X and Y are no polarity)
Wiring route is as shown in the right diagram depending on the pulling out direction.



In case of pulling out from upper left
In case of pulling out from upper center

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



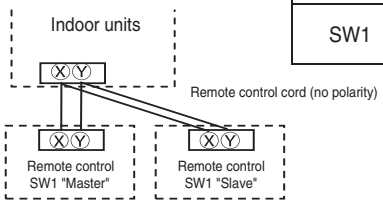
⑥ Install the upper case as before so as not to catch up the remote control cord, and tighten with the screws.
⑦ In case of exposing cord, fix the cord on the wall with cord clamp so as not to slack.

Installation and wiring of remote control

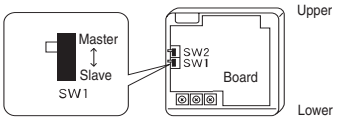
① Wiring of remote control should use 0.3mm^2 × 2 cores wires or cables. (on-site configuration)
② Maximum prolongation of remote control wiring is 600m.
If the prolongation is over 100m, change to the size below.
But, wiring in the remote control case should be under 0.5mm^2 . Change the wire size outside 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	Content
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.

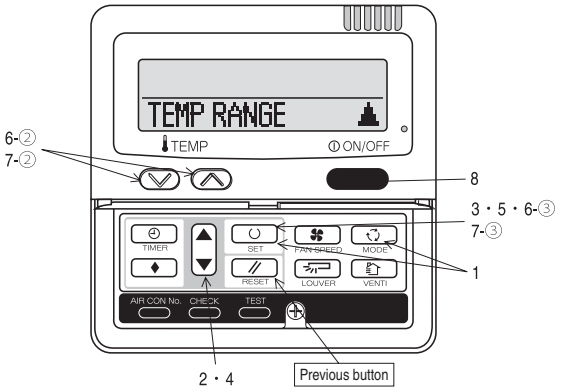
2. When ⑫TEMP RANGE SET, remote control function of function setting mode is "NO INDN CHANGE"
   【If upper limit value is set】
   During heating, even if the value exceeding the upper limit is set, upper limit value will be sent to the indoor unit. But, the indication is the same as the temperature set.

   【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

Stop air-conditioner and press (SET) + (MODE) buttons at the same time for over three seconds.

FUNCTION SET ▼

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".

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.
	HI-LO	※	Air flow of fan becomes the two speed.
	HI-MID		Air flow of fan becomes the two speed.
	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 (cooling)	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 (heating)	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.**

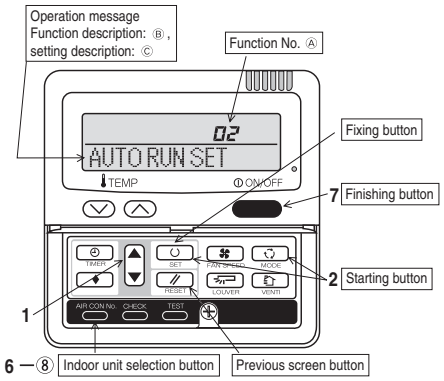
   FUNCTION SET ▼

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).

   FUNCTION ▼

   I/U 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)

   02 ← Function No.
   AUTO RUN SET ← Function

   ③ Press (SET) button.
   The current setting of selected function is indicated.
   (for example) "AUTO RUN ON" ← If "02 AUTO RUN SET" is selected

   02
   AUTO RUN ON ← Setting

   ④ Press ▲ or ▼ button.
   Select the setting.

   02
   AUTO RUN ON
   ↕
   02
   AUTO RUN OFF

   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.

   02
   SET COMPLETE

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.

I/U000 ▲

(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)

02 ← Function No.
FAN SPEED SET ← Function

③ Press (SET) button.
The current setting of selected function is indicated.
(For example) "STANDARD" ← If "02 FAN SPEED SET" is selected.

02
STANDARD ← Setting

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.

02
SET COMPLETE

※ 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】

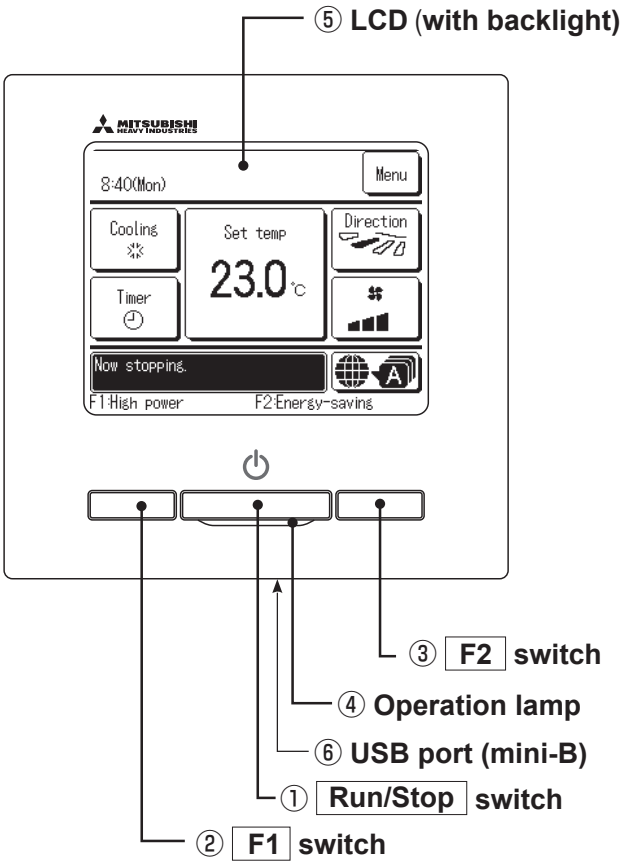
When you select from "No. and funcion" and press set button by the previous operation, the "Setting" displayed first is the current setting.
(But, if you select "ALL UNIT ▼ ", the setting of the lowest number indoor unit is displayed.)

9. OUTLINE OF OPERATION CONTROL BY MICROCOMPUTER

9.1 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

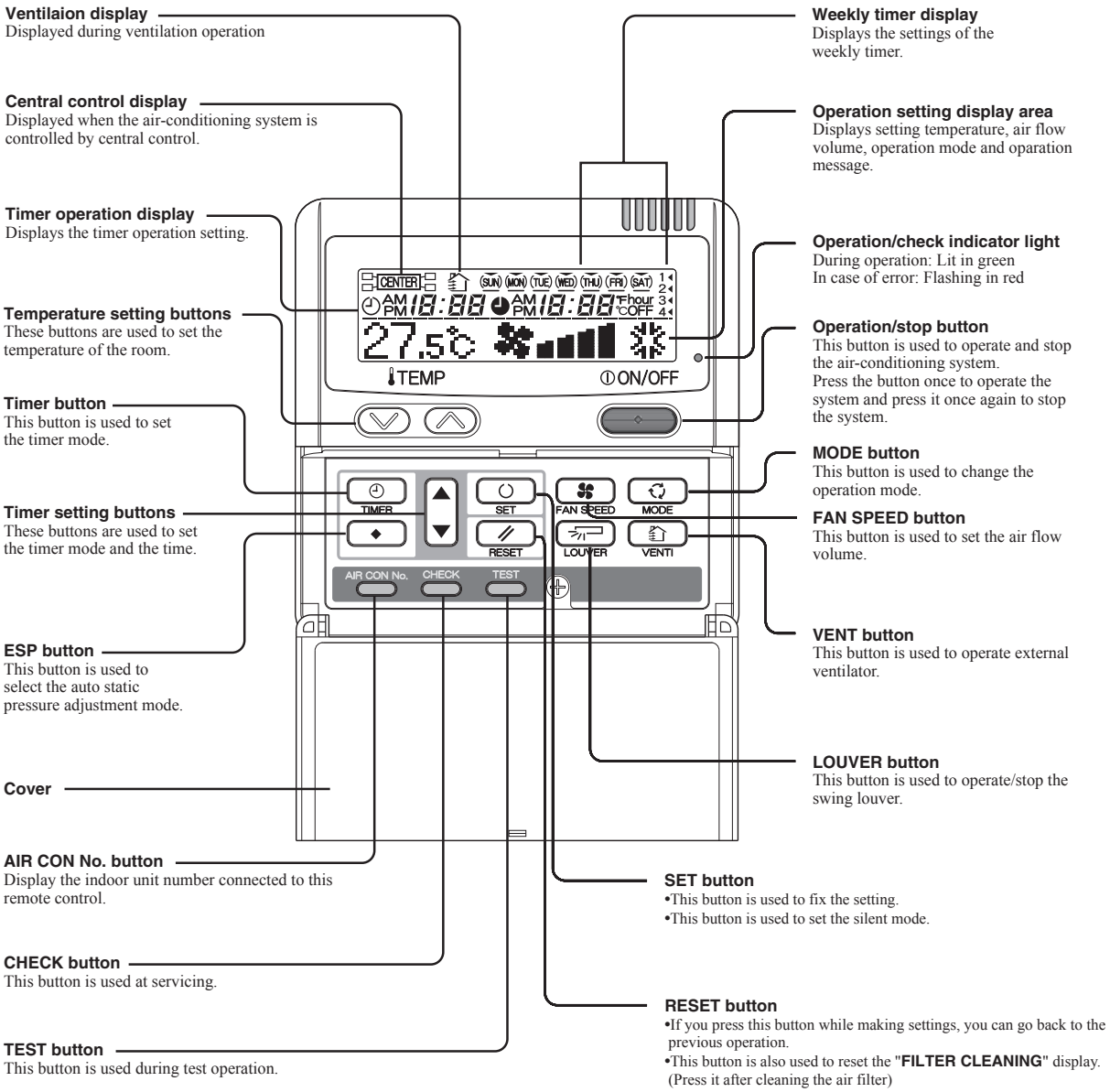
USB connector (mini-B) allows connecting to a personal computer.
For operating methods, refer to the instruction manual attached to the software for personal computer (remote control utility software).

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.

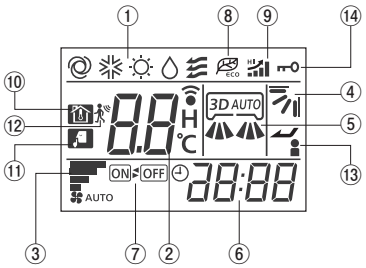
The figure below shows the remote control with the cover opened.



∗ All displays are described in the liquid crystal display for explanation.

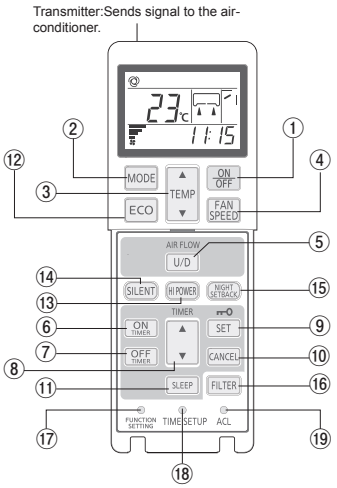
(2) Wireless remote control
Models RCN-E2

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



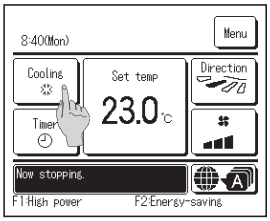
①	ON/OFF button	When this is pressed once, the air-conditioner starts to operate and when this is pressed once again, it stops operating.
②	MODE button	Every time this button is pressed, displays switch as below (AUTO) → (COOL) → (HEAT) → (DRY) → (FAN) → (AUTO)
③	TEMP button	Change the set temperature 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	ON TIMER button	Used to set the ON TIMER.
⑦	OFF TIMER button	Used to set the OFF TIMER.
⑧	SELECT button	Used to switch the time when setting the timer or adjusting the time. Used to switch the settings of the indoor function.
⑨	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.
⑩	CANCEL button	Used to cancel the timer setting.
⑪	SLEEP button	Used to set the sleep timer.
⑫	ECO button	Pressing this button starts the energy-saving operation. Pressing this button again cancels it.
⑬	HI POWER button	Pressing this button starts the high power operation. Pressing this button again cancels it.
⑭	SILENT button	Pressing this button starts the silent mode control. Pressing this button again cancels it.
⑮	NIGHT SETBACK button	Pressing this button starts the home leave mode. Pressing this button again cancels it.
⑯	FILTER button	Pressing this button resets FILTER SIGN.
⑰	FUNCTION SETTING switch	Used to set the indoor function.
⑱	TIME SETUP switch	Used to set the current time.
⑲	ACL switch	Used to reset the microcomputer.

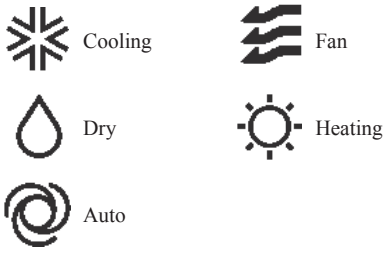
9.2 Operation control function by the wired remote control

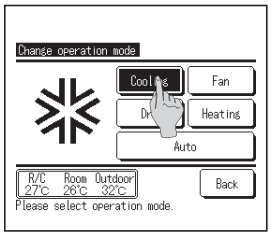
●Model RC-EX3A

(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.





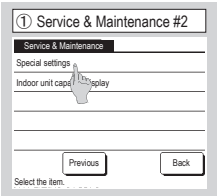


Notes(1) Operation modes which cannot be selected depending on combinations of indoor unit and outdoor unit are not displayed.
(2) When the Auto is selected,the cooling and heating switching operation is performed automatically according to indoor and outdoor temperatures.

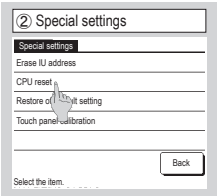
(2) CPU reset

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.

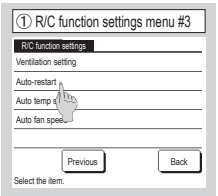
[CPU reset]

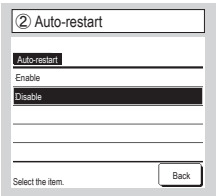
Microcomputers of indoor unit and outdoor unit connected are reset (State of restoration after power failure).

(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

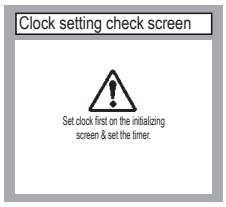
(4) Alert displays

If the following (a) to (c) appear, check and repair as follows.

(a) Communication check between indoor unit and remote control

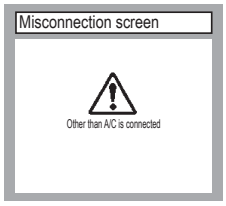
●This appears if communications cannot be established between the remote control and the indoor unit.
Check whether the system is correctly connected (indoor unit, outdoor unit, remote control) and whether the power source for the outdoor unit is connected.

(b) Clock setting check



●This appears when the timer settings are done without clock setting.
Set the clock setting before the timer settings.

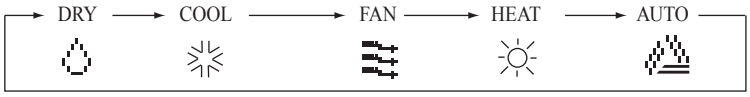
(c) Misconnection



●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

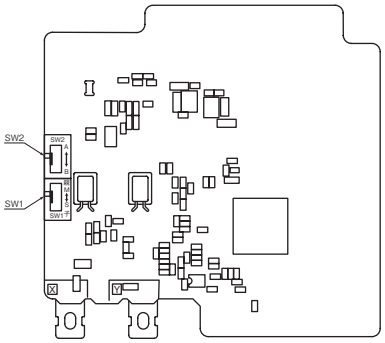
(e) Louver auto swing/stop
However, the stop position (4-position) is cancelled so that it returns to Position (1).

(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]

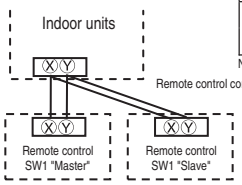


Master/ slave setting when more than one remote controls are used

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

9.3 Operation control function by the indoor control

(1) 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.

(2) 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.

(3) 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 timer	Set OFF timer by hour	Set ON timer by hour	Set OFF timer by clock	Set ON timer by clock	Weekly timer
Sleep timer		×	×	○	○	○
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) **Combination of patterns which can be set for the timer operations**

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.

(4) 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.

(5) 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 35°C or lower, the speed of indoor fan is changed to the lower tap at each setting.

(ii) During the hot keep, the louver is kept at the horizontal position.

(b) Ending condition

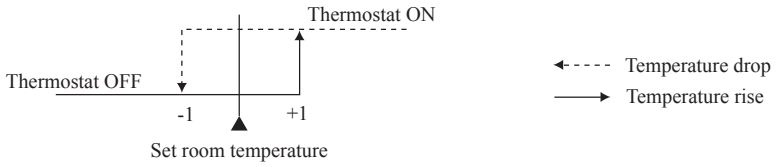
When the indoor fan is at the lower tap at each setting, it returns to the set air flow volume as the indoor heat exchanger temperature rises to 45°C or higher.

(6) 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.

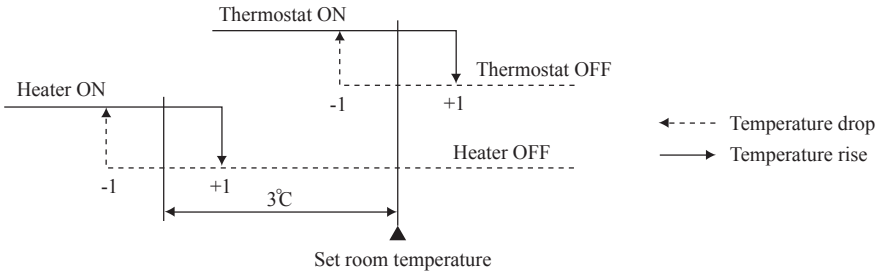


(iii) Thermostat is turned ON when the room temperature is in the range of -1 < Set temperature < +1 at the start of cooling operation (including from heating to cooling).

(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 room temperature < +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

(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 5minutes, 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.

(7) 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)

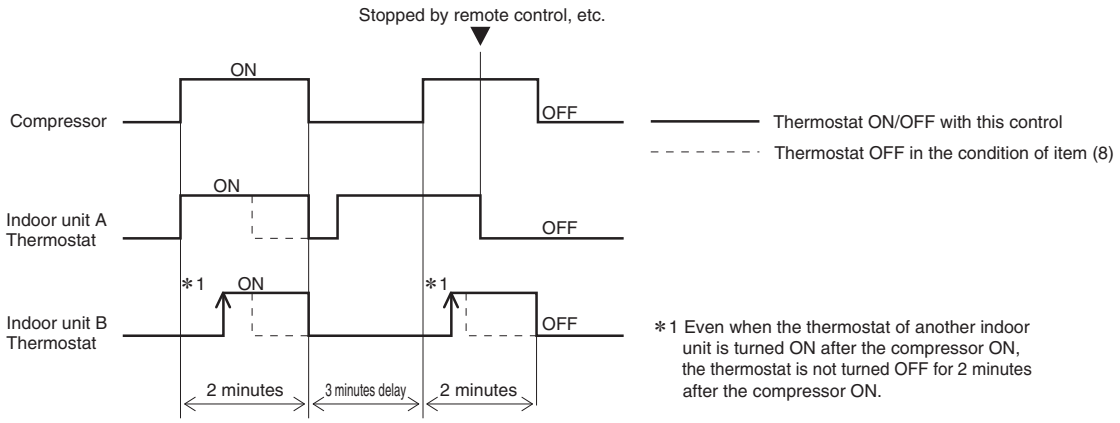
Notes (1) Time setting for the filter sign can be made as shown below using the indoor function of wired remote control "Filter sign". (It is set at Setting 1 at the shipping from factory.)

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.

(8) 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.

(9) Drain pump control

(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 minutes even when it enters the OFF range according to (i) above after turning the drain pump ON, and then stops. The 5 minutes delay continues also in the event of anomalous stop.

(c) The drain pump is operated with the 5 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) ❄◇〔Standard (in cooling & dry)〕: Drain pump is run during cooling and dry.

(ii) ❄◇AND☀〔Operate in standard & heating〕: Drain pump is run during cooling, dry and heating.

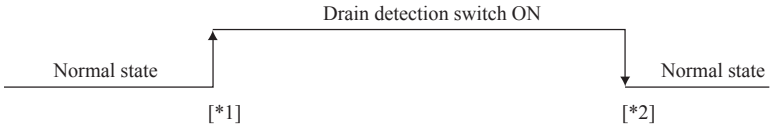
(iii) ❄◇AND☀AND〓〔Operate in heating & fan〕: Drain pump is run during cooling, dry, heating and fan.

(iv) ❄◇AND〓〔Operate in standard & fan〕: Drain pump is run during cooling, dry and fan.

Note (1) Values in〔 〕are for the RC-EX3A model.

(10) Drain pump abnomalities detection

(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 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.)

(11) 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

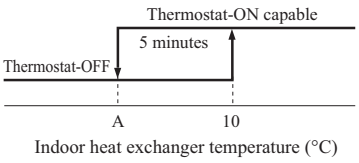
As the drain pump test run is established, the drain pump only operates and during the operation protective functions by the microcomputer of indoor unit become ineffective.

(12) Cooling, dehumidifying frost protection

(a) To prevent frosting during cooling mode or dehumidifying mode operation, the compressor-OFF if the indoor heat exchanger temperature (detected with Thi-R) drops to 1.0 °C or lower at 4 minutes after the compressor-ON. If the indoor unit heat exchanger temperature is 1.0 °C or lower after 5 minutes, the indoor unit is controlled compressor-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.

(13) 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).

(14) 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).

(15) Fan speed 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 or P-Hi1-A or B	Hi	Me	Lo
	SETTING1, 2	P-Hi1 or P-Hi1-A	P-Hi1	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)

(16) Abnormal temperature sensor (return air/indoor heat exchanger) broken wire/short-circuit detection

(a) Broken wire detection

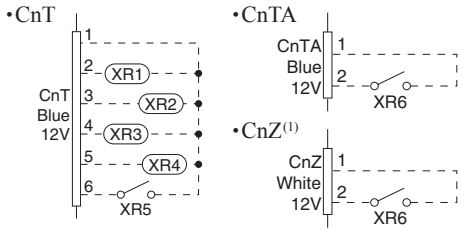
If the return air temperature sensor detects broken wire for 5 seconds continuously, the compressor stops (E7). If the heat exchanger temperature sensor detects broken wire for 5 seconds continuously at 2 minutes and 20 seconds after the compressor ON, the compressor stops (E6).

(b) Short-circuit detection

If the heat exchanger temperature sensor detects short-circuit for 5 seconds continuously at 2 minutes and 20 seconds after the compressor ON during cooling operation, the compressor stops (E6).

(17) External input/output control (CnT or CnTA(Z)[1])

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(Z) 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(Z) (XR6)	Remote operation input	External input 2

Note (1) CnZ applies only to FDUT15-56KXE6F-W.

■ Priority order for combinations of CnT and CnTA(Z) input.

		CnTA(Z)						
		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(Z) ③	CnT ①	CnT ① /CnTA(Z) ⑤	CnT ① /CnTA(Z) ⑥	CnT ① <CnTA(Z) ⑦
	② Operation stop pulse	CnT ②	CnT ②	CnT ② +CnTA(Z) ③	CnT ②	CnT ② /CnTA(Z) ⑤	CnT ② /CnTA(Z) ⑥	CnT ② <CnTA(Z) ⑦
	③ Operation permission/prohibition level	CnT ③ >CnTA(Z) ①	CnT ③ >CnTA(Z) ②	CnT ③ +CnTA(Z) ③	CnT ③	CnT ③ /CnTA(Z) ⑤	CnT ③ /CnTA(Z) ⑥	CnT ③ <CnTA(Z) ⑦
	④ Operation permission/prohibition pulse	CnT ④	CnT ④	CnT ④ +CnTA(Z) ③※	CnT ④	CnT ④ /CnTA(Z) ⑤	CnT ④ /CnTA(Z) ⑥	CnT ④ <CnTA(Z) ⑦
	⑤ Cooling/heating selection level	CnT ⑤ /CnTA(Z) ①	CnT ⑤ /CnTA(Z) ②	CnT ⑤ /CnTA(Z) ③	CnT ⑤ /CnTA(Z) ④	CnT ⑤	CnT ⑤	CnT ⑤ /CnTA(Z) ⑦
	⑥ Cooling/heating selection pulse	CnT ⑥ /CnTA(Z) ①	CnT ⑥ /CnTA(Z) ②	CnT ⑥ /CnTA(Z) ③	CnT ⑥ /CnTA(Z) ④	CnT ⑥	CnT ⑥	CnT ⑥ /CnTA(Z) ⑦
	⑦ Emergency stop	CnT ⑦ >CnTA(Z) ①	CnT ⑦ >CnTA(Z) ②	CnT ⑦ >CnTA(Z) ③	CnT ⑦ >CnTA(Z) ④	CnT ⑦ /CnTA(Z) ⑤	CnT ⑦ /CnTA(Z) ⑥	CnT ⑦ +CnTA(Z) ⑦

Note (1) Following operation commands are accepted when the operation prohibition is set with CnTA(Z) 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(Z) is invalidated.
2. In case of CnTA(Z) "Number", the CnTA(Z) "Number" is adopted and CnT is invalidated.
3. In case of CnT "Number"/CnTA(Z) "Number", the CnT "Number" and the CnTA(Z) "Number" become independent functions each other.
4. In case of CnT "Number" + CnTA(Z) "Number", the CnT "Number" and the CnTA(Z) "Number" become competing functions each other.
5. In case of CnT "Number" > CnTA(Z) "Number", the function of CnT "Number" supersedes that of CnTA(Z) "Number".
6. In case of CnT "Number" < CnTA(Z) "Number", the function of CnTA(Z) "Number" supersedes that of CnT "Number".

(The "Number" above means ① - ⑦ 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 "(6) 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(Z)) 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 [(17) (c) Remote operation input]
2	Permission/Prohibition	Refer to [(18) Operation permission/prohibition]
3	Cooling/Heating	Refer to [(20) Selection of cooling/heating external input function]
4	Emergency stop	Refer to [(21) 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 [(19) Temporary stop input]
8	Silent mode	Outdoor unit silent mode is activated.

(c) Remote operation input

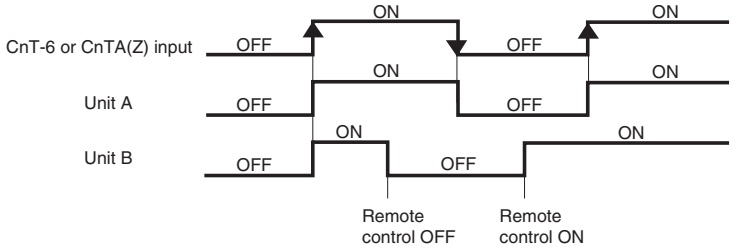
The indoor unit operation can be controlled by external input.

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)

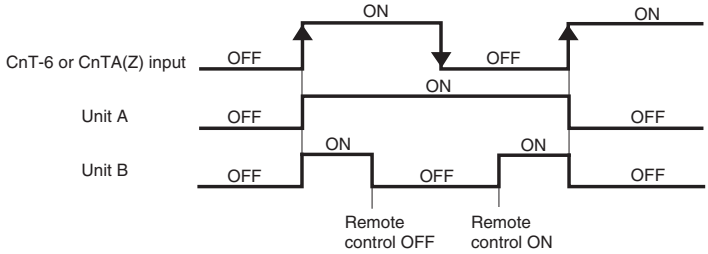
Input signal to CnT-6 or CnTA(Z) is OFF→ON …… unit ON
Input signal to CnT-6 or CnTA(Z) is ON→OFF …… unit OFF
Operation is not inverted.



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(Z) 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.

(18) 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(Z)	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(Z) ON: Operation permission), start/stop operation of the unit from the wired remote control becomes available.

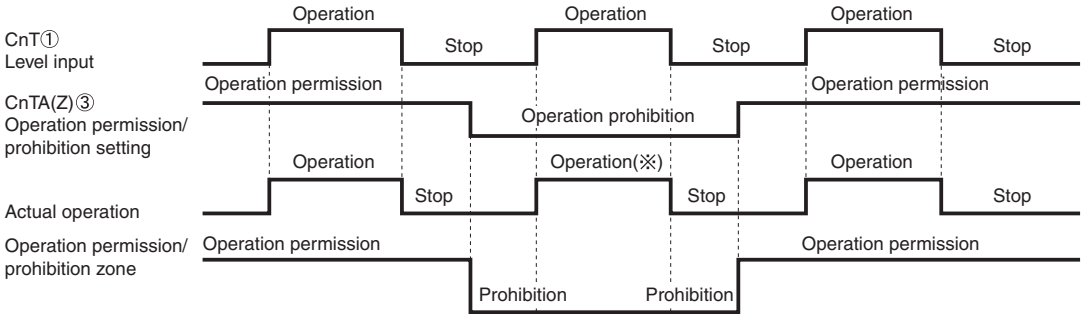
(ii) When card key switch is OFF (CnT-6 or CnTA(Z) OFF: Operation prohibition), the unit stops operation in conjunction with OFF signal, and start/stop operation of the unit from the wired remote control becomes not available.

(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.

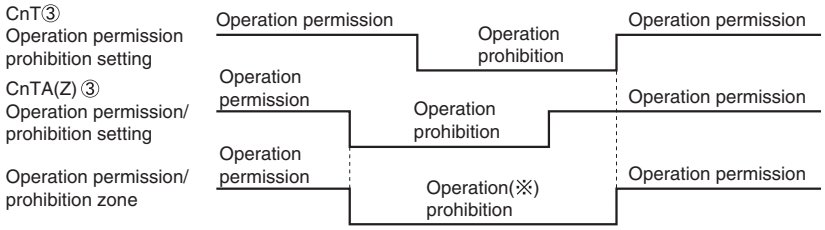
(ii) When card key switch is OFF (Operation prohibition), the unit stops operation in conjunction with OFF signal, and start/stop operation of the unit from the wired remote control becomes not available.

(c) In case of CnT① operation stop level > CnTA(Z) ③ operation permission/prohibition level



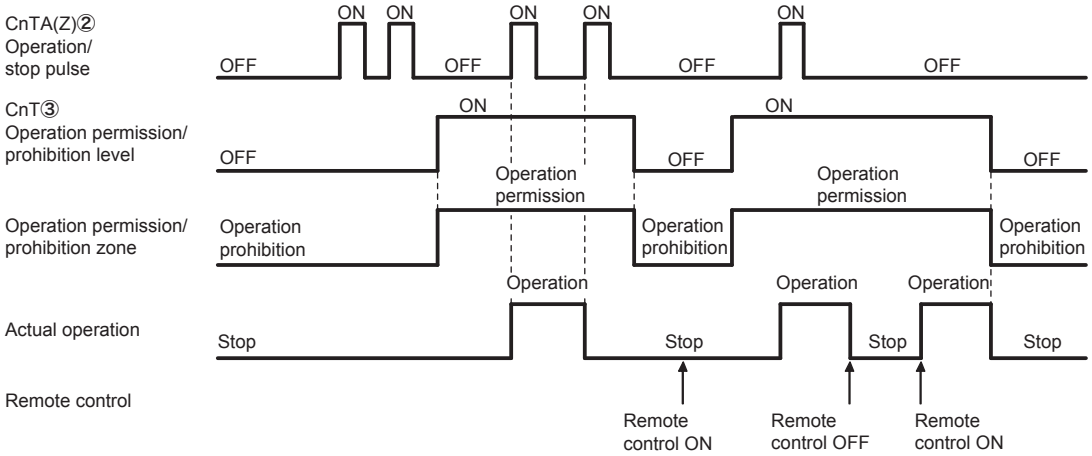
(※) CnT level input supersedes CnTA(Z) operation prohibition.

(d) In case of CnT③ operation permission/prohibition level + CnTA(Z) ③ operation permission/prohibition level



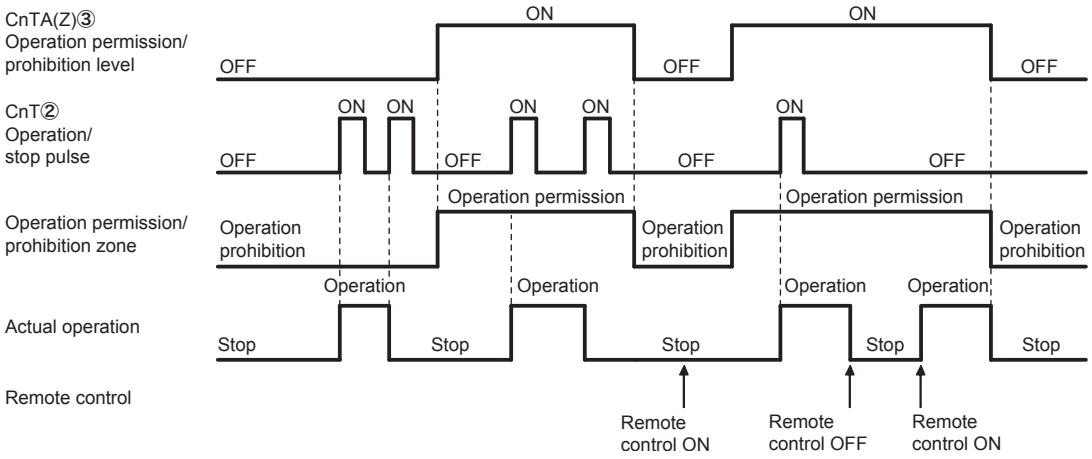
(※) Operation prohibition zone is determined by the OR judgment between CnT operation prohibition zone and CnTA(Z) operation prohibition zone.

(e) In case of CnT ③ operation permission/prohibition level > CnTA(Z) ② operation/stop pulse



Note (1) If it is prohibited by CnT, all "Operation" and "Stop" commands are not accepted.

(f) In case of CnT ② operation/stop pulse + CnTA(Z) ③ operation permission/prohibition level



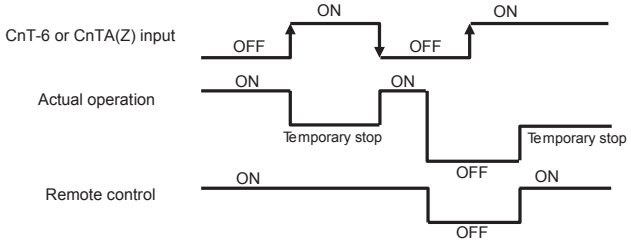
(19) Temporary stop input

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)

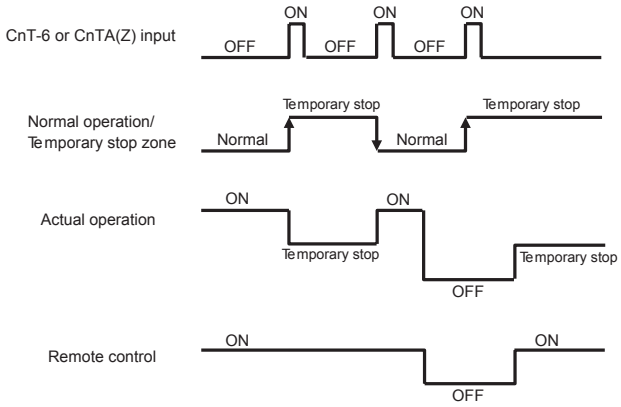
Input signal to CnT-6 or CnTA(Z) is OFF → ON : Temporary stop

Input signal to CnT-6 or CnTA(Z) 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.



(20) 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(Z).

(a) In case of "Level input" setting (Factory default)

- CnT-6 or CnTA(Z): OPEN → Cooling operation mode
- CnT-6 or CnTA(Z): 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(Z))	OFF → ON → OFF → ON Cooling zone / Heating zone / Cooling zone / Heating zone
		Cooling/heating	Cooling → Heating → Cooling → Heating
		Cooling/heating (Competitive)	Cooling → Heating → Cooling → Heating ↑Auto, cooling, dry mode command from remote control ↑Heating, auto, heating mode command from remote control
	Pulse	External input (CnT or CnTA(Z))	OFF → ON → OFF → ON Heating zone / Cooling zone ↑After setting "Cooling/heating selection", the cooling/heating is selected by the current operation mode During heating : Set at the heating zone (cooling prohibition zone). During cooling, dry, auto and fan mode: Set at cooling zone (heating prohibition zone).
		Cooling/heating	Auto → Cooling → Heating → Cooling
		Cooling/heating (Competitive)	Auto → Cooling → Heating → Cooling ↑Set "Cooling/Heating" "Pulse" ↑Auto, cooling, dry mode command by remote control ↑Auto, heating mode command by remote control

(21) 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(Z)	External input 2 : Emergency stop	No function

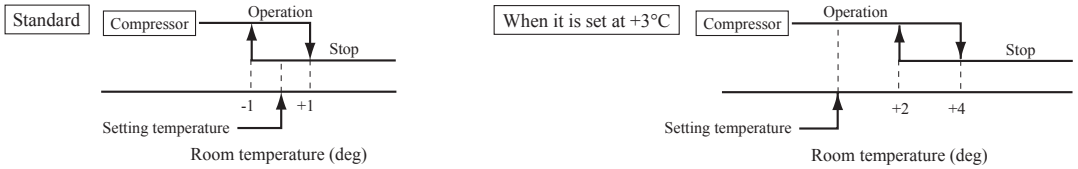
(b) Emergency stop control

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].

(22) 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.



(23) 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.

(24) 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.

(25) 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%.)

(26) 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.

(27) 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.

(28) 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.

(29) 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.

(30) 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.

(31) 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.

(32) 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

(33) 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.

(34) Motion sensor control (RC-EX3A and RCN-E2 only)

The sensor determines the presence of people and the amount of activity, and the following controls are done by the motion sensor.

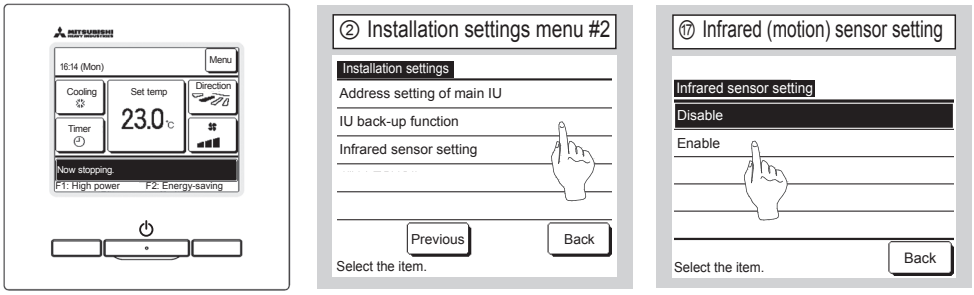
Following settings are necessary to activate motion sensor control.

(a) Infrared (motion) sensor setting: Installation setting of remote control
The indoor unit which is set to "Enable" become valid.

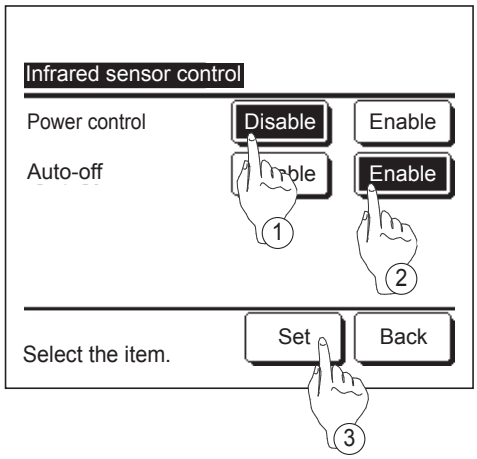
(b) Infrared (motion) sensor control: Energy-saving setting of remote control
The function which is set to "Enable" become valid.

RC-EX3A

TOP screen **Menu** ⇨ **Service setting** ⇨ **Installation settings** ⇨ **Service password**



TOP screen **Menu** ⇨ **Energy-saving setting** ⇨ **Infrared sensor control** or **Motion sensor control**



The Infrared sensor control screen and contents of the current settings are displayed.

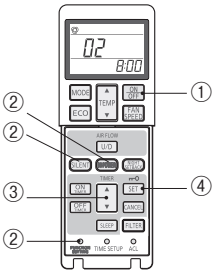
① Enable/disable power control.

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.

RCN-E2

1. 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.



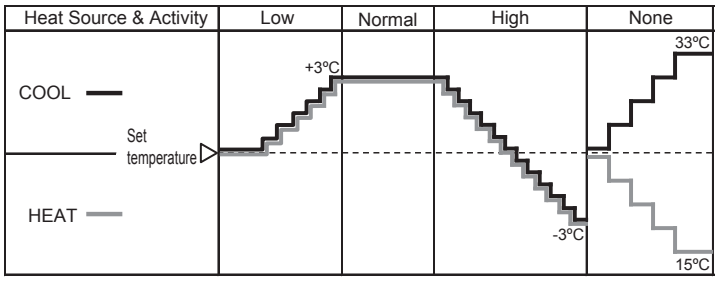
2. Setting details

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

(i) Power 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.

10. SYSTEM TROUBLESHOOTING PROCEDURE

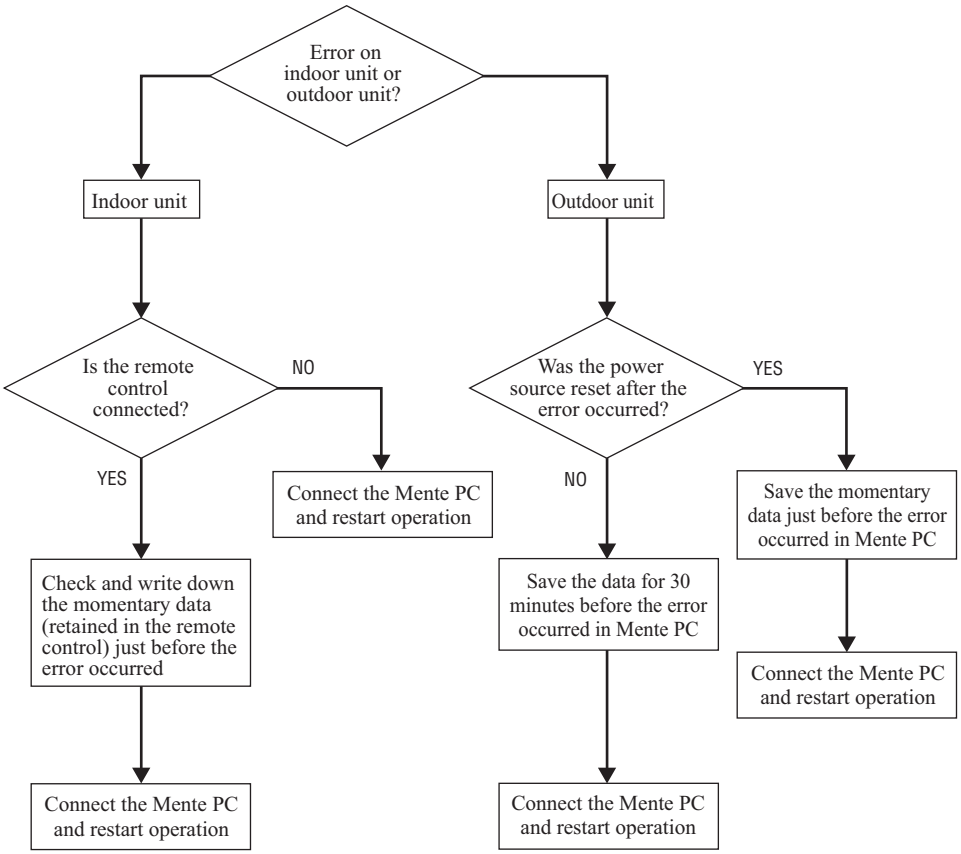
10.1 Basics of troubleshooting

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 rudimentary 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.)

10.2 Contents of troubleshooting

(1) List of inspection displays

Remote control error code	7-segment display	Name of inspection	Classification	Page
None		Operates but does not cool	System error	129
None		Operates but does not heat	System error	130
None		Excessive noise/vibration (1/3)	Improper installation work	131
None		Excessive noise/vibration (2/3)	Unit error	132
None		Excessive noise/vibration (3/3)	Unit error	133
None		Power source system anomaly (Power source to indoor unit PCB)	Wrong connection	134·135
None		Power source system anomaly (Power source to reomote control)	Wire breakage/short-circuit	136·137
WAIT		WAIT /Searching IU (1)	System error	138
WAIT		WAIT (2)	System error	139
WAIT		WAIT (3)	System error	140
[No display]		[No display]	System error	141
E1		Remote control communication error	Communication error	142
E2		Duplicated indoor unit address	Address setting error	143
E3		Outdoor unit signal line error	Address pairing setting error	144
E5		Communication error during operation	Communication error	145
E6		Indoor unit heat exchanger temperature sensor anomaly (Thi-R)	Sensor wire breakage	146
E7		Indoor return air temperature sensor anomaly (Thi-A)	Sensor wire breakage	147
E9		Drain trouble	System error	148
E10		Excessive number of indoor units (more than 17 units) by controlling one remote control	Communication error	149
E11		Address setting error between master and slave indoor units	Address setting error	150
E12		Address setting error by mixed setting method	Address setting error	151
E16		Indoor DC fan motor anomaly	DC fan motor error	152
E19		Indoor unit operation check, drain pump motor check mode anomaly	Setting error	153
E20		Indoor DC fan motor rotation speed anomaly	DC fan motor error	154
E28		Remote control temperature sensor anomaly (Thc)	Sensor wire breakage	155
E63	E63	Emergency stop	Site setting error	156

(2) Troubleshooting

Error code	LED	Green	Red	Content
Remote control: None 7-segment display:	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 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 differnce between return and suction air 10-20ºC at cooling? — YES → Does the heat load increase after installtion? — 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 installtion? — 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 differnce between return and suction air 10-20ºC at cooling? — NO → Is the compressor operating? — NO → "WAIT" message is displayed [for 3 seconds] when performing cooling, defumidifying 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, defumidifying 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 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 determing compressor rotation speed · Protective control by controlling compressor rotation speed Which control is appropriate to this phenomenon	Check suspicious points considering appropriate operation control.
Is the operating conditions of indoor/outdoor unit under rated condition? — YES →	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 (1) Outdoor: 35ºC
Indoor : 27ºCDB/19ºCWB

Note:

Error code	LED	Green	Red	Content
Remote control: None 7-segment display:	Indoor	Keeps flashing	Stays Off	Operates but does not heat
	Outdoor	Keeps flashing	Stays Off	

1. Applicable model

All models

2. Error detection method

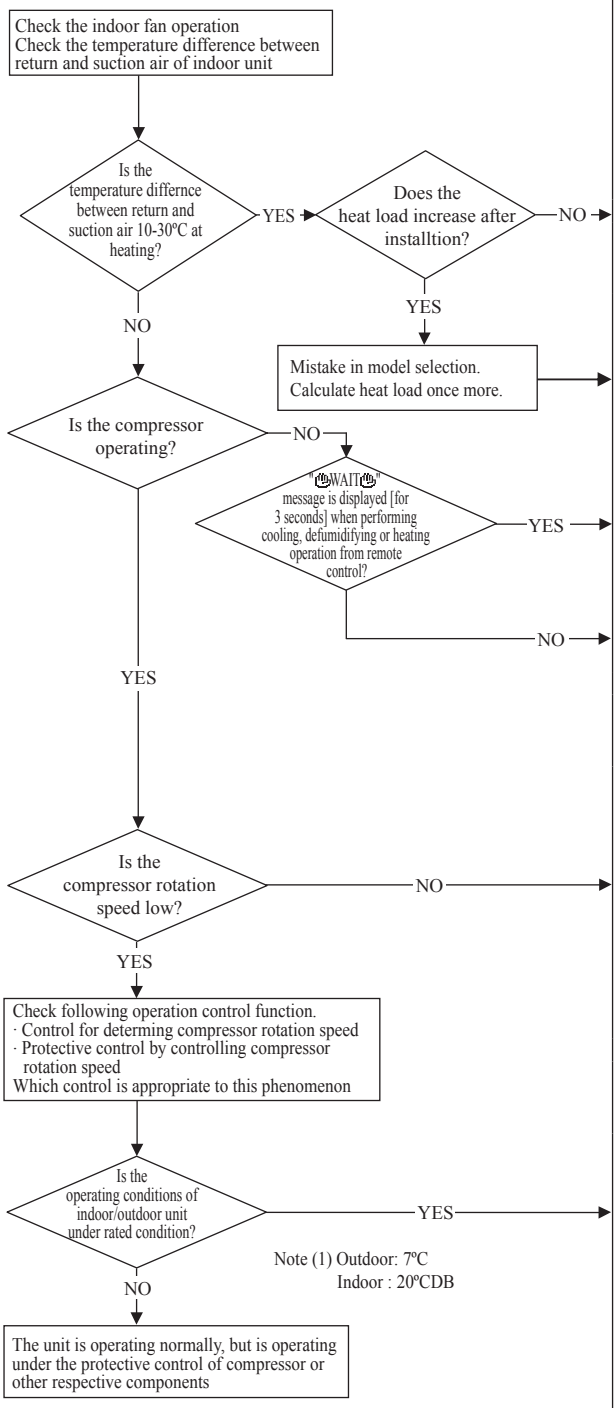
3. Condition of error displayed

4. Presumable cause

- 4-way valve anomaly
- Poor compression of compressor
- Expansion valve anomaly

5. Troubleshooting

Diagnosis	Countermeasure



Countermeasure
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.)
It is necessary to replace to higher capacity unit or to install additional unit.
Compressor refrigerant oil protective control at starting is activated. For the contents of control, refer to the compressor start control.
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.
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
Check suspicious points considering appropriate operation control.
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

Note:

Error code	LED	Green	Red	Content
Remote control: None 7-segment display:	Indoor	–	–	Excessive noise/vibration (1/3)
	Outdoor	–	–	

1. Applicable model

All models

2. Error detection method

3. Condition of error displayed

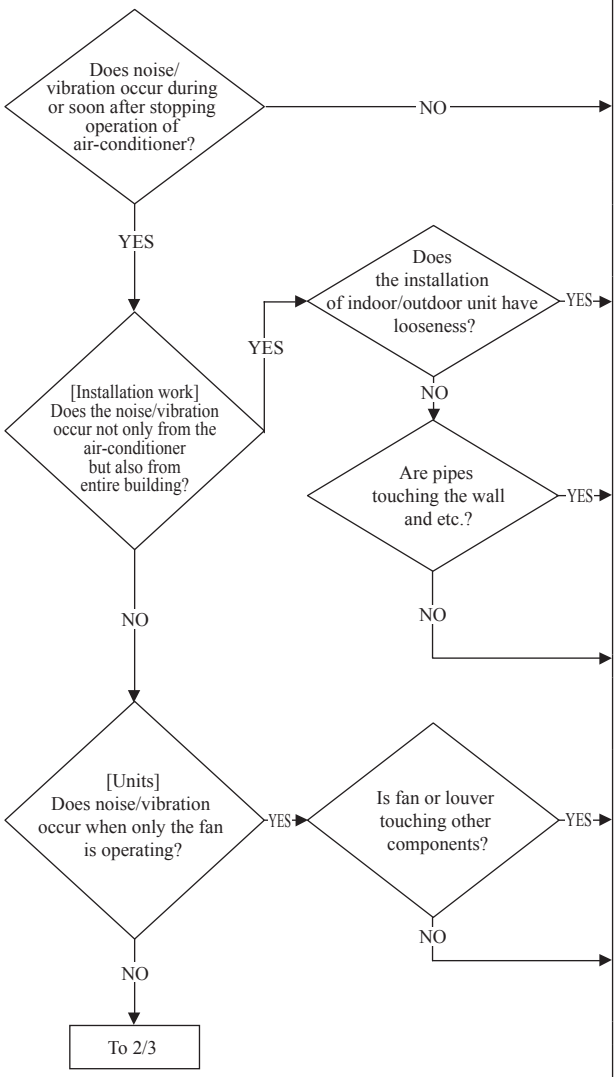
4. Presumable cause

① Improper installation work
- Improper vibration-proof work at instllation
- 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 th eheat 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 7-segment display:	Indoor	–	–	Excessive noise/vibration (2/3)
	Outdoor	–	–	

1. Applicable model

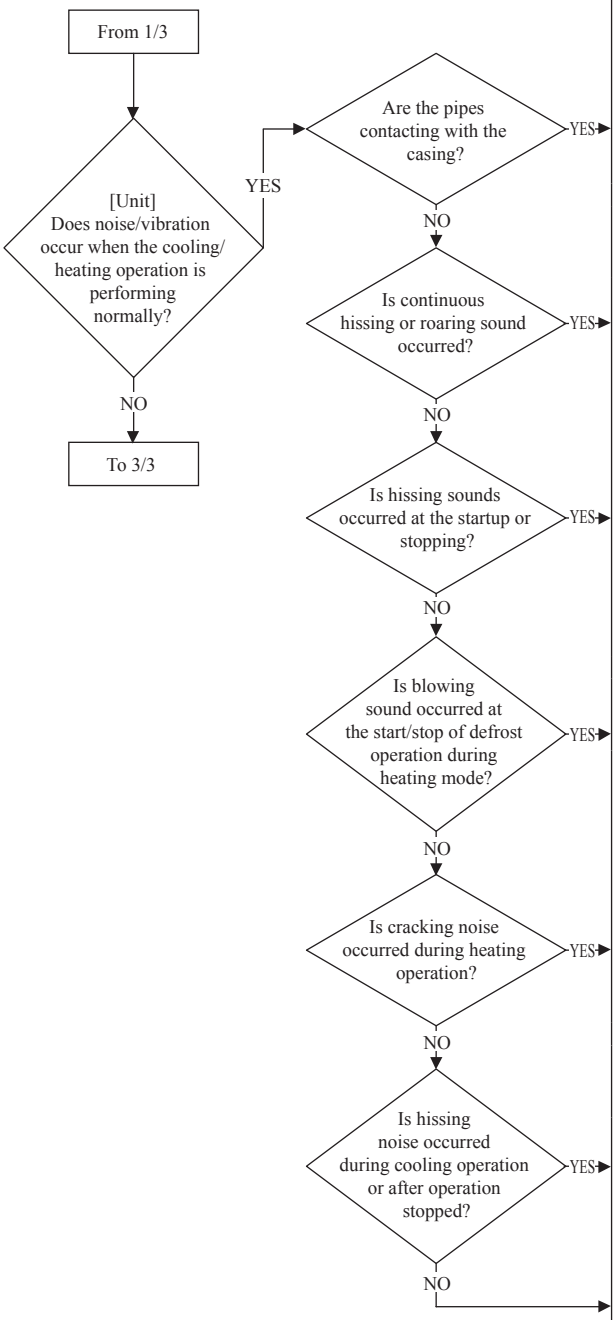
All models

2. Error detection method

3. Condition of error displayed

4. Presumable cause

5. Troubleshooting

Diagnosis	Countermeasure
	

Rearrange the piping to avoid contact with the casing.

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.

The noise/vibration occurs when the refrigerant starts or stops flowing. It is normal.

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 wich produces a blowing sound. It may also accompany the hissing sound as mentioned above. This is normal.

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.

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.

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 7-segment display:	Indoor	–	–	Excessive noise/vibration (3/3)
	Outdoor	–	–	

1. Applicable model

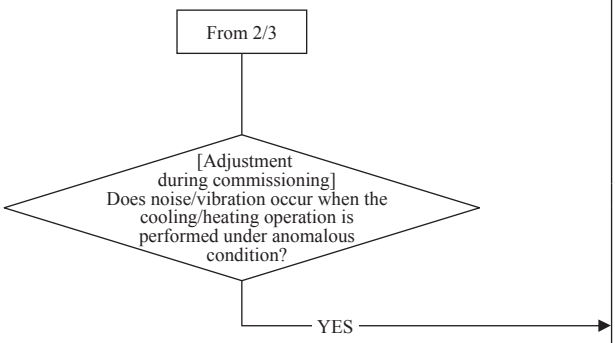
All models

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	Stays OFF	Stays OFF	Power source system anomaly (Power source to indoor unit PCB)
	Outdoor	Stays OFF	2-time flash	

1. Applicable model

Except FDUT15-56KXE6F-W

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

Diagnosis	Countermeasure
Is AC 220-240V detected between L-N on the outdoor terminal block? → NO → Is AC 380/415V for 3-phase unit detected between L1, L2, and L3 on the outdoor terminal block respectively?	
NO →	Outdoor noise filter PCB anomaly → Replace it.
YES →	Wrong wiring or broken wires between outdoor and indoor units
YES → Note (1) Check the fuse at the power source side.	
(1) Are fuses OK? → NO →	
(2) Is power source between①-③ of CNW0 OK?	
NO →	Indoor unit control PCB or power PCB anomaly → Replace it.
YES → Note (2) Disconnect CNW1 on models equipped with transformer.	
(3) Is power source to FM and etc. OK?	
YES →	Replace FM and etc.
NO →	Replace fuse.
Note (3) FM: Fan motor	
YES → (4) Is DC5V detected between ④-⑤ of CNW2?	
NO →	Indoor unit power PCB anomaly → Replace it.
Note (4) ⑤ for GND	
YES →	Indoor unit control PCB anomaly → Replace it.

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

FDUT15-56KXE6F-W 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 power PCB anomaly
- Broken harness
- Indoor unit control PCB anomaly

5. Troubleshooting

Diagnosis	Countermeasure
Is AC 220-240V detected between L-N on the outdoor terminal block? — NO → Is AC 380/415V for 3-phase unit detected between L1, L2, and L3 on the outdoor terminal block respectively?	
NO →	Outdoor noise filter PCB anomaly → Replace it.
YES →	Wrong wiring or broken wires between outdoor and indoor units
YES → Note (1) Check the fuse at the power source side. (1) Are fuses OK?	
NO → (2) Is power source between①-③ of CNW0 OK?	
NO →	Indoor unit control PCB or power PCB anomaly → Replace it.
YES → Note (2) Disconnect CNW1 on models equipped with transformer. (3) Is power source to FM and etc. OK?	
YES →	Replace FM and etc.
NO →	Replace fuse.
Note (3) FM: Fan motor	
YES → Is DC18V or higher detected between Red-Red (CNW2) at the transformer secondary side?	
NO →	Replace transformer.
YES →	Indoor unit control PCB anomaly → Replace it.

Note:

Error code	LED	Green	Red	Content
Remote control: None	Indoor	Keeps lighting	Stays OFF	Power source system anomaly (Power source to remote control)
	Outdoor	Keeps lighting	2-time flash	

1. Applicable model

Except FDUT15-56KXE6F-W

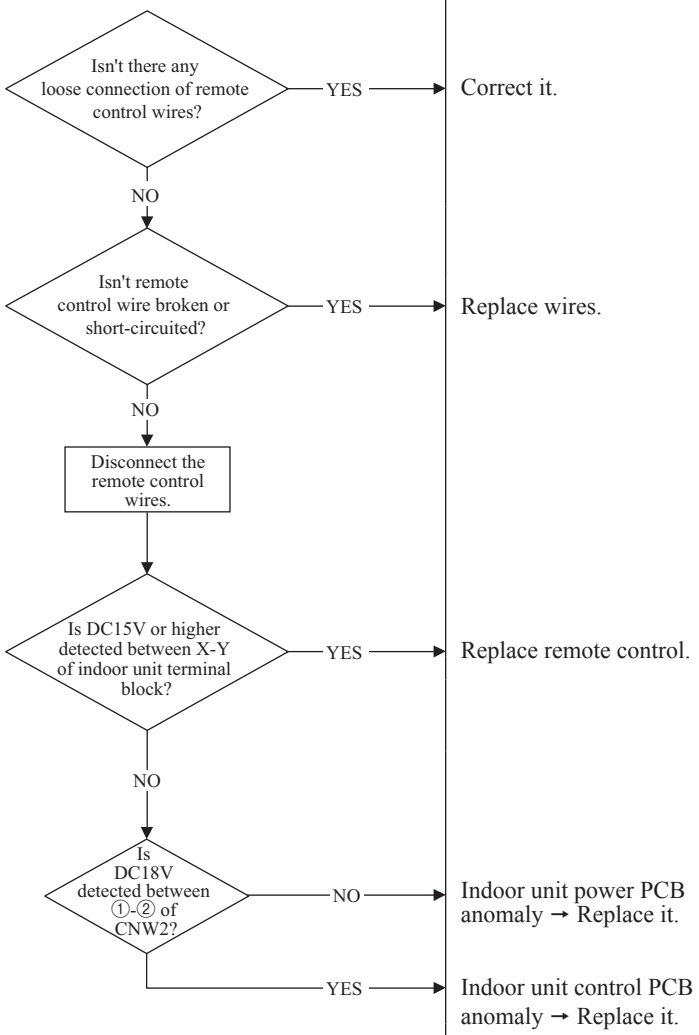
2. Error detection method

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: None	Indoor	Keeps lighting	Stays OFF	Power source system anomaly (Power source to remote control)
	Outdoor	Keeps lighting	2-time flash	

1. Applicable model

FDUT15-56KXE6F-W only

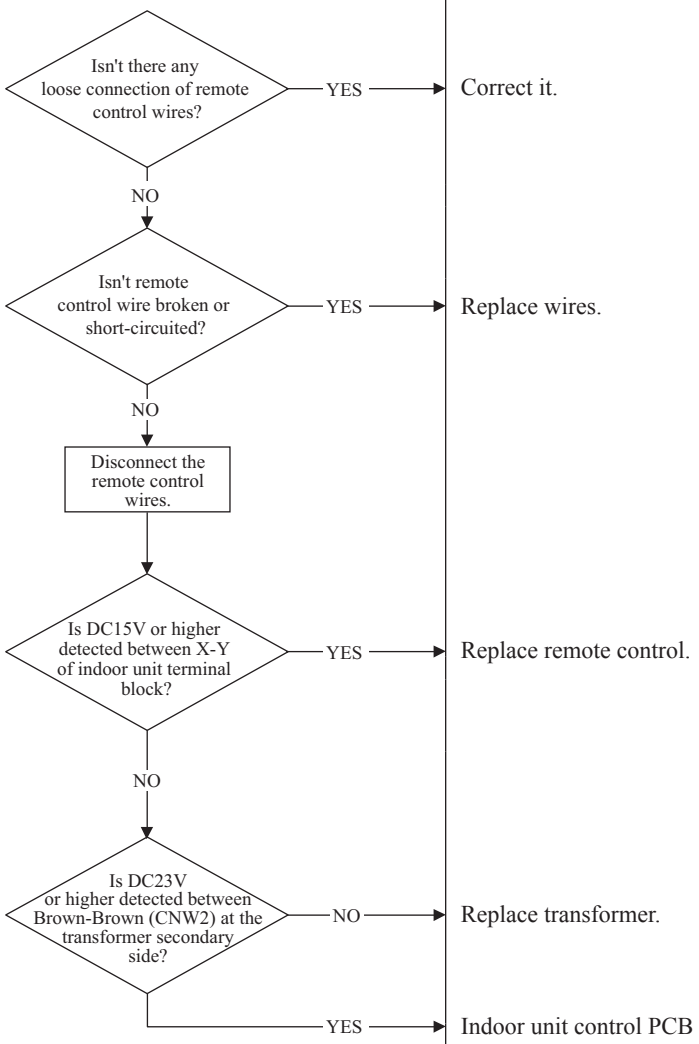
2. Error detection method

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 /Searching IU 7-segment display:	Indoor	Keeps flashing	Stays Off	WAIT /Searching IU (1)
	Outdoor			

1. Applicable model

Remote control and indoor units

(In case that WAIT /Searching IU is kept on displaying on the remote control for more than 2 minutes after power ON)

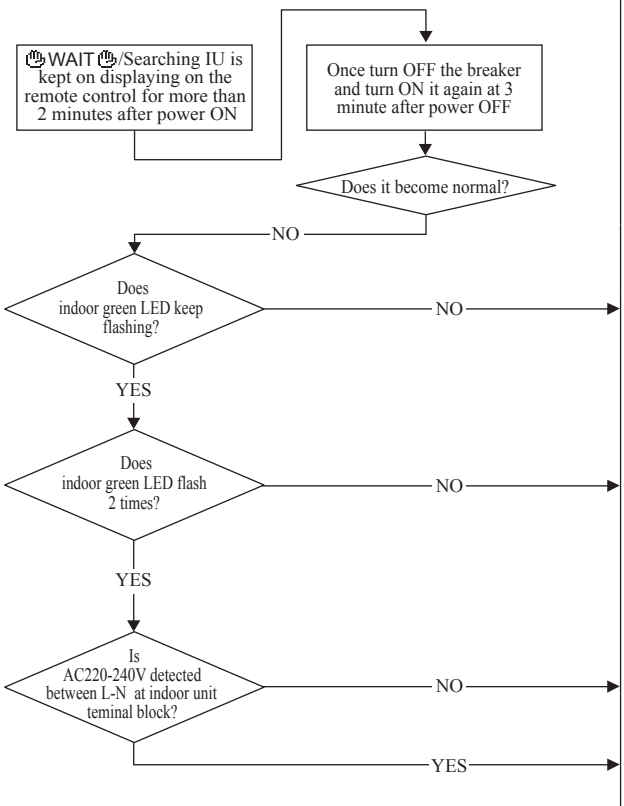
2. Error detection method

3. Condition of error displayed

4. Presumable cause

- Fuse blown
- Anomalous connection of wire between PCBs
- Indoor unit control PCB anomaly
- Remote control anomaly
- Breakage of connecting wires of remote control

5. Troubleshooting



Note: (1) When anomaly occurs during establishing communication betweeen indoor and outdoor unit, error code E5 is displayed (outdoor red LED flash 2-time)
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 /Searching IU is displayed on remote control. If power ON/OFF is repeated in a short period (within 1 minute), WAIT /Searching IU may be displayed. In such case, please wait for 3 minute after the power breaker OFF.

(2) If any error is detected 30 minutes (10 minutes in case of eco touch) after displaying " WAIT " /Searching IU on the remote control, the display changes to "INSPECT I/U".

Error code	LED	Green	Red	Content
Remote control: WAIT 7-segment display:	Indoor	Keeps flashing	Stays OFF	WAIT (2)
	Outdoor	Keeps flashing	Keeps flashing	

1. Applicable model

All models

(No display on the remote control after power ON.)

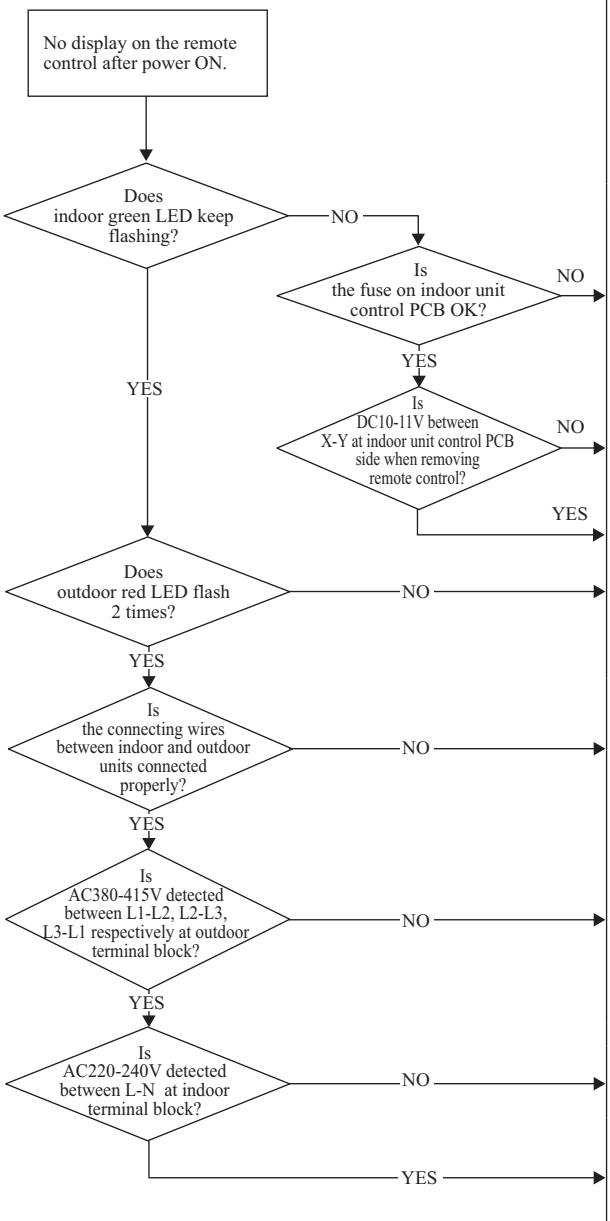
2. Error detection method

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 7-segment display:	Indoor	Keeps flashing	Stays OFF	WAIT (3)
	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.)

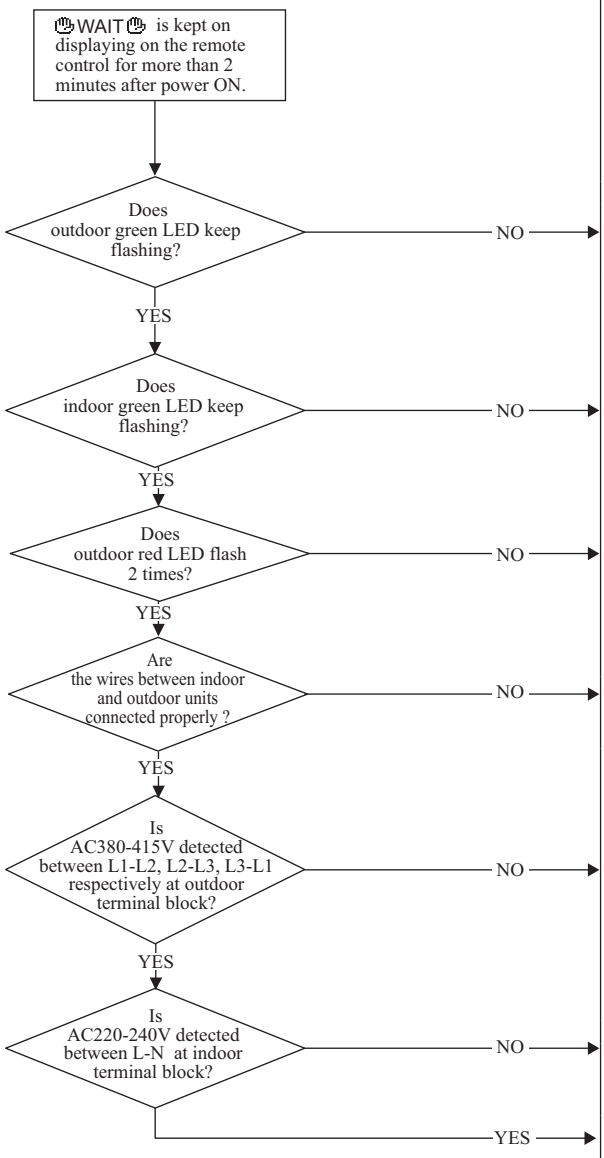
2. Error detection method

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: 〔No display〕 7-segment display:	Indoor	Stays OFF	Stays Off	[No display]
	Outdoor	Stays OFF	Stays Off	

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 control PCB anomaly
- Remote control anomaly
- Breakage of connecting wires of remote control
- Outdoor unit control PCB anomaly

5.Troubleshooting

Diagnosis	Countermeasure
No display on the remote control after power ON → Is DC10V or higher between X-Y detected at remote control terminal?	
NO →	Remote control anomaly.
YES → Is DC10V or higher between X-Y wires detected when removing remote control?	
NO →	Remote control anomaly.
YES → Are connecting wires between indoor and outdoor units connected properly?	
NO →	Correct connecting wire.
YES →	Indoor unit control PCB anomaly

Note:

Error code	LED	Green	Red	Content
Remote control: E1 7-segment display:	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 is interrupted for more than 2 minutes between the remote control and the indoor unit (Detectable only with the remote control)

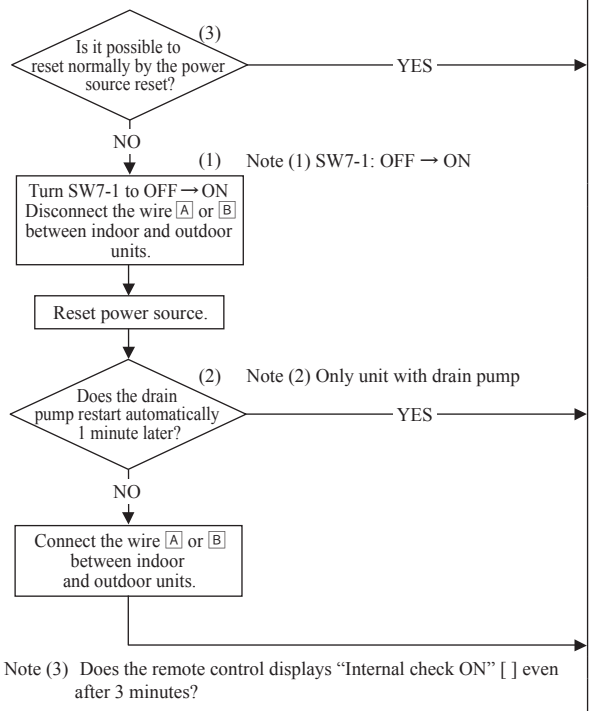
3. Condition of error displayed

Same as above

4. Presumable cause

- Defective communication circuit between remote control and indoor unit
- Noise

5. Troubleshooting

Diagnosis	Countermeasure
	

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 7-segment display:	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 control PCB anomaly

5. Troubleshooting

Diagnosis	Countermeasure
Is the number of connected indoor units up to 128 units? — NO →	Review number of connected units.
YES ↓	
Is the different address No. assigned to each indoor unit? — NO →	Correct indoor unit address setting.
YES ↓	
Reset the power source and restart.	
Caution: Unless the power source is reset, addresses will not be confirmed.	
Is E2 displayed? — NO →	Implement test run.
YES →	Replace indoor unit control PCB. * * Before replacement, confirm whether the rotary switch for address setting is not damaged. (It was experienced that No. 5 on rotary switch was not recognized.)

Note:

Error code	LED	Green	Red	Content
Remote control: E3/5 7-segment display:	Indoor	Keeps flashing	2 times 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

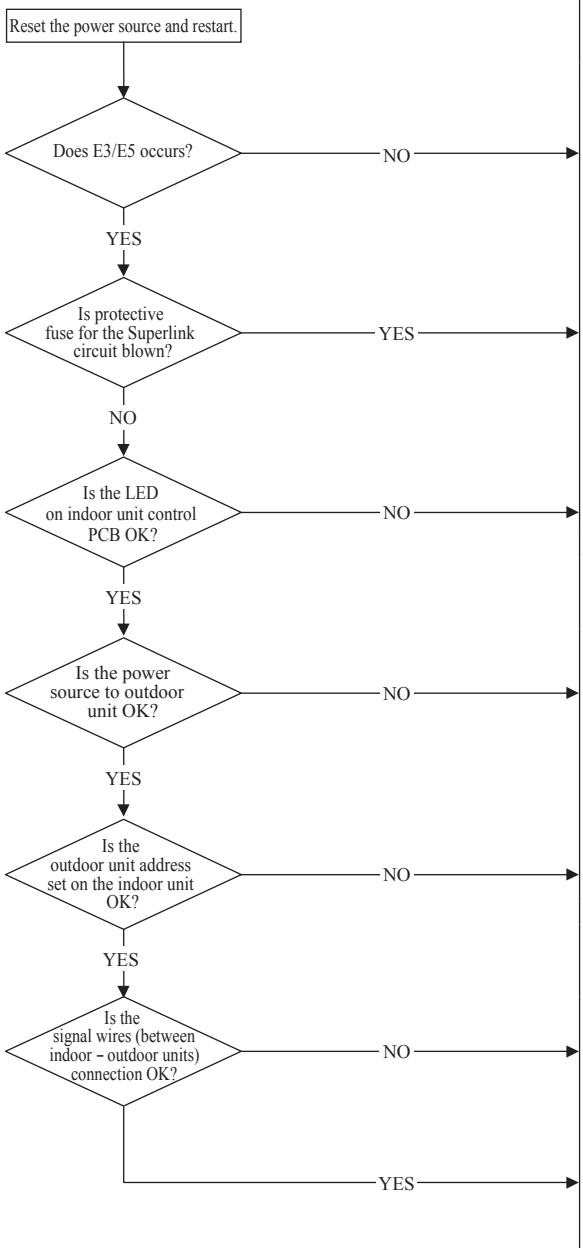
Same as above

4. Presumable cause

- Power is not supplied to the outdoor unit
- Unmatch of pairing between indoor and outdoor units
- Indoor unit control PCB anomaly
- Outdoor unit control PCB anomaly
- Missing local wiring

5. Troubleshooting

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 wires (between indoor-outdoor units) locally.



Note:

Error code	LED	Green	Red	Content
Remote control: E5 7-segment display:	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 interupted 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 control PCB anomaly

5. Troubleshooting

Diagnosis	Countermeasure
* In case that indoor unit red LED flashes 2 times	
Note (1) Check the connection (disconnection, looseness) of signal wires at outdoor unit 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, brakage) 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☗/Searching IU (1).
YES →	Unit is normal. (Malfunction by temporary noise, etc.)
* In case that indoor unit red LED stays OFF	
Reset the power source and restart. ↓ Does the remote control LCD becomes normal? — NO →	Outdoor unit control PCB anomaly (Network communicaion 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 7-segment display:	Indoor	Keeps flashing	1-time flash	Indoor unit 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

- When disconnection is detected continuously for 5 seconds, or short circuit is detected continuously for 5 seconds.

4. Presumable cause

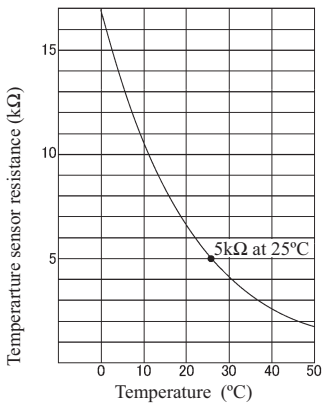
- Anomalous connection of indoor unit heat exchanger temperature sensor
- Indoor unit heat exchanger temperature sensor anomaly
- Indoor unit PCB anomaly

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 unit heat exchanger temperature sensor (Thi-R1, R2, R3)



Note:

Error code	LED	Green	Red	Content
Remote control: E7 7-segment display:	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

- When disconnection is detected continuously for 5 seconds, or short circuit is detected continuously for 5 seconds.

4. Presumable cause

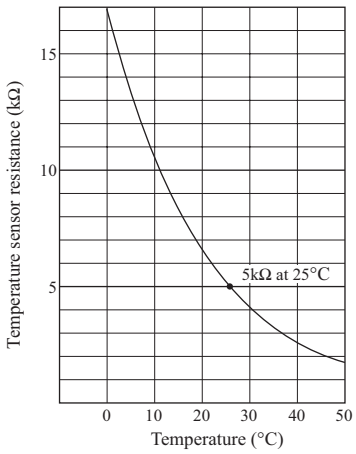
- Anomalous connection of indoor return air temperature sensor
- Indoor return air temperature sensor anomaly
- Indoor unit PCB anomaly

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 7-segment display:	Indoor	Keeps flashing	1 time flash	Drain trouble
	Outdoor	Keeps flashing	Stays Off	

1. Applicable model

All models

2. Error detection method

Float switch is activated

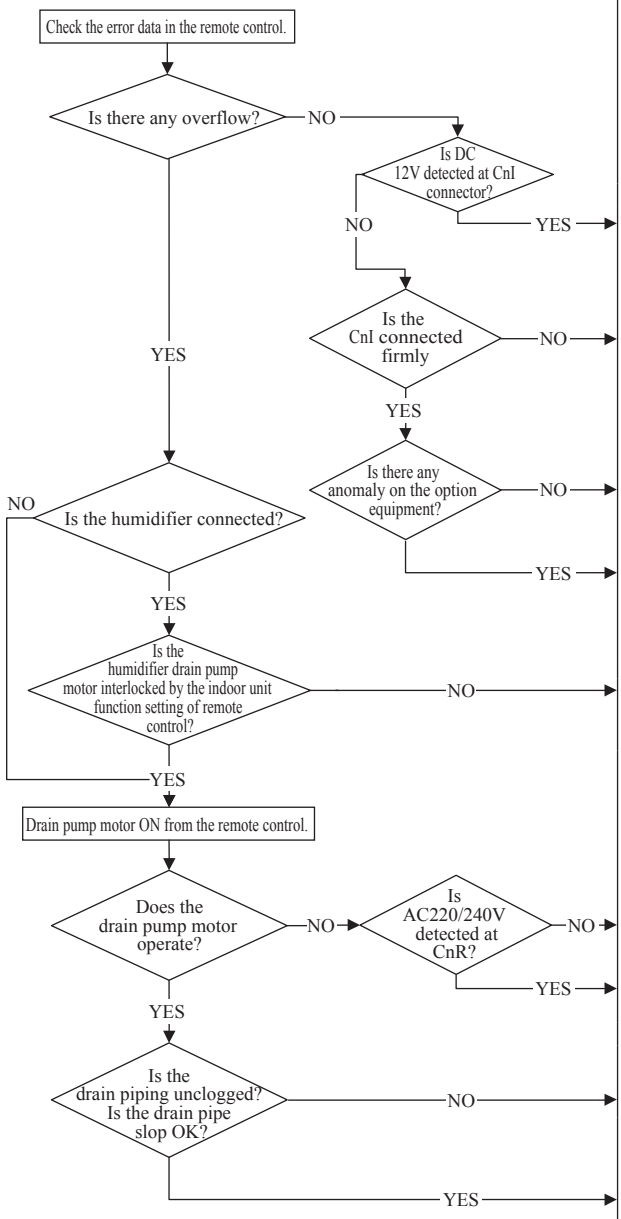
3. Condition of error displayed

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 control 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 7-segment display:	Indoor	Keeps flashing	Stays Off	Excessive number of indoor units (more than 17 units) by controlling one remoto 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 contorl

3. Condition of error displayed

Same as above

4. Presumable cause

- Excessive number of indoor units connected.
- Remote control anomaly.

5.Troubleshooting

Diagnosis	Countermeasure
Aren't more than 17 indoor units connected to one remote control? → NO	Remote control anomaly → Replace it.
Aren't 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 7-segment display:	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.

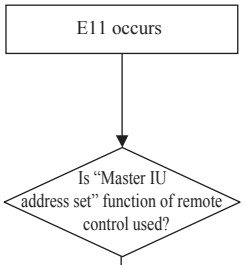
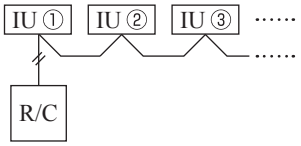
3. Condition of error displayed

Same as above

4. Presumable cause

Same as above

5. Troubleshooting

Diagnosis	Countermeasure
 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 7-segment display:	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. Switch	Outdoor unit No. Switch	Outdoor unit No. Switch	Indoor unit No. Switch	Outdoor unit No. Switch	Outdoor unit No. Switch
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) / (Previous SL)	000	49	49	49	49	49
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

Except FDUT15-56KXE6F-W

2. Error detection method

Detected by rotation speed of indoor fan motor

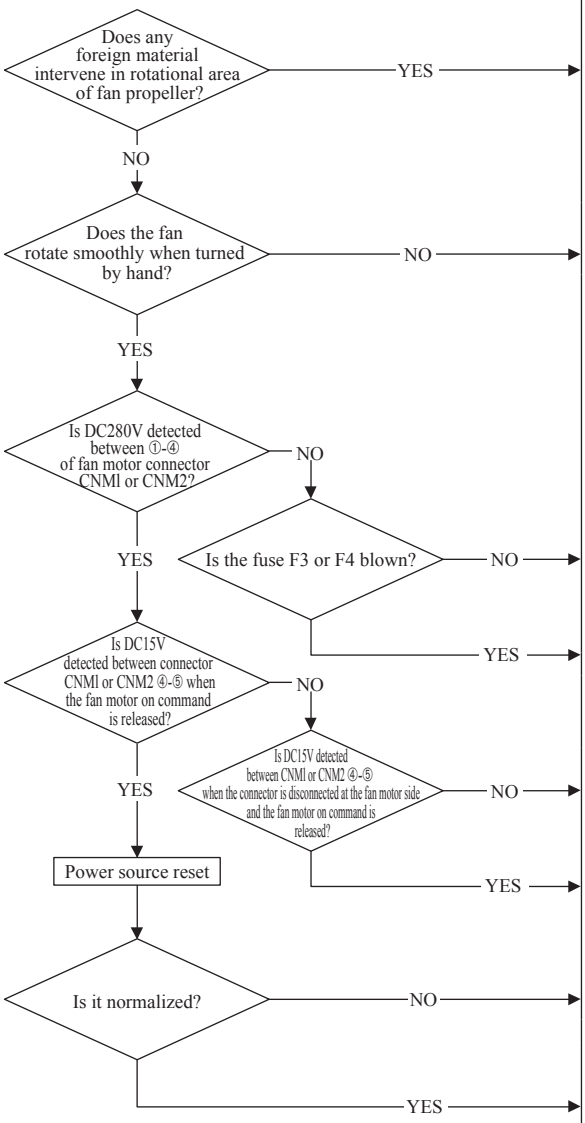
3. Condition of error displayed

- 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: E19 7-segment display:	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

When communication between the indoor unit and outdoor unit is restored in the operation check mode

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 unit operation check)

5.Troubleshooting

Diagnosis	Countermeasure
E19 occurs when the power ON → Is SW7-1 on the indoor unit control PCB ON?	
NO →	Indoor unit control PCB anomaly (Anomalous SW7) → Replace.
YES →	Turn SW7-1 on the indoor unit control PCB OFF and reset the power.

Note: Indoor unit operation check/drain pump check mode
If the power is ON after SW7-1ON. indoor unit operation check/drain pump check mode can be established.
1) When the communication between remote control and indoor unit PCB is established 15 seconds after power ON, it goes to indoor unit operation check.
2) When the communication between remote control and indoor unit PCB is not established, it goes to drain pump check (CnB connector should be open before power ON)

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 FDUT15-56KXE6F-W

2. Error detection method

Detected by rotation speed of indoor fan motor

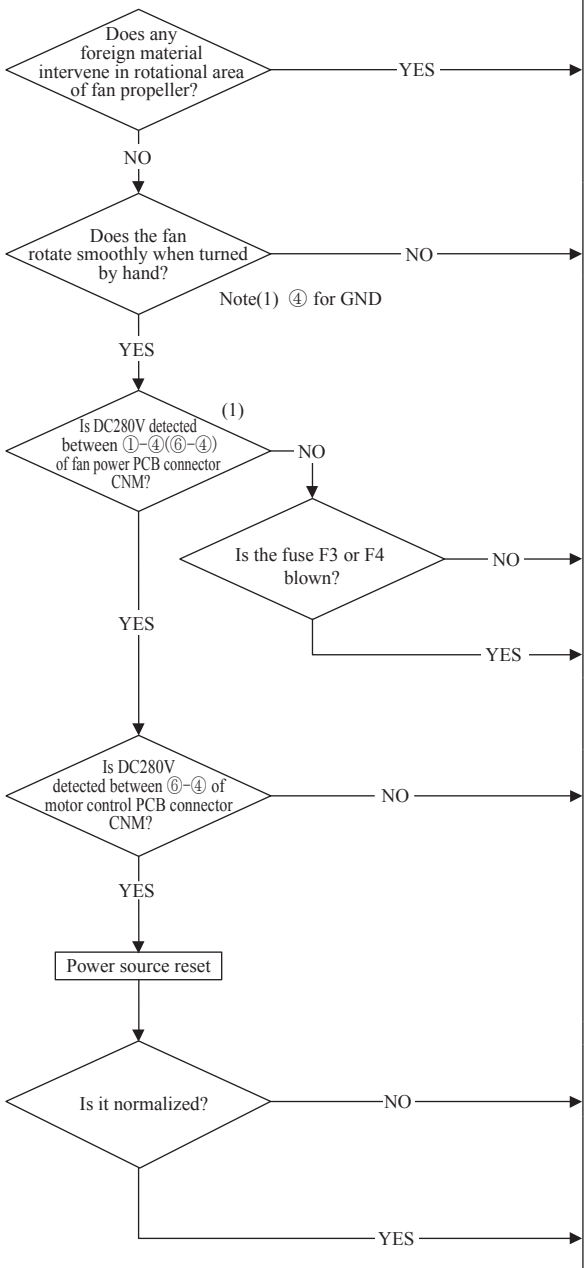
3. Condition of Error displayed

- 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: E28 7-segment display:	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 control 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"

10.3 Instruction of how to replace PCB

(1) Control PCB

(a) FDU, FDUM, FDUT71 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.

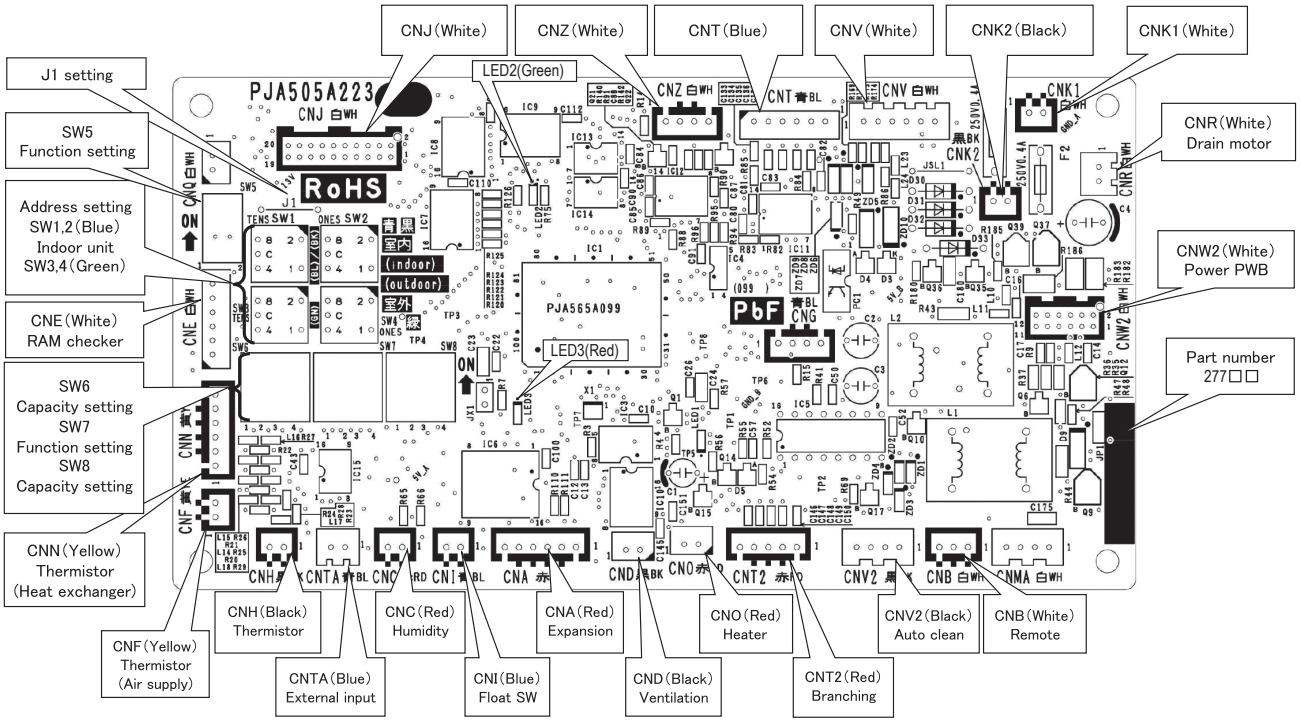
Setting model	SW6				SW8	J1
	-1	-2	-3	-4	-1	
15	OFF	OFF	OFF	OFF	ON	OPEN
22	OFF	OFF	OFF	OFF	OFF	OPEN
28	ON	OFF	OFF	OFF	OFF	OPEN
36	OFF	ON	OFF	OFF	OFF	OPEN
45	OFF	OFF	ON	OFF	OFF	OPEN

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
112	ON	ON	OFF	ON	OFF	OPEN
140	OFF	OFF	ON	ON	OFF	OPEN
160	ON	OFF	ON	ON	OFF	OPEN

Example setting for 56

3) Replace the PCB
   1. Exchange PCB after detaching all connectors connected with the PCB.
   2. Fix the PCB so as not to pinch the wirings.
   3. Connect connectors to the PCB. Match the wiring connector to the connector color on the PCB and connect it.
   4. Match the setting switches (include "J1") with the former PCB.

4) Control PCB
   Parts mounting are different by the kind of PCB.



PSB012D975M

(b) FDUT15-56 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 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.

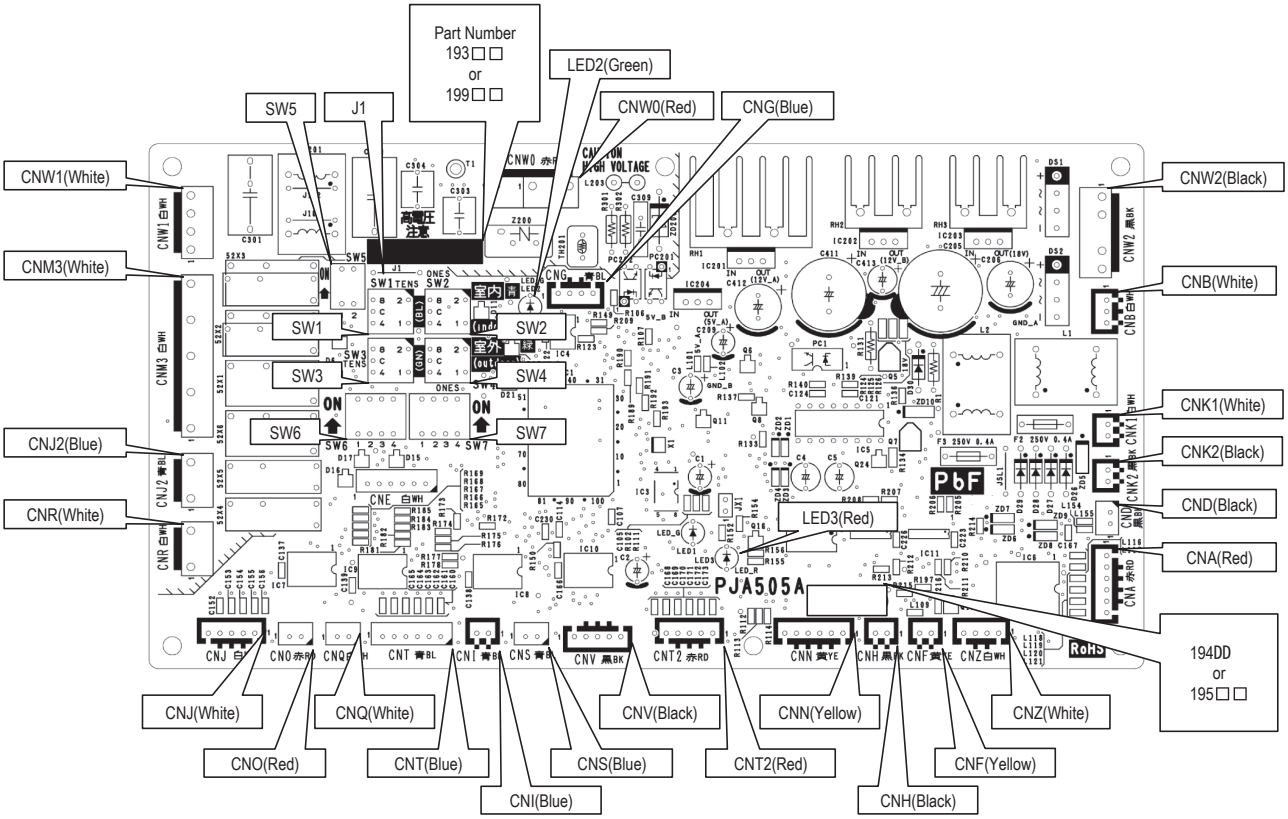
This PCB is a general PCB. Replace the PCB according to this instruction.

①Replace the PCB

1. Replace the PCB only after all the wirings connected to the connector are removed.
2. Fix the board such that it will not pinch any of the wires.
3. Switch setting must be same setting as that of the removed PCB.
4. Reconnect the wirings to the PCB. Wiring connector color should match with the color of connector of the PCB.

②Control PCB

Parts mounting are different by the kind of PCB.



(2) Power PCB

(a) FDU45-160 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.

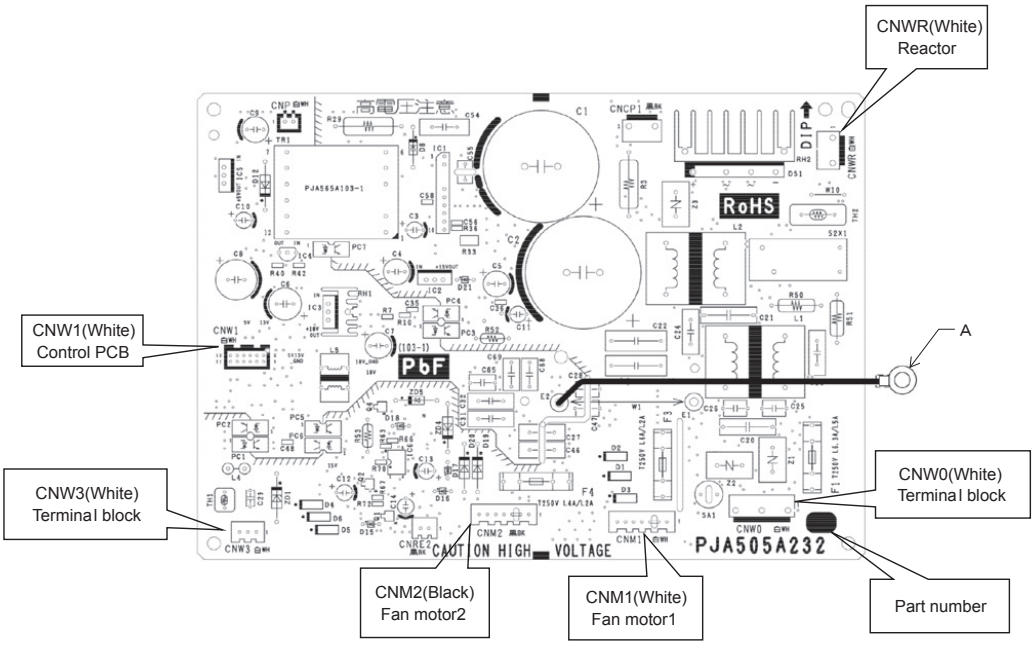
⚠ CAUTION

- 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.



(b) FDUM22-56, FDUT71 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.

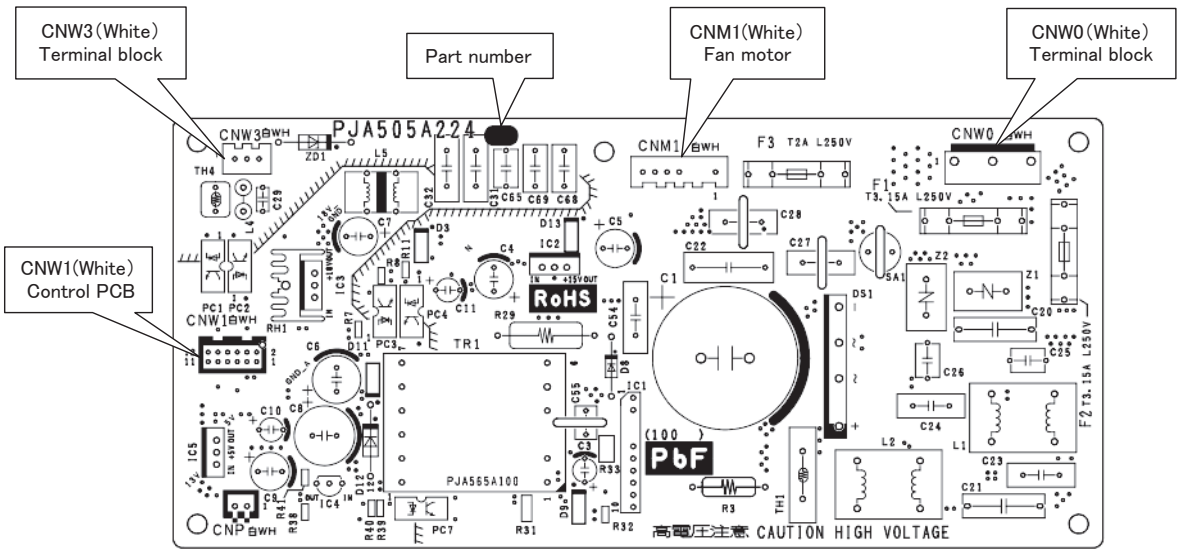
⚠ CAUTION

- 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.



(c) 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.

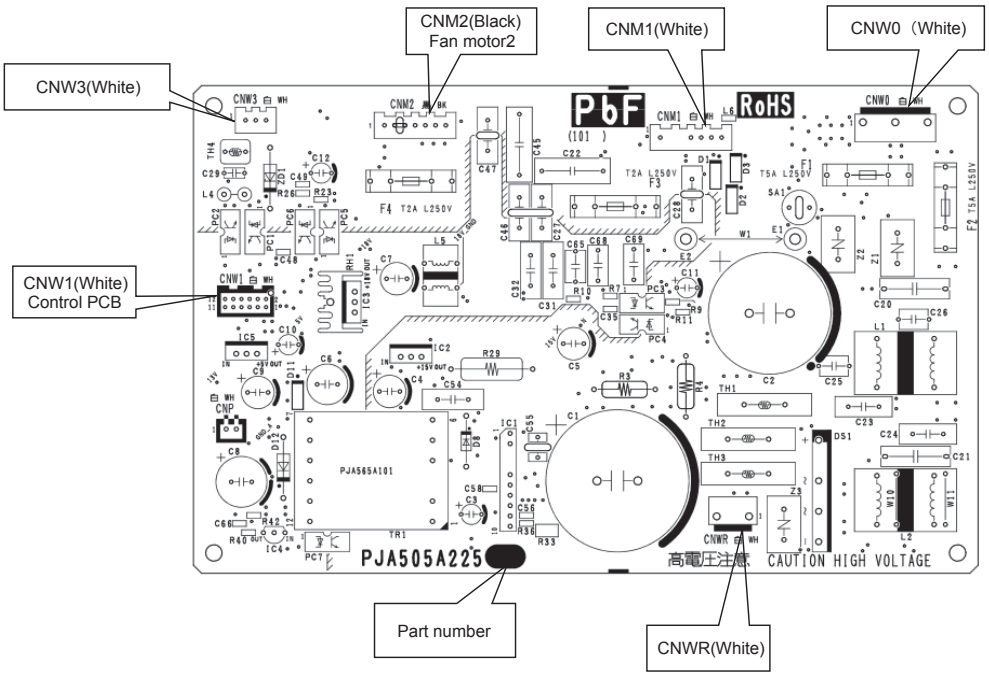
⚠ CAUTION

- 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.



10.4 Indoor PCB setting

(1) FDU, FDUM, FDUT71 series

Code	Input		Default setting		Remark
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

(2) FDUT15-56 series

Code	Input		Default setting		Remark
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 J1	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 J1

	P15	P22	P28	P36	P45	P56
SW6-1	OFF	OFF	ON	OFF	OFF	OFF
SW6-2	OFF	OFF	OFF	ON	OFF	ON
SW6-3	OFF	OFF	OFF	OFF	ON	ON
SW6-4	OFF	OFF	OFF	OFF	OFF	OFF
J1	OPEN	SHORT	SHORT	SHORT	SHORT	SHORT

11. INDOOR UNIT DISASSEMBLY PROCEDURE

PJG012D019

(1) FDU, FDUM series

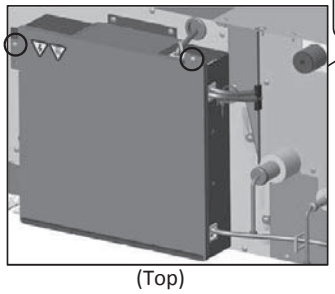
DISASSEMBLY PROCEDURE

⚠WARNING Precautions for safety

- Read these "Precautions for safety" carefully before starting disassembly work and do it in the proper way.
- When disassembling, be sure to turn off the power. When disassembling the electrical components, check the electrical wiring diagram.
- The electrical components are under high voltage by the operation of the booster capacitor.
  Fully discharge the capacitor before commencing a repair work. Failure to observe this warning could result in electric shock.
- When parts of refrigerant cycle is disassembled by welding, be sure to work after collecting a refrigerant, if the refrigerant isn't collected, the unit might explode.
- Be sure to collect refrigerant without spreading it in the air.
- These contents are an example. Please refer to a similar part of actual unit.

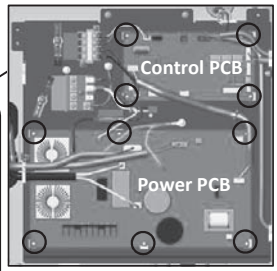
PROCEDURE & PICTURES (FDU･FDUM series)

(Bottom)

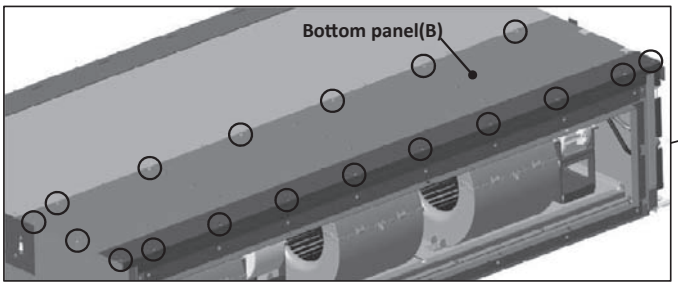


(Top)

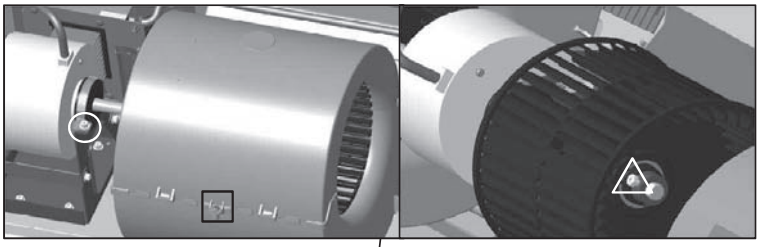
1. To remove the lid of control box
(1) Remove 2 lid fixing screws and remove it.

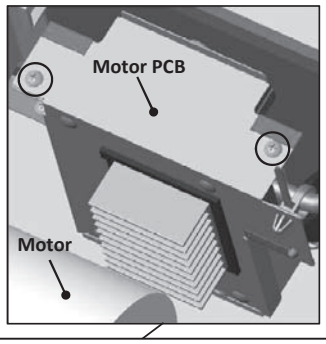


2. To remove the printed circuit board (PCB)
(1) Remove the lid of control box.(See No.1.)
(2) Pull off all the inserted connectors.
- **Control PCB**
  (3) Take off 4 control PCB fixing locking supports(○ mark) and remove it.
- **Power PCB**
  (4) Take off 6 power PCB fixing locking supports(○ mark) and remove it.



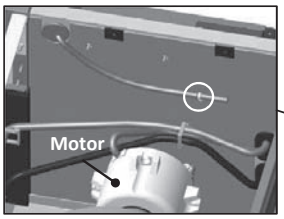
3. To remove the bottom panel(B)
(1) Remove 18 panel fixing screws and remove it.





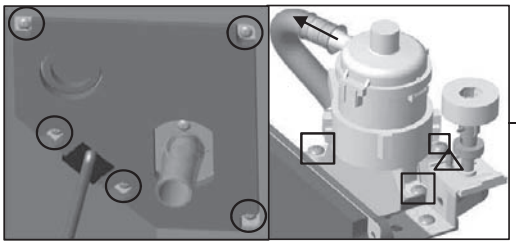
4. To remove the impellers and motors(FM)
(1) Remove the lid of control box.(See No.1.)
(2) Remove the bottom panel(B).(See No.3.)
(3) Disconnect the motor connector(CNFMx or CNMx) on PCB in control box.
(4) Remove the motor fixing screw and remove it.
(○ mark/right and left side)
(5) Remove the fan casing fixing screw and remove it.(□ mark)
(6) Remove the sirocco fan fixing bolt and remove it.(△ mark)

5. To remove the motor PCB
(1) Remove the lid of control box.
(See No.1.)
(2) Remove the bottom panel(B).
(See No.3.)
(3) Disconnect the motor PCB connector
(CNFMx or CNMx)on PCB in control box.
(4) Remove 2 motor PCB fixing screws
and remove it.

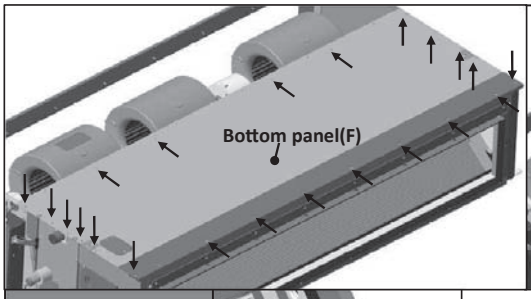


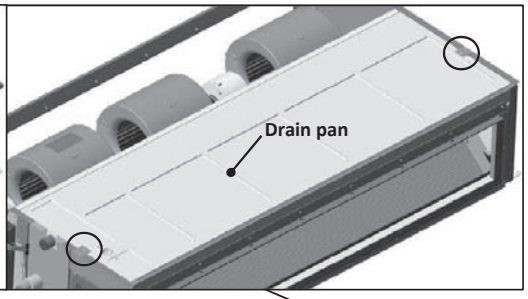
6. To remove the temperature sensors (example"Thi-A")
(1) Remove the lid of control box.(See No.1.)
(2) Remove the bottom panel(B).(See No.3.)
(3) Disconnect the Thi-A connector(CNH) on PCB in control box.
(4) Pull the temperature sensor fixing clip and remove it.(○ mark)

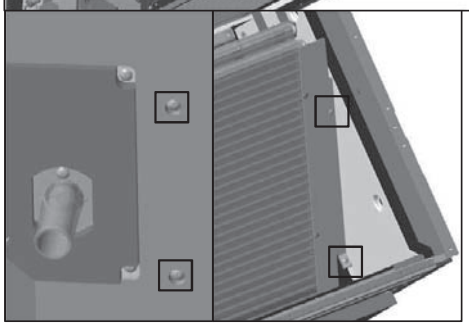
PROCEDURE & PICTURES



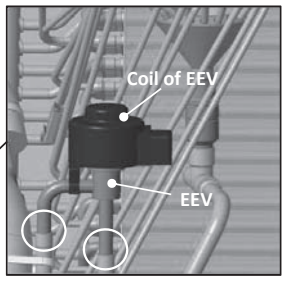
7. To remove the drain pump(DM) and float switch(FS)
(1) Remove the lid of control box.(See No.1.)
(2) Remove 5 drain pump assembly fixing screws and remove it. (○ mark)
(3) Disconnect the drain pump connector(CNR) on PCB in control box.
(4) Pull a hose to the arrow direction and remove it.
(5) Remove 3 drain pump fixing screws and remove it.(□ mark)
(6) Disconnect the float switch connector(CNI) on PCB in control box.
(7) Remove the float switch fixing screw and remove it.(△ mark)



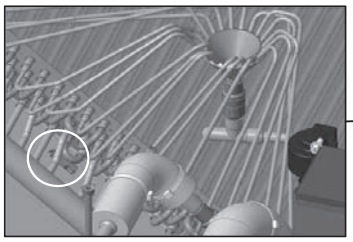




8. To remove the heat exchanger assembly
(1) Remove the bottom panel(B).(See No.3.)
(2) Remove 22 bottom panel(F) fixing screws and remove it.(← mark)
(3) Remove 2 drain pan fixing screws and remove it.(○ mark)
(4) Remove 4 heat exchanger assy fixing screws and remove it.(□ mark)



9. To remove the Electronic Expansion Valve (EEV)
(1) Remove the heat exchanger assembly.(See No.8.)
(2) Remove the coil of EEV by pull out on the top.
(3) Remove welded part of EEV by welding.(○ mark)



10. To remove the temperature sensors (example"Thi-R3")
(1) Remove the lid of control box.(See No.1.)
(2) Disconnect the Thi-R3 connector(CNN) on PWB in control box.
(3) Remove the drain pan.(See No.8.)
(4) Pull out the temperature sensor "Thi-R3" from the sensor holder.

General view

(2) FDUT series

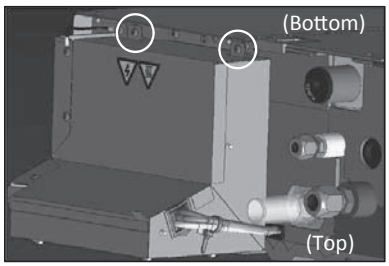
PJH012D004

DISASSEMBLY PROCEDURE

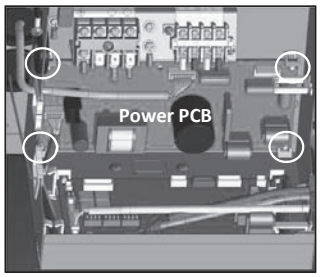
⚠WARNING Precautions for safety

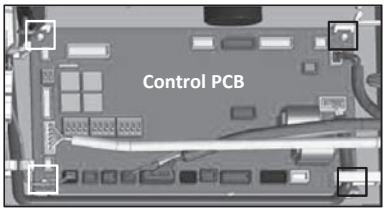
- Read these "Precautions for safety" carefully before starting disassembly work and do it in the proper way.
- When disassembling, be sure to turn off the power. When disassembling the electrical components, check the electrical wiring diagram.
- The electrical components are under high voltage by the operation of the booster capacitor.
  Fully discharge the capacitor before commencing a repair work. Failure to observe this warning could result in electric shock.
- When parts of refrigerant cycle is disassembled by welding, be sure to work after collecting a refrigerant, if the refrigerant isn't collected, the unit might explode.
- Be sure to collect refrigerant without spreading it in the air.
- These contents are an example. Please refer to a similar part of actual unit.

PROCEDURE & PICTURES (FDUT series)



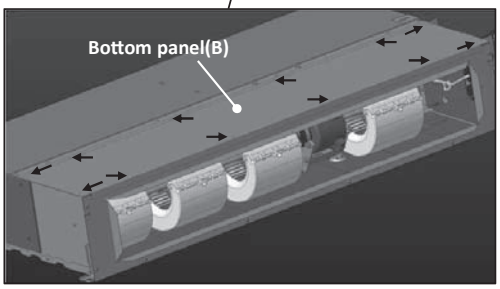
1. To remove the lid of control box
(1) Remove 2 lid fixing screws and remove it.

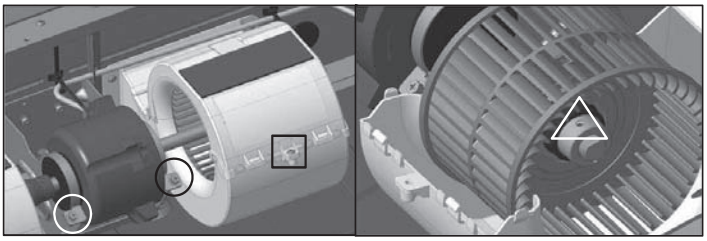




2. To remove the printed circuit board (PCB)
(1) Remove the lid of control box.(See No.1.)
(2) Pull off all the inserted connectors.
- **Control PCB**
  (3) Take off 4 control PCB fixing locking supports and remove it. (☐ mark)
- **Power PCB**
  (4) Take off 4 power PCB fixing locking supports and remove it. (○ mark)

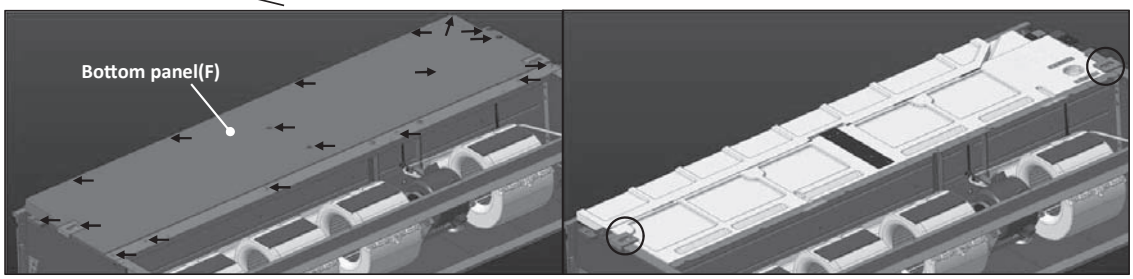
3. To remove the bottom panel(B)
(1) Remove 12 panel fixing screws and remove it.





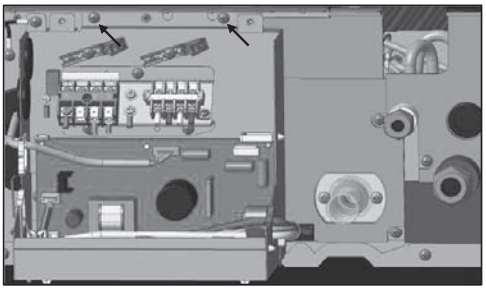
4. To remove the impellers and motors(FM)
(1) Remove the lid of control box.(See No.1.)
(2) Remove the bottom panel(B).(See No.3.)
(3) Disconnect the motor connector(CNM1) on PCB in control box.
(4) Remove 2 motor fixing screws and remove it.(○ mark)
(5) Remove the fan casing fixing screw and remove it.(☐ mark)
(6) Remove the sirocco fan fixing bolt and remove it.(△ mark)

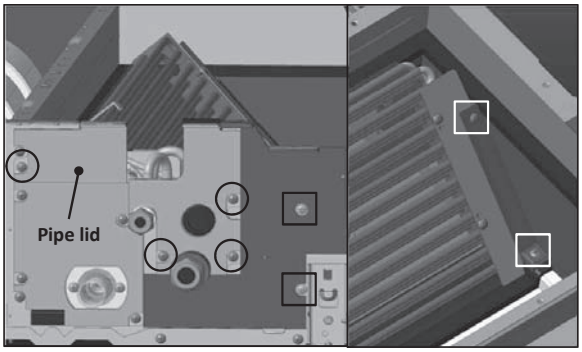
5. To remove the drain pan
(1) Remove the bottom panel(B).(See No.3.)
(2) Remove 18 bottm panel(F) fixing screws and remove it.(← mark)
(3) Remove 2 drain pan fixing screws and remove it.(○ mark)



PROCEDURE & PICTURES

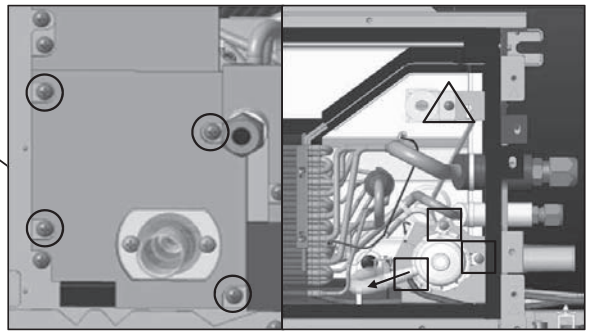
6. To remove the control box
(1) Remove the lid of control box.(See No.1.)
(2) Pull off all the inserted connectors.
(3) Remove 2 cotrol box fixing screws and remove it.



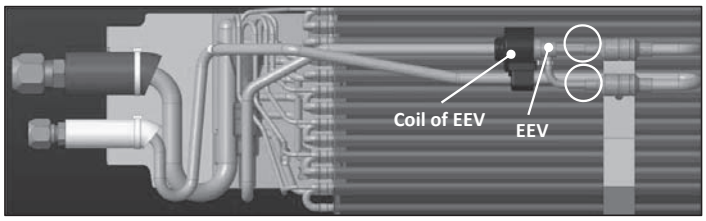


7. To remove the heat exchanger assembly
(1) Remove the bottom panel(B).(See No.3.)
(2) Remove the drain pan.(See No.5.)
(3) Remove the control box.(See No.6.)
(4) Remove 4 pipe lid fixing screws and remove it.(○ mark)
(5) Remove 4 heat exchanger assy fixing screws and remove it.(□ mark)

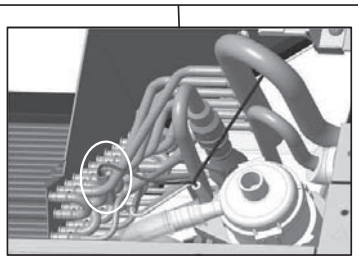
8. To remove the drain pump(DM) and float switch(FS)
(1) Remove the control box.(See No.6.)
(2) Disconnect the drain pump connector(CNR) on PCB in control box.
(3) Disconnect the float switch connector(CNI) on PCB in control box.
(4) Remove 4 drain pump assembly fixing screws and remove it.(○ mark)
(5) Pull a hose to the arrow direction and remove it.
(6) Remove 3 drain pump fixing screws and remove it.(□ mark)
(7) Remove the float switch fixing screw and remove it.(△ mark)

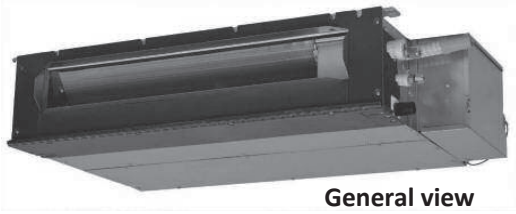


9. To remove the electronic expansion Valve (EEV)
(1) Remove the heat exchanger assembly. (See No.7.)
(2) Remove the coil of EEV by pull out on the top.
(3) Remove welded part of EEV by welding. (○ mark)



10. To remove the temperature sensors (example"Thi-R1")
(1) Remove the lid of control box.(See No.1.)
(2) Disconnect the Thi-R1 connector(CNN) on PWB in control box.
(3) Remove the drain pan.(See No.5.)
(4) Pull out the temperature sensor "Thi-R3" from the sensor holder.



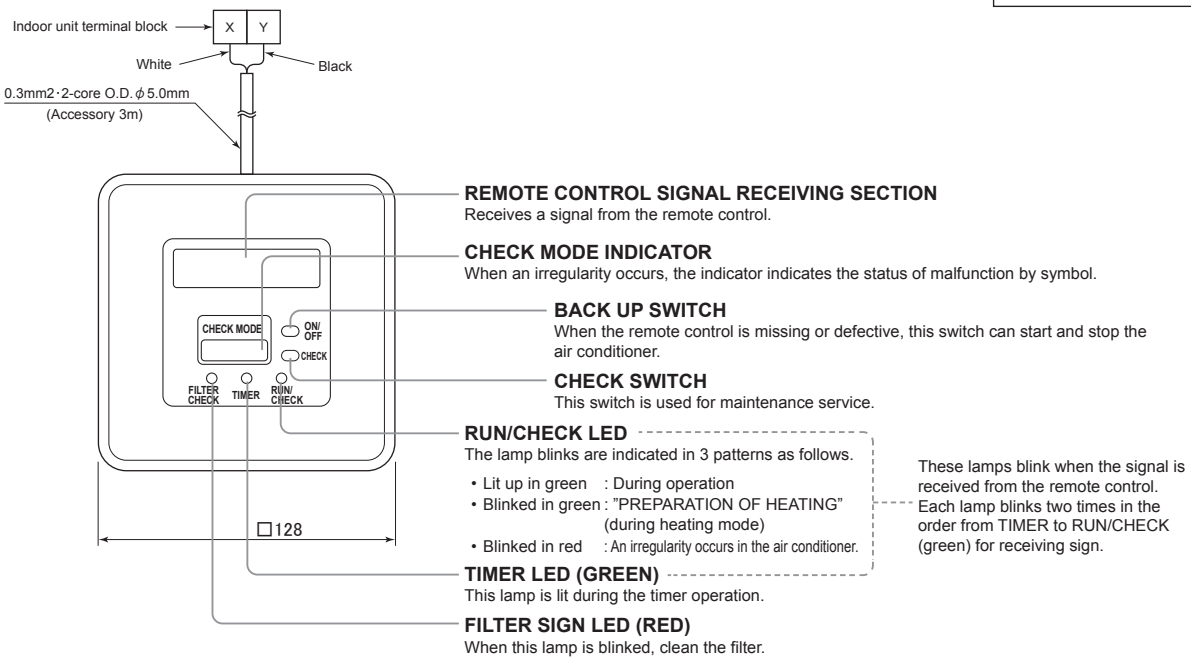

General view

12. OPTION PARTS

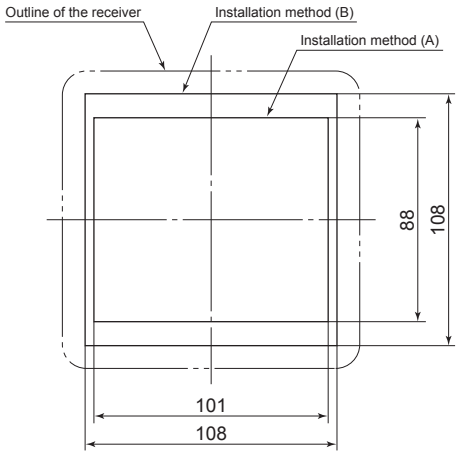
12.1 Wireless kit (RCN-KIT4-E2)

(1) Specification

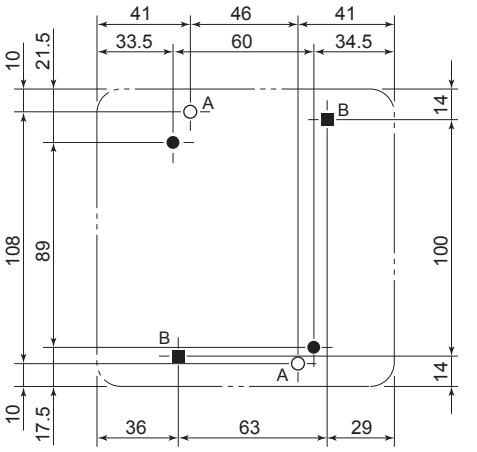
PJZ000Z323



Dimensions of ceiling or wall opening



Dimensions of the receiver installation

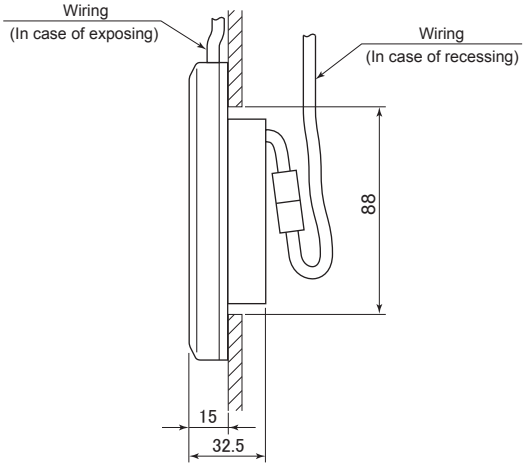


○ : (A) Direct installation onto the ceiling with screws
■ : (B) Installation with enclosed bracket

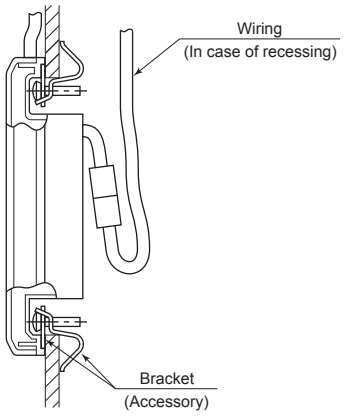
Installation of the receiver

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.

(A) Direct installation onto the ceiling with screws



(B) Installation with enclosed bracket



Installation precautions

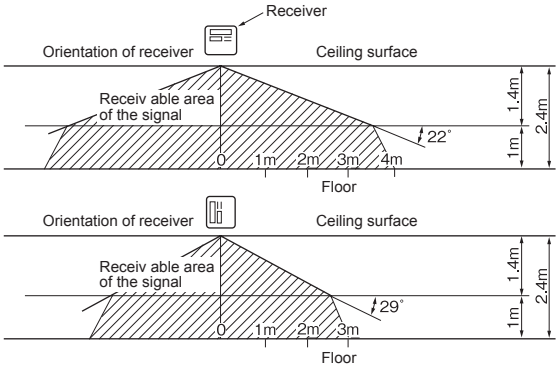
Do not install it on the following placesin order to avoid malfunction.
(1) Places exposed to direct sunlight
(2) Places near heat devices
(3) High humidity places
(4) Hot surface or cold surface enough to generate condensation
(5) Places exposed to oil mist or steam directly
(6) Uneven surface
(7) Places affected by the direct airflow of the AC unit
(8) Places where the receiver is influenced by the flourescent 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 pbject may obstruct the communication with the remote control

Adapted to **RoHS** directive

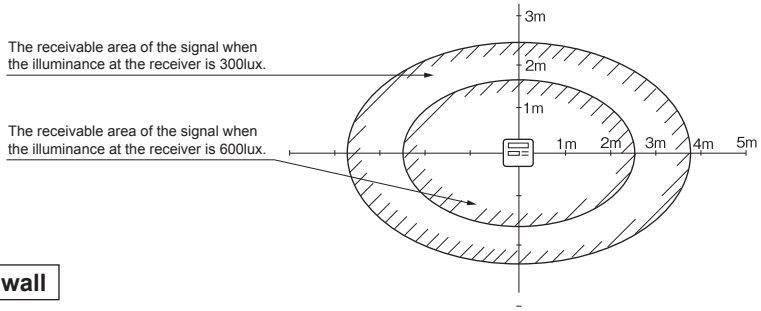
Wireless remote control operable area

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.)

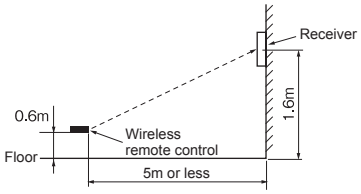


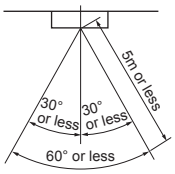
2. Correlation between illuminance at the receiver and reachable area of the signal in a plain view.
   [Condition] Correlation between the reachable area of the signal and illuminance at the receiver when the wireless remote control is operated at 1m high under the condition of ceiling height of 2.4m.
   When the illuminance becomes double, the area is narrowed down to two third.



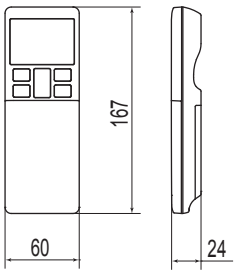
When installed on wall

[Condition] Illuminance at the receiver : **800lux**

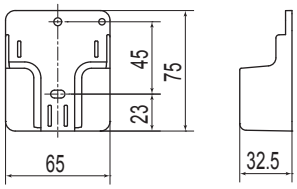




Remote control



Remote control holder



Note
(1) Two LR03 AAA dry cell batteries for remote control are enclosed.

(2) Installation manual

PJZ012D112 A

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

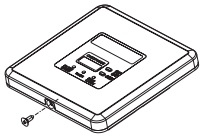
PCB on the receiver has the following switches to set the function. Default setting is shown with ☐ mark.

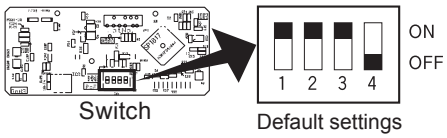
SW1	Prevents interference during plural setting	☐ ON : Normal	OFF : Customized
SW2	Receiver master/ slave setting	☐ ON : Master	OFF : Slave
SW3			
SW4	Auto restart	ON : Valid	☐ OFF : Invalid

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.





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 switch on the PCB to set it as slave.

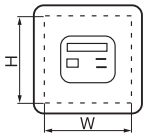
③ How to install the receiver

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

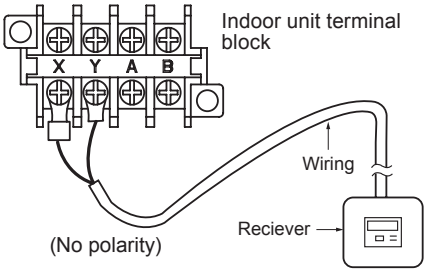
(1) Drilling of the ceiling (ceiling opening)

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

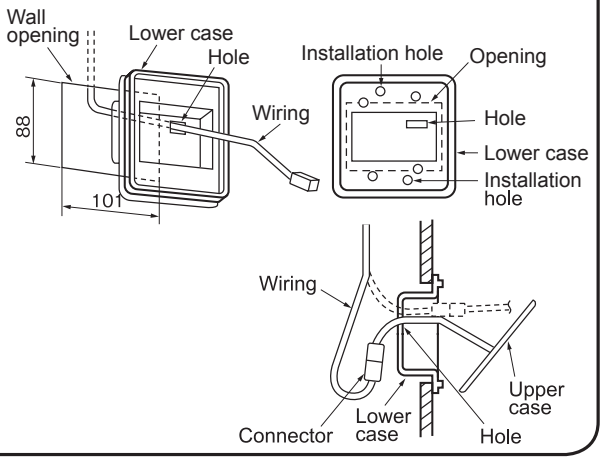
▷ Use this installation method when the ceiling is wooden, and there is no problem for strength in installing directly with wood screws.

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.

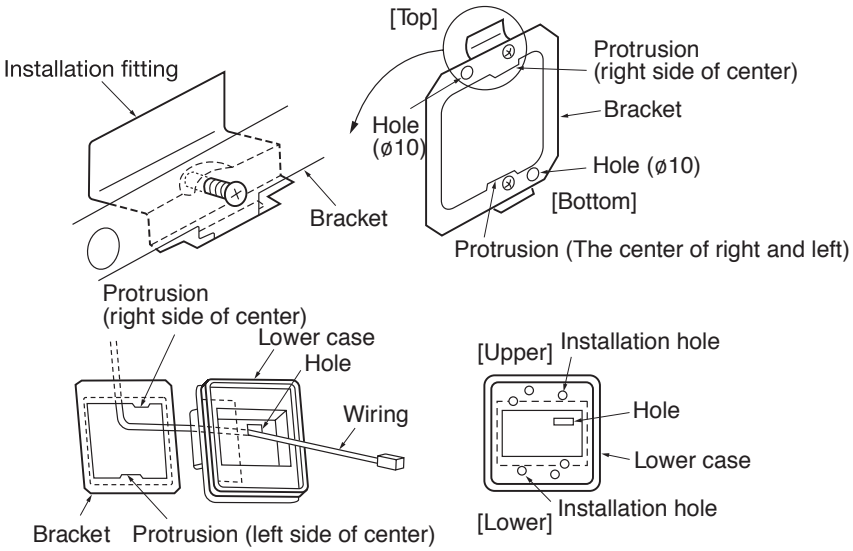


③ How to install the receiver(continued)

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.

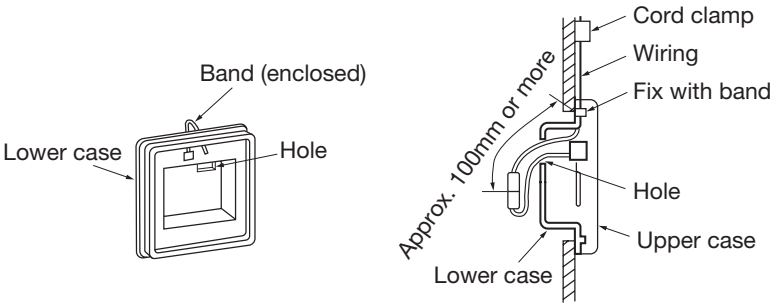


① Catch the two protrusion of the enclosed bracket onto the fitting as shown above, and temporarily fix with the screws. (The bracket has an Upper/Lower and front/back orientation. Confirm the Upper/Lower protrusion positions and the positional relation of the ø10 holes on the bracket and the installation 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.



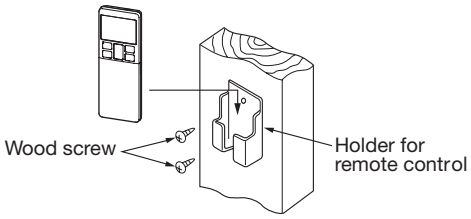
① Cut off the thin section on the side of the upper case with a pair of nippers or a knife, and remove the burrs with a file, etc. (The wiring is passed through this section.)
② Pass the enclosed band through the wiring outlet hole on the lower case.
③ Use on of the light detection adaptor installation 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

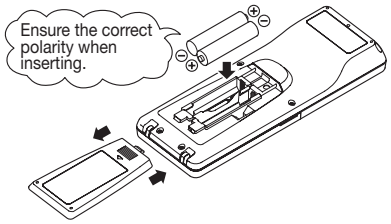
Fix the remote control holder using the screws supplied with this product.

* 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.



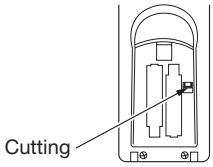
How to insert batteries

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.

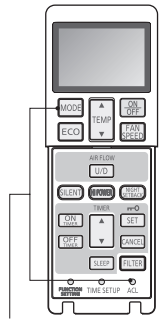


④ Wireless remote control (continued)

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.

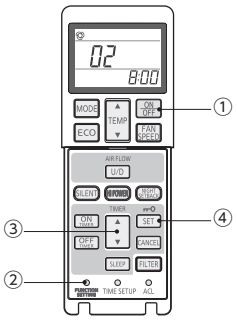
* Note: Once the batteries are removed, the setting is reset to the factory default.
When the batteries are removed, repeat the steps described above.



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 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 page 118.

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.

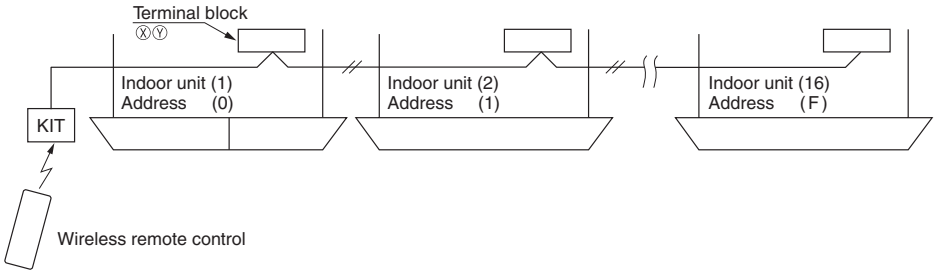
Restrictions on the thickness and length of wire (Maximun total extension 600m.)

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.

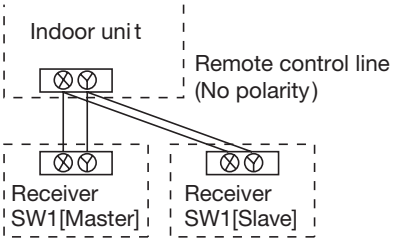


For the building air-conditioner and gas heat pump series

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.

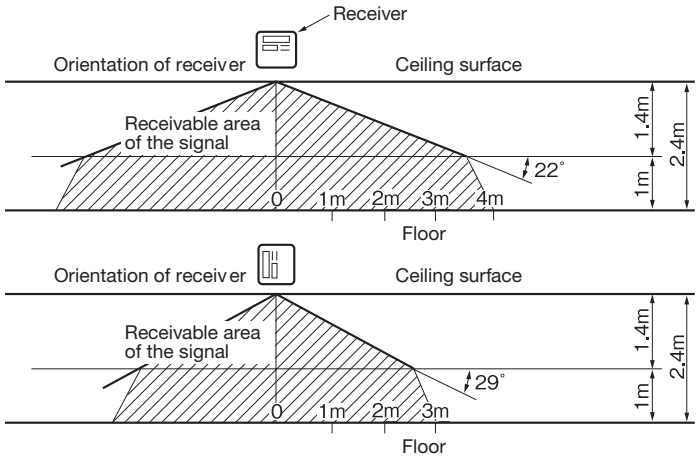


Switch	Setting	Function
SW2	ON	Master
	OFF	Slave

When installed on ceiling

1. Standard reachable area of the signa

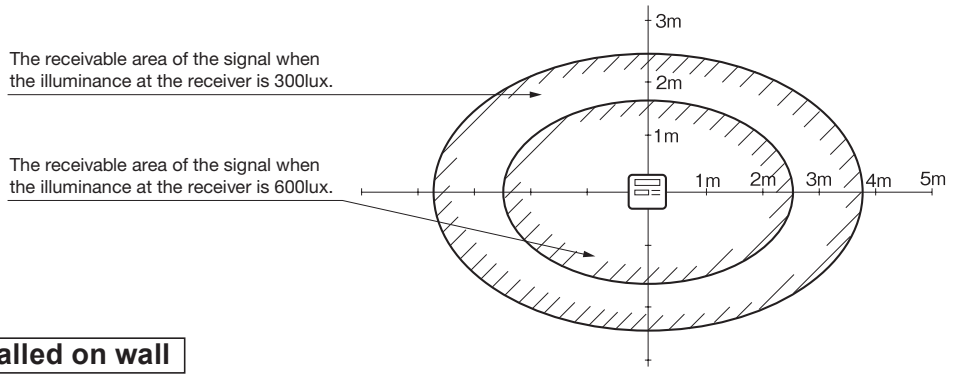
   [Condition] Illuminance at the receiver : **300lux** (when no lighting is installed within 1m of the receiver in an ordinary office.)



2. Correlation between illuminance at the receiver and reachable area of the signal in a plain view.

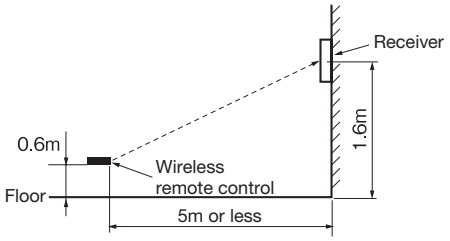
   [Condition] Correlation between the reachable area of the signal and illuminance at the receiver when the wireless remote control is operated at 1m high under the condition of ceiling height of 2.4m. When the illuminance becomes double, the area is narrowed down to two third.

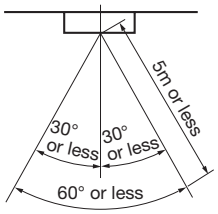
⑤ Receiver (continued)



When installed on wall

[Condition] Illuminance at the receiver : 800lux.

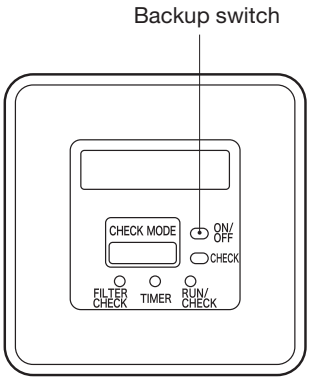




Backup switch

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.

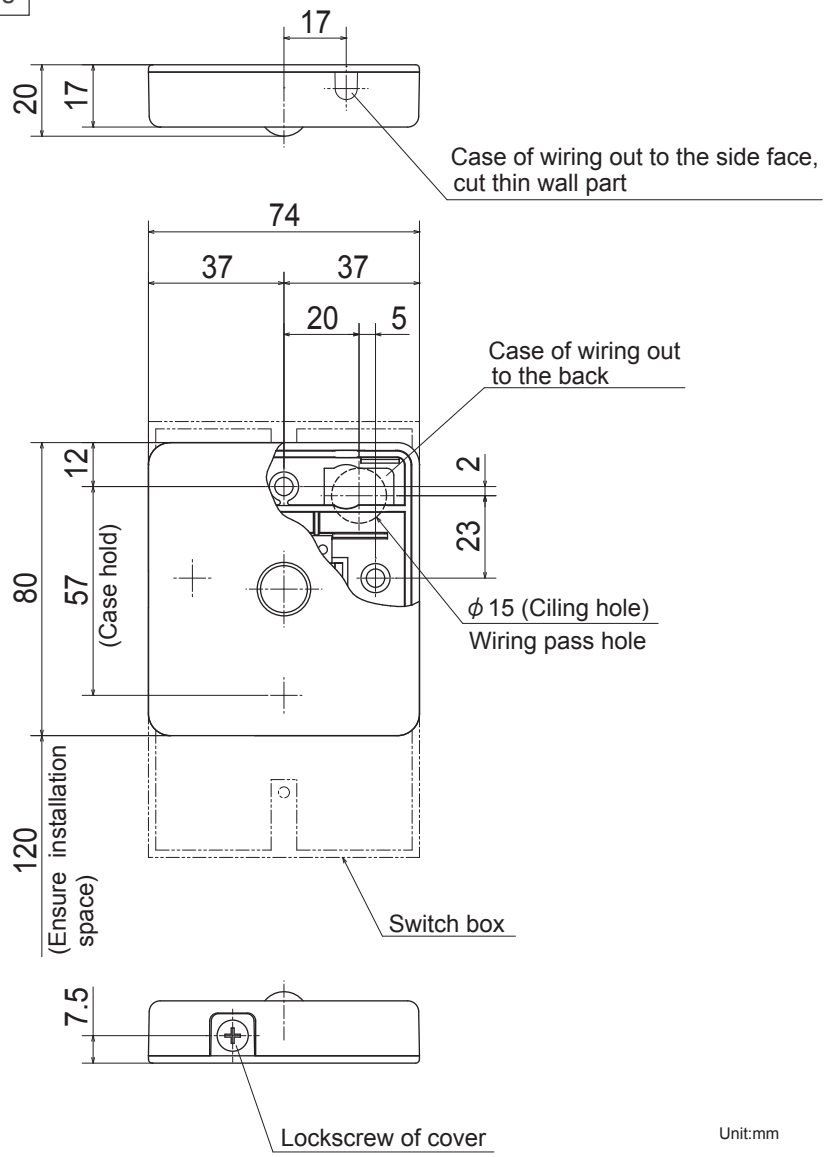
1. An indication will be displayed for one hour after power on.
2. An indication appears for 3.5 seconds when a “Stop” command is sent from the wireless remote control unit while the air-conditioner is not running.
3. An indication appearing in (1) or (2) above will go off as soon as the unit starts 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 (LB-KIT2)

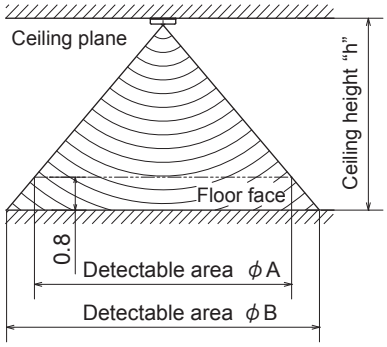
(1) Specification

PJZ000Z341

External dimensions



Detectable area



Notes
(1) The recommended height, is lower than 4m for motion sensor. When the installation height is higher, motion detection accuracy might be reduced.
(2) Connenction wiring (prepare on site) for signal wiring is 0.2mm^2 × 3 cores wire or more (Red,White,Black) and maximum total extension 8m.
(3) Motion sensor kit can be installed on the wall, but recommend installing is the ceiling plane.
(4) In the case of wall installation, the detectable area is 5m in front and about 100° left and right.
(5) Refer to the installation sheet for details.

High of the ceiling h[m]	2.7	3.5	4.0
Detectable area ϕA[m]	4.5	6.4	7.6
Detectable area ϕB[m]	6.4	8.3	9.5

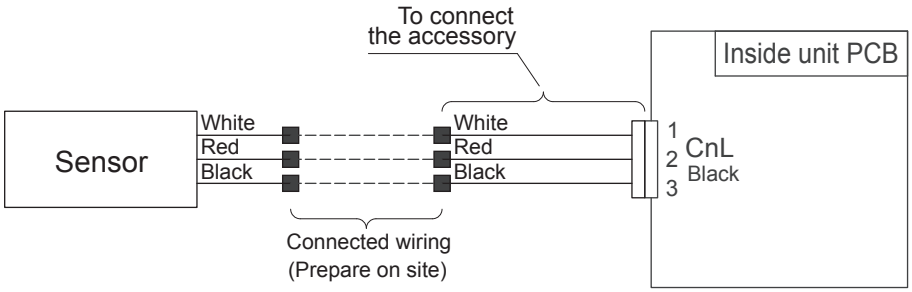
Installation precautions

Do not install the motion sensor kit at the following places in order to avoid malfunction.

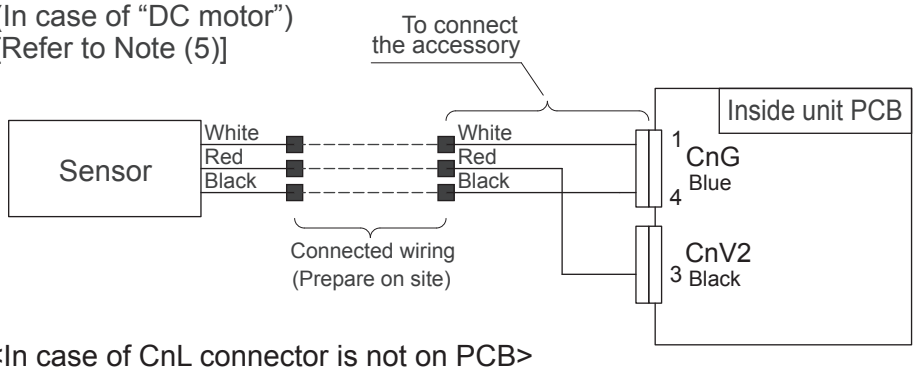
(1) Places exposed to direct sunlight
(2) Places near heat devices
(3) High humidity places
(4) Hot surface or cold surface enough to generate condensation
(5) Places exposed to oil mist or steam directly
(6) Uneven surface
(7) Places affected by the direct air flow of the AC unit
(8) Places where the motion sensor is influenced by the fluorescent lamp (especially inverter type) or sunlight
(9) Places where the motion sensor is affected by infrared rays of any other communication devices
(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) Do not run in parallel with strong voltage lines such as power source wiring

Wiring connection

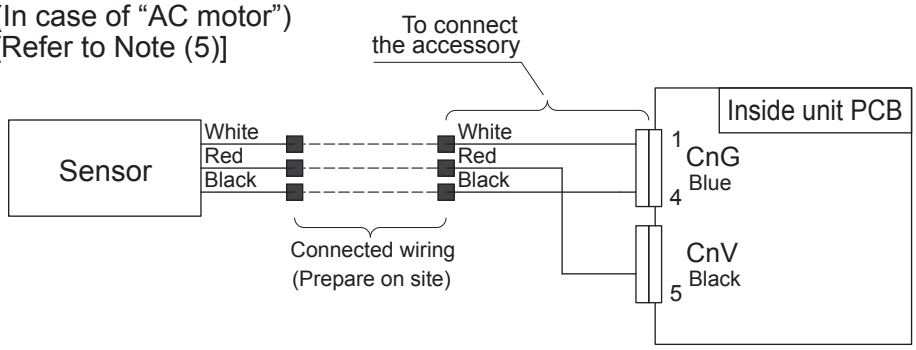
<In case of CnL connector is on PCB>



<In case of CnL connector is not on PCB>
(In case of “DC motor”)
[Refer to Note (5)]



<In case of CnL connector is not on PCB>
(In case of “AC motor”)
[Refer to Note (5)]



(2) Installation manual

PJZ012D134

⚠ 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

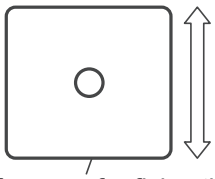
Please make sure that all components are in the package.

Motion sensor	Wiring <1>	Wiring <2>	Wiring <3>	2 screws	Manual
	In case of CnL connector on the indoor unit PCB (FDT/FDK/FDTC)	In the case of CnV2 connector on the indoor unit PCB	In the case of CnV connector on the indoor unit PCB (FDTQ/FDFL/FDFU)		

ø 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.)

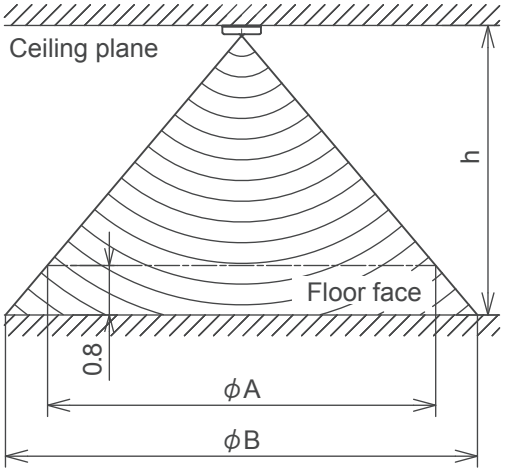
② Installing the motion sensor

- The recommended height is lower than 4000mm 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 5m, 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

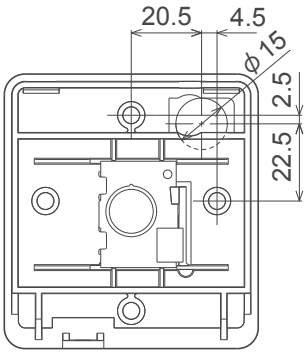
There are the following 3 methods to install the motion sensor on the ceiling plane or wall surface (hereinafter called “ceiling plane”). Select the method according to the installation position.

<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.

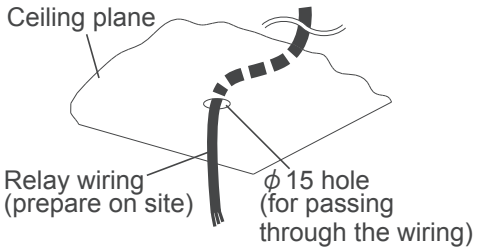
(C) Installation with switch box (prepare at the site)



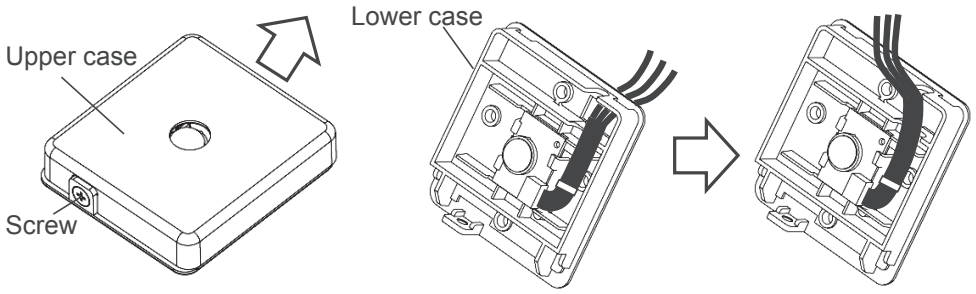
Positional relation for pulling out relay wiring hole and installing holes.

Option (A)

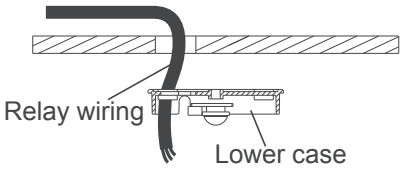
►Select this method if the ceiling plane has sufficient strength to install the motion sensor directly with screws.

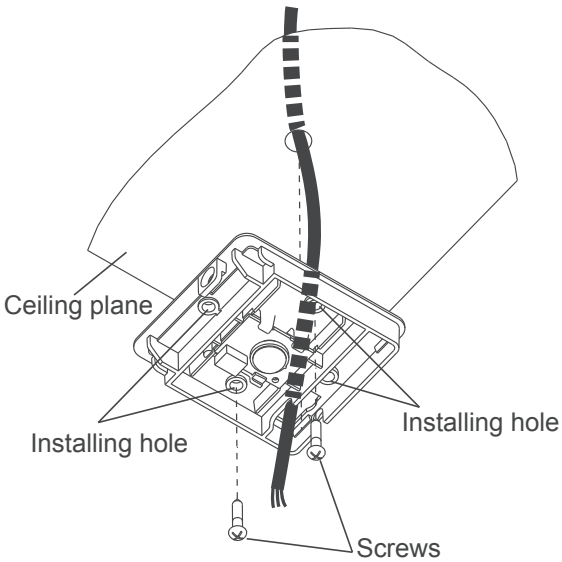


① Prepare a relay wiring on site and lay out the wiring in advance.
② Remove the screw at the side of the motion sensor and slide the upper case in the direction of the arrow.
③ Pull the wiring of the motion sensor as below.

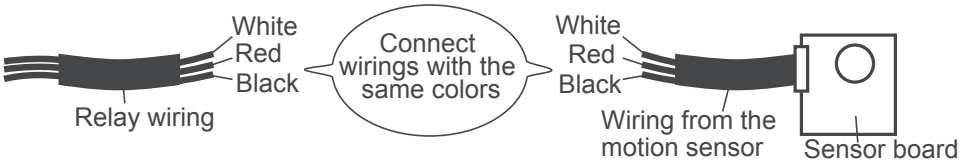


④ Pass the relay wiring through the hole on the lower case.
⑤ When fixing the lower case to the ceiling plane, tighten it in 2 locations of the installing holes (4 locations) with the attached screws.

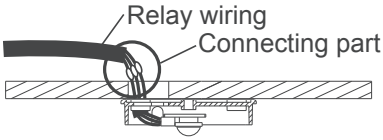




⑥ Using a crimping terminal, etc., connect the same color to the relay wiring (prepare on site) and the wiring of motion sensor.



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.

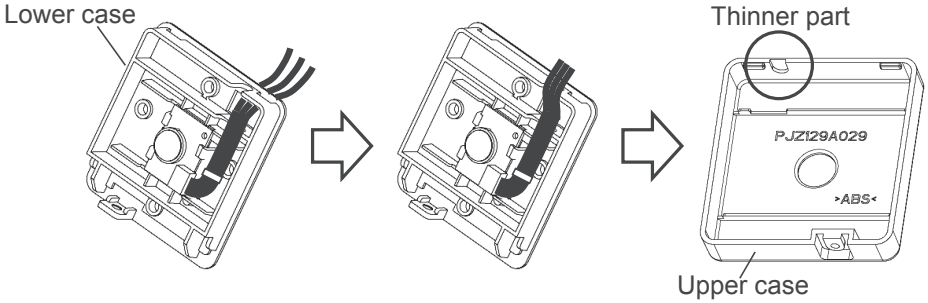


Caution:
In order to prevent tracking, be sure to perform construction so as not to clog up the connecting part with dust, etc.

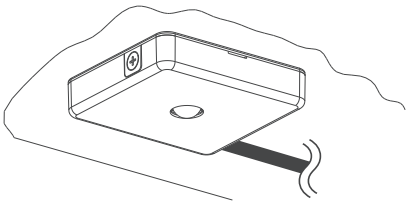
Option (B)

►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.

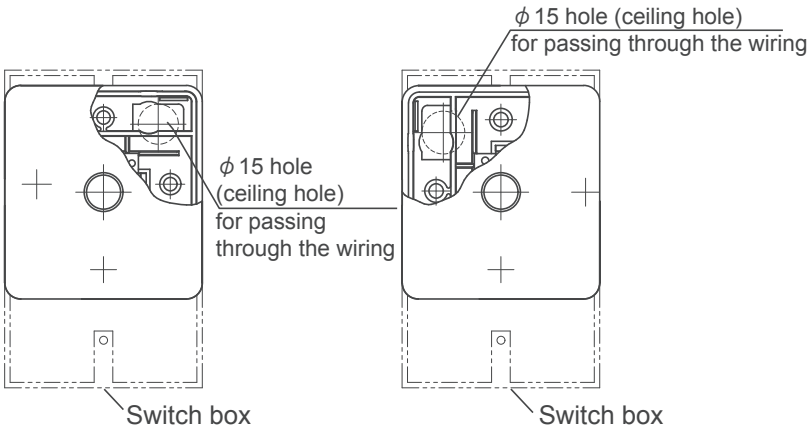


③ When fixing the lower case to the ceiling plane, tighten it in 2 locations of the installing holes (4 locations) with the attached screws. (The same as ⑤ of Option (A))
④ Using a crimping terminal, etc., connect the same color to the relay wiring (prepare on site) and the wiring of motion sensor.
(The 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.

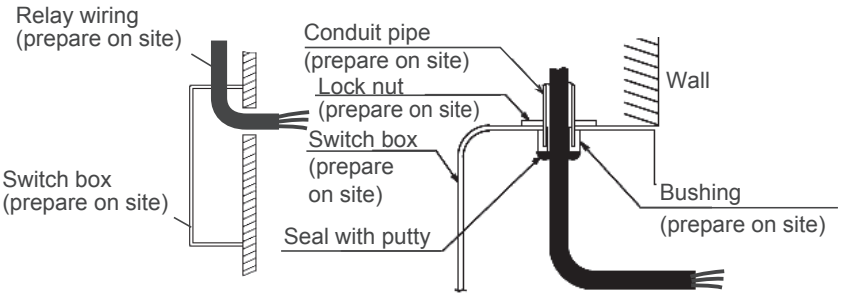


Option (C)

① Set up the switch box and relay wiring (prepare on site) in advance.
Seal the relay wiring inlet with putty.



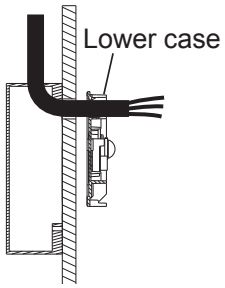
Positional relation for the switch box and installing holes



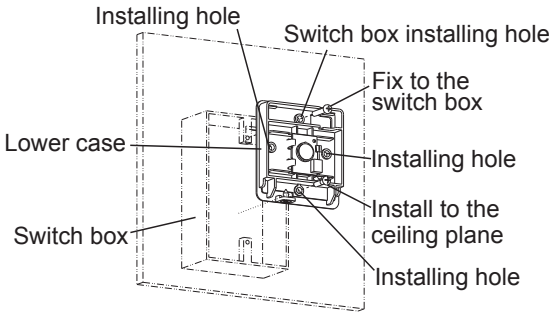
② Remove the screw at the side of the motion sensor and slide the upper case in the direction of the arrow.
(The same as ② of Option (A))

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.

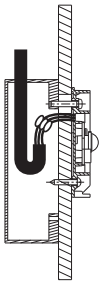


⑤ Fix the lower case to switch box using the installing hole (1 place).

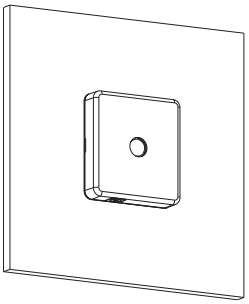


⑥ Connect the same color to the relay wiring (prepare on site) and the wiring of motion sensor.
(The same as ⑥ of Option (A))

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))

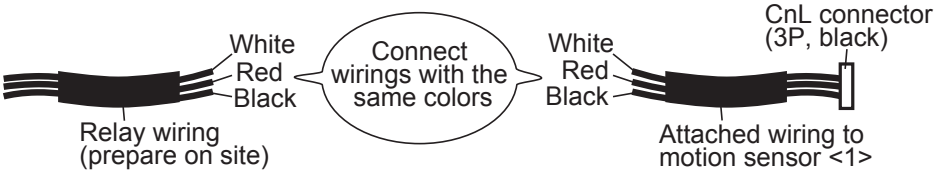


Wiring connection in the control box of indoor unit

CAUTION: Attached wirings to the motion sensor vary depending on the model of the indoor unit. Make sure your model before installing.

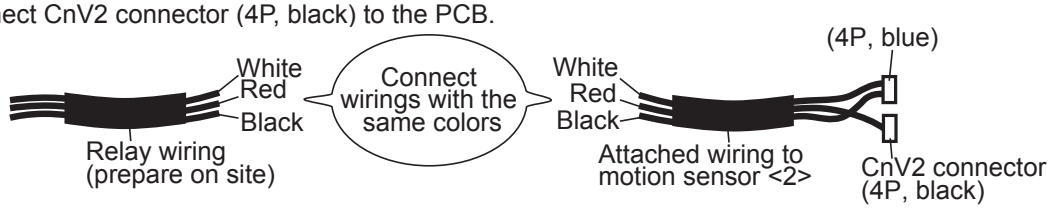
<In case of the CnL connector is on the indoor unit PCB (FDT/FDK/FDTC)>

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.



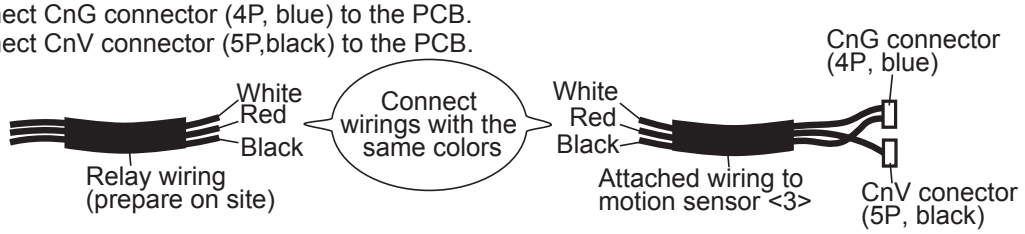
<In the case of CnV2 connector on the indoor unit PCB>

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.

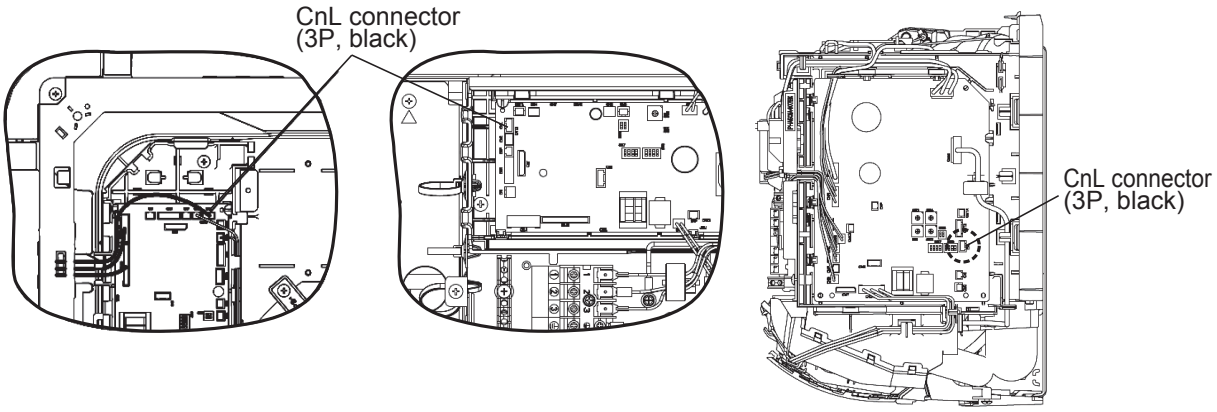


<Incase of the CnV connector is not on the indoor unit PCB (FDTQ/FDFL/FDFU)>

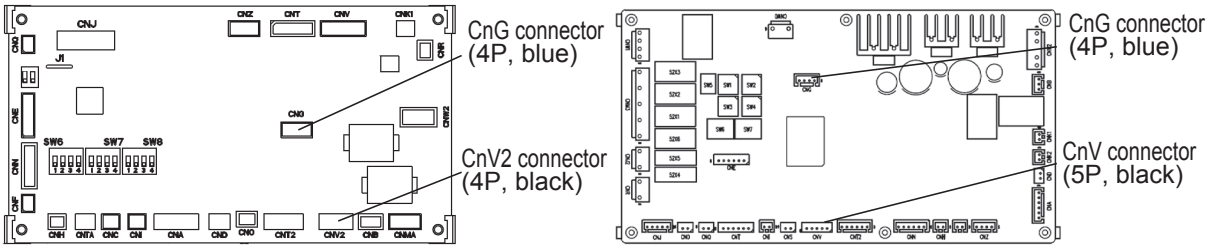
① Connect the same color to the relay wiring (prepare on site) and the attached wiring <3>.
② Remove the control box cover from the indoor unit.
③ Connect CnG connector (4P, blue) to the PCB.
④ Connect CnV connector (5P,black) to the PCB.



<For FDT> **<For FDTC>** **<For FDK>**



<For the other indoor units> **<In case of FDTQ/FDFL/FDFU>**



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

(3) User's manual

PJZ012D134

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

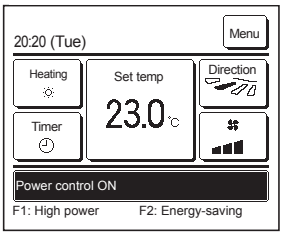
- The sensor may not detect a person near the border of detection range.
- Installation near an object with a different temperature from the surrounding may cause a false detection of human.
- Due to correction of temperature setting, some people may feel chilly.

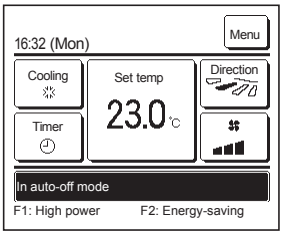
This product uses infrared sensor to detect person's activity level to support control of air-conditioner.
Please set the control you like from the remote control.

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.





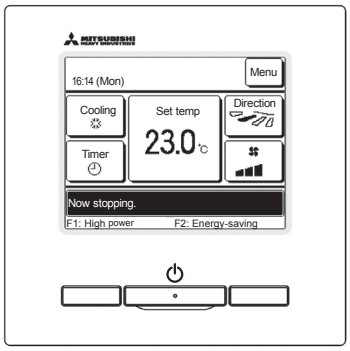
- When power control is enabled
  The amount of human motion is detected by a motion sensor to adjust the Set temperature.
  (The set temperature of remote control is displayed at the adjusted temperature.)
  in cooling : 33 °C, in heating : 15 °C
  adjust the set temperature seep by step up to above temperature.
  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 12 hour of operation wait time.

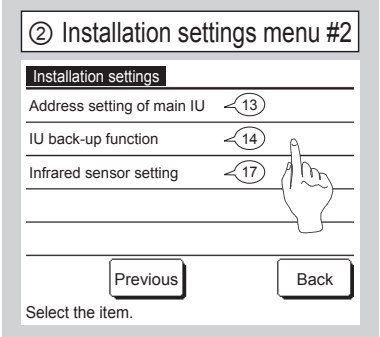
"Operation wait"...The unit stops but will resume operation when human presence is detected. When the unit is in "Complete stop", "In auto-off mode" will be displayed on the message display.

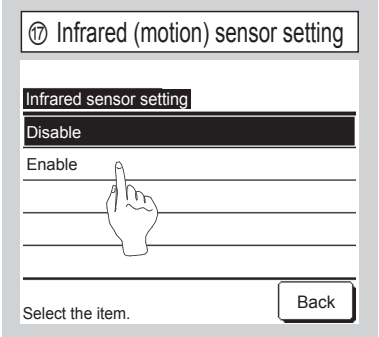
"Complete stop"...When auto-off is enabled, the unit stops. The unit will not resume operation even when human presence is detected.
The message "In auto-off mode" will disappear from the message display, and the operation lamp will turn off.

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**



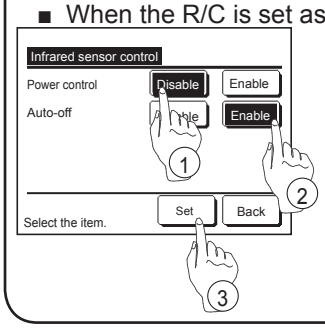




● Refer to the installation manual for eco touch remote control to set control mode.

■ 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.

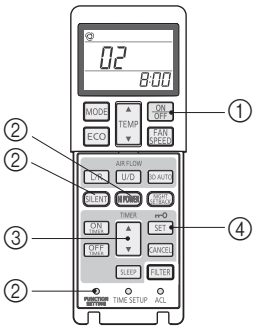
* This control will not be executed unless ③ is performed.

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.



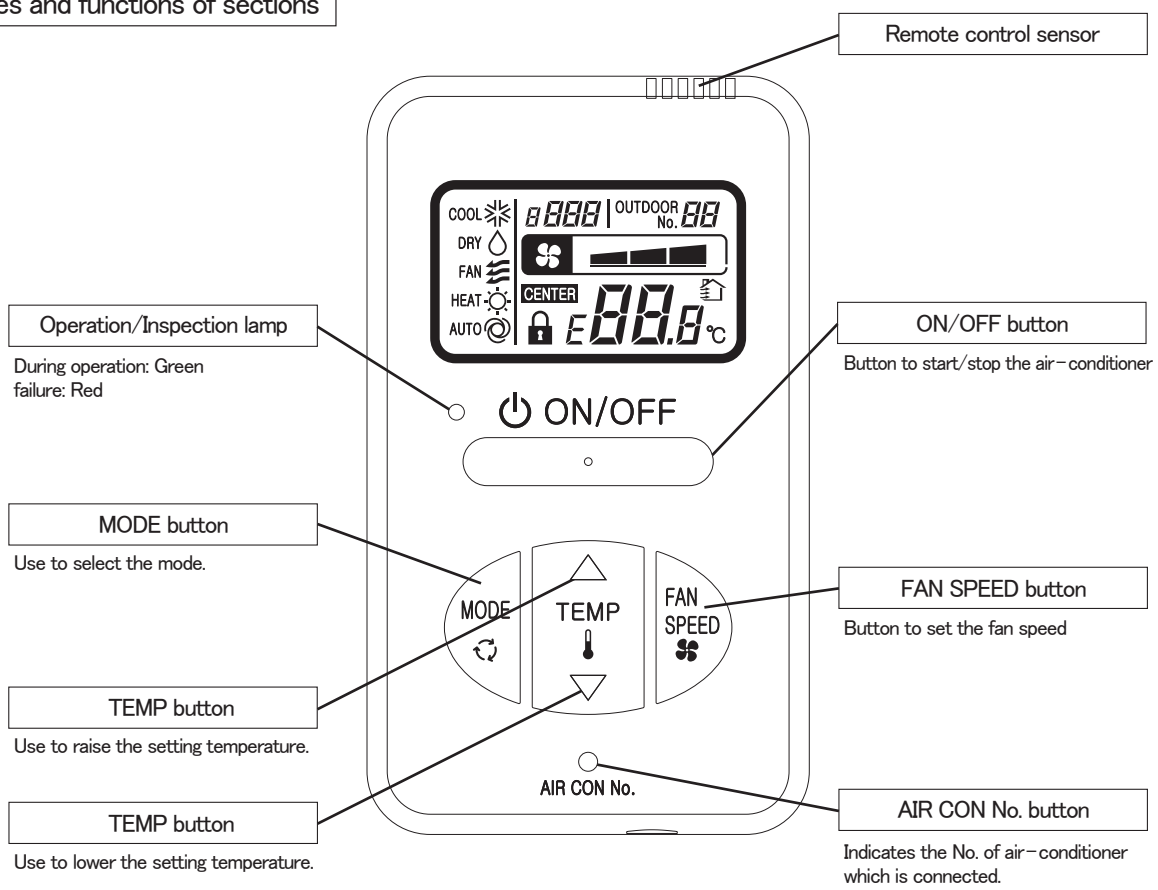
2. Setting details

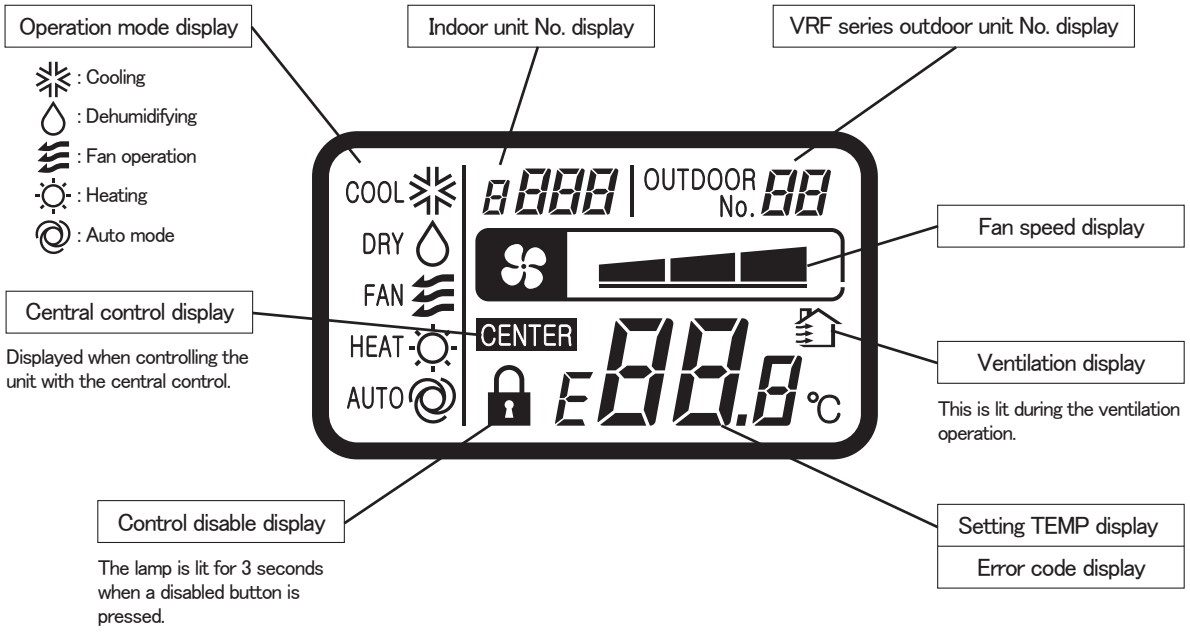
Button	Number indicator	Function setting
SILENT	00	Infrared sensor setting (Motion sensor setting) : Disable
	01	Infrared sensor setting (Motion sensor setting) : Enable
HI POWER	00	Infrared sensor control (Motion sensor control) : Disable
	01	Infrared sensor control (Motion sensor control) : Power control 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



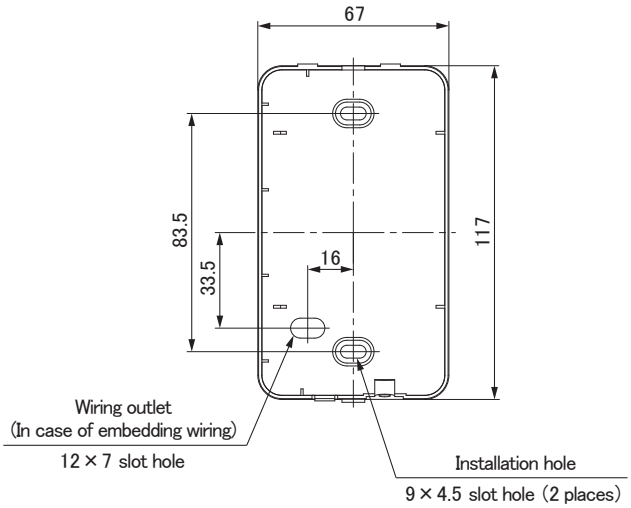


Installation of remote control

Do not install the remote control at the following places in order to avoid malfunction.

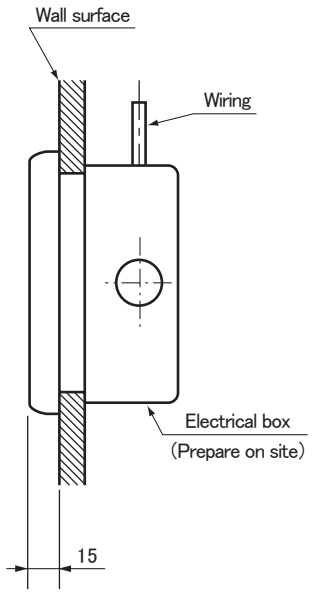
(1) Places exposed to direct sunlight
(2) Places near heat devices
(3) High humidity places
(4) Hot surface or cold surface enough to generate condensation
(5) Places exposed to oil mist or steam directly
(6) Uneven surface

Remote control installation dimensions

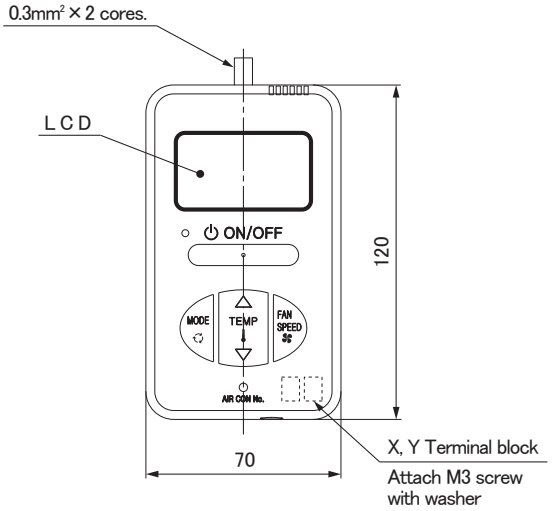


Note: Installation screw for remote control
M4 screw (2 pieces)

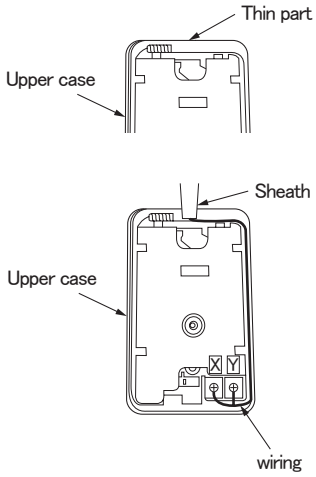
In case of embedding wiring



In case of exposing wiring

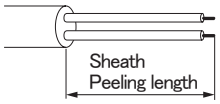


The remote control wiring can be extracted from the upper center.
After the thin part in the upper side of the remote control upper case is scraped with a nipper or knife, remove burr with a file.



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

PJZ012D069Ⓐ

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

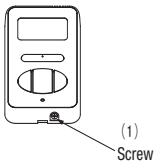
- **Do not install the remote control at the following places in order to avoid malfunction.**
  (1) Places exposed to direct sunlight
  (2) Places near heat devices
  (3) High humidity places
  (4) Hot surface or cold surface enough to generate condensation
  (5) Places exposed to oil mist or steam 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)

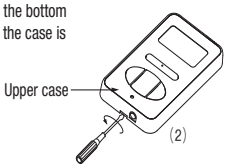
1. Installation procedure

In case of embedding cord

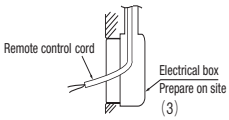
(1) Make certain to remove the screw on the bottom surface of the remote control.



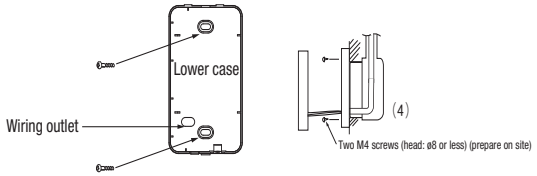
(2) Remove the upper case of the remote control.
Insert a flat-blade screwdriver to a concave portion of the bottom surface of the remote control and slightly twist it, and the case is removed.



(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.

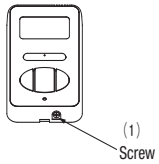


(5) Connect the remote control cord to the terminal block.
Connect the terminals (X and Y) of the remote control and the terminals (X and Y) of the indoor unit. (No polarity of X and Y)

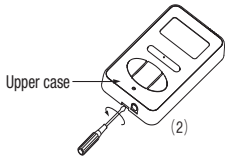
(6) Mount the upper case for restoring to its former state so as not to crimp the remote control cord, and secure with the removed screw.

In case of exposing cord

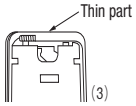
(1) Make certain to remove a screw on the bottom surface of the remote control.



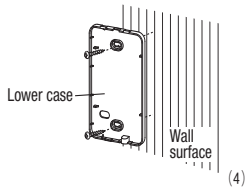
(2) Remove the upper case of the remote control.
Insert a flat-blade screwdriver to a concave portion of the bottom surface of the remote control and slightly twist it, and the case is removed.



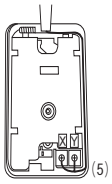
(3) The remote control cord can be extracted from the upper center.
After the thin part in the upper side of the remote control upper case is scraped with a nipper or knife, remove burr with a file.



(4) The lower case of the remote control is mounted to a flat wall with two accessory wood screws.

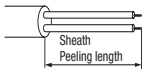


(5) Connect the remote control cord to the terminal block.
Connect the terminals (X and Y) of the remote control and the terminals (X and Y) of the indoor unit. (No polarity of X and Y)
The wiring route is as shown in the right.



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.

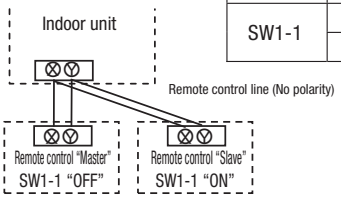
(7) In the case of exposing installation, secure the remote control cord to the wall surface with a cord clamp so as not to loosen the remote control cord.

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 600m.
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

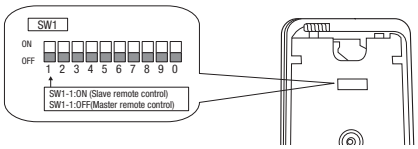
(1) Up to two remote controls can be connected to one unit (or one group) of indoor unit.



Switch	Setting	Function detail
SW1-1	ON	Slave remote control
	OFF	Master remote control

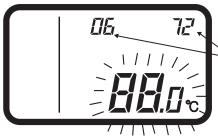
(2) Set the switch SW1-1 of the slave remote control is "Slave" (ON). The factory default is set as "Master" (OFF).

(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.

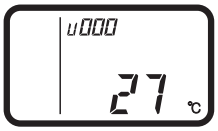
(1) **Press AIR CON No. button for over 5 seconds.**
"88" blinks on the temperature setting indicator.
("88" blinks for approximately 2 seconds while data are read.)
↓
Then, the return air temperature is displayed.
(Example) return air temperature: "27 °C" (blinking)

(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.

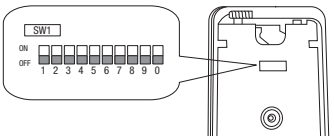
6. Function setting

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

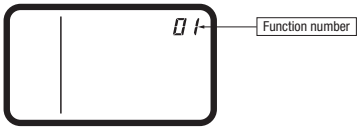
Fan speed setting	Indoor unit fan speed setting		
	■■■ - ■■ - ■	■■■ - ■	■■■ - ■■
Standard	Hi — Mid — Lo	Hi — Lo	Hi — Mid
High speed 1・2	UHi — Hi — Mid	UHi — Mid	UHi — Hi

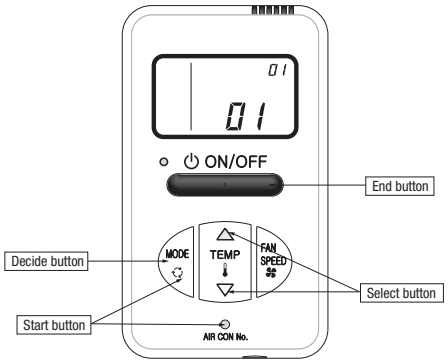
Initial setting of some indoor unit is "High speed".

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.

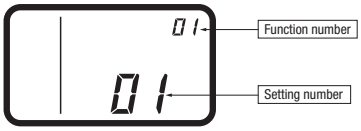




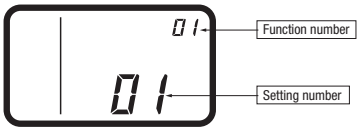
(2) **Press TEMP△ or TEMP▽ button.**
Select the function number.

(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)

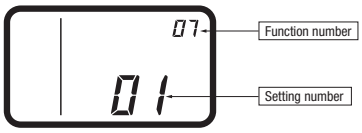


② **Press TEMP△ or TEMP▽ button.**
Select the setting number.
③ **Press MODE button.**
The setting is completed.
Light is on for approximately 3 to 20 seconds while data of the decided function No. and setting No. is transmitted.
(Example)
Function number: "01" (lighting for 3 to 20 seconds)
Setting number: "01" (lighting for 3 to 20 seconds)



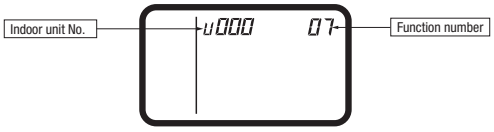
Then, the screen goes back to the function number blinking indication (1), if the setting is sequentially conducted, continue with the same procedures. If the setting is finished, proceed to (5).

[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.

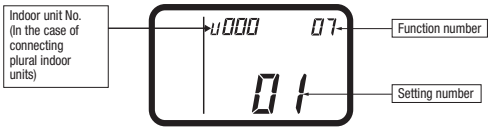
[Note]
a. In the case of connecting one remote control to plural indoor units, the display will be as follows:
Indoor unit No. display: "U 000" (blinking)
(Display the lowest number among the connected indoor units.)



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).

(5) **Press ON/OFF button.**
The setting is completed.

- 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 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.

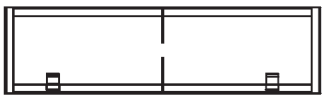
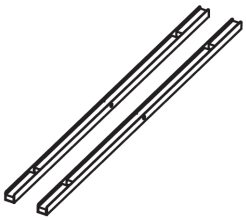
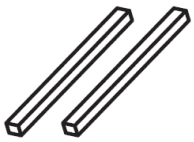
⚠ CAUTION

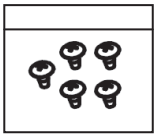
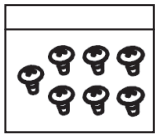
- After unpacking, carry out this work on the ground.
- Do not carry out the work during operation, or there is a danger of being entangled in the rotating parts and getting injured.
- Clean the air filter regularly.
- Be sure to entrust qualified serviceman to performance on the air filter.
- Be sure 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-FL2EF	UM-FL3EF

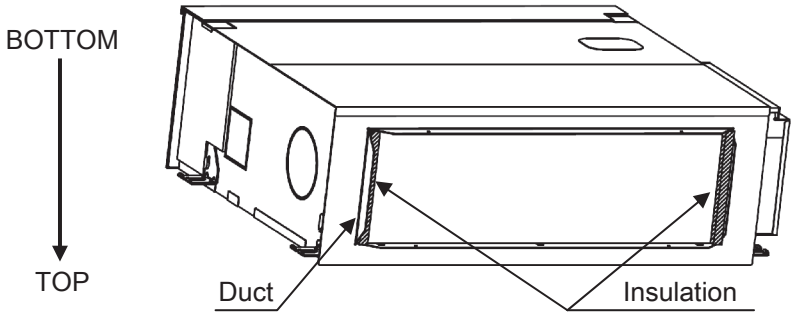
(2) Parts list of filter kit

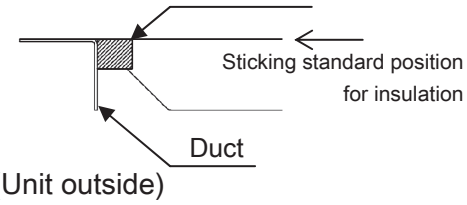
Filter	Rail	Insulation
 1 pc.	 2 pcs.	 2 pcs.

Bracket	Parts set(screw)	
1 pc.	 small and medium model : 5 pcs.	 large model : 7 pcs.
	1 pc.	

(3) Installation Points

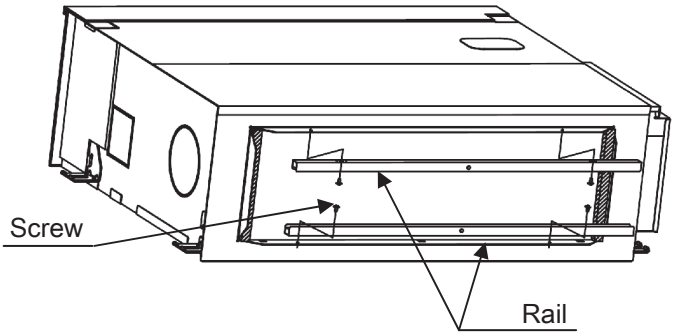
(a) Stick the insulation on both inner sides of the duct, leaving no space up and down.



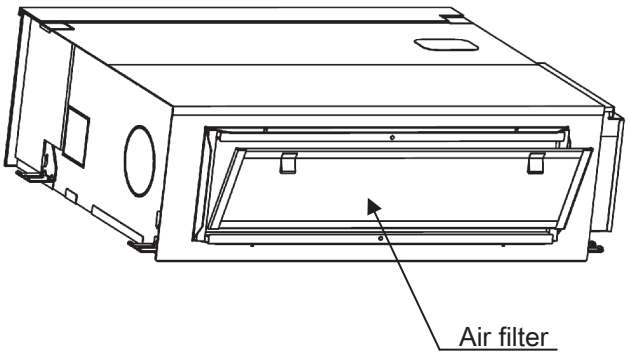


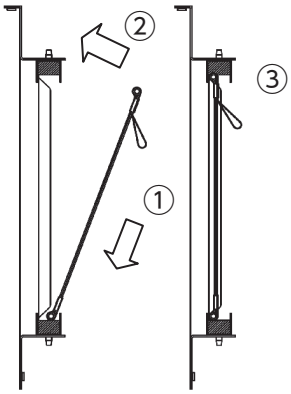
(*) After unpacking, bottom side of the unit is located at the upper side.

(b) Install the rail on both inner sides of the duct with the screw.



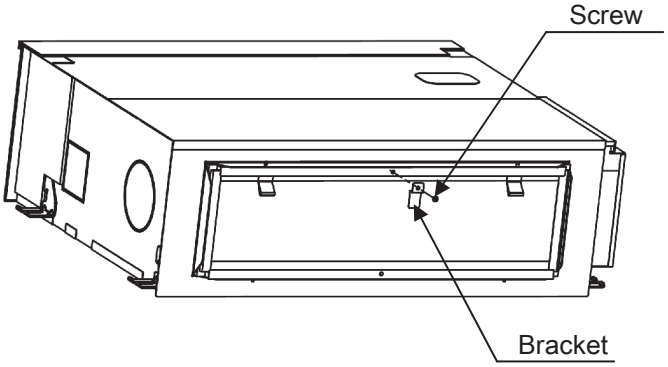
(c) Install the air filter on the rails.





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.

12.5 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.

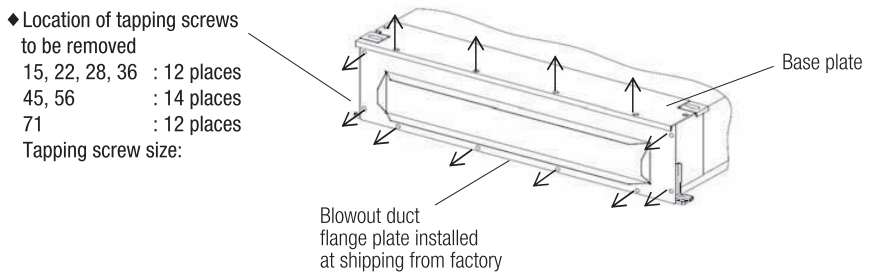
CAUTION

(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.

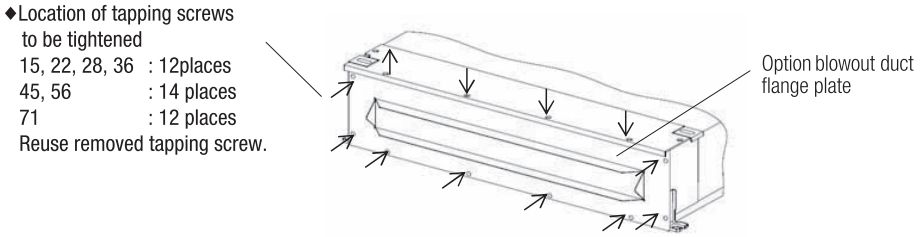
(a) Applicable model of unit and type of blowout duct flange plate kit

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.

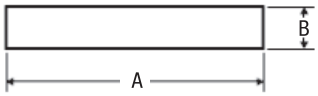


(iii) Install the option blowout duct flange plate using the tapping screws removed at the step (ii) above.
Take care not to damage the insulation when tightening the tapping screws.



(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
45,56	860	70
71	1060	70

(2) Filter set

PJZ012D089

This manual contains installation points for FILTER SET manufactured by MHI.

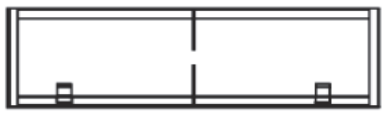
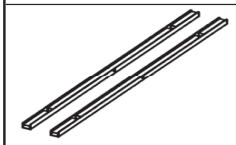
CAUTION

- 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

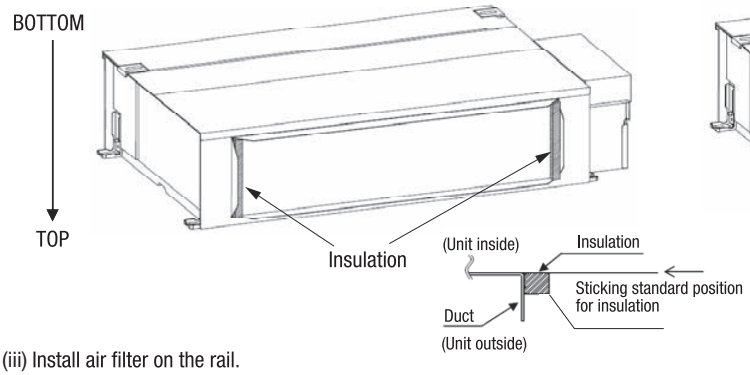
Type of FILTER SET	UT-FL1EF	UT-FL2EF	UT-FL3EF
Model	15, 22, 28, 36	45, 56	71

(b) Parts list of FILTER SET

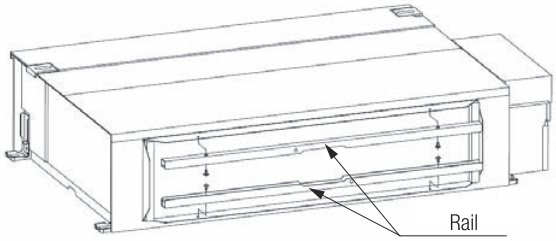
Filter	Rail	Insulation	Bracket	Parts set (screw)
				
1pc.	2pcs.	2pcs.	1pc.	UT-FL1EF 5pcs. UT-FL2EF 5pcs. UT-FL3EF 7pcs.

● Following procedure (i) to (iv) is needed when filter is installed on suction duct flange of unit.

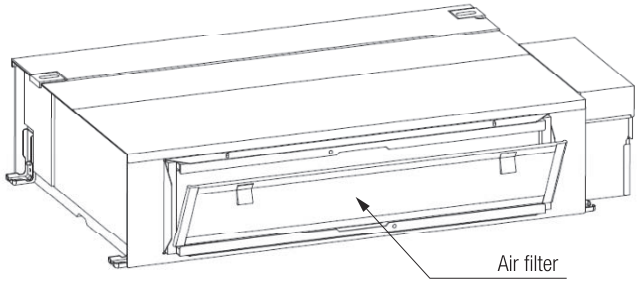
(i) Stick the insulation on both inner sides of the duct flange.

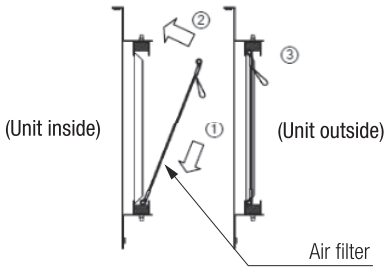


(ii) Install the rail on both inner sides of the duct with the screw.



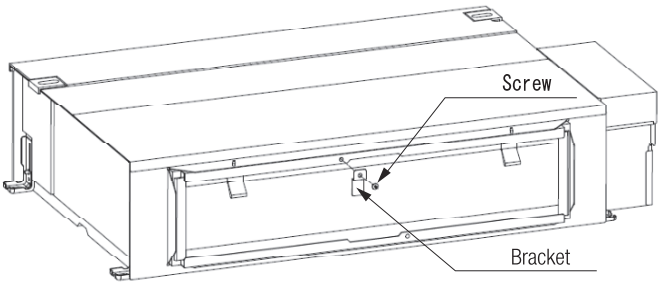
(iii) Install air filter on the rail.





Filter installation procedure

(iv) Install bracket on the rail with screw.



VRF INVERTER MULTI-SYSTEM AIR-CONDITIONERS

MITSUBISHI HEAVY INDUSTRIES THERMAL SYSTEMS, LTD.
2-3, Marunouchi 3-chome, Chiyoda-ku, Tokyo, 100-8332, Japan
http://www.mhi-mth.co.jp/en/

Because of our policy of continuous improvement, we reserve the right to make changes in all specifications without notice.
© Copyright MITSUBISHI HEAVY INDUSTRIES THERMAL SYSTEMS, LTD.