



ED39 - 865

R-410A

Engineering Data



**Ceiling Mounted Cassette Type
FXFQ-P**

**Ceiling Mounted Duct Type
FXMQ-P**

DAIKIN INDUSTRIES, LTD.

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FXFQ-P (R-410A) Ceiling Mounted Cassette (Round Flow) Type

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1. Features

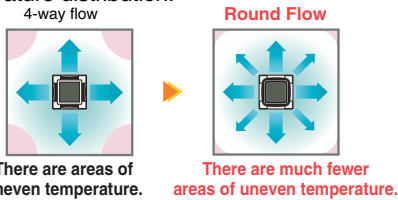
Ceiling Mounted Cassette (Round Flow) Type

New FXFQ25P/FXFQ32P/FXFQ40P
 FXFQ50P/FXFQ63P/FXFQ80P
 FXFQ100P/FXFQ125P



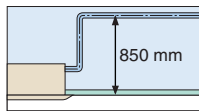
360° airflow improves temperature distribution and offers a comfortable living environment.

- The industry's first* Round Flow Ceiling Mounted Cassette type offers 360° airflow with improved temperature distribution.

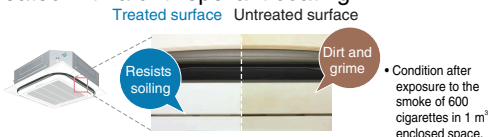


* As of April 2004, the release date for Japan.

- All models are lighter than the conventional ones. Ex: Models FXFQ25P-50P are 4.5 kg lighter (reduced from 24 kg to 19.5 kg).
- Drain pump is equipped as standard accessory, and the lift height has been improved from 750 mm to 850 mm.



- A modern sophisticated decoration panel has been applied, with a panel surface that has been treated with a dirt-repellant coating.



- Control of the airflow rate has been improved from 2-step to 3-step control.

Low operation sound level (dB(A))

FXFQ-P	25	32	40	50	63	80	100	125
Sound level (HH/H/L)	30/28.5/27	31/29/27	32/29.5/27	34/31/28	36/33.5/31	43/37.5/32	44/39/34	



- A new antibacterial treatment that uses silver ions has been applied to the drain pan, preventing the growth of slime, mould and bacteria that cause blockages and odours.
- The horizontal louvres prevent dew condensation. Their non-flocking surfaces, which repel dirt, are easy to clean.
- The air filter has an anti-mould and antibacterial treatment that prevents the growth of mould generated from dust or moisture that may adhere to the filter.

Example of airflow patterns:
 360° airflow is available, as well as 2- to 4-way flows, so you can choose the most suitable airflow pattern depending on location or room layout.

All-round flow

4-way flow

3-way flow

L-shaped 2-way flow

Note: Whatever the discharge direction, the same type of panel is used. If installing for other than all-round flow, an air discharge outlet sealing member (option) must be used to close each unused outlet.

2. Specifications

Ceiling Mounted Cassette (Round Flow) Type

Model		FXFQ25PVE	FXFQ32PVE	FXFQ40PVE	FXFQ50PVE	
*1 Cooling Capacity (19.5°CWB)	kcal/h	2,500	3,200	4,000	5,000	
	Btu/h	9,900	12,600	16,000	19,800	
	kW	2.9	3.7	4.7	5.8	
*2 Cooling Capacity (19.0°CWB)	kW	2.8	3.6	4.5	5.6	
*3 Heating Capacity	kcal/h	2,800	3,400	4,300	5,400	
	Btu/h	10,900	13,600	17,100	21,500	
	kW	3.2	4.0	5.0	6.3	
Casing		Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate	
Dimensions: (HxWxD)		mm	246x840x840	246x840x840	246x840x840	
Coil (Cross Fin Coil)	RowsxStagesxFin Pitch	mm	2x6x1.2	2x6x1.2	2x6x1.2	
	Face Area	m ²	0.267	0.267	0.267	
Fan	Model		QTS48C15M	QTS48C15M	QTS48C15M	QTS48C15M
	Type		Turbo Fan	Turbo Fan	Turbo Fan	Turbo Fan
	Motor Output x Number of Units	W	56x1	56x1	56x1	56x1
	Air Flow Rate (HH/H/L)	m ³ /min	13/11.5/10	13/11.5/10	15/13/11	16/13.5/11
		cfm	459/406/353	459/406/353	530/459/388	565/477/388
Drive		Direct Drive	Direct Drive	Direct Drive	Direct Drive	
Temperature Control		Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating	
Sound Absorbing Thermal Insulation Material		Polyurethane Form	Polyurethane Form	Polyurethane Form	Polyurethane Form	
Piping Connections	Liquid Pipes	mm	φ6.4 (Flare Connection)	φ6.4 (Flare Connection)	φ6.4 (Flare Connection)	φ6.4 (Flare Connection)
	Gas Pipes	mm	φ12.7 (Flare Connection)	φ12.7 (Flare Connection)	φ12.7 (Flare Connection)	φ12.7 (Flare Connection)
	Drain Pipe	mm	VP25 (External Dia. 32 Internal Dia. 25)	VP25 (External Dia. 32 Internal Dia. 25)	VP25 (External Dia. 32 Internal Dia. 25)	VP25 (External Dia. 32 Internal Dia. 25)
Mass (Weight)		kg	19.5	19.5	19.5	19.5
*5 Sound Level (HH/H/L) (220-240V)		dBA	30/28.5/27	30/28.5/27	31/29/27	32/29.5/27
Safety Devices		Fuse		Fuse		
Refrigerant Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve	
Connectable Outdoor Unit		R-410A VRV P(A) Series	R-410A VRV P(A) Series	R-410A VRV P(A) Series	R-410A VRV P(A) Series	
Decoration Panels (Option)	Model		BYCP125K-W1	BYCP125K-W1	BYCP125K-W1	BYCP125K-W1
	Panel Color		Fresh White	Fresh White	Fresh White	Fresh White
	Dimensions: (HxWxD)	mm	50x950x950	50x950x950	50x950x950	50x950x950
	Air Filter		Resin Net (with Mold Resistant)	Resin Net (with Mold Resistant)	Resin Net (with Mold Resistant)	Resin Net (with Mold Resistant)
	Weight	kg	5.5	5.5	5.5	5.5
Standard Accessories		Operation Manual. Installation Manual. Paper Pattern for Installation. Drain Hose. Clamp Metal. Washer Fixing Plate. Sealing Pads. Clamps. Screws. Washer for Hanging Bracket. Insulation for Fitting. Installation Guide.	Operation Manual. Installation Manual. Paper Pattern for Installation. Drain Hose. Clamp Metal. Washer Fixing Plate. Sealing Pads. Clamps. Screws. Washer for Hanging Bracket. Insulation for Fitting. Installation Guide.	Operation Manual. Installation Manual. Paper Pattern for Installation. Drain Hose. Clamp Metal. Washer Fixing Plate. Sealing Pads. Clamps. Screws. Washer for Hanging Bracket. Insulation for Fitting. Installation Guide.	Operation Manual. Installation Manual. Paper Pattern for Installation. Drain Hose. Clamp Metal. Washer Fixing Plate. Sealing Pads. Clamps. Screws. Washer for Hanging Bracket. Insulation for Fitting. Installation Guide.	
Drawing No.		C : 3D060255				

Note:

- *1 Indoor temp. : 27°CDB, 19.5°CWB / outdoor temp. : 35°CDB / Equivalent piping length : 7.5 m, level difference : 0 m.
- *2 Indoor temp. : 27°CDB, 19.0°CWB / outdoor temp. : 35°CDB / Equivalent piping length : 7.5 m, level difference : 0 m.
- *3 Indoor temp. : 20°CDB / outdoor temp. : 7°CDB, 6°CWB / Equivalent piping length : 7.5 m, level difference : 0 m.
- 4 Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.
- *5 Anechoic chamber conversion value, measured at a point 1.5 m downward from the unit centre. During actual operation, these values are normally somewhat higher as a result of ambient conditions.
- 6 Refer to page 12 for Fan Motor Input.

Conversion Formulae
kcal/h=kWx860
Btu/h=kWx3412
cfm=m ³ /minx35.3

Ceiling Mounted Cassette (Round Flow) Type

Model		FXFQ63PVE	FXFQ80PVE	FXFQ100PVE	FXFQ125PVE	
*1 Cooling Capacity (19.5°CWB)	kcal/h	6,300	8,000	10,000	12,500	
	Btu/h	24,900	31,700	39,600	49,500	
	kW	7.3	9.3	11.6	14.5	
*2 Cooling Capacity (19.0°CWB)	kW	7.1	9.0	11.2	14.0	
*3 Heating Capacity	kcal/h	6,900	8,600	10,800	13,800	
	Btu/h	27,300	34,100	42,700	54,600	
	kW	8.0	10.0	12.5	16.0	
Casing		Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate	
Dimensions: (HxWxD)		mm 246x840x840	246x840x840	288x840x840	288x840x840	
Coil (Cross Fin Coil)	RowsxStagesxFin Pitch	mm 2x10x1.2	2x10x1.2	2x12x1.2	2x12x1.2	
	Face Area	m ² 0.446	0.446	0.535	0.535	
Fan	Model	QTS48C15M	QTS48C15M	QTS48C15M	QTS48C15M	
	Type	Turbo Fan	Turbo Fan	Turbo Fan	Turbo Fan	
	Motor Output x Number of Units	W 56x1	56x1	120x1	120x1	
	Air Flow Rate (HH/H/L)	m ³ /min	19/16.5/13.5	21/18/15	32/26/20	33/28/22.5
		cfm	671/583/477	742/636/530	1,130/918/706	1,165/989/794
Drive	Direct Drive	Direct Drive	Direct Drive	Direct Drive		
Temperature Control		Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating	
Sound Absorbing Thermal Insulation Material		Polyurethane Form	Polyurethane Form	Polyurethane Form	Polyurethane Form	
Piping Connections	Liquid Pipes	mm φ9.5 (Flare Connection)	φ9.5 (Flare Connection)	φ9.5 (Flare Connection)	φ9.5 (Flare Connection)	
	Gas Pipes	mm φ15.9 (Flare Connection)	φ15.9 (Flare Connection)	φ15.9 (Flare Connection)	φ15.9 (Flare Connection)	
	Drain Pipe	mm VP25 (External Dia. 32 Internal Dia. 25)	VP25 (External Dia. 32 Internal Dia. 25)	VP25 (External Dia. 32 Internal Dia. 25)	VP25 (External Dia. 32 Internal Dia. 25)	
Mass (Weight)	kg	22	22	25	25	
*5 Sound Level (HH/H/L) (220-240V)	dBA	34/31/28	36/33.5/31	43/37.5/32	44/39/34	
Safety Devices		Fuse	Fuse	Fuse	Fuse	
Refrigerant Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve	
Connectable Outdoor Unit		R-410A VRV P(A) Series	R-410A VRV P(A) Series	R-410A VRV P(A) Series	R-410A VRV P(A) Series	
Decoration Panels (Option)	Model	BYCP125K-W1	BYCP125K-W1	BYCP125K-W1	BYCP125K-W1	
	Panel Color	Fresh White	Fresh White	Fresh White	Fresh White	
	Dimensions: (HxWxD)	mm 50x950x950	50x950x950	50x950x950	50x950x950	
	Air Filter	Resin Net (with Mold Resistant)	Resin Net (with Mold Resistant)	Resin Net (with Mold Resistant)	Resin Net (with Mold Resistant)	
	Weight	kg 5.5	5.5	5.5	5.5	
Standard Accessories		Operation Manual. Installation Manual. Paper Pattern for Installation. Drain Hose. Clamp Metal. Washer Fixing Plate. Sealing Pads. Clamps. Screws. Washer for Hanging Bracket. Insulation for Fitting. Installation Guide.	Operation Manual. Installation Manual. Paper Pattern for Installation. Drain Hose. Clamp Metal. Washer Fixing Plate. Sealing Pads. Clamps. Screws. Washer for Hanging Bracket. Insulation for Fitting. Installation Guide.	Operation Manual. Installation Manual. Paper Pattern for Installation. Drain Hose. Clamp Metal. Washer Fixing Plate. Sealing Pads. Clamps. Screws. Washer for Hanging Bracket. Insulation for Fitting. Installation Guide.	Operation Manual. Installation Manual. Paper Pattern for Installation. Drain Hose. Clamp Metal. Washer Fixing Plate. Sealing Pads. Clamps. Screws. Washer for Hanging Bracket. Insulation for Fitting. Installation Guide.	
Drawing No.		C : 3D060255				

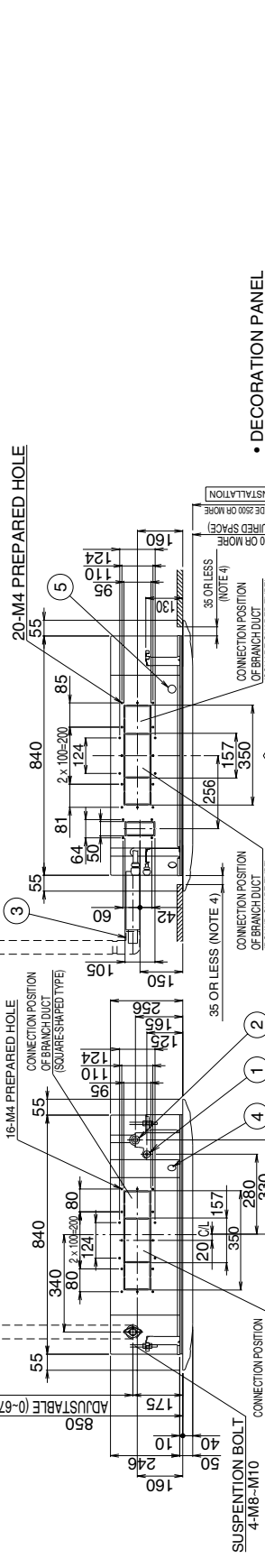
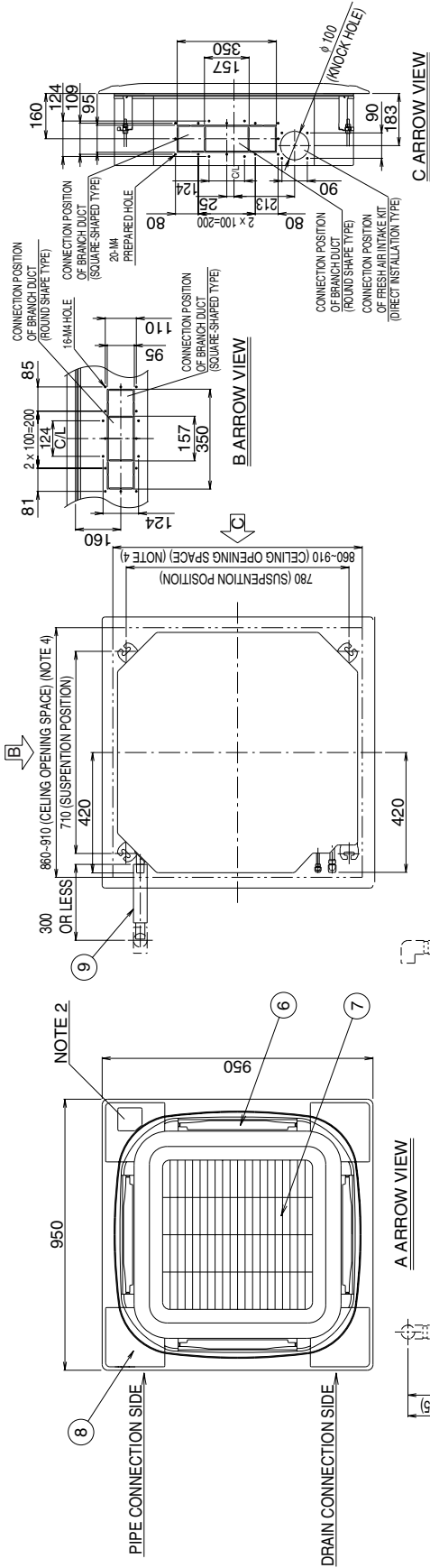
Note:

- *1 Indoor temp. : 27°CDB, 19.5°CWB / outdoor temp. : 35°CDB / Equivalent piping length : 7.5 m, level difference : 0 m.
- *2 Indoor temp. : 27°CDB, 19.0°CWB / outdoor temp. : 35°CDB / Equivalent piping length : 7.5 m, level difference : 0 m.
- *3 Indoor temp. : 20°CDB / outdoor temp. : 7°CDB, 6°CWB / Equivalent piping length : 7.5 m, level difference : 0 m.
- 4 Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.
- *5 Anechoic chamber conversion value, measured at a point 1.5 m downward from the unit centre. During actual operation, these values are normally somewhat higher as a result of ambient conditions.
- 6 Refer to page 12 for Fan Motor Input.

Conversion Formulae
kcal/h=kWx860
Btu/h=kWx3412
cfm=m ³ /minx35.3

3. Dimensions

FXFQ25P / 32P / 40P / 50PVE



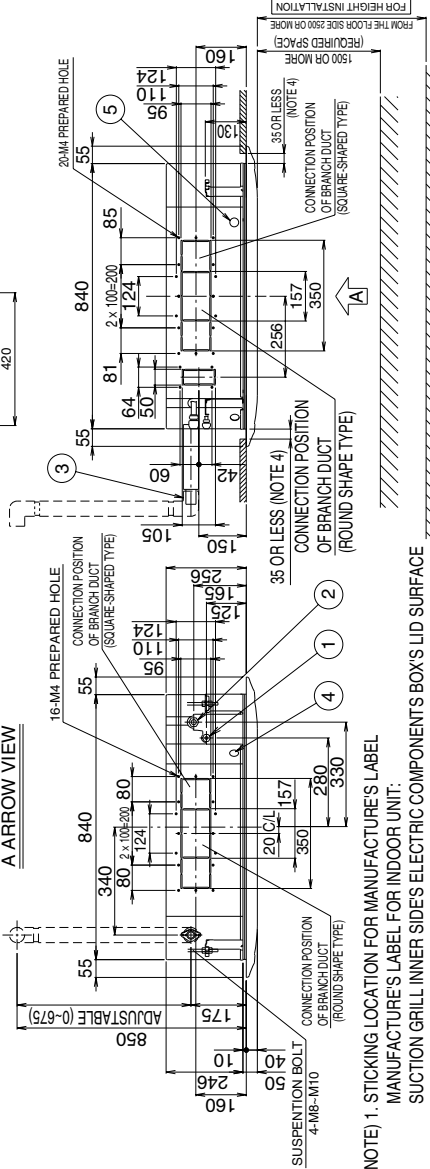
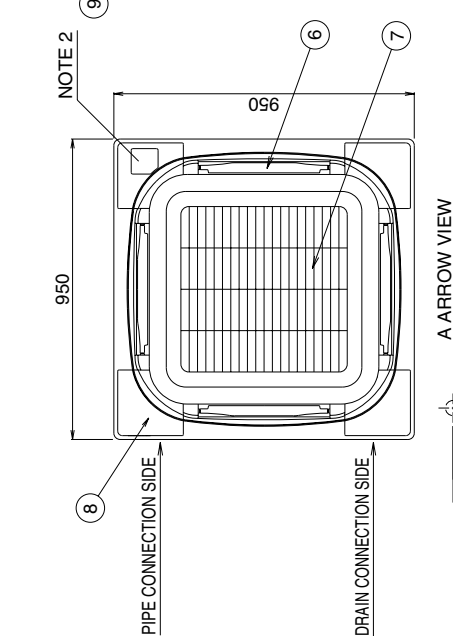
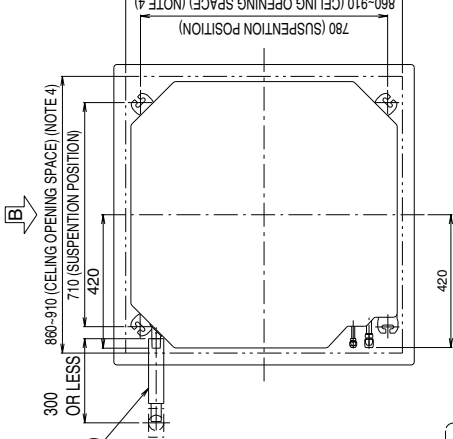
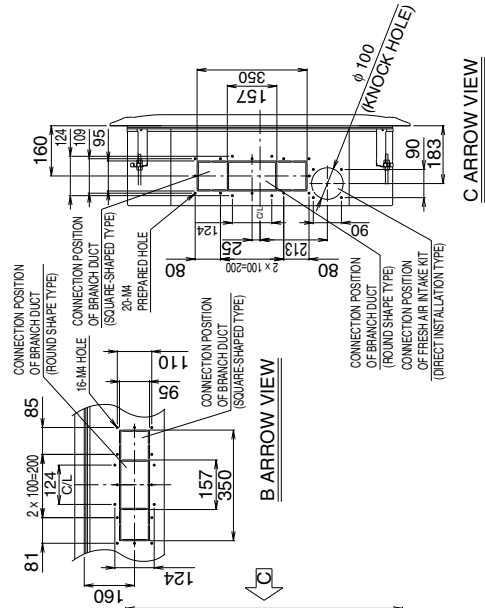
• DECORATION PANEL
BYCP125K-W1 FRESH WHITE 6.5Y 9.5/0.5

9	DRAIN HOSE (ACCESSORY)	LOCAL CONNECTION OD φ 32 (OUTLET) (UNIT CONNECTION OD φ 26)
8	CORNER DECORATION COVER	
7	SUCTION GRILLE	
6	AIR-OUTLET	
5	CONNECTION WIRING/REMOTE CONTROL WIRING CONNECTION	
4	POWER-SOURCE WIRING AND A UNIT WIRING CONNECTION	
3	DRAIN PIPE CONNECTION	VP25 (OD φ 32)
2	GAS PIPE CONNECTION	φ 12.7 (FLARE CONNECTION)
1	LIQUID PIPE CONNECTION	φ 6.4 (FLARE CONNECTION)
ITEM	PART NAME	REMARK

- NOTE) 1. STICKING LOCATION FOR MANUFACTURE'S LABEL
MANUFACTURE'S LABEL FOR INDOOR UNIT.
SUCTION GRILL INNER SIDE'S ELECTRIC COMPONENTS BOX'S LID SURFACE
MANUFACTURE'S LABEL FOR DECORATION PANEL.
DECORATION PANEL'S CORNER DECORATION COVER INNER SURFACE
- IN CASE OF USING WIRELESS REMOTE CONTROLLER, THIS POSITION WILL BE A SIGNAL RECEIVER. REFER TO THE DRAWING OF WIRELESS REMOTE CONTROLLER IN DETAIL.
 - WHEN THE TEMPERATURE AND HUMIDITY IN THE CEILING EXCEED 30°C AND RH 80% OR THE FRESH AIR IS INDUCTED INTO THE CEILING OR THE UNIT CONTINUES 24-HOUR OPERATION, AN ADDITIONAL INSULATION (THICKNESS 10mm OR MORE OF GLASSWOOL OR POLYETHYLENE FORM) IS REQUIRED.
 - THOUGH THE INSTALLATION IS ACCEPTABLE UP TO MAXIMUM OF 910mm SQUARE CEILING OPENING, KEEP THE CLEARANCE OF 35mm OR LESS BETWEEN THE INDOOR UNIT AND THE CEILING OPENING SO THAT THE PANEL OVERLAP ALLOWANCE CAN BE ENSURED.
 - PLEASE DO NOT PLACE THE THING BEEN DAMP AND TROUBLED UNDER AN INDOOR UNIT.
WHEN THE CASE WHERE HUMIDITY IS 80% OR MORE, AND THE DRAIN OUTLET ARE CHOKED UP AND THE AIR FILTER ARE DIRTY, DEW MAY FALL.
- * REQUIRED SPACE
200mm OR MORE*
1500mm OR MORE*
200mm OR MORE*
1500mm OR MORE*
1500mm OR MORE*
1500mm OR MORE*
200mm OR MORE*
1500mm OR MORE*
- * WHEN THE BLOW-OFF GRILL IS CLOSING, THE REQUIRED SPACE IS 500mm OR MORE.
WHEN UNITING AND CLOSING A CORNER PART (BOTH RIGHT AND LEFT OF THE BLOW-OFF GRILL TO CLOSE), IT IS 200mm OR MORE.

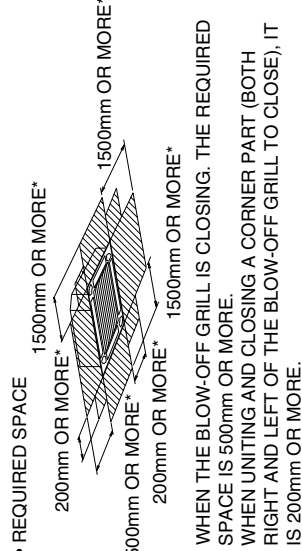
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FXFQ63P / 80PVE



• DECORATION PANEL
BYCP125K-W1 | FRESH WHITE 6.5Y 9.5/0.5

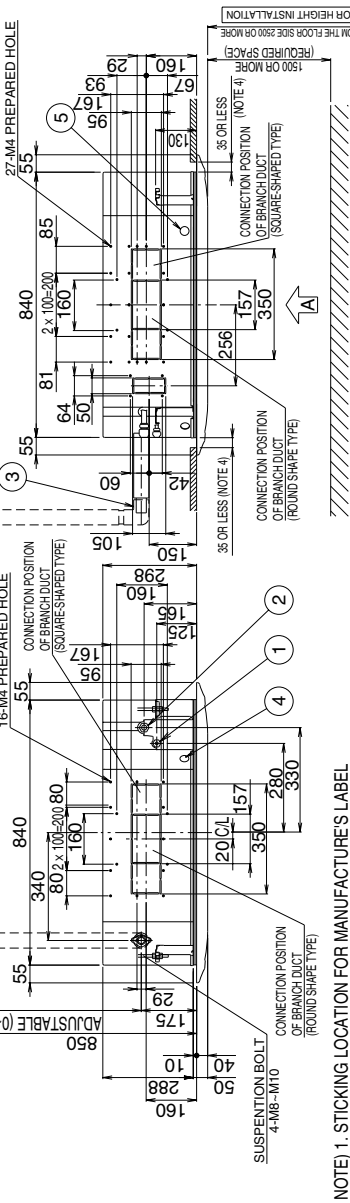
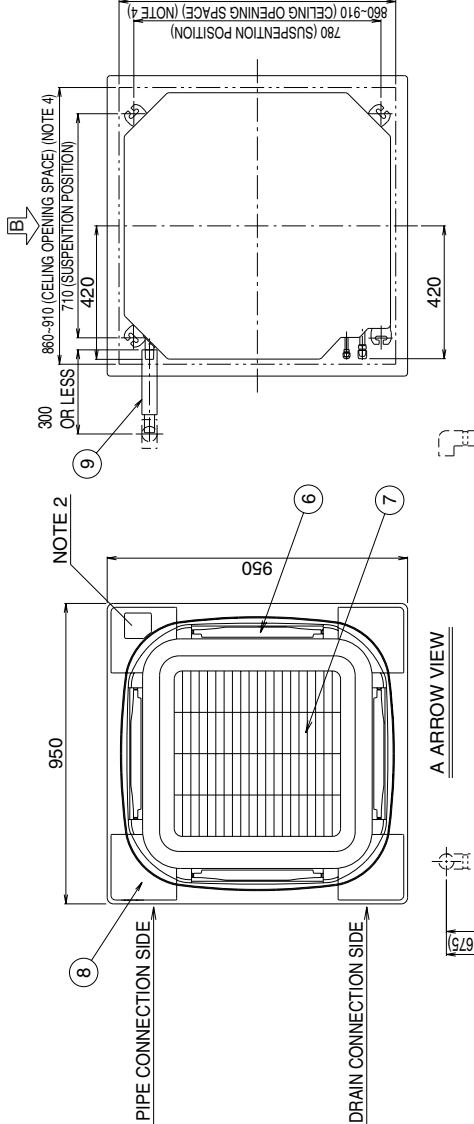
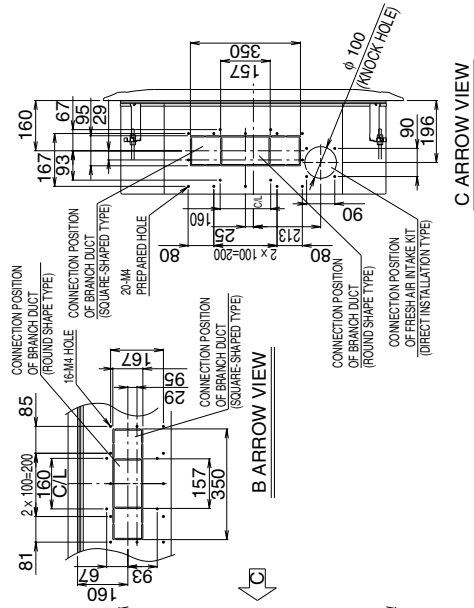
ITEM	PART NAME	REMARK
9	DRAIN HOSE (ACCESSORY)	LOCAL CONNECTION OD φ 32 (OUTLET) (UNIT CONNECTION OD φ 26)
8	CORNER DECORATION COVER	
7	SUCTION GRILLE	
6	AIR-OUTLET	
5	REMOTE CONTROL WIRING CONNECTION	
4	POWER-SOURCE WIRING AND A UNIT WIRING CONNECTION	
3	DRAIN PIPE CONNECTION	VP25 (OD φ 32)
2	GAS PIPE CONNECTION	φ 15.9 (FLARE CONNECTION)
1	LIQUID PIPE CONNECTION	φ 9.5 (FLARE CONNECTION)



- NOTE 1. STICKING LOCATION FOR MANUFACTURE'S LABEL
- MANUFACTURE'S LABEL FOR INDOOR UNIT:
 - SUCTION GRILL INNER SIDE'S ELECTRIC COMPONENTS BOX'S LID SURFACE
 - MANUFACTURE'S LABEL FOR DECORATION PANEL:
 - DECORATION PANEL'S CORNER DECORATION COVER INNER SURFACE
 - 2. IN CASE OF USING WIRELESS REMOTE CONTROLLER, THIS POSITION WILL BE A SIGNAL RECEIVER. REFER TO THE DRAWING OF WIRELESS REMOTE CONTROLLER IN DETAIL.
 - 3. WHEN THE TEMPERATURE AND HUMIDITY IN THE CEILING EXCEED 30°C AND RH 80% OR THE FRESH AIR IS INDUCTED INTO THE CEILING OR THE UNIT CONTINUES 24 HOUR OPERATION, AN ADDITIONAL INSULATION (THICKNESS 10mm OR MORE OF GLASSWOL OR POLYETHYLENE FORM) IS REQUIRED.
 - 4. THOUGH THE INSTALLATION IS ACCEPTABLE UP TO MAXIMUM OF 910mm SQUARE CEILING OPENING. KEEP THE CLEARANCE OF 35mm OR LESS BETWEEN THE INDOOR UNIT AND THE CEILING OPENING SO THAT THE PANEL OVERLAP ALLOWANCE CAN BE ENSURED.
 - 5. PLEASE DO NOT PLACE THE THING BEEN DAMP AND TROUBLED UNDER AN INDOOR UNIT.
 - WHEN THE CASE WHERE HUMIDITY IS 80% OR MORE, AND THE DRAIN OUTLET ARE CHOKED UP AND THE AIR FILTER ARE DIRTY, DEW MAY FALL.

3D058460A

FXFQ100P / 125PVE



• DECORATION PANEL
BYC/P125K-W1 | FRESH WHITE 6.5 Y 9.5/0.5

ITEM	PART NAME	REMARK
9	DRAIN HOSE (ACCESSORY)	LOCAL CONNECTION OD φ 32 (OUTLET) (UNIT CONNECTION OD φ 26)
8	CORNER DECORATION COVER	
7	SUCTION GRILLE	
6	AIR-OUTLET	
5	REMOTE CONTROL WIRING CONNECTION	
4	POWER-SOURCE WIRING AND A UNIT WIRING CONNECTION	
3	DRAIN PIPE CONNECTION	VP25 (OD φ 32)
2	GAS PIPE CONNECTION	φ 15.9 (FLARE CONNECTION)
1	LIQUID PIPE CONNECTION	φ 9.5 (FLARE CONNECTION)

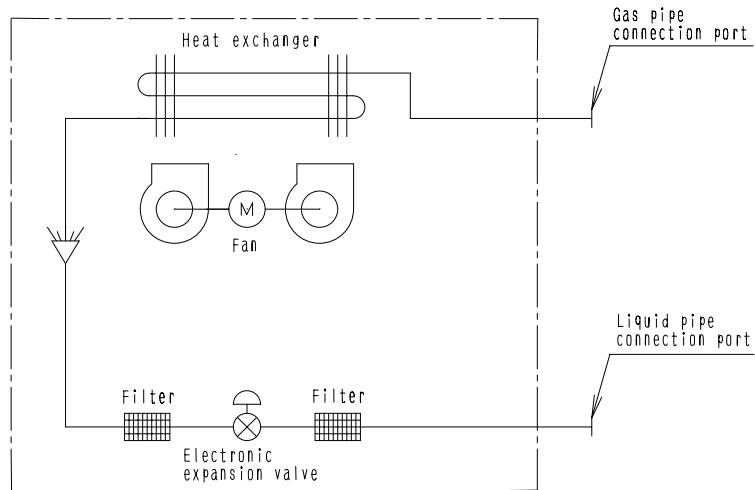
NOTE) 1. STICKING LOCATION FOR MANUFACTURE'S LABEL
MANUFACTURE'S LABEL FOR INDOOR UNIT:
SUCTION GRILL INNER SIDE'S ELECTRIC COMPONENTS BOX'S LID SURFACE
MANUFACTURE'S LABEL FOR DECORATION PANEL:
DECORATION PANEL'S CORNER DECORATION COVER INNER SURFACE
2. IN CASE OF USING WIRELESS REMOTE CONTROLLER, THIS POSITION WILL BE A SIGNAL RECEIVER. REFER TO THE DRAWING OF WIRELESS REMOTE CONTROLLER IN DETAIL.
3. WHEN THE TEMPERATURE AND HUMIDITY IN THE CEILING EXCEED 30°C AND RH 80% OR THE FRESH AIR IS INDUCTED INTO THE CEILING OR THE UNIT CONTINUES 24-HOUR OPERATION, AN ADDITIONAL INSULATION (THICKNESS 10mm OR MORE OF GLASSWOOL OR POLYETHYLENE FORM) IS REQUIRED.
4. THOUGH THE INSTALLATION IS ACCEPTABLE UP TO MAXIMUM OF 910mm SQUARE CEILING OPENING, KEEP THE CLEARANCE OF 35mm OR LESS BETWEEN THE INDOOR UNIT AND THE CEILING OPENING SO THAT THE PANEL OVERLAP ALLOWANCE CAN BE ENSURED
5. PLEASE DO NOT PLACE THE THING BEEN DAMP AND TROUBLED UNDER AN INDOOR UNIT.
WHEN THE CASE WHERE HUMIDITY IS 80% OR MORE, AND THE DRAIN OUTLET ARE CHOKED UP AND THE AIR FILTER ARE DIRTY, DEW MAY FALL.

• REQUIRED SPACE
1500mm OR MORE*
200mm OR MORE*
1500mm OR MORE*
200mm OR MORE*
1500mm OR MORE*
1500mm OR MORE*

* WHEN THE BLOW-OFF GRILL IS CLOSING, THE REQUIRED SPACE IS 500mm OR MORE.
WHEN UNITING AND CLOSING A CORNER PART (BOTH RIGHT AND LEFT OF THE BLOW-OFF GRILL TO CLOSE), IT IS 200mm OR MORE.



4. Piping Diagrams



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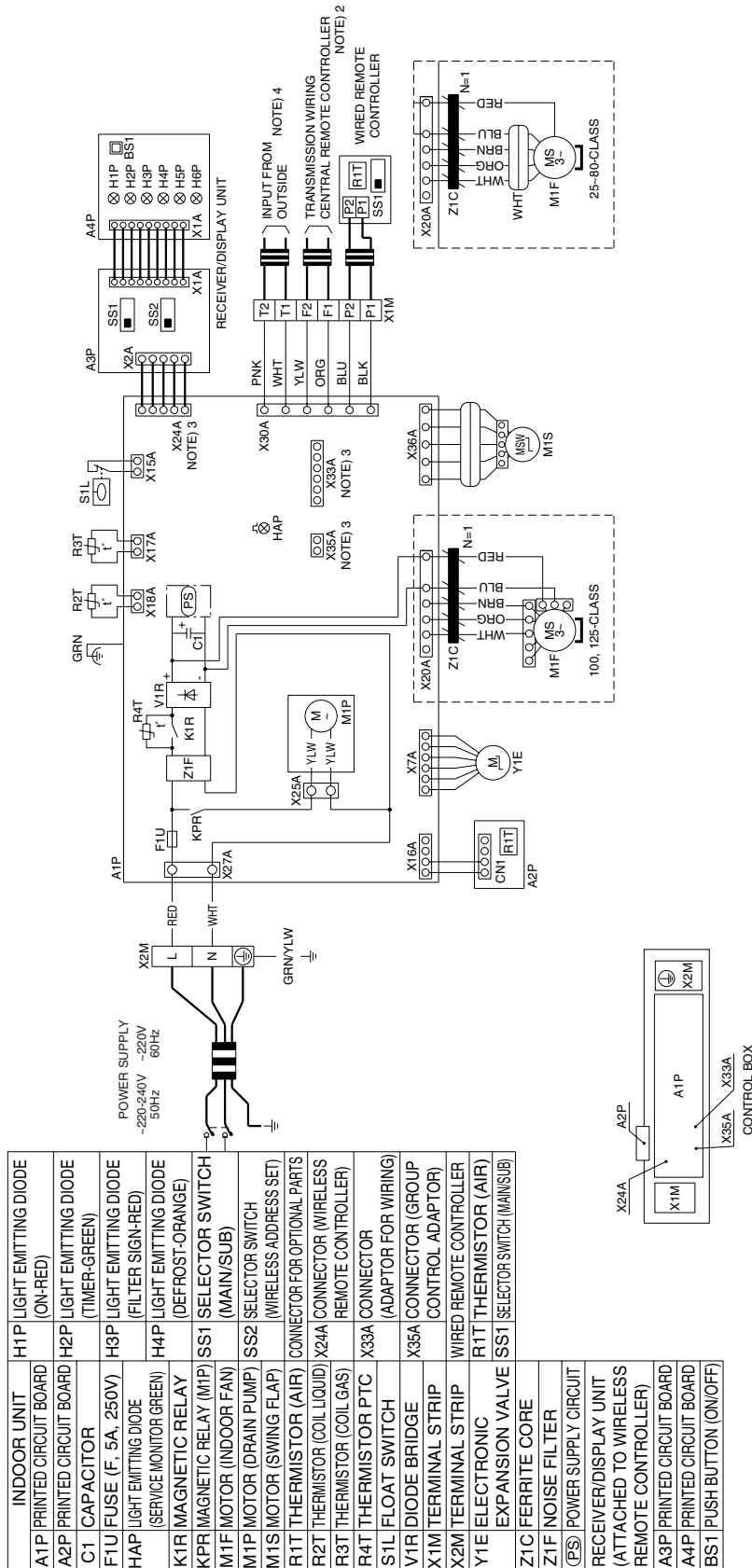
■ Refrigerant pipe connection port diameters

(mm)

Model	Gas	Liquid
FXFQ25P / 32P / 40P / 50PVE	φ12.7	φ6.4
FXFQ63P / 80P / 100P / 125PVE	φ15.9	φ9.5

5. Wiring Diagrams

FXFQ25P / 32P / 40P / 50P / 63P / 80P / 100P / 125PVE



- NOTES)
1. : TERMINAL : FIELD WIRING
 2. IN CASE USING CENTRAL REMOTE CONTROLLER, CONNECT IT TO THE UNIT IN ACCORDANCE WITH THE ATTACHED INSTALLATION MANUAL.
 3. X24A, X33A AND X35A ARE CONNECTED WHEN THE OPTIONAL ACCESSORIES ARE BEING USED.
 4. WHEN CONNECTING THE INPUT WIRES FROM OUTSIDE, FORCED OFF OR ON/OFF CONTROL OPERATION CAN BE SELECTED BY THE REMOTE CONTROLLER. SEE INSTALLATION MANUAL FOR MORE DETAILS.
 5. CONFIRM THE METHOD OF SETTING THE SELECTOR SWITCH (SS1, SS2) BY INSTALLATION MANUAL AND ENGINEERING DATA, ETC.
 6. SYMBOLS SHOWS AS FOLLOWS:
 RED : RED BLK : BLACK WHT : WHITE YLW : YELLOW GRN : GREEN
 ORG : ORANGE BRN : BROWN PNK : PINK GRAY BLU : BLUE

3D059890

6. Electric Characteristics

Model	Units			Power supply		IFM		Input (W)	
	Hz	Volts	Voltage range	MCA	MFA	kW	FLA	Cooling	Heating
FXFQ25PVE	50	220-240	MAX. 264 Min. 198	0.3	15	0.056	0.2	33	27
FXFQ32PVE				0.3	15	0.056	0.2	33	27
FXFQ40PVE				0.3	15	0.056	0.2	47	34
FXFQ50PVE				0.3	15	0.056	0.2	52	38
FXFQ63PVE				0.4	15	0.056	0.3	66	53
FXFQ80PVE				0.5	15	0.056	0.4	93	75
FXFQ100PVE				1.3	15	0.120	1.0	187	174
FXFQ125PVE				1.5	15	0.120	1.2	209	200
FXFQ25PVE	60	220	MAX. 242 Min. 198	0.3	15	0.056	0.2	32	27
FXFQ32PVE				0.3	15	0.056	0.2	32	27
FXFQ40PVE				0.3	15	0.056	0.2	42	34
FXFQ50PVE				0.3	15	0.056	0.2	50	38
FXFQ63PVE				0.4	15	0.056	0.3	63	53
FXFQ80PVE				0.5	15	0.056	0.4	92	75
FXFQ100PVE				1.3	15	0.120	1.0	186	174
FXFQ125PVE				1.5	15	0.120	1.2	208	200

Symbols :

- MCA : Min. Circuit Amps (A)
 MFA : Max. Fuse Amps (See note 5)
 kW : Fan Motor Rated Output(kW)
 FLA : Full Load Amps(A)
 IFM : Indoor Fan Motor

Note :

- Voltage range
Units are suitable for use on electrical systems where voltage supplied to unit terminals is not below or above listed range limits.
- Maximum allowable voltage unbalance between phases is 2%.
- MCA/MFA
 $MCA = 1.25 \times FLA$
 $MFA \leq 4 \times FLA$
 (Next lower standard fuse rating. Min. 15A)
- Select wire size based on the MCA.
- Instead of fuse, use Circuit Breaker.

4D060238

7. Capacity Tables

7.1 Cooling Capacity

FXFQ-P

[50 / 60Hz]

Cooling capacity

Unit Size	Outdoor air temp. °CDB	Indoor air temp.													
		14.0°CWB		16.0°CWB		18.0°CWB		19.0°CWB		20.0°CWB		22.0°CWB		24.0°CWB	
		20°CDB		23°CDB		26°CDB		27°CDB		28°CDB		30°CDB		32°CDB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
25	10.0	1.9	1.9	2.3	2.3	2.6	2.6	2.8	2.8	3.0	2.8	3.3	2.9	3.5	2.9
	12.0	1.9	1.9	2.3	2.3	2.6	2.6	2.8	2.8	3.0	2.8	3.3	2.9	3.5	2.9
	14.0	1.9	1.9	2.3	2.3	2.6	2.6	2.8	2.8	3.0	2.8	3.3	2.9	3.4	2.9
	16.0	1.9	1.9	2.3	2.3	2.6	2.6	2.8	2.8	3.0	2.8	3.3	2.9	3.4	2.8
	18.0	1.9	1.9	2.3	2.3	2.6	2.6	2.8	2.8	3.0	2.8	3.3	2.9	3.4	2.8
	20.0	1.9	1.9	2.3	2.3	2.6	2.6	2.8	2.8	3.0	2.8	3.2	2.9	3.3	2.8
	21.0	1.9	1.9	2.3	2.3	2.6	2.6	2.8	2.8	3.0	2.8	3.2	2.9	3.3	2.8
	23.0	1.9	1.9	2.3	2.3	2.6	2.6	2.8	2.8	3.0	2.8	3.2	2.9	3.2	2.8
	25.0	1.9	1.9	2.3	2.3	2.6	2.6	2.8	2.8	3.0	2.8	3.1	2.8	3.2	2.8
	27.0	1.9	1.9	2.3	2.3	2.6	2.6	2.8	2.8	3.0	2.8	3.1	2.8	3.2	2.7
	29.0	1.9	1.9	2.3	2.3	2.6	2.6	2.8	2.8	3.0	2.8	3.0	2.8	3.1	2.7
	31.0	1.9	1.9	2.3	2.3	2.6	2.6	2.8	2.8	2.9	2.8	3.0	2.8	3.1	2.7
	33.0	1.9	1.9	2.3	2.3	2.6	2.6	2.8	2.8	2.9	2.8	2.9	2.8	3.0	2.7
35.0	1.9	1.9	2.3	2.3	2.6	2.6	2.8	2.8	2.8	2.8	2.9	2.7	3.0	2.6	
37.0	1.9	1.9	2.3	2.3	2.6	2.6	2.8	2.8	2.8	2.8	2.9	2.7	2.9	2.6	
39.0	1.9	1.9	2.3	2.3	2.6	2.6	2.7	2.7	2.7	2.7	2.8	2.7	2.9	2.6	
32	10.0	2.4	2.4	2.9	2.8	3.4	3.1	3.6	3.1	3.8	3.2	4.3	3.2	4.6	3.1
	12.0	2.4	2.4	2.9	2.8	3.4	3.1	3.6	3.1	3.8	3.2	4.3	3.2	4.5	3.1
	14.0	2.4	2.4	2.9	2.8	3.4	3.1	3.6	3.1	3.8	3.2	4.3	3.2	4.4	3.1
	16.0	2.4	2.4	2.9	2.8	3.4	3.1	3.6	3.1	3.8	3.2	4.3	3.2	4.4	3.1
	18.0	2.4	2.4	2.9	2.8	3.4	3.1	3.6	3.1	3.8	3.2	4.2	3.2	4.3	3.1
	20.0	2.4	2.4	2.9	2.8	3.4	3.1	3.6	3.1	3.8	3.2	4.2	3.1	4.3	3.1
	21.0	2.4	2.4	2.9	2.8	3.4	3.1	3.6	3.1	3.8	3.2	4.1	3.1	4.2	3.1
	23.0	2.4	2.4	2.9	2.8	3.4	3.1	3.6	3.1	3.8	3.2	4.1	3.1	4.2	3.0
	25.0	2.4	2.4	2.9	2.8	3.4	3.1	3.6	3.1	3.8	3.2	4.0	3.1	4.1	3.0
	27.0	2.4	2.4	2.9	2.8	3.4	3.1	3.6	3.1	3.8	3.2	4.0	3.1	4.1	3.0
	29.0	2.4	2.4	2.9	2.8	3.4	3.1	3.6	3.1	3.8	3.2	3.9	3.1	4.0	3.0
	31.0	2.4	2.4	2.9	2.8	3.4	3.1	3.6	3.1	3.8	3.1	3.8	3.1	3.9	3.0
	33.0	2.4	2.4	2.9	2.8	3.4	3.1	3.6	3.1	3.7	3.1	3.8	3.1	3.9	3.0
35.0	2.4	2.4	2.9	2.8	3.4	3.1	3.6	3.1	3.6	3.1	3.7	3.1	3.8	3.0	
37.0	2.4	2.4	2.9	2.8	3.4	3.1	3.5	3.1	3.6	3.1	3.7	3.0	3.8	2.9	
39.0	2.4	2.4	2.9	2.8	3.4	3.1	3.5	3.1	3.5	3.1	3.6	3.0	3.7	2.9	
40	10.0	3.0	2.9	3.6	3.4	4.2	3.7	4.5	3.8	4.8	3.8	5.4	3.9	5.7	3.9
	12.0	3.0	2.9	3.6	3.4	4.2	3.7	4.5	3.8	4.8	3.8	5.4	3.9	5.6	3.8
	14.0	3.0	2.9	3.6	3.4	4.2	3.7	4.5	3.8	4.8	3.8	5.4	3.9	5.5	3.8
	16.0	3.0	2.9	3.6	3.4	4.2	3.7	4.5	3.8	4.8	3.8	5.4	3.9	5.5	3.8
	18.0	3.0	2.9	3.6	3.4	4.2	3.7	4.5	3.8	4.8	3.8	5.3	3.9	5.4	3.8
	20.0	3.0	2.9	3.6	3.4	4.2	3.7	4.5	3.8	4.8	3.8	5.2	3.9	5.3	3.7
	21.0	3.0	2.9	3.6	3.4	4.2	3.7	4.5	3.8	4.8	3.8	5.2	3.8	5.3	3.7
	23.0	3.0	2.9	3.6	3.4	4.2	3.7	4.5	3.8	4.8	3.8	5.1	3.8	5.2	3.7
	25.0	3.0	2.9	3.6	3.4	4.2	3.7	4.5	3.8	4.8	3.8	5.0	3.8	5.1	3.7
	27.0	3.0	2.9	3.6	3.4	4.2	3.7	4.5	3.8	4.8	3.8	5.0	3.7	5.1	3.6
	29.0	3.0	2.9	3.6	3.4	4.2	3.7	4.5	3.8	4.8	3.8	4.9	3.7	5.0	3.6
	31.0	3.0	2.9	3.6	3.4	4.2	3.7	4.5	3.8	4.7	3.8	4.8	3.7	4.9	3.6
	33.0	3.0	2.9	3.6	3.4	4.2	3.7	4.5	3.8	4.6	3.7	4.7	3.7	4.8	3.6
35.0	3.0	2.9	3.6	3.4	4.2	3.7	4.5	3.8	4.6	3.7	4.7	3.6	4.8	3.5	
37.0	3.0	2.9	3.6	3.4	4.2	3.7	4.4	3.8	4.5	3.7	4.6	3.6	4.7	3.5	
39.0	3.0	2.9	3.6	3.4	4.2	3.7	4.4	3.7	4.4	3.7	4.5	3.6	4.6	3.5	
50	10.0	3.8	3.4	4.5	3.9	5.2	4.3	5.6	4.4	6.0	4.5	6.7	4.6	7.1	4.5
	12.0	3.8	3.4	4.5	3.9	5.2	4.3	5.6	4.4	6.0	4.5	6.7	4.6	7.0	4.5
	14.0	3.8	3.4	4.5	3.9	5.2	4.3	5.6	4.4	6.0	4.5	6.7	4.6	6.9	4.5
	16.0	3.8	3.4	4.5	3.9	5.2	4.3	5.6	4.4	6.0	4.5	6.7	4.5	6.8	4.4
	18.0	3.8	3.4	4.5	3.9	5.2	4.3	5.6	4.4	6.0	4.5	6.6	4.5	6.7	4.4
	20.0	3.8	3.4	4.5	3.9	5.2	4.3	5.6	4.4	6.0	4.5	6.5	4.5	6.6	4.4
	21.0	3.8	3.4	4.5	3.9	5.2	4.3	5.6	4.4	6.0	4.5	6.4	4.5	6.6	4.3
	23.0	3.8	3.4	4.5	3.9	5.2	4.3	5.6	4.4	6.0	4.5	6.4	4.4	6.5	4.3
	25.0	3.8	3.4	4.5	3.9	5.2	4.3	5.6	4.4	6.0	4.5	6.3	4.4	6.4	4.3
	27.0	3.8	3.4	4.5	3.9	5.2	4.3	5.6	4.4	6.0	4.5	6.2	4.4	6.3	4.2
	29.0	3.8	3.4	4.5	3.9	5.2	4.3	5.6	4.4	5.9	4.5	6.1	4.3	6.2	4.2
	31.0	3.8	3.4	4.5	3.9	5.2	4.3	5.6	4.4	5.9	4.4	6.0	4.3	6.1	4.2
	33.0	3.8	3.4	4.5	3.9	5.2	4.3	5.6	4.4	5.8	4.4	5.9	4.2	6.0	4.2
35.0	3.8	3.4	4.5	3.9	5.2	4.3	5.6	4.4	5.7	4.4	5.8	4.2	5.9	4.1	
37.0	3.8	3.4	4.5	3.9	5.2	4.3	5.5	4.4	5.6	4.3	5.7	4.2	5.8	4.1	
39.0	3.8	3.4	4.5	3.9	5.2	4.3	5.4	4.3	5.5	4.3	5.6	4.2	5.8	4.0	

[50 / 60Hz]

Cooling capacity

Unit Size	Outdoor air temp. °CDB	Indoor air temp.													
		14.0°CWB		16.0°CWB		18.0°CWB		19.0°CWB		20.0°CWB		22.0°CWB		24.0°CWB	
		20°CDB		23°CDB		26°CDB		27°CDB		28°CDB		30°CDB		32°CDB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
63	10.0	4.8	4.3	5.7	5.0	6.6	5.6	7.1	5.6	7.6	5.7	8.5	5.8	9.0	5.7
	12.0	4.8	4.3	5.7	5.0	6.6	5.6	7.1	5.6	7.6	5.7	8.5	5.8	8.9	5.7
	14.0	4.8	4.3	5.7	5.0	6.6	5.6	7.1	5.6	7.6	5.7	8.5	5.8	8.7	5.7
	16.0	4.8	4.3	5.7	5.0	6.6	5.6	7.1	5.6	7.6	5.7	8.5	5.8	8.6	5.6
	18.0	4.8	4.3	5.7	5.0	6.6	5.6	7.1	5.6	7.6	5.7	8.3	5.8	8.5	5.6
	20.0	4.8	4.3	5.7	5.0	6.6	5.6	7.1	5.6	7.6	5.7	8.2	5.7	8.4	5.5
	21.0	4.8	4.3	5.7	5.0	6.6	5.6	7.1	5.6	7.6	5.7	8.2	5.7	8.3	5.5
	23.0	4.8	4.3	5.7	5.0	6.6	5.6	7.1	5.6	7.6	5.7	8.1	5.6	8.2	5.5
	25.0	4.8	4.3	5.7	5.0	6.6	5.6	7.1	5.6	7.6	5.7	7.9	5.6	8.1	5.4
	27.0	4.8	4.3	5.7	5.0	6.6	5.6	7.1	5.6	7.6	5.7	7.8	5.6	8.0	5.4
	29.0	4.8	4.3	5.7	5.0	6.6	5.6	7.1	5.6	7.5	5.7	7.7	5.5	7.9	5.4
	31.0	4.8	4.3	5.7	5.0	6.6	5.6	7.1	5.6	7.4	5.7	7.6	5.5	7.8	5.3
	33.0	4.8	4.3	5.7	5.0	6.6	5.6	7.1	5.6	7.3	5.6	7.5	5.4	7.6	5.3
	35.0	4.8	4.3	5.7	5.0	6.6	5.6	7.1	5.6	7.2	5.5	7.4	5.4	7.5	5.3
37.0	4.8	4.3	5.7	5.0	6.6	5.6	7.0	5.6	7.1	5.5	7.2	5.4	7.4	5.2	
39.0	4.8	4.3	5.7	5.0	6.6	5.6	6.9	5.6	7.0	5.4	7.1	5.3	7.3	5.2	
80	10.0	6.1	5.1	7.2	5.9	8.4	6.6	9.0	6.7	9.6	6.8	10.8	6.9	11.4	6.8
	12.0	6.1	5.1	7.2	5.9	8.4	6.6	9.0	6.7	9.6	6.8	10.8	6.9	11.2	6.8
	14.0	6.1	5.1	7.2	5.9	8.4	6.6	9.0	6.7	9.6	6.8	10.8	6.9	11.1	6.7
	16.0	6.1	5.1	7.2	5.9	8.4	6.6	9.0	6.7	9.6	6.8	10.7	6.9	10.9	6.7
	18.0	6.1	5.1	7.2	5.9	8.4	6.6	9.0	6.7	9.6	6.8	10.6	6.9	10.8	6.6
	20.0	6.1	5.1	7.2	5.9	8.4	6.6	9.0	6.7	9.6	6.8	10.4	6.8	10.6	6.6
	21.0	6.1	5.1	7.2	5.9	8.4	6.6	9.0	6.7	9.6	6.8	10.4	6.8	10.6	6.5
	23.0	6.1	5.1	7.2	5.9	8.4	6.6	9.0	6.7	9.6	6.8	10.2	6.7	10.4	6.5
	25.0	6.1	5.1	7.2	5.9	8.4	6.6	9.0	6.7	9.6	6.8	10.1	6.7	10.3	6.4
	27.0	6.1	5.1	7.2	5.9	8.4	6.6	9.0	6.7	9.6	6.8	9.9	6.6	10.1	6.4
	29.0	6.1	5.1	7.2	5.9	8.4	6.6	9.0	6.7	9.5	6.8	9.8	6.5	10.0	6.3
	31.0	6.1	5.1	7.2	5.9	8.4	6.6	9.0	6.7	9.4	6.7	9.6	6.5	9.8	6.3
	33.0	6.1	5.1	7.2	5.9	8.4	6.6	9.0	6.7	9.3	6.6	9.5	6.4	9.7	6.2
	35.0	6.1	5.1	7.2	5.9	8.4	6.6	9.0	6.7	9.1	6.6	9.3	6.4	9.5	6.2
37.0	6.1	5.1	7.2	5.9	8.4	6.6	8.9	6.7	9.0	6.5	9.2	6.3	9.4	6.1	
39.0	6.1	5.1	7.2	5.9	8.4	6.6	8.7	6.5	8.8	6.4	9.0	6.3	9.3	6.1	
100	10.0	7.6	6.8	9.0	7.8	10.5	8.7	11.2	8.9	11.9	9.0	13.4	9.3	14.2	9.2
	12.0	7.6	6.8	9.0	7.8	10.5	8.7	11.2	8.9	11.9	9.0	13.4	9.3	14.0	9.1
	14.0	7.6	6.8	9.0	7.8	10.5	8.7	11.2	8.9	11.9	9.0	13.4	9.3	13.8	9.0
	16.0	7.6	6.8	9.0	7.8	10.5	8.7	11.2	8.9	11.9	9.0	13.3	9.3	13.6	9.0
	18.0	7.6	6.8	9.0	7.8	10.5	8.7	11.2	8.9	11.9	9.0	13.2	9.2	13.4	8.9
	20.0	7.6	6.8	9.0	7.8	10.5	8.7	11.2	8.9	11.9	9.0	13.0	9.1	13.2	8.8
	21.0	7.6	6.8	9.0	7.8	10.5	8.7	11.2	8.9	11.9	9.0	12.9	9.1	13.2	8.8
	23.0	7.6	6.8	9.0	7.8	10.5	8.7	11.2	8.9	11.9	9.0	12.7	9.0	13.0	8.7
	25.0	7.6	6.8	9.0	7.8	10.5	8.7	11.2	8.9	11.9	9.0	12.5	8.9	12.8	8.7
	27.0	7.6	6.8	9.0	7.8	10.5	8.7	11.2	8.9	11.9	9.0	12.3	8.8	12.6	8.6
	29.0	7.6	6.8	9.0	7.8	10.5	8.7	11.2	8.9	11.9	9.0	12.2	8.7	12.4	8.5
	31.0	7.6	6.8	9.0	7.8	10.5	8.7	11.2	8.9	11.7	8.9	12.0	8.7	12.2	8.5
	33.0	7.6	6.8	9.0	7.8	10.5	8.7	11.2	8.9	11.5	8.9	11.8	8.6	12.1	8.4
	35.0	7.6	6.8	9.0	7.8	10.5	8.7	11.2	8.9	11.3	8.8	11.6	8.5	11.9	8.3
37.0	7.6	6.8	9.0	7.8	10.5	8.7	11.0	8.9	11.2	8.7	11.4	8.5	11.7	8.2	
39.0	7.6	6.8	9.0	7.8	10.5	8.7	10.8	8.7	11.0	8.6	11.2	8.4	11.5	8.2	
125	10.0	9.4	7.9	11.3	9.0	13.1	10.1	14.0	10.3	14.9	10.5	16.7	10.9	17.7	10.7
	12.0	9.4	7.9	11.3	9.0	13.1	10.1	14.0	10.3	14.9	10.5	16.7	10.9	17.5	10.6
	14.0	9.4	7.9	11.3	9.0	13.1	10.1	14.0	10.3	14.9	10.5	16.7	10.9	17.2	10.6
	16.0	9.4	7.9	11.3	9.0	13.1	10.1	14.0	10.3	14.9	10.5	16.7	10.8	17.0	10.5
	18.0	9.4	7.9	11.3	9.0	13.1	10.1	14.0	10.3	14.9	10.5	16.4	10.7	16.8	10.4
	20.0	9.4	7.9	11.3	9.0	13.1	10.1	14.0	10.3	14.9	10.5	16.2	10.6	16.6	10.3
	21.0	9.4	7.9	11.3	9.0	13.1	10.1	14.0	10.3	14.9	10.5	16.1	10.6	16.4	10.2
	23.0	9.4	7.9	11.3	9.0	13.1	10.1	14.0	10.3	14.9	10.5	15.9	10.5	16.2	10.1
	25.0	9.4	7.9	11.3	9.0	13.1	10.1	14.0	10.3	14.9	10.5	15.6	10.4	16.0	10.0
	27.0	9.4	7.9	11.3	9.0	13.1	10.1	14.0	10.3	14.9	10.5	15.4	10.3	15.8	9.9
	29.0	9.4	7.9	11.3	9.0	13.1	10.1	14.0	10.3	14.9	10.5	15.2	10.2	15.5	9.9
	31.0	9.4	7.9	11.3	9.0	13.1	10.1	14.0	10.3	14.6	10.4	15.0	10.1	15.3	9.8
	33.0	9.4	7.9	11.3	9.0	13.1	10.1	14.0	10.3	14.4	10.3	14.7	10.0	15.1	9.7
	35.0	9.4	7.9	11.3	9.0	13.1	10.1	14.0	10.3	14.2	10.2	14.5	9.9	14.9	9.6
37.0	9.4	7.9	11.3	9.0	13.1	10.1	13.8	10.3	13.9	10.1	14.3	9.8	14.6	9.5	
39.0	9.4	7.9	11.3	9.0	13.1	10.1	13.5	10.1	13.7	10.0	14.1	9.7	14.4	9.4	

TC : Total capacity ; kW
SHC : Sensible heat capacity ; kW



Refer to Engineering Data concerning about Outdoor Unit Capacity Tables for the actual performance data of each Indoor and Outdoor Unit combination.

7.2 Heating Capacity

FXFQ-P

[50 / 60Hz]

Heating Capacity

Unit Size	Outdoor air temp.		Indoor air temp. °CDB					
			16.0	18.0	20.0	21.0	22.0	24.0
	°CDB	°CWB	kW	kW	kW	kW	kW	kW
25	-19.8	-20.0	1.9	1.9	1.9	1.9	1.9	1.9
	-18.8	-19.0	1.9	1.9	1.9	1.9	1.9	1.9
	-16.7	-17.0	2.1	2.1	2.0	2.0	2.0	2.0
	-14.7	-15.0	2.2	2.2	2.2	2.2	2.2	2.1
	-12.6	-13.0	2.3	2.3	2.3	2.3	2.3	2.3
	-10.5	-11.0	2.4	2.4	2.4	2.4	2.4	2.4
	-9.5	-10.0	2.5	2.4	2.4	2.4	2.4	2.4
	-8.5	-9.1	2.5	2.5	2.5	2.5	2.5	2.5
	-7.0	-7.6	2.6	2.6	2.6	2.6	2.6	2.6
	-5.0	-5.6	2.7	2.7	2.7	2.7	2.7	2.7
	-3.0	-3.7	2.8	2.8	2.8	2.8	2.8	2.8
	0.0	-0.7	3.0	3.0	3.0	3.0	3.0	2.8
	3.0	2.2	3.1	3.1	3.1	3.1	3.0	2.8
	5.0	4.1	3.3	3.2	3.2	3.1	3.0	2.8
	7.0	6.0	3.4	3.4	3.2	3.1	3.0	2.8
	9.0	7.9	3.5	3.4	3.2	3.1	3.0	2.8
11.0	9.8	3.6	3.4	3.2	3.1	3.0	2.8	
13.0	11.8	3.6	3.4	3.2	3.1	3.0	2.8	
15.0	13.7	3.6	3.4	3.2	3.1	3.0	2.8	
32	-19.8	-20.0	2.4	2.4	2.3	2.3	2.3	2.3
	-18.8	-19.0	2.4	2.4	2.4	2.4	2.4	2.4
	-16.7	-17.0	2.6	2.6	2.6	2.6	2.6	2.5
	-14.7	-15.0	2.7	2.7	2.7	2.7	2.7	2.7
	-12.6	-13.0	2.9	2.8	2.8	2.8	2.8	2.8
	-10.5	-11.0	3.0	3.0	3.0	3.0	3.0	3.0
	-9.5	-10.0	3.1	3.1	3.1	3.1	3.0	3.0
	-8.5	-9.1	3.1	3.1	3.1	3.1	3.1	3.1
	-7.0	-7.6	3.2	3.2	3.2	3.2	3.2	3.2
	-5.0	-5.6	3.4	3.4	3.4	3.4	3.4	3.4
	-3.0	-3.7	3.5	3.5	3.5	3.5	3.5	3.5
	0.0	-0.7	3.7	3.7	3.7	3.7	3.7	3.5
	3.0	2.2	3.9	3.9	3.9	3.9	3.7	3.5
	5.0	4.1	4.1	4.1	4.0	3.9	3.7	3.5
	7.0	6.0	4.2	4.2	4.0	3.9	3.7	3.5
	9.0	7.9	4.3	4.3	4.0	3.9	3.7	3.5
11.0	9.8	4.5	4.3	4.0	3.9	3.7	3.5	
13.0	11.8	4.5	4.3	4.0	3.9	3.7	3.5	
15.0	13.7	4.5	4.3	4.0	3.9	3.7	3.5	
40	-19.8	-20.0	3.0	2.9	2.9	2.9	2.9	2.9
	-18.8	-19.0	3.0	3.0	3.0	3.0	3.0	3.0
	-16.7	-17.0	3.2	3.2	3.2	3.2	3.2	3.2
	-14.7	-15.0	3.4	3.4	3.4	3.4	3.4	3.4
	-12.6	-13.0	3.6	3.6	3.6	3.5	3.5	3.5
	-10.5	-11.0	3.7	3.7	3.7	3.7	3.7	3.7
	-9.5	-10.0	3.8	3.8	3.8	3.8	3.8	3.8
	-8.5	-9.1	3.9	3.9	3.9	3.9	3.9	3.9
	-7.0	-7.6	4.0	4.0	4.0	4.0	4.0	4.0
	-5.0	-5.6	4.2	4.2	4.2	4.2	4.2	4.2
	-3.0	-3.7	4.4	4.4	4.4	4.4	4.4	4.4
	0.0	-0.7	4.7	4.6	4.6	4.6	4.6	4.4
	3.0	2.2	4.9	4.9	4.9	4.8	4.7	4.4
	5.0	4.1	5.1	5.1	5.0	4.8	4.7	4.4
	7.0	6.0	5.2	5.2	5.0	4.8	4.7	4.4
	9.0	7.9	5.4	5.3	5.0	4.8	4.7	4.4
11.0	9.8	5.6	5.3	5.0	4.8	4.7	4.4	
13.0	11.8	5.6	5.3	5.0	4.8	4.7	4.4	
15.0	13.7	5.6	5.3	5.0	4.8	4.7	4.4	

[50 / 60Hz]

Heating Capacity

Unit Size	Outdoor air temp.		Indoor air temp. °CDB					
			16.0	18.0	20.0	21.0	22.0	24.0
	°CDB	°CWB	kW	kW	kW	kW	kW	kW
50	-19.8	-20.0	3.7	3.7	3.7	3.7	3.7	3.7
	-18.8	-19.0	3.8	3.8	3.8	3.8	3.8	3.8
	-16.7	-17.0	4.1	4.0	4.0	4.0	4.0	4.0
	-14.7	-15.0	4.3	4.3	4.3	4.2	4.2	4.2
	-12.6	-13.0	4.5	4.5	4.5	4.5	4.5	4.5
	-10.5	-11.0	4.7	4.7	4.7	4.7	4.7	4.7
	-9.5	-10.0	4.8	4.8	4.8	4.8	4.8	4.8
	-8.5	-9.1	4.9	4.9	4.9	4.9	4.9	4.9
	-7.0	-7.6	5.1	5.1	5.1	5.1	5.1	5.1
	-5.0	-5.6	5.3	5.3	5.3	5.3	5.3	5.3
	-3.0	-3.7	5.5	5.5	5.5	5.5	5.5	5.5
	0.0	-0.7	5.9	5.9	5.8	5.8	5.8	5.5
	3.0	2.2	6.2	6.2	6.2	6.1	5.9	5.5
	5.0	4.1	6.4	6.4	6.3	6.1	5.9	5.5
	7.0	6.0	6.6	6.6	6.3	6.1	5.9	5.5
	9.0	7.9	6.8	6.7	6.3	6.1	5.9	5.5
11.0	9.8	7.0	6.7	6.3	6.1	5.9	5.5	
13.0	11.8	7.1	6.7	6.3	6.1	5.9	5.5	
15.0	13.7	7.1	6.7	6.3	6.1	5.9	5.5	
63	-19.8	-20.0	4.7	4.7	4.7	4.7	4.7	4.7
	-18.8	-19.0	4.9	4.9	4.8	4.8	4.8	4.8
	-16.7	-17.0	5.1	5.1	5.1	5.1	5.1	5.1
	-14.7	-15.0	5.4	5.4	5.4	5.4	5.4	5.4
	-12.6	-13.0	5.7	5.7	5.7	5.7	5.7	5.7
	-10.5	-11.0	6.0	6.0	6.0	6.0	6.0	5.9
	-9.5	-10.0	6.1	6.1	6.1	6.1	6.1	6.1
	-8.5	-9.1	6.3	6.3	6.2	6.2	6.2	6.2
	-7.0	-7.6	6.5	6.5	6.4	6.4	6.4	6.4
	-5.0	-5.6	6.8	6.7	6.7	6.7	6.7	6.7
	-3.0	-3.7	7.0	7.0	7.0	7.0	7.0	7.0
	0.0	-0.7	7.5	7.4	7.4	7.4	7.4	7.0
	3.0	2.2	7.9	7.8	7.8	7.7	7.5	7.0
	5.0	4.1	8.1	8.1	8.0	7.7	7.5	7.0
	7.0	6.0	8.4	8.4	8.0	7.7	7.5	7.0
	9.0	7.9	8.7	8.5	8.0	7.7	7.5	7.0
11.0	9.8	8.9	8.5	8.0	7.7	7.5	7.0	
13.0	11.8	9.0	8.5	8.0	7.7	7.5	7.0	
15.0	13.7	9.0	8.5	8.0	7.7	7.5	7.0	
80	-19.8	-20.0	5.9	5.9	5.9	5.9	5.9	5.8
	-18.8	-19.0	6.1	6.1	6.0	6.0	6.0	6.0
	-16.7	-17.0	6.4	6.4	6.4	6.4	6.4	6.4
	-14.7	-15.0	6.8	6.8	6.8	6.7	6.7	6.7
	-12.6	-13.0	7.1	7.1	7.1	7.1	7.1	7.1
	-10.5	-11.0	7.5	7.5	7.5	7.5	7.4	7.4
	-9.5	-10.0	7.7	7.7	7.6	7.6	7.6	7.6
	-8.5	-9.1	7.8	7.8	7.8	7.8	7.8	7.8
	-7.0	-7.6	8.1	8.1	8.1	8.1	8.0	8.0
	-5.0	-5.6	8.4	8.4	8.4	8.4	8.4	8.4
	-3.0	-3.7	8.8	8.8	8.7	8.7	8.7	8.7
	0.0	-0.7	9.3	9.3	9.3	9.3	9.3	8.7
	3.0	2.2	9.8	9.8	9.8	9.7	9.4	8.7
	5.0	4.1	10.2	10.1	10.0	9.7	9.4	8.7
	7.0	6.0	10.5	10.5	10.0	9.7	9.4	8.7
	9.0	7.9	10.8	10.6	10.0	9.7	9.4	8.7
11.0	9.8	11.2	10.6	10.0	9.7	9.4	8.7	
13.0	11.8	11.3	10.6	10.0	9.7	9.4	8.7	
15.0	13.7	11.3	10.6	10.0	9.7	9.4	8.7	
100	-19.8	-20.0	7.4	7.4	7.3	7.3	7.3	7.3
	-18.8	-19.0	7.6	7.6	7.6	7.5	7.5	7.5
	-16.7	-17.0	8.0	8.0	8.0	8.0	8.0	8.0
	-14.7	-15.0	8.5	8.5	8.4	8.4	8.4	8.4
	-12.6	-13.0	8.9	8.9	8.9	8.9	8.9	8.8
	-10.5	-11.0	9.4	9.3	9.3	9.3	9.3	9.3
	-9.5	-10.0	9.6	9.6	9.5	9.5	9.5	9.5
	-8.5	-9.1	9.8	9.8	9.7	9.7	9.7	9.7
	-7.0	-7.6	10.1	10.1	10.1	10.1	10.1	10.0
	-5.0	-5.6	10.6	10.5	10.5	10.5	10.5	10.5
	-3.0	-3.7	11.0	11.0	10.9	10.9	10.9	10.9
	0.0	-0.7	11.6	11.6	11.6	11.6	11.6	10.9
	3.0	2.2	12.3	12.3	12.2	12.1	11.7	10.9
	5.0	4.1	12.7	12.7	12.5	12.1	11.7	10.9
	7.0	6.0	13.1	13.1	12.5	12.1	11.7	10.9
	9.0	7.9	13.5	13.3	12.5	12.1	11.7	10.9
11.0	9.8	14.0	13.3	12.5	12.1	11.7	10.9	
13.0	11.8	14.1	13.3	12.5	12.1	11.7	10.9	
15.0	13.7	14.1	13.3	12.5	12.1	11.7	10.9	

[50 / 60Hz]**Heating Capacity**

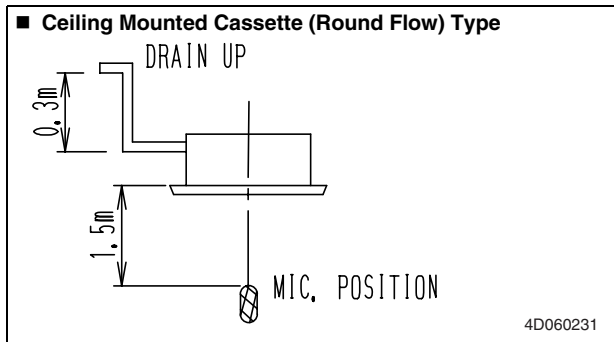
Unit Size	Outdoor air temp.		Indoor air temp. °CDB					
			16.0	18.0	20.0	21.0	22.0	24.0
	°CDB	°CWB	kW	kW	kW	kW	kW	kW
125	-19.8	-20.0	9.4	9.4	9.4	9.4	9.4	9.3
	-18.8	-19.0	9.7	9.7	9.7	9.7	9.6	9.6
	-16.7	-17.0	10.3	10.3	10.2	10.2	10.2	10.2
	-14.7	-15.0	10.9	10.8	10.8	10.8	10.8	10.7
	-12.6	-13.0	11.4	11.4	11.4	11.4	11.3	11.3
	-10.5	-11.0	12.0	12.0	11.9	11.9	11.9	11.9
	-9.5	-10.0	12.3	12.2	12.2	12.2	12.2	12.2
	-8.5	-9.1	12.5	12.5	12.5	12.5	12.4	12.4
	-7.0	-7.6	13.0	12.9	12.9	12.9	12.9	12.8
	-5.0	-5.6	13.5	13.5	13.5	13.4	13.4	13.4
	-3.0	-3.7	14.1	14.0	14.0	14.0	14.0	13.9
	0.0	-0.7	14.9	14.9	14.8	14.8	14.8	13.9
	3.0	2.2	15.7	15.7	15.7	15.5	15.0	13.9
	5.0	4.1	16.3	16.2	16.0	15.5	15.0	13.9
	7.0	6.0	16.8	16.8	16.0	15.5	15.0	13.9
	9.0	7.9	17.3	17.0	16.0	15.5	15.0	13.9
	11.0	9.8	17.9	17.0	16.0	15.5	15.0	13.9
13.0	11.8	18.1	17.0	16.0	15.5	15.0	13.9	
15.0	13.7	18.1	17.0	16.0	15.5	15.0	13.9	



Refer to Engineering Data concerning about Outdoor Unit Capacity Tables for the actual performance data of each Indoor and Outdoor Unit combination.

8. Sound Levels

Overall



Note:

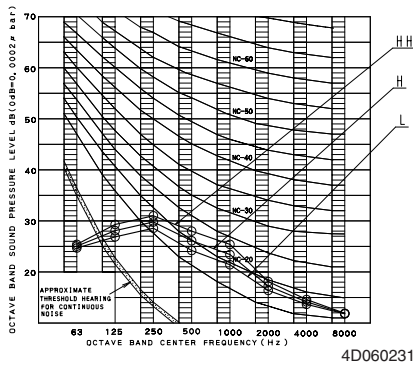
1. The operating conditions are assumed to be standard (JIS conditions).
2. These operating values were obtained in a dead room (conversion values). Sound level will vary depending on a range of factors such as the construction (acoustic absorption coefficient) of the particular room in which the equipments installed.

dBA

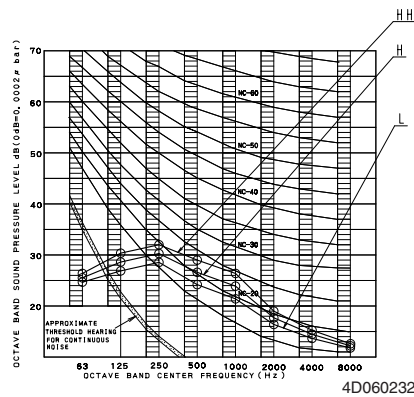
Model	220~240V/220V, 50/60Hz		
	HH	H	L
FXFQ25P / 32P	30	28.5	27
FXFQ40P	31	29	27
FXFQ50P	32	29.5	27
FXFQ63P	34	31	28
FXFQ80P	36	33.5	31
FXFQ100P	43	37.5	32
FXFQ125P	44	39	34

Octave Band Level

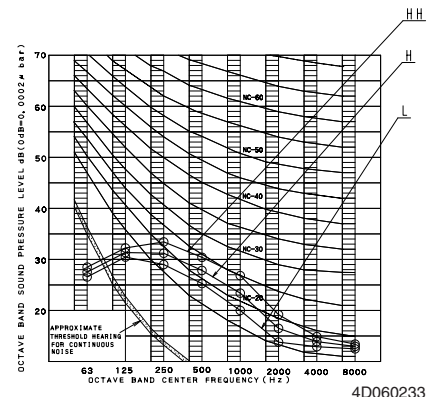
FXFQ25/32PVE



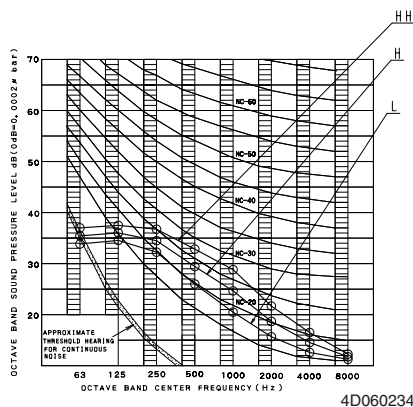
FXFQ40PVE



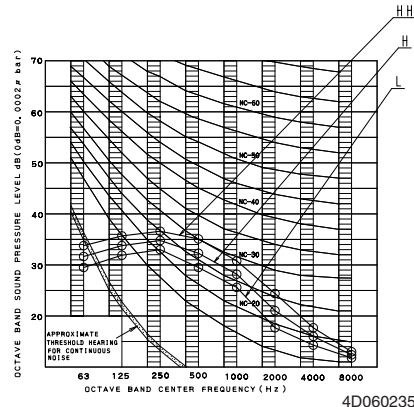
FXFQ50PVE



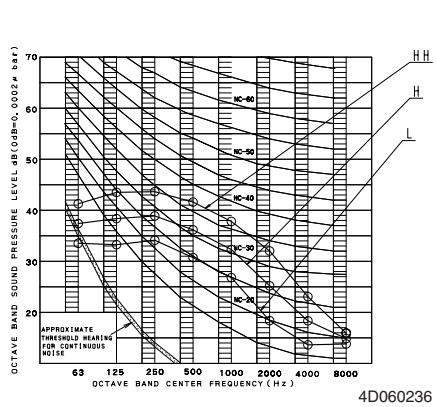
FXFQ63PVE



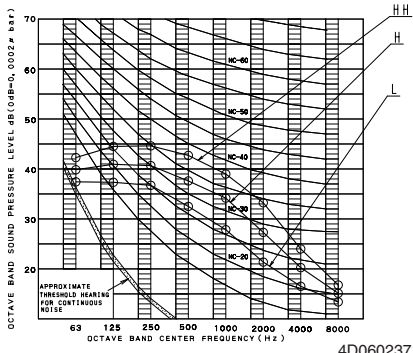
FXFQ80PVE



FXFQ100PVE

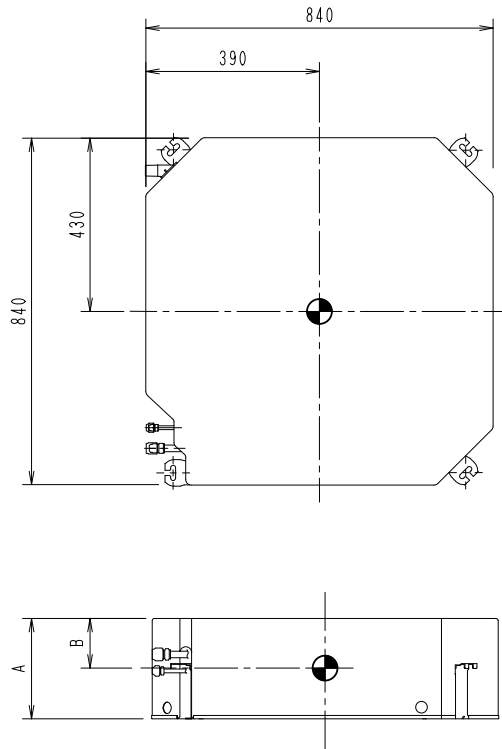


FXFQ125PVE



9. Center of Gravity

FXFQ25P / 32P / 40P / 50P / 63P / 80P / 100P / 125PVE



MODEL NAME	A	B
FXFQ25P~80PVE	246	90
FXFQ100・125PVE	288	120

4D052237A

10. Installation Manual



FXFQ25PVE
FXFQ32PVE
FXFQ40PVE
FXFQ50PVE

FXFQ63PVE
FXFQ80PVE
FXFQ100PVE
FXFQ125PVE

VRV SYSTEM Inverter
Air Conditioners

Installation manual

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1. SAFETY PRECAUTIONS

Please read these “SAFETY PRECAUTIONS” carefully before installing air conditioning unit and be sure to install it correctly. After completing installation, conduct a trial operation to check for faults and explain to the customer how to operate the air conditioner and take care of it with the aid of the operation manual. Ask the customer to store the installation manual along with the operation manual for future reference.

This air conditioner comes under the term “appliances not accessible to the general public”.

This unit is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Meaning of WARNING and CAUTION notices.



WARNING Failure to follow these instructions properly may result in personal injury or loss of life.



CAUTION Failure to observe these instructions properly may result in property damage or personal injury, which may be serious depending on the circumstances.



WARNING

- Ask your dealer or qualified personnel to carry out installation work.
Do not attempt to install the air conditioner yourself. Improper installation may result in water leakage, electric shocks or fire.
- Install the air conditioner in accordance with the instructions in this installation manual.
Improper installation may result in water leakage, electric shocks or fire.
- Consult your local dealer regarding what to do in case of refrigerant leakage.
When the air conditioner is to be installed in a small room, it is necessary to take proper measures so that the amount of any leaked refrigerant does not exceed the concentration limit in the event of a leakage. Otherwise, this may lead to an accident due to oxygen depletion.

- Be sure to use only the specified accessories and parts for installation work.
Failure to use the specified parts may result in the unit falling, water leakage, electric shocks or fire.
- Install the air conditioner on a foundation strong enough to withstand the weight of the unit.
A foundation of insufficient strength may result in the equipment falling and causing injury.
- Carry out the specified installation work after taking into account strong winds, typhoons or earthquakes.
Failure to do so during installation work may result in the unit falling and causing accidents.
- Make sure that a separate power supply circuit is provided for this unit and that all electrical work is carried out by qualified personnel according to local laws and regulations and this installation manual.
An insufficient power supply capacity or improper electrical construction may lead to electric shocks or fire.
- Make sure that all wiring is secured, the specified wires are used, and that there is no strain on the terminal connections or wires.
Improper connections or securing of wires may result in abnormal heat build-up or fire.
- When wiring the power supply and connecting the remote controller wiring and transmission wiring, position the wires so that the terminal box lid can be securely fastened.
Improper positioning of the terminal box lid may result in electric shocks, fire or the terminals overheating.
- If refrigerant gas leaks during installation, ventilate the area immediately.
Toxic gas may be produced if the refrigerant comes into contact with fire.
- After completing installation, check for refrigerant gas leakage.
Toxic gas may be produced if the refrigerant gas leaks into the room and comes into contact with a source of fire, such as a fan heater, stove or cooker.
- Be sure to switch off the unit before touching any electrical parts.
- Do not directly touch refrigerant that has leaked from refrigerant pipes or other areas, as there is a danger of frostbite.
- Be sure to earth the air conditioner.
Do not earth the unit to a utility pipe, lightning conductor or telephone earth lead.
Imperfect earthing may result in electric shocks or fire.
A high surge current from lightning or other sources may cause damage to the air conditioner.
- Be sure to install an earth leakage breaker.
Failure to install an earth leakage breaker may result in electric shocks or fire.

CAUTION

- While following the instructions in this installation manual, install drain piping to ensure proper drainage and insulate piping to prevent condensation.
Improper drain piping may result in indoor water leakage and property damage.
- Install the indoor and outdoor units, power cord and connecting wires at least 1 meter away from televisions or radios to prevent picture interference and noise.
(Depending on the incoming signal strength, a distance of 1 meter may not be sufficient to eliminate noise.)
- Remote controller (wireless kit) transmitting distance can be shorter than expected in rooms with electronic fluorescent lamps (inverter or rapid start types).
Install the indoor unit as far away from fluorescent lamps as possible.
- Do not install the air conditioner in the following locations:
 1. Where there is a high concentration of mineral oil spray or vapour (e.g. a kitchen).
Plastic parts will deteriorate, parts may fall off and water leakage could result.
 2. Where corrosive gas, such as sulphurous acid gas, is produced.
Corroding of copper pipes or soldered parts may result in refrigerant leakage.
 3. Near machinery emitting electromagnetic radiation.
Electromagnetic radiation may disturb the operation of the control system and result in a malfunction of the unit.
 4. Where flammable gas may leak, where there is carbon fibre or ignitable dust suspensions in the air, or where volatile flammables such as paint thinner or gasoline are handled.
Operating the unit in such conditions may result in fire.

2. BEFORE INSTALLATION

Do not exert pressure on the resin parts when opening the unit or when moving it after opening. Be sure to check the type of R410A refrigerant to be used before doing any work. (Using an incorrect refrigerant will prevent normal operation of the unit.)







- When opening the unit or moving it after opening, be sure to lift it by holding on to the lifting lugs without exerting any pressure on other parts, especially, drain piping, and other resin parts.
- Decide upon a line of transport.
- Leave the unit inside its packaging while moving, until reaching the installation site. Use a sling of soft material, where unpacking is unavoidable or protective plates together with a rope when lifting, to avoid damage or scratches to the unit.
- Refer to the installation manual of the outdoor unit for items not described in this manual.
- Do not dispose of any parts necessary for installation until the installation is complete.




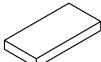





1. PRECAUTIONS

- Be sure to read this manual before installing the indoor unit.
- When selecting installation site, refer to the paper pattern.
- This unit is suitable for installation in a household, commercial and light industrial environment.
- Do not install or operate the unit in rooms mentioned below.
 - Laden with mineral oil, or filled with oil vapor or spray like in kitchens. (Plastic parts may deteriorate.)
 - Where corrosive gas like sulfurous gas exists. (Copper tubing and brazed spots may corrode.)
 - Where volatile flammable gas like thinner or gasoline is used.
 - Where machines can generate electromagnetic waves. (Control system may malfunction.)
 - Where the air contains high levels of salt such as that near the ocean and where voltage fluctuates greatly such as that in factories. Also in vehicles or vessels.

2. ACCESSORIES

Check the following accessories are included with your unit.

Name	(1) Drain hose	(2) Metal clamp	(3) Washer for hanger bracket	(4) Clamp	(5) Paper pattern for installation	(6) Screw (M4)
Quantity	1 pc.	1 pc.	8 pcs.	6 pcs.	1 pc.	4 pcs.
Shape					Also used as packing material 	For paper pattern for installation 

Name	(7) Washer fixing plate	Insulation for fitting	Sealing pad			Installation guide	(Other) • Installation manual • Operation manual
Quantity	4 pcs.	1 each	1 each	1 pc.	1 pc.	1 pc.	
Shape		(8) for gas pipe  (9) for liquid pipe 	(10) Large  (11) Medium-1  (12) Medium-2 	(13) Small 	(14) 	(15) 	

3. OPTIONAL ACCESSORIES

- The optional decoration panel and remote controller are required for this indoor unit. (Refer to Table 1, 2) (However, the remote controller is not required for the slave unit of a simultaneous operation system.)

Table 1

Unit model	Optional decoration panel
FXFQ25 · 32 · 40 · 50 · 63 · 80 · 100 · 125PVE	BYCP125K-W1
	Color : Fresh white

- These are two types of remote controllers: wired and wireless. Select a remote controller from Table 2 according to customer request and install in an appropriate place.

Table 2

Remote controller	
Wired type	BRC1C62
Wireless type (Heat pump type/Cooling only type)	BRC7F634F/BRC7F635F

NOTE 

- If you wish to use a remote controller that is not listed in “Table 2” on page 4, select a suitable remote controller after consulting catalogs and technical materials.

FOR THE FOLLOWING ITEMS, TAKE SPECIAL CARE DURING CONSTRUCTION AND CHECK AFTER INSTALLATION IS FINISHED.

1. Items to be checked after completion of work

Items to be checked	If not properly done, what is likely to occur	Check
Are the indoor unit and outdoor unit fixed firmly?	The unit may drop, vibrate or make noise.	
Is the outdoor unit fully installed?	The unit may malfunction or the components burn out.	
Is the gas leak test finished?	It may result in insufficient cooling.	
Is the unit fully insulated?	Condensate water may drip.	
Does drainage flow smoothly?	Condensate water may drip.	
Does the power supply voltage correspond to that shown on the name plate?	The unit may malfunction or the components burn out.	
Are wiring and piping correct?	The unit may malfunction or the components burn out.	
Is the unit safely grounded?	It may result in electric shock.	
Is wiring size according to specifications?	The unit may malfunction or the components burn out.	
Is something blocking the air outlet or inlet of either the indoor or outdoor units?	It may result in insufficient cooling.	
Are refrigerant piping length and additional refrigerant charge noted down?	The refrigerant charge in the system is not clear.	

2. Items to be checked at time of delivery

* Also review the “1. SAFETY PRECAUTIONS”

Items to be checked	Check
Are the terminal box lid, air filter, suction grille attached?	
Did you explain about operations while showing the instruction manual to your customer?	
Did you hand the instruction manual over to your customer?	

Points for explanation about operations

The items with **⚠ WARNING** and **⚠ CAUTION** marks in the instruction manual are the items pertaining to possibilities for bodily injury and material damage in addition to the general usage of the product. Accordingly, it is necessary that you make a full explanation about the described contents and also ask your customers to read the instruction manual.

4. NOTE TO THE INSTALLER

Be sure to instruct customers how to properly operate the unit (especially cleaning filters, operating different functions, and adjusting the temperature) by having them carry out operations themselves while looking at the manual.

3. SELECTING INSTALLATION SITE

⟨Hold the unit by the 4 lifting lugs when opening the box and moving it, and do not exert pressure on to any other part piping (refrigerant, drain, etc.) or plastic parts.
If the temperature or humidity inside the ceiling might rise above 30°C or RH 80%, respectively, use the high-humidity kit (sold separately) or add extra insulation to the main unit body.
Use glass wool or polyethylene foam as insulation and make sure it is at least 10mm thick and fits inside the ceiling opening.⟩

The direction this product blows can be selected. However, a separately sold shut-off material kit is needed in order to make the unit blow in two, three, or four (corner shut-off) directions.

- (1) Select an installation location with the customer's approval which matches the following conditions.
- A location from which cool (warm) air will reach the whole room.
 - A location with no objects blocking the air passage.
 - A location where drainage can be done with no problem.
 - A location strong enough to support the weight of the indoor unit.
 - Locations where the wall is not significantly tilted.
 - A location which leaves enough room for installation and service work.
 - A location where there is no risk of flammable gas leaking.
 - A location where the length of the indoor-outdoor piping is no longer than the tolerated length (see the installation manual that came with the outdoor unit for details).

[Space required for installation]

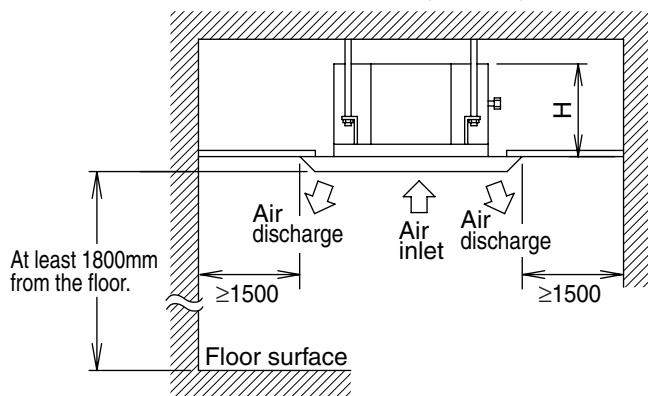


Fig. 1

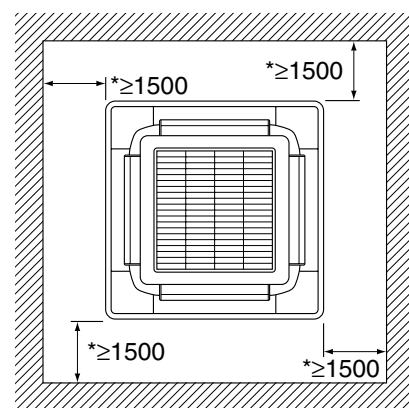


Fig. 2

Model	H (mm)
FXFQ25 · 32 · 40 · 50 · 63 · 80PVE	256
FXFQ100 · 125PVE	298

⚠ CAUTION

- The indoor and outdoor units and the power supply wiring and remote controller cord must be installed at least 1m away from any televisions or radios. This is to prevent interference with picture and sound reception. (Interference may occur even at 1m away depending on the reception quality.)
- If installing the wireless kit, the distance of the signal sent from the remote controller might be shorter if there are fluorescent lights which are electrically started (such as with inverters, rapid starters, etc.) in the room. The indoor unit should be installed as far away from fluorescent lights as possible.

(2) Ceiling height

This product can be installed in ceilings up to 3.5m high (4.2m high for the 100 and 125).

If the ceiling height is 2.7m (3.2m for the 100 and 125) or more, field settings will have to be made with the remote controller. See “11. FIELD SETTING” for details.

(3) Air direction

The air direction shown in Fig. 3 is an example.

Select the appropriate number of directions according to the shape of the room and the location of the unit. (Field settings have to be made using the remote controller and the outlet vents have to be shut off if two, three, or four (corner shut-off) directions are selected. See the shut-off materials (sold separately) installation manual for details.)

- (4) Use eyebolts for installation. Check if the location for the installation is strong enough to support the weight of the unit, reinforce it if necessary, and install using eyebolts. (The spacing of the installation is shown on the “paper pattern for installation (5)”.)

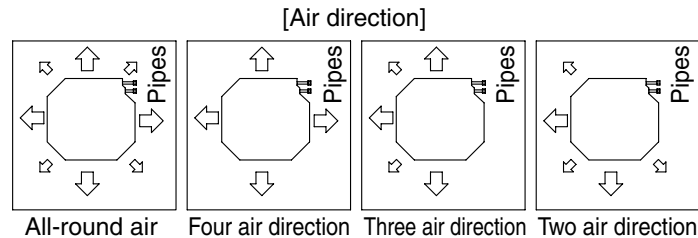


Fig. 3

4. PREPARATIONS BEFORE INSTALLATION

(1) Relation of ceiling opening to unit and suspension bolt position.

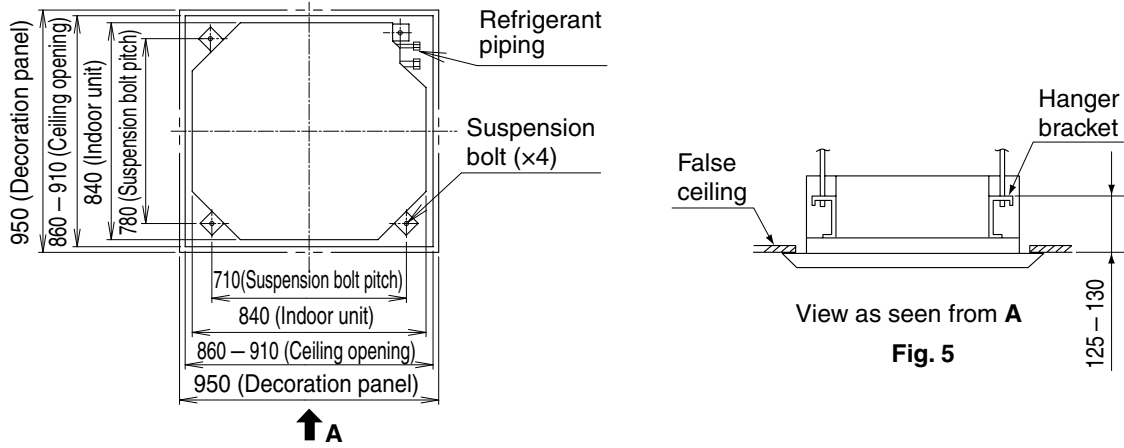


Fig. 4

■ Installation is possible when ceiling opening dimensions is as follows

- When installing the unit within the frame for fixing false ceiling.

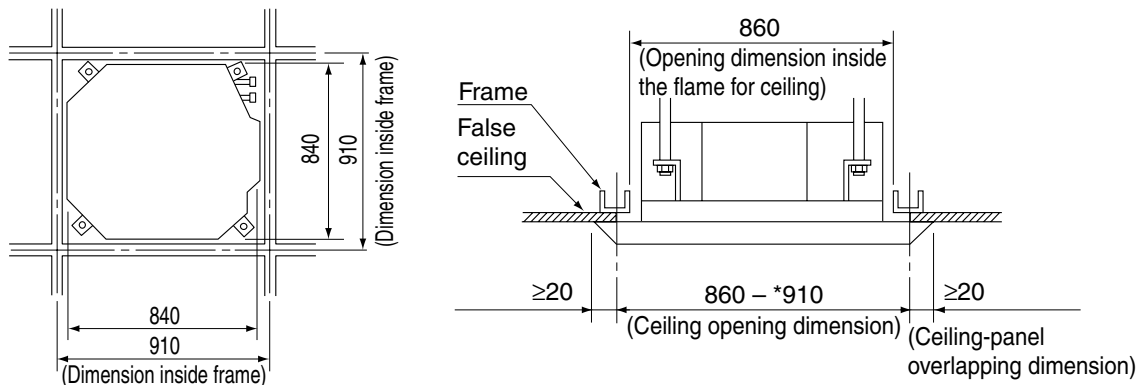


Fig. 6

Fig. 7

NOTE

- Installation is possible with a ceiling dimension of 910mm (marked with *). However, to achieve a ceiling-panel overlapping dimension of 20mm, the spacing between the ceiling and the unit should be 35mm or less. If the spacing between ceiling and the unit is over 35mm, attach ceiling material to ■ part or recover the ceiling.

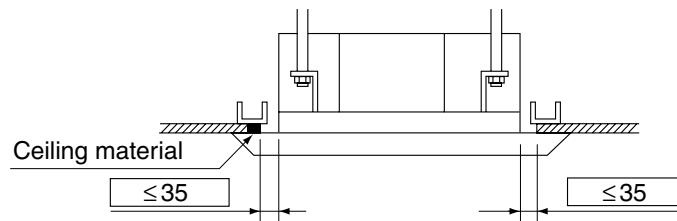


Fig. 8

(2) Make the ceiling opening needed for installation where applicable. (For existing ceilings)

- Refer to the paper pattern for installation (5) for ceiling opening dimensions.
- Create the ceiling opening required for installation. From the side of the opening to the casing outlet, implement the refrigerant and drain piping and wiring for remote controller (unnecessary for wireless type) and indoor-outdoor unit casing outlet. Refer to “6. REFRIGERANT PIPING WORK”, “7. DRAIN PIPING WORK” and “8. ELECTRIC WIRING WORK”.
- After making an opening in the ceiling, it may be necessary to reinforce ceiling beams to keep the ceiling level and to prevent it from vibrating. Consult the builder for details.

(3) Install the suspension bolts.

(Use either a M8~M10 size bolt)
 Use a hole-in anchor for existing ceilings, and a sunken insert, sunken anchor or other field supplied parts for new ceilings to reinforce the ceiling to bear the weight of the unit.
 Adjust clearance (50 – 100mm) from the ceiling before proceeding further.

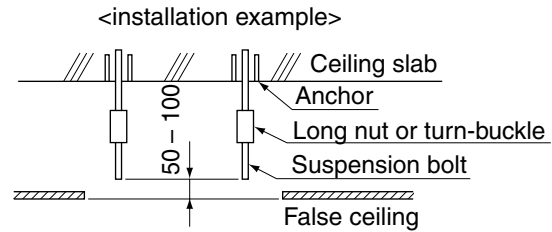


Fig. 9

NOTE

- All the above parts are field supplied.

5. INDOOR UNIT INSTALLATION

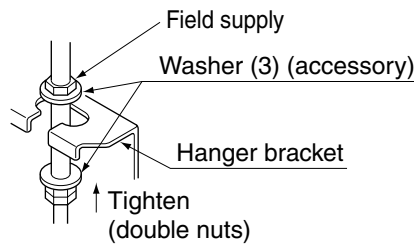
Installing optional accessories (except for the decoration panel) before installing the indoor unit is easier. However, for existing ceilings, install fresh air inlet component kit and branch duct before installing the unit.

As for the parts to be used for installation work, be sure to use the provided accessories and specified parts designated by our company.

(1) For new ceilings

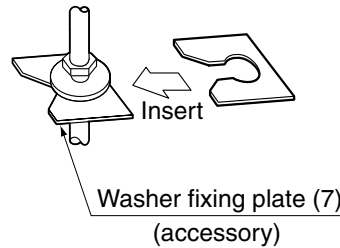
(1-1) Install the indoor unit temporarily.

- Attach the hanger bracket to the suspension bolt. Be sure to fix it securely by using a nut and washer (3) from the upper and lower sides of the hanger bracket. The washer fixing plate (7) will prevent the washer from falling.



[Securing the hanger bracket]

Fig. 10



[Securing the washer]

Fig. 11

(1-2) Refer to the paper pattern for installation (5) for ceiling opening dimension.

Consult the builder or carpenter for details.

- The center of the ceiling opening is indicated on the paper pattern for installation. The center of the unit is indicated on the triangular mark to the unit bottom and on the paper pattern for installation.
- Fix the paper pattern to the unit with screws (6) (×4).
- Ceiling height is shown on the side of the paper pattern for installation (5). Adjust the height of the unit according to this indication.

Please perform one of the following, as the shape of the paper pattern for installation differs according to the model.

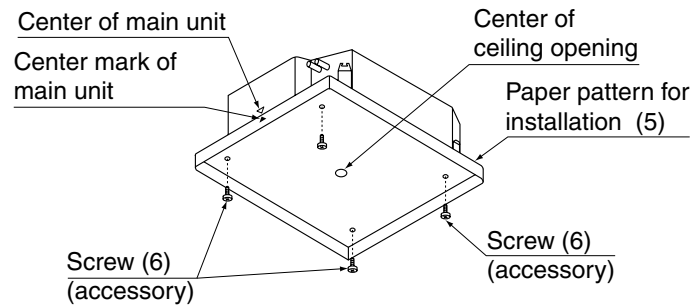


Fig. 12

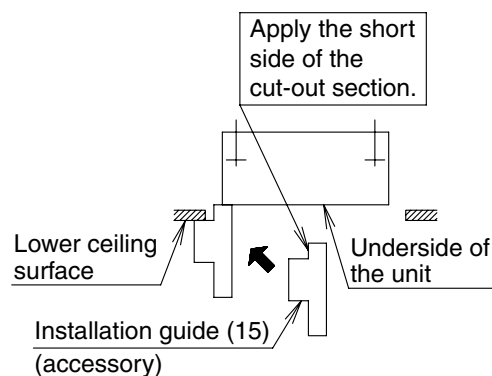
[Installation of paper pattern for installation]

<Ceiling work>

(1-3) Adjust the unit to the right position for installation.

(Refer to "4. PREPARATIONS BEFORE INSTALLATION-(1)".)

- Using the Installation guide (15) allows you to check the positions from the underside of the unit to the lower ceiling surface.



(1-4) Check the unit is horizontally level.

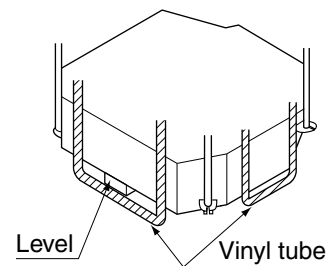
- The indoor unit is equipped with a built-in drain pump and float switch. Verify that it is level by using a level or a water-filled vinyl tube.

— CAUTION

If the unit is tilted against condensate flow, the float switch may malfunction and cause water to drip.

(1-5) Remove the washer fixing plate (7) used for preventing the washer from falling and tighten the upper nut.

(1-6) Remove the paper pattern for installation (5).



[Maintaining horizontality]

Fig. 13

(2) For existing ceilings

(2-1) Install the indoor unit temporarily.

Perform step (1-1) in (1) For new ceilings.

(2-2) Adjust the height and position of the unit.

(Refer to "4. PREPARATIONS BEFORE INSTALLATION-(1)" and (1-3) in (1) For new ceilings.)

(2-3) Perform steps (1-4), (1-5) in (1) For new ceilings.

6. REFRIGERANT PIPING WORK

⟨For refrigerant piping of outdoor units, see the installation manual attached to the outdoor unit.⟩

⟨Execute heat insulation work completely on both sides of the gas piping and the liquid piping. Otherwise, a water leakage can result sometimes.⟩

⟨When using a heat pump, the temperature of the gas piping can reach up to approximately 120°C, so use insulation which is sufficiently resistant.⟩

⟨Also, in cases where the temperature and humidity of the refrigerant piping sections might exceed 30°C or RH80%, reinforce the refrigerant insulation. (20mm or thicker) Condensate may form on the surface of the insulating material.⟩

⟨Be sure to check the type of R410A refrigerant to be used before doing any work. (Using an incorrect refrigerant will prevent normal operation of the unit.⟩

⚠ CAUTION

- Use a pipe cutter and flare suitable for the type of refrigerant.
- Apply ester oil or ether oil around the flare section before connecting.
- To prevent dust, moisture or other foreign matter from infiltrating the tube, either pinch the end or cover it with tape.
- Do not allow anything other than the designated refrigerant to get mixed into the refrigerant circuit, such as air, etc. If any refrigerant gas leaks while working on the unit, ventilate the room thoroughly right away.

- **Do not mix air or other gas with the specified refrigerant in the refrigeration cycle.**
- **Ventilate the room if refrigerant gas leaks during the work.**
- The outdoor unit is charged with refrigerant.
- Be sure to use both a spanner and torque wrench together, as shown in the drawing, when connecting or disconnecting pipes to/from the unit. (Refer to Fig. 14)
- Refer to "Table 3" for the dimensions of flare nut spaces.

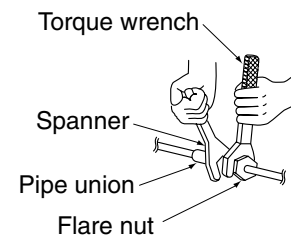


Fig. 14

- When connecting the flare nut, apply ester oil or ether oil to the flare section (both inside and outside), and spin 3-4 times before screwing in. (Refer to Fig. 15)
- **Keep all the screw mounting resin parts (e.g., piping presser plates) away from oil.** If oil adheres, the strength of the screw mounting resin parts may drop.

Coat here with ester or etheroil.

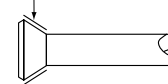


Fig. 15

⚠ CAUTION

Over-tightening the flare nut may break it and/or cause the refrigerant to leak.

NOTE

- Use the flare nut included with the unit main body.

Table 3

Pipe size	Tightening torque	Flare dimensions A (mm)	Flare
φ 6.4 (1/4")	14.2 – 17.2N·m (144 – 176 kgf·cm)	8.7 – 9.1	
φ 9.5 (3/8")	32.7 – 39.9N·m (333 – 407 kgf·cm)	12.8 – 13.2	
φ 12.7 (1/2")	49.5 – 60.3N·m (504 – 616 kgf·cm)	16.2 – 16.6	
φ 15.9 (5/8")	61.8 – 75.4N·m (630 – 770 kgf·cm)	19.3 – 19.7	

- Refer to "Table 3" to determine the proper tightening torque.

Not recommendable but in case of emergency

You must use a torque wrench but if you are obliged to install the unit without a torque wrench, you may follow the installation method mentioned below.

When you keep on tightening the flare nut with a spanner, there is a point where the tightening torque suddenly increases. From that position, further tighten the flare nut the angle shown below:

Pipe size	Further tightening angle	Recommended arm length of tool
φ 6.4 (1/4")	60 to 90 degrees	Approx. 150mm
φ 9.5 (3/8")	60 to 90 degrees	Approx. 200mm
φ 12.7 (1/2")	30 to 60 degrees	Approx. 250mm
φ 15.9 (5/8")	30 to 60 degrees	Approx. 300mm

After the work is finished, make sure to check that there is no gas leak.

- Make absolutely sure to execute heat insulation works on the pipe-connecting section after checking gas leakage by thoroughly studying the following figure and using the attached heat insulating materials for fitting (8) and (9). (Fasten both ends with the clamps (4).) (Refer to Fig. 16)
- Wrap the sealing pad (11) only around the insulation for the joints on the gas piping side. (Refer to Fig. 16)

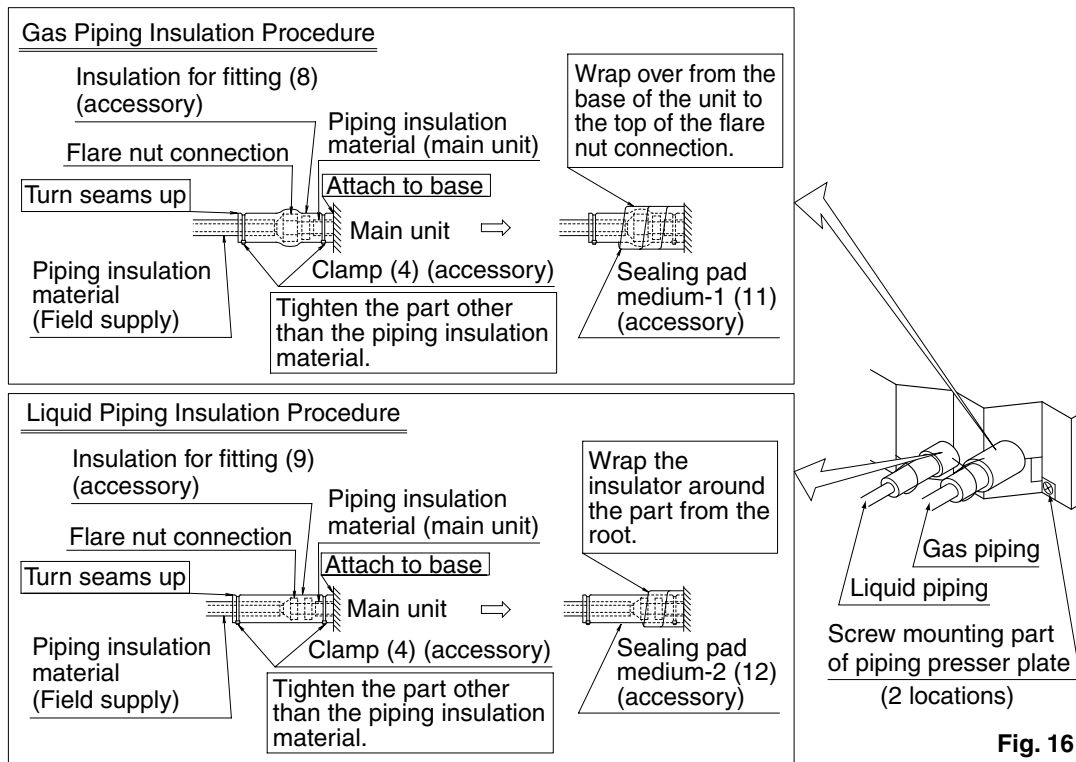


Fig. 16

CAUTION
For local insulation, be sure to insulate local piping all the way into the pipe connections inside the machine. Exposed piping may cause condensation or burns on contact.

CAUTION TO BE TAKEN WHEN BRAZING REFRIGERANT PIPING
“Do not use flux when brazing refrigerant piping. Therefore, use the phosphor copper brazing filler metal (BCuP-2: JIS Z 3264/B-Cu93P-710/795: ISO 3677) which does not require flux.”
(Flux has extremely harmful influence on refrigerant piping systems. For instance, if the chlorine based flux is used, it will cause pipe corrosion or, in particular, if the flux contains fluorine, it will damage the refrigerant oil.)

- Before brazing local refrigerant piping, nitrogen gas shall be blown through the piping to expel air from the piping. If you brazing is done without nitrogen gas blowing, a large amount of oxide film develops inside the piping, and could cause system malfunction.
- When brazing the refrigerant piping, only begin brazing after having carried out nitrogen substitution or while inserting nitrogen into the refrigerant piping. Once this is done, connect the indoor unit with a flared or a flanged connection.
- Nitrogen should be set to 0.02MPa with a pressure-reducing valve if brazing while inserting nitrogen into the piping. (Refer to Fig. 17)

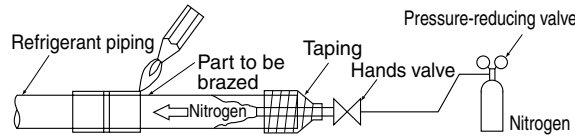
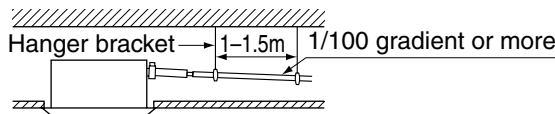


Fig. 17

7. DRAIN PIPING WORK

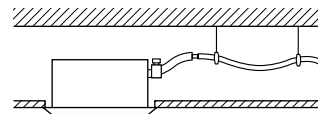
(1) Rig drain piping

- As for drain work, perform piping in such a manner that water can be drained properly.
- Employ a pipe with either the same diameter or with the diameter larger (excluding the raising section) than that of the connecting pipe (PVC pipe, nominal diameter 25mm, outside diameter 32mm).
- Keep the drain pipe short and sloping downwards at a gradient of at least 1/100 to prevent air pockets from forming.
- If the drain pipe cannot be sufficiently set on a slope, execute the drain raising piping.
- To keep the drain pipe from sagging, space hanging wires every 1 to 1.5m.



GOOD O

Fig. 18-1



WRONG X

Fig. 18-2



CAUTION

Water pooling in the drainage piping can cause the drain to clog.

- Use the attached drain hose (1) and Metal clamp (2).
- Insert the drain hose into the drain socket up to the base, and tighten the Metal clamp securely within the portion of a white tape of the hose-inserted tip. Tighten the Metal clamp until the screw head is less than 4mm from the hose.
- Wrap the attached sealing pad (10) over the Metal clamp and drain hose to insulate.
- Make sure that heat insulation work is executed on the following 2 spots to prevent any possible water leakage due to dew condensation.
 - Indoor drain pipe
 - Drain socket

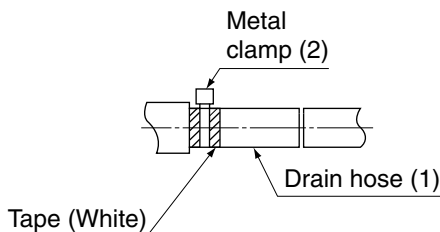


Fig. 19

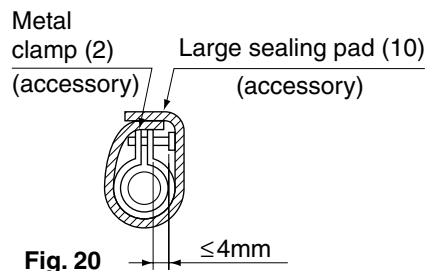


Fig. 20

<PRECAUTIONS FOR DRAIN RAISING PIPING>

- Install the drain raising pipes at a height of less than 675mm. The drain pump of this unit has a high delivery flow rate. Therefore, the higher the drain raising height is, the lower the sound of draining will be. For this reason, a minimum drain raising height of 300mm is recommended.
- Install the drain raising pipes at a right angle to the indoor unit and no more than 300mm from the unit.

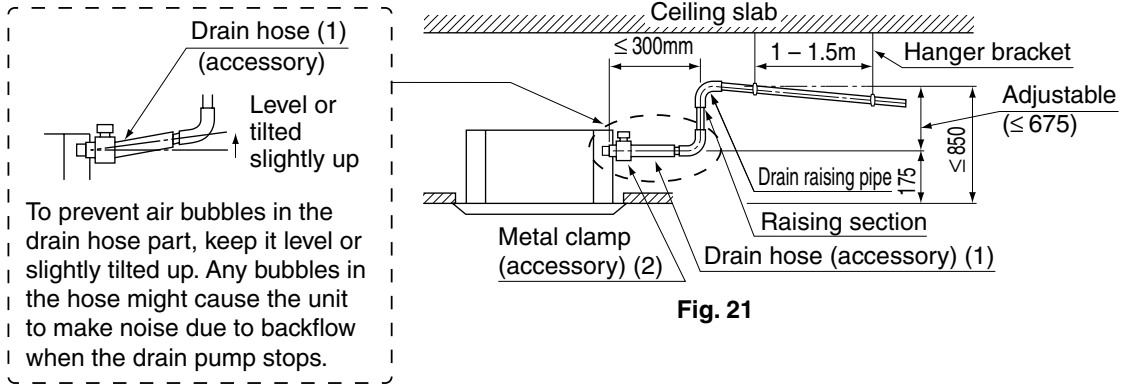


Fig. 21

NOTE

- To ensure no excessive pressure is applied to the included drain hose (1), do not bend or twist when installing. (This may cause leakage.)
- If converging multiple drain pipes, install according to the procedure shown below.

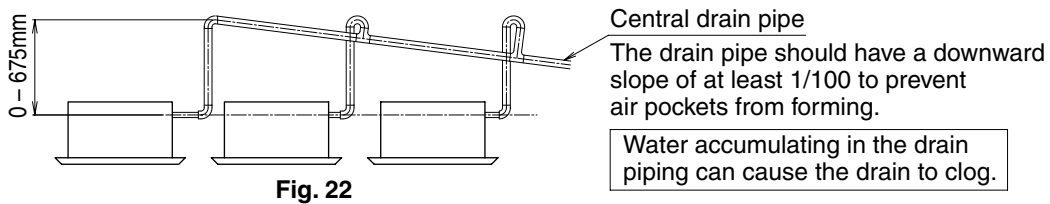


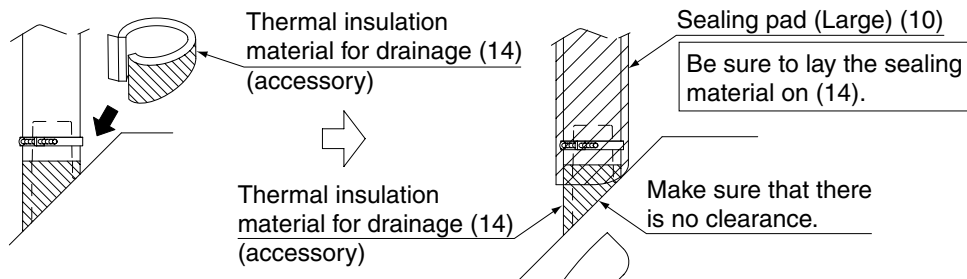
Fig. 22

Select converging drain pipes whose gauge is suitable for the operating capacity of the unit.

(2) After piping work is finished, check if drainage flows smoothly.

WHEN ELECTRIC WIRING WORK IS FINISHED

- Add approximately 1000cc of water slowly from the air outlet and check drainage flow.
- Check drainage flow during COOL running, explained under “12. TEST OPERATION”.
- Refer to the figure on the following after checking the draining of water, and mount the thermal insulation material for drainage (14) and thermal insulate the drain socket.



WHEN ELECTRIC WIRING WORK IS NOT FINISHED

CAUTION

- Electrical wiring work should be done by a certified electrician.
- If someone who does not have the proper qualifications performs the work, perform the following after the test run is complete.

- Remove the terminal box lid. Connect the single phase power supply (SINGLE PHASE 50Hz 240V) to connections No.1 and No.2 on the terminal block for wiring the units. Do not connect to No.3 of the terminal block for wiring the units. (The drain pump will not operate.) Connect the ground wire firmly. When carrying out wiring work around the terminal box, make sure none of the connectors come undone. Be sure to attach the terminal box lid before turning on the power.
- Put approximately 1000cc of water into the drain pan through the blow-off mouth on the left-hand side of the drain socket. Make sure not to pour water over the drain pump or any electric parts including those of the drain pump.
- When the power is turned on, the drain pump will operate and you can check the draining of water through the transparent part of the drain socket. (The drain pump will stop automatically in 10 minutes.) After checking the draining of water, mount the thermal insulation material for drainage (14) and thermal insulate the drain socket.
- After confirming drainage (**Fig.23, Fig.24**), turn off the power and remove the power supply.
- Attach the terminal box lid as before.

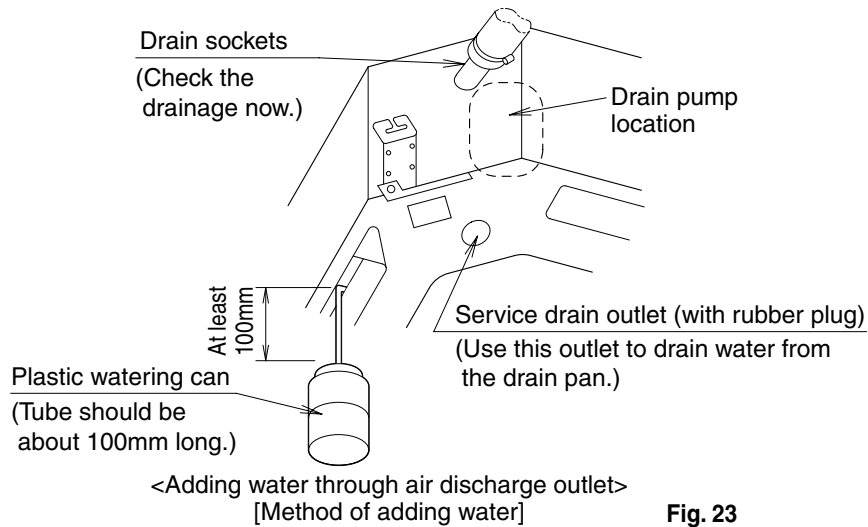


Fig. 23

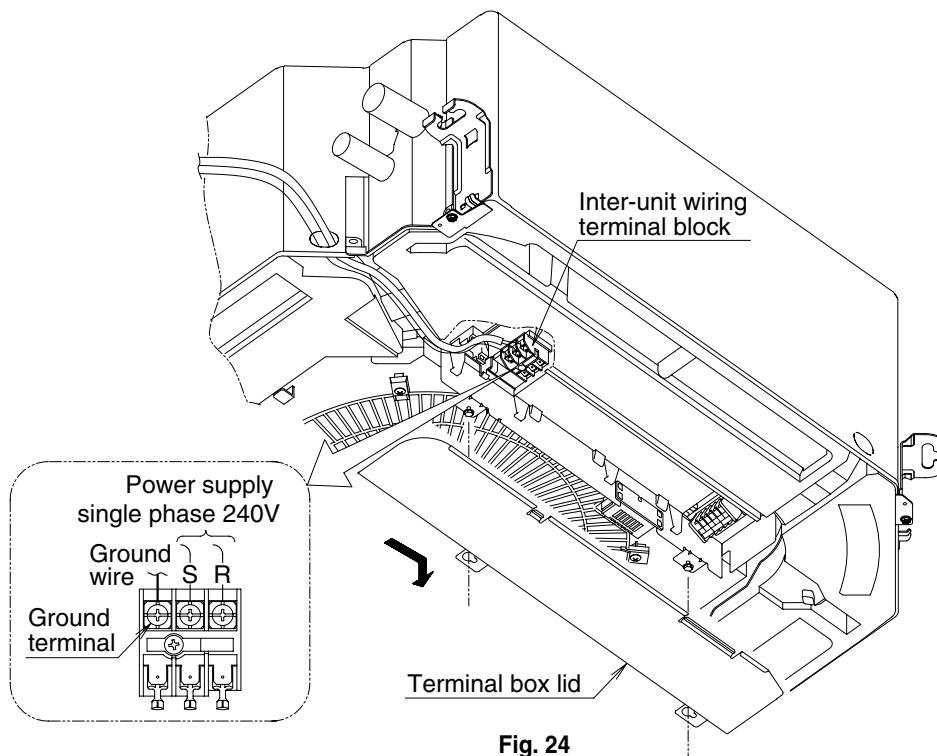


Fig. 24

⚠ CAUTION

Drain piping connections

Do not connect the drain piping directly to sewage pipes that smell of ammonia. The ammonia in the sewage might enter the indoor unit through the drain pipes and corrode the heat exchanger.

8. ELECTRIC WIRING WORK

8-1 General instructions

- All field supplied parts and materials and electric works must conform to local codes.
- Use copper wire only.
- For electric wiring work, refer to also “WIRING DIAGRAM” attached to the unit body.
- For remote controller wiring details, refer to the installation manual attached to the remote controller.
- All wiring must be performed by an authorized electrician.
- A circuit breaker capable of shutting down power supply to the entire system must be installed.
- Refer to the installation manual attached to the outdoor unit for the size of power supply electric wire connected to the outdoor unit, the capacity of the circuit breaker and switch, and wiring instructions.
- Be sure to ground the air conditioner.
 - Do not connect the ground wire to gas pipes, plumbing pipes, lightning rods, or telephone ground wires.
 - Gas pipes: might cause explosions or fire if gas leaks.
 - Plumbing: no grounding effect if hard vinyl piping is used.
 - Telephone ground wires or lightning rods: might cause abnormally high electric potential in the ground during lightning storms.

8-2 Electrical characteristics

Units		Volts	Voltage range	Power supply		Fan motor	
Model	Hz			MCA	MFA	kW	FLA
FXFQ25PVE	50	220-240	Max. 264 Min. 198	0.3	15	0.056	0.2
FXFQ32PVE				0.3	15	0.056	0.2
FXFQ40PVE				0.3	15	0.056	0.2
FXFQ50PVE				0.3	15	0.056	0.2
FXFQ63PVE				0.4	15	0.056	0.3
FXFQ80PVE				0.5	15	0.056	0.4
FXFQ100PVE				1.3	15	0.120	1.0
FXFQ125PVE				1.5	15	0.120	1.2
FXFQ25PVE	60	220	Max. 242 Min. 198	0.3	15	0.056	0.2
FXFQ32PVE				0.3	15	0.056	0.2
FXFQ40PVE				0.3	15	0.056	0.2
FXFQ50PVE				0.3	15	0.056	0.2
FXFQ63PVE				0.4	15	0.056	0.3
FXFQ80PVE				0.5	15	0.056	0.4
FXFQ100PVE				1.3	15	0.120	1.0
FXFQ125PVE				1.5	15	0.120	1.2

MCA: Min. Circuit Amps (A)

MFA: Max. Fuse Amps (A)

kW: Fan Motor Rated Output (kW)

FLA: Full Load Amps (A)

8-3 Specifications for field supplied fuses and wire

Model	Power supply wiring			Remote controller wiring Transmission wiring	
	Field fuses ☐	Wire	Size	Wire	Size
FXFQ25·32·40·50PVE	15A	H05VV-U3G	Wire size must comply with local codes.	Sheathed wire (2 wire)	0.75 - 1.25 mm ²
FXFQ63PVE					
FXFQ80·100PVE					
FXFQ125PVE					

Allowable length of transmission wirings and remote controller wiring are as follows.

- (1) Outdoor unit - Indoor unit:
Max. 1000m (Total wiring length: 2000m)
- (2) Indoor unit - Remote controller
Max. 500m

NOTE 📄

- 1. Shows only in case of protected pipes. Use H07RN-F in case of no protection.
- 2. Vinyl cord with sheath or cable (Insulated thickness : 1mm or more)

9. WIRING EXAMPLE AND HOW TO SET THE REMOTE CONTROLLER

9-1 How to connect wirings

Connection of wiring between units, ground wire and for the remote controller cord (Refer to Fig. 25)

- Wiring the units and ground wire
Remove the terminal box lid and connect wires of matching number to the terminal block for wiring the units (3 P) inside. And connect the ground wire to the ground terminal. In doing this, pull the wires inside through the hole and fix the wires securely with the included clamp (4) (2 points).
- Remote controller cords (not necessary for slave unit of simultaneous operation system)
Remove the terminal box lid and pull the wires inside through the hole and connect to the terminal block for remote controller (6 P). (no polarity) Securely fix the remote controller cord with the included clamp (4) (2 points).
- After connection, attach sealing pad (13).
- Be sure to attach it to prevent the infiltration of water from the outside.

[PRECAUTIONS]

- 1. Use round crimp-style terminals for connecting wires to the power supply terminal block.
If unavailable, observe the following points when wiring.
 - Do not connect wires of different gauge to the same power supply terminal. (Looseness in the connection may cause overheating.)
 - Use the specified electric wire. Connect the wire securely to the terminal. Lock the wire down without applying excessive force to the terminal. (Tightening torque: 131N·cm ±10 %)

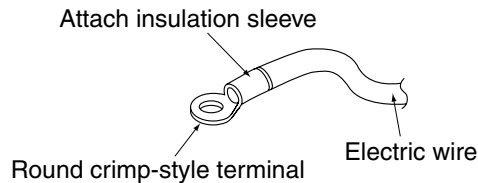


Fig. 25

2. Tightening torque for the terminal screws.

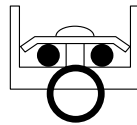
- Use the correct screwdriver for tightening the terminal screws. If the blade of screwdriver is too small, the head of the screw might be damaged, and the screw will not be properly tightened.
- If the terminal screws are tightened too hard, screws might be damaged.
- Refer to the table below for the tightening torque of the terminal screws.

Terminal	Size	Tightening torque
Terminal block for remote controller (6P)	M3.5	0.79 – 0.97N·m
Power supply terminal block (3P)	M4	1.18 – 1.44N·m
Ground terminal	M4	1.44 – 1.94N·m

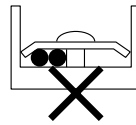
When none are available, follow the instructions below.

3. Do not connect wires of different gauge to the same grounding terminal.

Connect wires of the same gauge to both side.



Do not connect wires of the same gauge to one side.



Do not connect wires of different gauges.

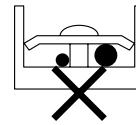


Fig. 26

Looseness in the connection may deteriorate protection.

4. Outside of the unit, keep transmission wiring at least 50mm away from power supply wiring. The equipment may malfunction if subjected to electrical (external) noise.
5. For remote controller wiring, refer to the “INSTALLATION MANUAL OF REMOTE CONTROLLER.” attached to the remote controller.
6. **Never connect power supply wiring to the terminal block for remote controller. A mistake of the sort could damage the entire system.**
7. Use only specified wire and tightly connect wires to terminals. Be careful wires do not place external stress on terminals. Keep wiring in neat order and so as not to obstruct other equipment such as popping open the terminal box lid. Make sure the lid closes tight. Incomplete connections could result in overheating, and in worse case, electric shock or fire.

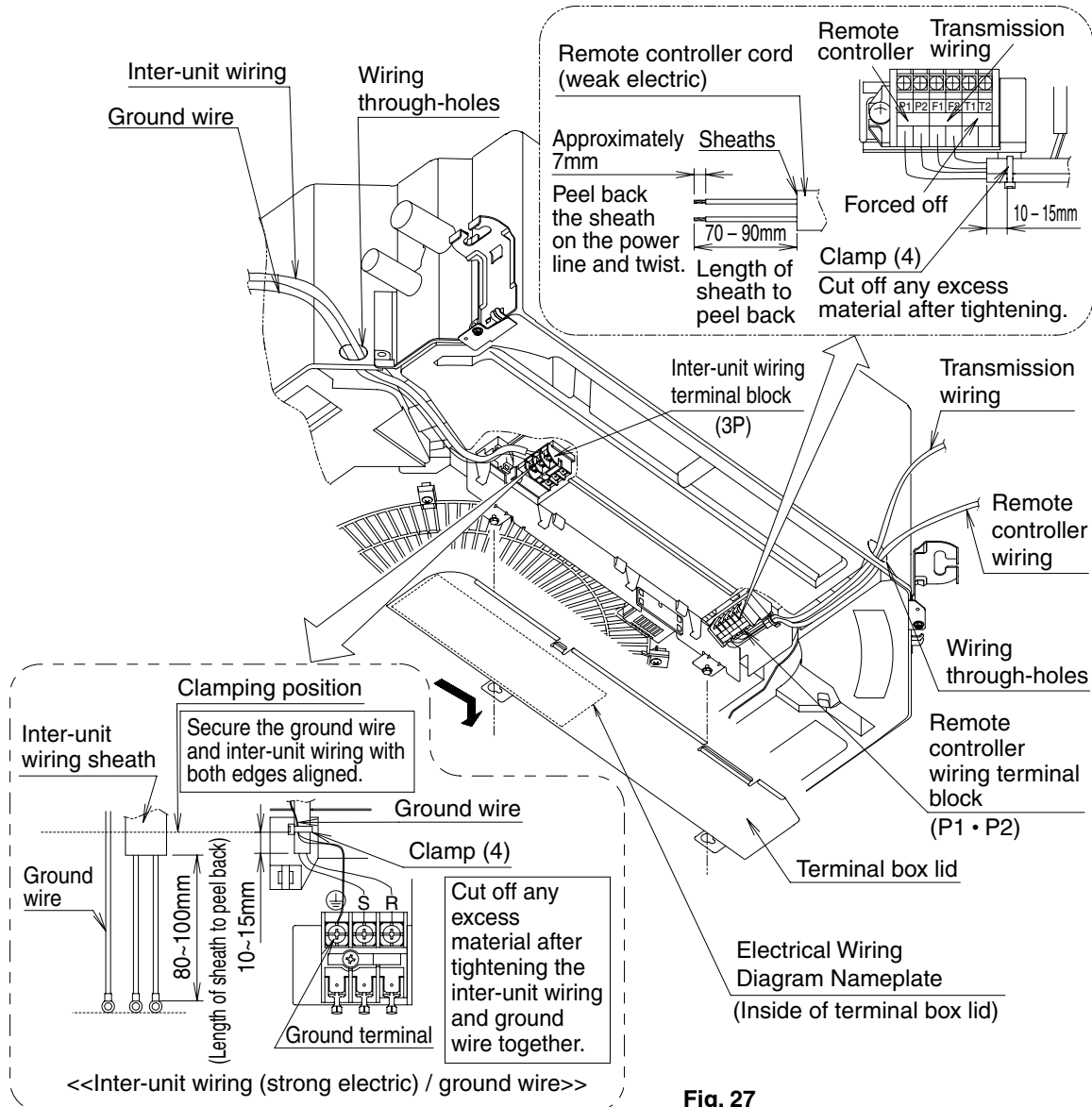


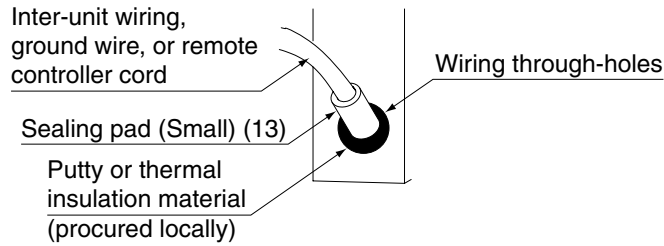
Fig. 27

Observe the notes mentioned below when wiring to the terminal block for wiring the units.

CAUTION

- When clamping wiring, use the included clamping material to prevent outside pressure being exerted on the wiring connections and clamp firmly. When doing the wiring, make sure the wiring is neat and does not cause the terminal box lid to stick up, then close the cover firmly.
- When attaching the terminal box lid, make sure you do not pinch any wires.
- After all the wiring connections are done, fill in any gaps in the through holes with putty or insulation (procured locally) to prevent small animals and insects from entering the unit from outside. (If any do get in, they could cause short circuits in the terminal box.)
- Outside the machine, separate the weak wiring (remote controller cord) and strong wiring (interunit, ground, and other power wiring) at least 50 mm so that they do not pass through the same place together. Proximity may cause electrical interference, malfunctions, and breakage.

Processing method of wiring through-holes



9-2 Wiring example

- Fit the power supply wiring of each unit with a switch and fuse as shown in the drawing.

COMPLETE SYSTEM EXAMPLE (3 systems)

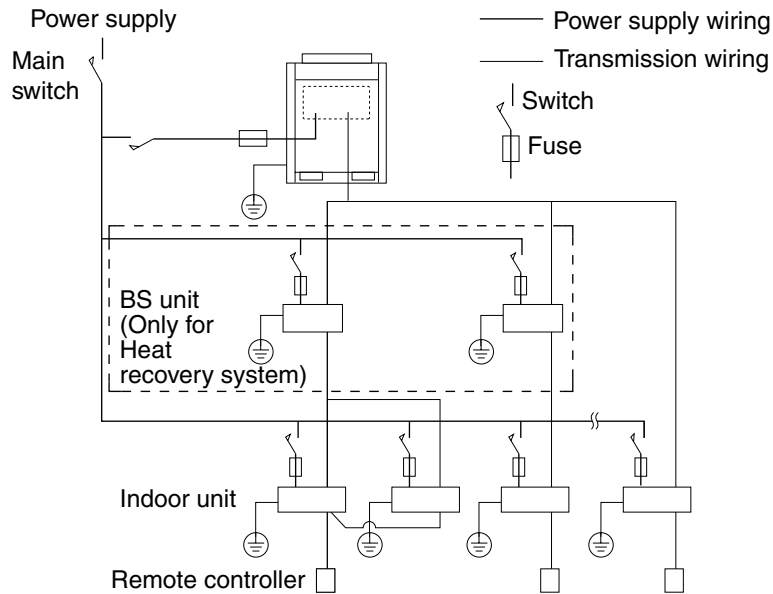


Fig. 28

1. When using 1 remote controller for 1 indoor unit. (Normal operation)

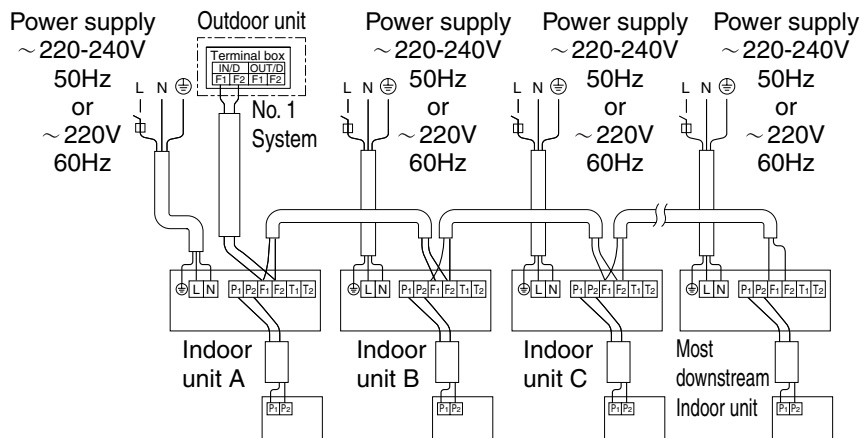


Fig. 29

2. For group control or use with 2 remote controllers

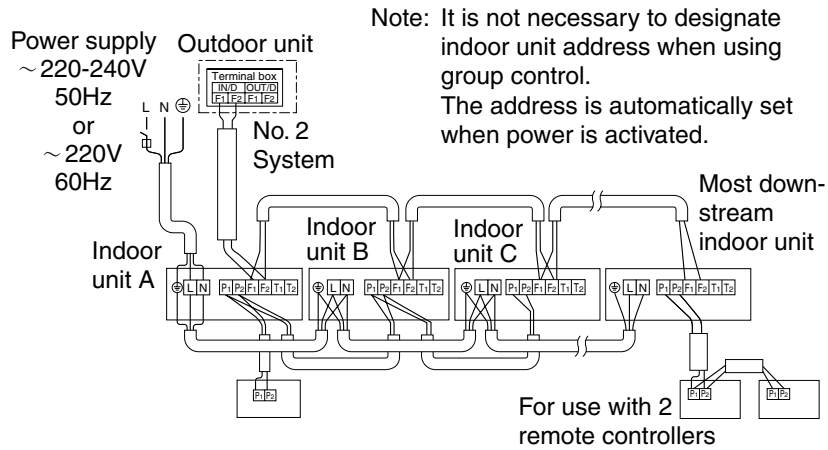


Fig. 30

3. When including BS unit

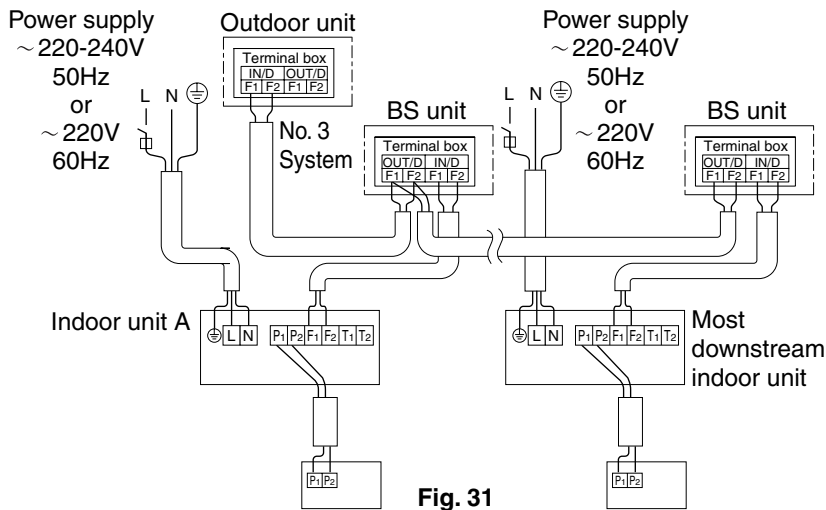


Fig. 31

[PRECAUTIONS]

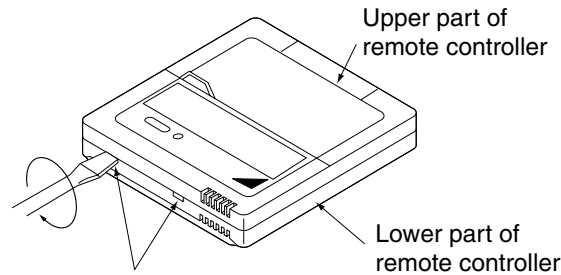
1. A single switch can be used to supply power to units on the same system. However, branch switches and branch circuit breakers must be selected carefully.
2. Do not ground the equipment on gas pipes, water pipes or lightning rods, or crossground with telephones. Improper grounding could result in electric shock.

9-3 Control by 2 remote controllers (controlling 1 indoor unit by 2 remote controllers)

- When using 2 remote controllers, one must be set to “MAIN” and the other to “SUB”.

MAIN/SUB CHANGEOVER

- (1) Insert a ⊖ screw driver into the recess between the upper and lower part of remote controller and, working from the 2 positions, pry off the upper part. (The remote controller PC board is attached to the upper part of remote controller.) **(Refer to Fig. 32)**
- (2) Turn the **main/sub changeover** switch on one of the two remote controller PC boards to “S”. (Leave the switch of the other remote controller set to “M”.) **(Refer to Fig. 33)**



Insert the screwdriver here and gently work off the upper part of remote controller.

Fig. 32

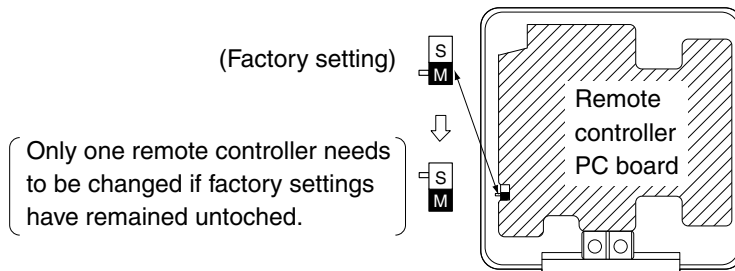


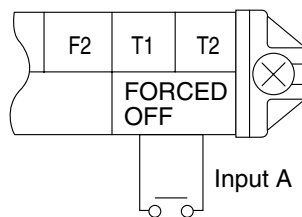
Fig. 33

Wiring Method (See “ELECTRIC WIRING WORK”)

- (3) Remove the terminal box lid
- (4) **Add remote control 2 (slave) to the terminal block for remote controller (P1, P2) in the terminal box. (There is no polarity.) (Refer to Fig. 30 and 8-3.)**

9-4 Computerised control (forced off and on/off operation)

- (1) Wire specifications and how to perform wiring
 - Connect the input from outside to terminals T1 and T2 of the terminal block for remote controller.



Wire specification	Sheathed vinyl cord or cable (2 wire)
Gauge	0.75 - 1.25 mm ²
Length	Max. 100 m
External terminal	Contact that can ensure the minimum applicable load of 15 V DC, 10 mA.

(2) Actuation

- The following table explains FORCED OFF and ON/OFF OPERATIONS in response to Input A.

FORCED OFF	ON/OFF OPERATION
Input "ON" stops operation (impossible by remote controllers.)	Input OFF → ON turns ON unit.
Input OFF enables control by remote controller.	Input ON → OFF turns OFF unit.

(3) How to select FORCED OFF and ON/OFF OPERATION

- Turn the power on and then use the remote controller to select operation.

9-5 Centralized control

- For centralized control, it is necessary to designate the group No. For details, refer to the manual of each optional controllers for centralized control.

10. INSTALLATION OF THE DECORATION PANEL

Caution:

With a wireless remote controller, field setting and test operation cannot be performed without attaching the decoration panel.

<If performing a test run without attaching the decoration panel, read "11. FIELD SETTING" and "12. TEST OPERATION" first.>

Refer to the installation manual attached to the decoration panel.

After installing the decoration panel, ensure that there is no space between the unit body and decoration panel.

11. FIELD SETTING

⚠ CAUTION

When performing field setting or test operation without attaching the decoration panel, do not touch the drain pump. This may cause electric shock.

- Check that the outdoor unit has been wired properly.

Make sure the terminal box lids are closed on the indoor and outdoor units.

Field setting must be made from the remote controller and in accordance with installation conditions.

- Setting can be made by changing the "Mode No.", "FIRST CODE NO." and "SECOND CODE NO."
- For setting procedures and instructions, see "Field settings" provided with the remote controller.

11-1 Setting ceiling height

- Select the SECOND CODE NO. that corresponds to the ceiling height "Table 4".
(SECOND CODE NO. is factory set to "01".)

Table 4

		FXFQ - PVE		Mode No. Note) 1	FIRST CODE NO.	SECOND CODE NO.
		25 · 32 · 40 · 50 · 63 · 80 type	100 · 125 type			
Ceiling height (m)	Standard · All round outlet	≤ 2.7	≤ 3.2	13 (23)	0	01
	High ceiling 1	2.7 - 3	3.2 - 3.6			02
	High ceiling 2	3 - 3.5	3.6 - 4.2			03

Note:

1. "Mode No." setting is done in a batch for the group. To make or confirm settings for an individual unit, set the internal mode number in parentheses.
2. The figure of the ceiling height is for the all round outlet. For the settings for four-direction (part of corner closed off), three-direction and two-direction outlets, see the installation manual and technical guide supplied with the separately sold closure material kit.

11-2 Setting of air direction

- See the installation manual included with the sealing material of air discharge outlet kit, sold separately and technical guide, for ceiling height settings for two and three-direction air discharge. (The SECOND CODE NO. is factory set to "01" (all round outlet) before shipping.)

11-3 Settings for Mounting Options

- When installing an option sold separately, refer to the installation manual provided to the option.

11-4 Setting air filter sign

- Remote controllers are equipped with liquid crystal display air filter signs to display the time to clean air filters.
- Change the SECOND CODE NO. according to "Table 5" depending on the amount of dirt or dust in the room. (SECOND CODE NO. is factory set to "01" for filter contamination-light.)

Table 5

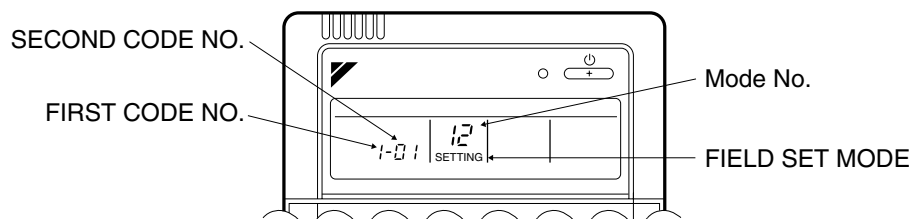
Setting	Spacing time of display air filter sign (long life type)	Mode No.	FIRST CODE NO.	SECOND CODE NO.
Air filter contamination-light	Approx. 2500 hrs	10 (20)	0	01
Air filter contamination-heavy	Approx. 1250 hrs			02
No Display			3	

Note:

1. "Mode No." setting is done in a batch for the group. To make or confirm settings for an individual unit, set the internal mode number in parentheses.
 2. Make settings for "No Display" in cases where no cleaning display is required, e.g., at the time of regular maintenance servicing.
- The air conditioner is provided with a long life filter as a standard accessory. Explain to the customer the necessity of cleaning the filter periodically along with the set time for filter cleaning for the prevention of clogging.

When using wireless remote controllers

- When using wireless remote controllers, wireless remote controller address setting is necessary. Refer to the installation manual attached to the wireless remote controller for setting instructions.



- Set the remote controller to the field set mode. For details, refer to the "HOW TO SET IN THE FIELD", in the remote controller manual.
- When in the field set mode, select mode No. 12, then set the first code (switch) No. to "1". Then set second code (position) No. to "01" for FORCED OFF and "02" for ON/OFF OPERATION. (FORCED OFF at factory set)

12. TEST OPERATION

Refer to the installation manual of the outdoor unit.

- The operation lamp of the remote controller will flash when an malfunction occurs. Check the malfunction code on the liquid crystal display to identify the point of trouble. An explanation of malfunction codes and the corresponding trouble is provided in “CAUTION FOR SERVICING” of the indoor unit.
If any of the items in Table 6 are displayed, there may be a problem with the wiring or power, so check the wiring again.

Table 6

Remote control display	Content
“Concentrated Management” is lit up	<ul style="list-style-type: none"> • There is a short circuit at the FORCED OFF terminals (T1, T2).
“U4” is lit up “UH” is lit up	<ul style="list-style-type: none"> • The power on the outdoor unit is off. • The outdoor unit has not been wired for power supply. • Incorrect wiring for the transmission wiring and / or FORCED OFF wiring.
No display	<ul style="list-style-type: none"> • The power on the indoor unit is off. • The indoor unit has not been wired for power supply. • Incorrect wiring for the remote controller wiring, the transmission wiring, and / or the FORCED OFF wiring.

- If the decoration panel is installed on the indoor unit during the test run, check the operation of the swing flap on the panel.
- In order to protect the indoor unit, instruct the customer not to operate the air conditioner until the interior work is completed if the interior work has not been finished at the end of the test run.
(If the air conditioner is operated, substances discharged from the paint, adhesive, etc. can contaminate the indoor unit, and they may cause splashing or leakage of water.)







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

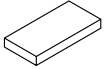



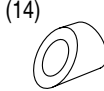

- After the test run is finished, check the items listed in “**2. Items to be checked at time of delivery**”.

11. Accessories

Standard Accessories

FXFQ25-125P

Name	(1) Drain hose	(2) Metal clamp	(3) Washer for hanger bracket	(4) Clamp	(5) Paper pattern for installation	(6) Screw (M4)
Quantity	1 pc.	1 pc.	8 pcs.	6 pcs.	1 pc.	4 pcs.
Shape					Also used as packing material 	For paper pattern for installation 

Name	(7) Washer fixing plate	Insulation for fitting	Sealing pad			Installation guide	(Other)
Quantity	4 pcs.	1 each	1 each	1 pc.	1 pc.	1 pc.	
Shape		(8) for gas pipe  (9) for liquid pipe 	(10) Large  (11) Medium-1  (12) Medium-2 	(13) Small 	(14) 	(15) 	<ul style="list-style-type: none"> Installation manual Operation manual

3P161684-3B

Optional Accessories (For Unit)

Item		Model	FXFQ25PVE	FXFQ32PVE	FXFQ40PVE	FXFQ50PVE	FXFQ63PVE	FXFQ80PVE	FXFQ100PVE	FXFQ125PVE	
Decoration panel			BYCP125K-W1								
Sealing member of air discharge outlet			KDBH55K160F								
Panel spacer			KDBP55H160FA								
Filter related	High efficiency filter unit	65%	KAFP556H80					KAFP556H160			
		90%	KAFP557H80					KAFP557H160			
	Replacement high efficiency filter	65%	KAFP552H80					KAFP552H160			
		90%	KAFP553H80					KAFP553H160			
	Filter chamber			KDDFP55H160							
	Replacement long life filter	Non-woven type		KAFP551K160							
	Ultra long-life filter			KAFP55H160							
Replacement ultra long life filter			KAFP55H160H								
Fresh air intake kit	Chamber type	Without T-joint pipe and fan	KDDP55K160								
		With T-joint pipe without fan	KDDP55K160K								
	Direct installation type			KDDP55X160							
Branch duct chamber			KDJP55H80					KDJP55H160			
Chamber connection kit			KKSJ55K160								
Insulation kit for high humidity			KDTP55K80					KDTP55K160			

C:3D060297

Optional Accessories (for Controls)

Item		Type	FXFQ-P
Remote controller	Wireless	H/P	BRC7F634F
		C/O	BRC7F635F
	Wired		BRC1C62
Wired remote controller with weekly schedule timer			BRC1D61
Adaptor for wiring			* KRP1C63
Wiring adaptor for electrical appendices (1)			* KRP2A62
Wiring adaptor for electrical appendices (2)			* KRP4AA53
Remote sensor			KRCS01-4B
Installation box for adaptor PCB ☆			Note 2,3 KRP1H98
External control adaptor for outdoor unit (Must be installed on indoor units)			* DTA104A62
Central remote controller			DCS302CA61
Unified ON/OFF controller			DCS301BA61
Schedule timer			DST301BA61
Intelligent Touch controller			DCS601C51

Note:

1. Installation box ☆ is necessary for each adaptor marked * .
2. Up to 2 adaptors can be fixed for each installation box.
3. Only one installation box can be installed for each indoor unit.

FXMQ-P (R-410A) Ceiling Mounted Duct Type

2

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1. Features

Ceiling Mounted Duct Type

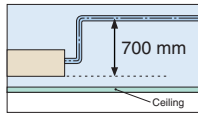
New
FXMQ40P/FXMQ50P
FXMQ63P/FXMQ80P
FXMQ100P/FXMQ125P



Middle and high static pressure allows for flexible duct design

- A DC fan motor increases the external static pressure capacity range to include middle to high static pressures, increasing design flexibility.
 30 Pa–160 Pa for FXMQ40P
 50 Pa–200 Pa for FXMQ50P-125P
- All models (FXMQ40P-125P) are only 300 mm in height, an improvement over the 390 mm height of conventional models. The weight of the FXMQ40P has been reduced from 44 kg to 28 kg.

- Drain pump is equipped as standard accessory with 700 mm lift.



- Control of the airflow rate has been improved from 2-step to 3-step control.

● Low operation sound level (dB(A))

FXMQ-P	40	50	63	80	100	125
Sound level (HH/H/L)	39/37/35	41/39/37	42/40/38	43/41/39		44/42/40

- Energy-efficient
 - The adopted DC fan motor is much more efficient than the conventional AC motor, yielding an approximate 20% decrease in energy consumption. (FXMQ125P)



- Improved ease of installation
 - Airflow can be controlled using a remote controller. With the conventional model, the airflow rate was controlled from the PC board. It is automatically adjusted to the range between approximately $\pm 10\%$ of the rated HH tap airflow.
- Improved ease of maintenance
 - The drain pan can be detached for easy cleaning. A new antibacterial treatment that uses silver ions has been applied to the drain pan, preventing the growth of slime, mould and bacteria that cause blockages and odours.

2. Specifications

Ceiling Mounted Duct Type

Model		FXMQ40PVE	FXMQ50PVE	FXMQ63PVE	FXMQ80PVE	
*1 Cooling Capacity (19.5°CWB)	kcal/h	4,000	5,000	6,300	8,000	
	Btu/h	16,000	19,800	24,900	31,700	
	kW	4.7	5.8	7.3	9.3	
*2 Cooling Capacity (19.0°CWB)	kW	4.5	5.6	7.1	9.0	
*3 Heating Capacity	kcal/h	4,300	5,400	6,900	8,600	
	Btu/h	17,100	21,500	27,300	34,100	
	kW	5.0	6.3	8.0	10.0	
Casing		Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate	
Dimensions: (H×W×D)		mm 300×700×700	300×1,000×700	300×1,000×700	300×1,000×700	
Coil (Cross Fin Coil)	Rows×Stages×Fin Pitch	mm 3×16×1.75	3×16×1.75	3×16×1.75	3×16×1.75	
	Face Area	m ² 0.148	0.249	0.249	0.249	
Fan	Model		—	—	—	
	Type		Sirocco Fan	Sirocco Fan	Sirocco Fan	
	Motor Output × Number of Units	W	140×1	350×1	350×1	
	Air Flow Rate (HH/H/L)	m ³ /min	16/13/11	18/16.5/15	19.5/17.5/16	25/22.5/20
		cfm	565/459/388	635/582/530	688/618/565	883/794/706
	External Static Pressure	Pa	Standard 100 (160-30 *4)	Standard 100 (200-50 *4)	Standard 100 (200-50 *4)	Standard 100 (200-50 *4)
Drive		Direct Drive	Direct Drive	Direct Drive	Direct Drive	
Temperature Control		Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating	
Air Filter		*5	*5	*5	*5	
Piping Connections	Liquid Pipes	mm φ6.4 (Flare Connection)	φ6.4 (Flare Connection)	φ9.5 (Flare Connection)	φ9.5 (Flare Connection)	
	Gas Pipes	mm φ12.7 (Flare Connection)	φ12.7 (Flare Connection)	φ15.9 (Flare Connection)	φ15.9 (Flare Connection)	
	Drain Pipe	mm VP25 (External Dia. 32 Internal Dia. 25)	VP25 (External Dia. 32 Internal Dia. 25)	VP25 (External Dia. 32 Internal Dia. 25)	VP25 (External Dia. 32 Internal Dia. 25)	
Mass (Weight)		kg 28	36	36	36	
*7 Sound Level (HH/H/L)	dBA	220V	39/37/35	41/39/37	42/40/38	
		240V	39/37/35	41/39/37	42/40/38	
Safety Devices		Fuse, Fan Driver Overload Protector.	Fuse, Fan Driver Overload Protector.	Fuse, Fan Driver Overload Protector.	Fuse, Fan Driver Overload Protector.	
Refrigerant Control		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve	
Connectable Outdoor Unit		R-410A P Series	R-410A P Series	R-410A P Series	R-410A P Series	
Standard Accessories		Operation Manual. Installation Manual. Drain Hose. Clamp Metal. Insulation for Fitting. Sealing Pads. Clamps. Washers. Screws. Air Discharge Flange. Air Suction Flange.	Operation Manual. Installation Manual. Drain Hose. Clamp Metal. Insulation for Fitting. Sealing Pads. Clamps. Washers. Screws. Air Discharge Flange. Air Suction Flange.	Operation Manual. Installation Manual. Drain Hose. Clamp Metal. Insulation for Fitting. Sealing Pads. Clamps. Washers. Screws. Air Discharge Flange. Air Suction Flange.	Operation Manual. Installation Manual. Drain Hose. Clamp Metal. Insulation for Fitting. Sealing Pads. Clamps. Washers. Screws. Air Discharge Flange. Air Suction Flange.	
Drawing No.		C : 3D060388				

Note:

- *1 Indoor temp. : 27°CDB, 19.5°CWB / outdoor temp. : 35°CDB / Equivalent piping length : 7.5 m, level difference : 0 m.
- *2 Indoor temp. : 27°CDB, 19.0°CWB / outdoor temp. : 35°CDB / Equivalent piping length : 7.5 m, level difference : 0 m.
- *3 Indoor temp. : 20°CDB / outdoor temp. : 7°CDB, 6°CWB / Equivalent piping length : 7.5 m, level difference : 0 m.
- *4 External static pressure is changeable in 13 or 14 stages within the () range by remote controller.
- *5 Air filter is not standard accessory, but please mount it in the duct system of the suction side. Select its colorimetric method (gravity method) 50% or more.
- 6 Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.
- *7 Anechoic chamber conversion value, measured at a point 1.5 m downward from the unit centre. During actual operation, these values are normally somewhat higher as a result of ambient conditions.
- 8 Refer to page 57 for Fan Motor Input.

Conversion Formulae
kcal/h=kW×860
Btu/h=kW×3412
cfm=m ³ /min×35.3

Ceiling Mounted Duct Type

Model			FXMQ100PVE	FXMQ125PVE
*1 Cooling Capacity (19.5°CWB)		kcal/h	10,000	12,500
		Btu/h	39,600	49,500
		kW	11.6	14.5
*2 Cooling Capacity (19.0°CWB)		kW	11.2	14.0
*3 Heating Capacity		kcal/h	10,800	13,800
		Btu/h	42,700	54,600
		kW	12.5	16.0
Casing			Galvanized Steel Plate	Galvanized Steel Plate
Dimensions: (H×W×D)		mm	300×1,400×700	300×1,400×700
Coil (Cross Fin Coil)	Rows×Stages×Fin Pitch	mm	3×16×1.75	3×16×1.75
	Face Area	m ²	0.383	0.383
Fan	Model		—	—
	Type		Sirocco Fan	Sirocco Fan
	Motor Output × Number of Units	W	350×1	350×1
	Air Flow Rate (HH/H/L)	m ³ /min	32/27/23	39/33/28
		cfm	1,130/953/812	1,377/1,165/988
	External Static Pressure	Pa	Standard 100 (200-50 *4)	Standard 100 (200-50 *4)
Drive		Direct Drive	Direct Drive	
Temperature Control			Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating
Air Filter			*5	*5
Piping Connections	Liquid Pipes	mm	φ9.5 (Flare Connection)	φ9.5 (Flare Connection)
	Gas Pipes	mm	φ15.9 (Flare Connection)	φ15.9 (Flare Connection)
	Drain Pipe	mm	VP25 (External Dia. 32 Internal Dia. 25)	VP25 (External Dia. 32 Internal Dia. 25)
Mass (Weight)		kg	46	46
*7 Sound Level (HH/H/L)	dBA	220V	43/41/39	44/42/40
		240V	43/41/39	44/42/40
Safety Devices			Fuse. Fan Driver Overload Protector.	Fuse. Fan Driver Overload Protector.
Refrigerant Control			Electronic Expansion Valve	Electronic Expansion Valve
Connectable Outdoor Unit			R-410A P Series	R-410A P Series
Standard Accessories			Operation Manual. Installation Manual. Drain Hose. Clamp Metal. Insulation for Fitting. Sealing Pads. Clamps. Washers. Screws. Air Discharge Flange. Air Suction Flange.	Operation Manual. Installation Manual. Drain Hose. Clamp Metal. Insulation for Fitting. Sealing Pads. Clamps. Washers. Screws. Air Discharge Flange. Air Suction Flange.
Drawing No.			C : 3D060388	

Note:

- *1 Indoor temp. : 27°CDB, 19.5°CWB / outdoor temp. : 35°CDB / Equivalent piping length : 7.5 m, level difference : 0 m.
- *2 Indoor temp. : 27°CDB, 19.0°CWB / outdoor temp. : 35°CDB / Equivalent piping length : 7.5 m, level difference : 0 m.
- *3 Indoor temp. : 20°CDB / outdoor temp. : 7°CDB, 6°CWB / Equivalent piping length : 7.5 m, level difference : 0 m.
- *4 External static pressure is changeable in 13 or 14 stages within the () range by remote controller.
- *5 Air filter is not standard accessory, but please mount it in the duct system of the suction side. Select its colorimetric method (gravity method) 50% or more.
- 6 Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.
- *7 Anechoic chamber conversion value, measured at a point 1.5 m downward from the unit centre. During actual operation, these values are normally somewhat higher as a result of ambient conditions.
- 8 Refer to page 57 for Fan Motor Input.

Conversion Formulae
kcal/h=kW×860
Btu/h=kW×3412
cfm=m ³ /min×35.3

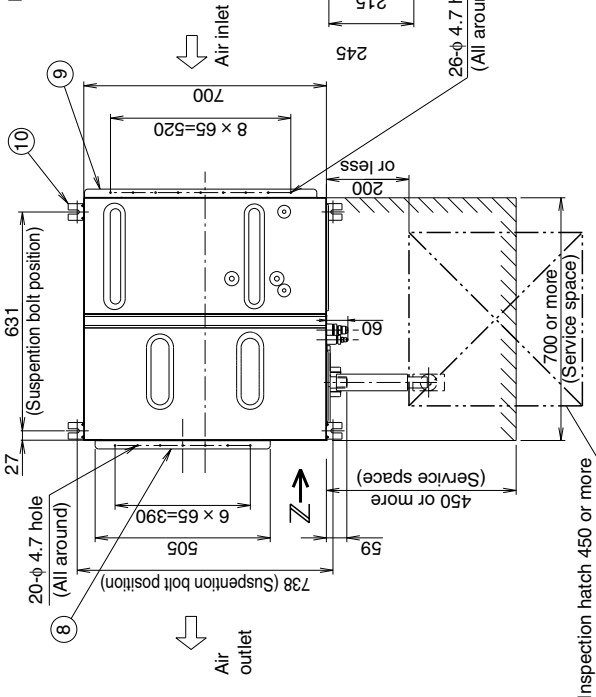
3. Dimensions

FXMQ40PVE

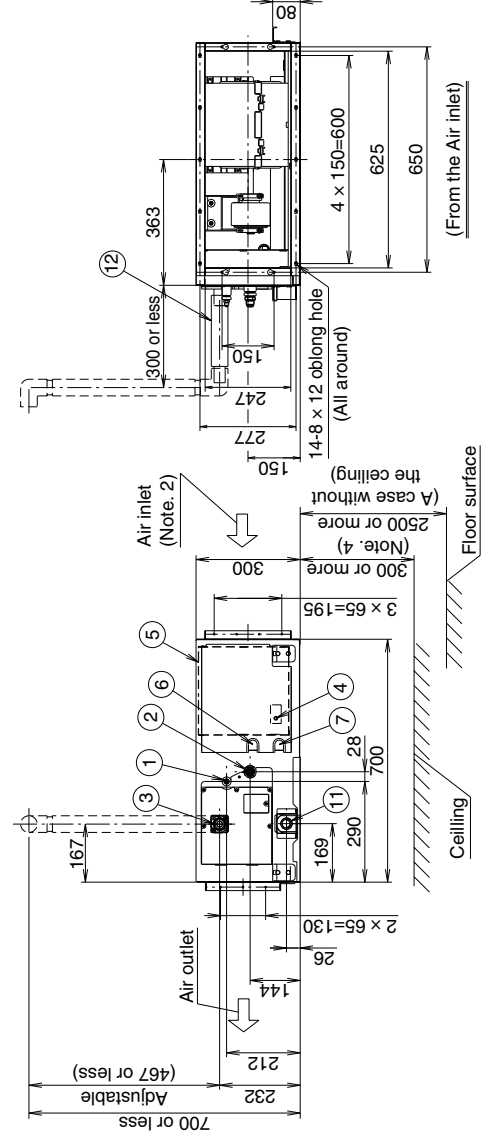
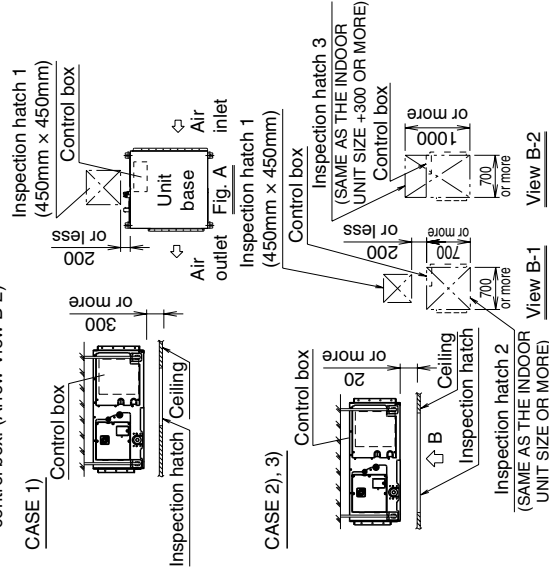
4. Space for Service Works

Notes 1. Location of MANUFACTURER'S LABEL:

- 1. Location of MANUFACTURER'S LABEL: Control box surface
- 2. Mount the air filter at the suction side. (Select its color/method (gravity method)) (50% or more.)
- 3. Do not locate things should not be wet under the indoor unit. Dews may drop when humidity reaches over 80%, or a drain gets stuck, or air filters are not clean.



- 4. Space for Service Works
- According to any one of below 1)-3), secure a space for service works, such as, checking and maintenance of control box and drain pumps, etc.
 - 1) One inspection hatch (450 × 450) on the control box side and a space of 300mm or more under the unit. (Fig. A)
 - 2) One inspection hatch (450 × 450) on the control box side and 2 (two) inspection hatches under the unit. (Arrow View B-1)
 - 3) 3 (three) inspection hatches under the unit and the control box. (Arrow View B-2)



ITEM	PART NAME	REMARK
12	Drain hose (Accessory)	O. D. φ 32 (Outlet)
11	Socket (For maintenance)	VP25 (O. D. φ 32, I. D. φ 25)
10	Hook	For M10
9	Air suction flange	
8	Air discharge flange	
7	Power supply connection	
6	Interunit wiring connection	
5	Control box (inside)	
4	Ground terminal (Terminal in Control box)	M4
3	Drain pipe connection	VP25 (O. D. φ 32, I. D. φ 25)
2	Gas pipe connection	φ 12.7 flare connection
1	Liquid pipe connection	φ 6.4 flare connection

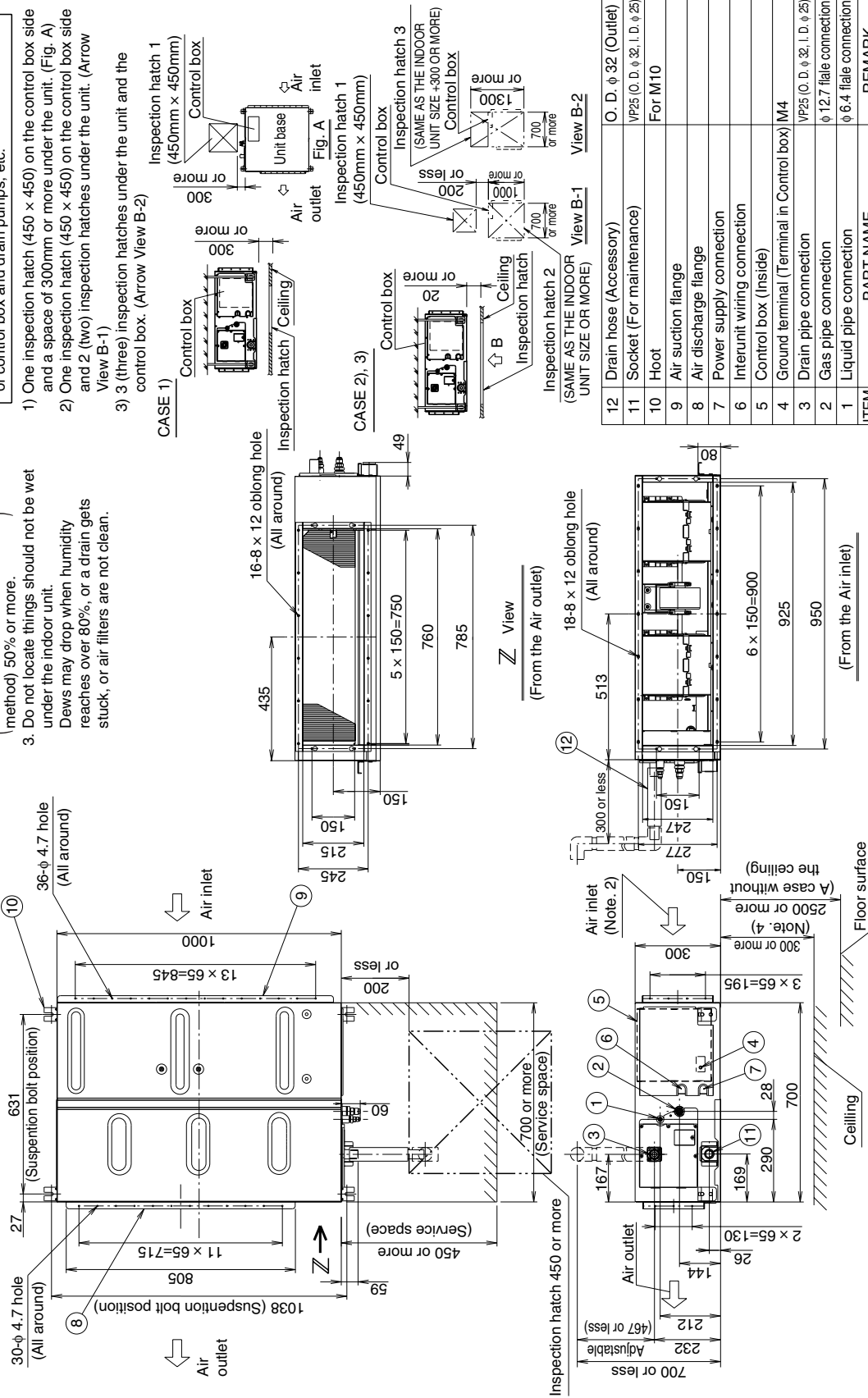
3D060160C

FXMQ50PVE

Notes) 1. Location of MANUFACTURE'S LABEL: 4. Space for Service Works

Control box surface
 2. Mount the air filter at the suction side.
 (Select its color/method (gravity method) 50% or more.)
 3. Do not locate things should not be wet under the indoor unit.
 Dews may drop when humidity reaches over 80%, or a drain gets stuck, or air filters are not clean.

- 1) One inspection hatch (450 x 450) on the control box side and a space of 300mm or more under the unit. (Fig. A)
- 2) One inspection hatch (450 x 450) on the control box side and 2 (two) inspection hatches under the unit. (Arrow View B-1)
- 3) 3 (three) inspection hatches under the unit and the control box. (Arrow View B-2)

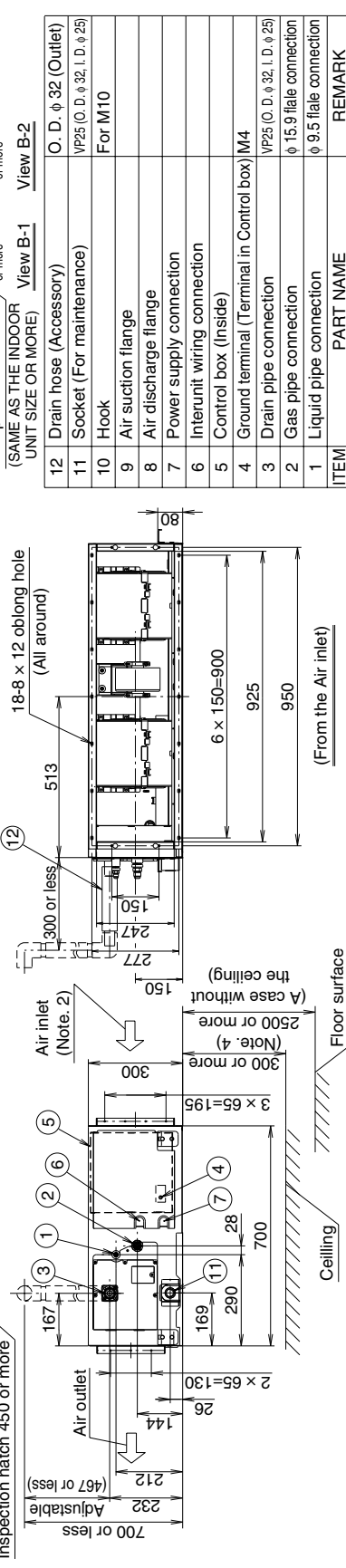
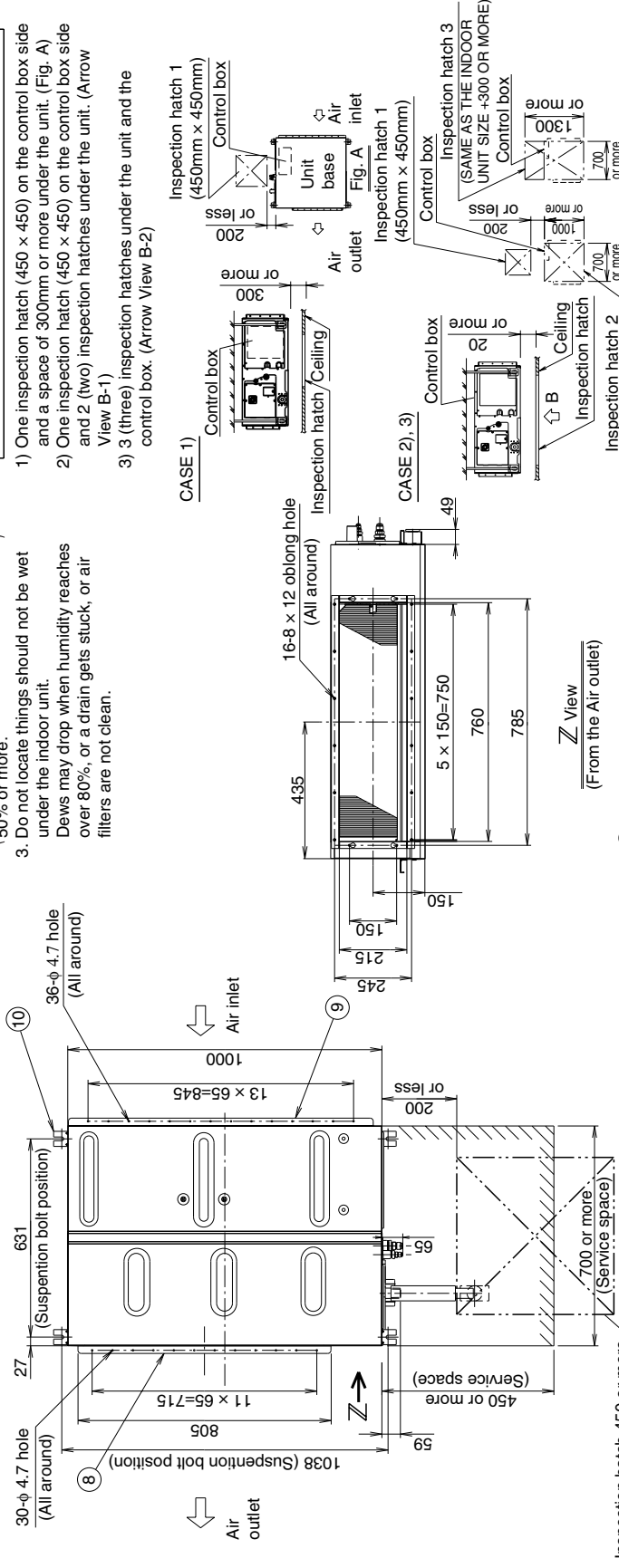


ITEM	PART NAME	REMARK
12	Drain hose (Accessory)	O. D. φ 32 (Outlet)
11	Socket (For maintenance)	VP25 (O. D. φ 32, I. D. φ 25)
10	Hoot	For M10
9	Air suction flange	
8	Air discharge flange	
7	Power supply connection	
6	Interunit wiring connection	
5	Control box (Inside)	
4	Ground terminal (Terminal in Control box)	M4
3	Drain pipe connection	VP25 (O. D. φ 32, I. D. φ 25)
2	Gas pipe connection	φ 12.7 flare connection
1	Liquid pipe connection	φ 6.4 flare connection

3D060159B

FXMQ63P / 80PVE

- Notes) 1. Location of MANUFACTURE'S LABEL:
 Control box surface
 2. Mount the air filter at the suction side.
 (Select its colorimethod (gravity method))
 (50% or more).
 3. Do not locate things should not be wet
 under the indoor unit.
 Dewes may drop when humidity reaches
 over 80%, or a drain gets stuck, or air
 filters are not clean.
4. Space for Service Works
 According to any one of below 1)-3), secure a space
 for service works, such as, checking and maintenance
 of control box and drain pumps, etc.
- 1) One inspection hatch (450 x 450) on the control box side
 and a space of 300mm or more under the unit. (Fig. A)
 - 2) One inspection hatch (450 x 450) on the control box side
 and 2 (two) inspection hatches under the unit. (Arrow
 View B-1)
 - 3) 3 (three) inspection hatches under the unit and the
 control box. (Arrow View B-2)



ITEM	PART NAME	REMARK
12	Drain hose (Accessory)	O. D. φ 32 (Outlet)
11	Socket (For maintenance)	VP25 (O. D. φ 32, I. D. φ 25)
10	Hook	For M10
9	Air suction flange	
8	Air discharge flange	
7	Power supply connection	
6	Interunit wiring connection	
5	Control box (Inside)	
4	Ground terminal (Terminal in Control box)	M4
3	Drain pipe connection	VP25 (O. D. φ 32, I. D. φ 25)
2	Gas pipe connection	φ 15.9 flare connection
1	Liquid pipe connection	φ 9.5 flare connection

3D060161C

FXMQ100P / 125PVE

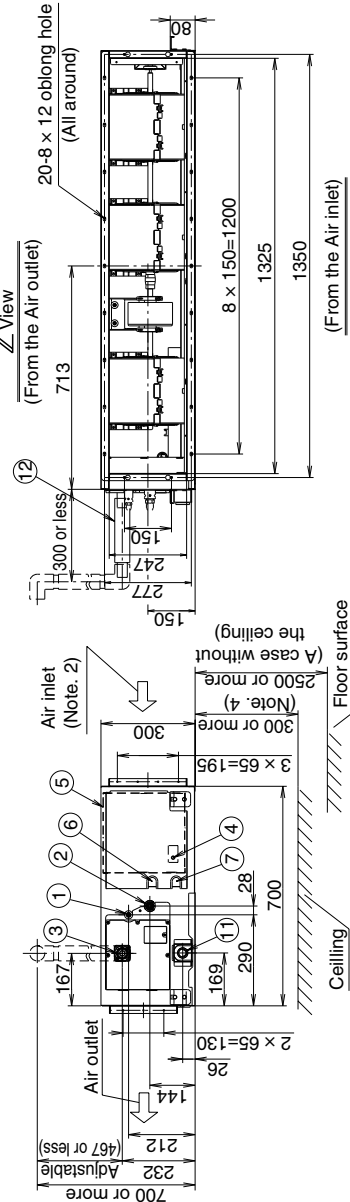
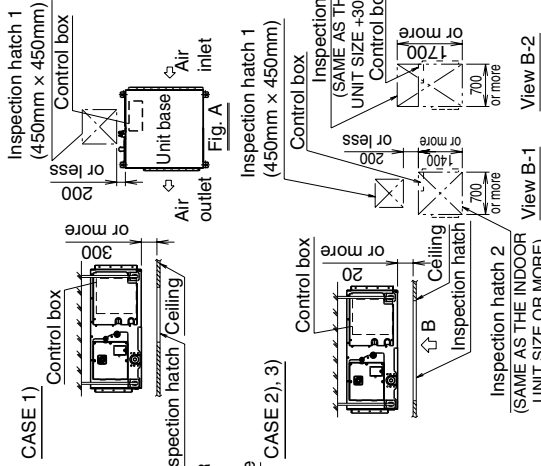
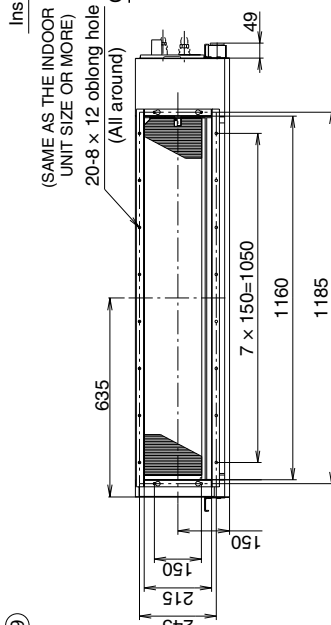
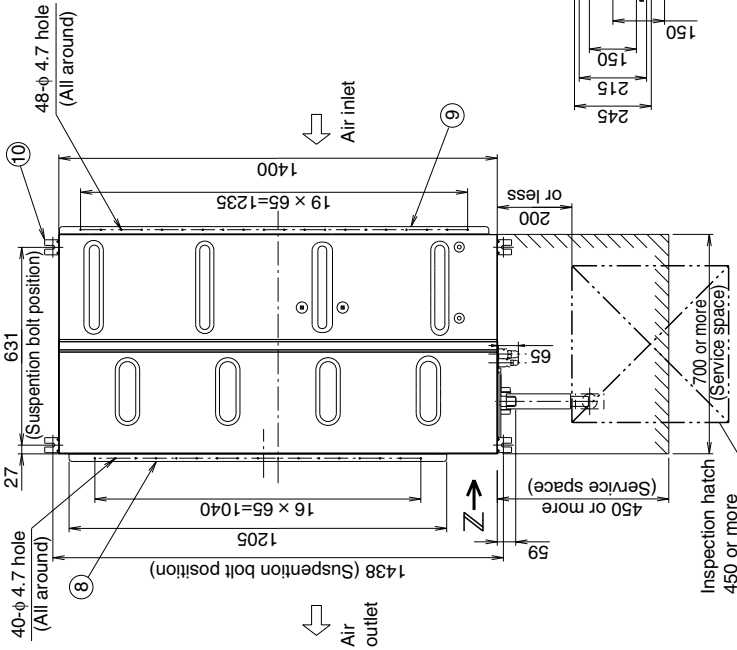
4. Space for Service Works

According to any one of below 1)-3), secure a space for service works, such as, checking and maintenance of control box and drain pumps, etc.

- 1) One inspection hatch (450 x 450) on the control box side and a space of 300mm or more under the unit. (Fig. A)
- 2) One inspection hatch (450 x 450) on the control box side and 2 (two) inspection hatches under the unit. (Arrow View B-1)
- 3) 3 (three) inspection hatches under the unit and the control box. (Arrow View B-2)

Notes) 1. Location of MANUFACTURE'S LABEL:

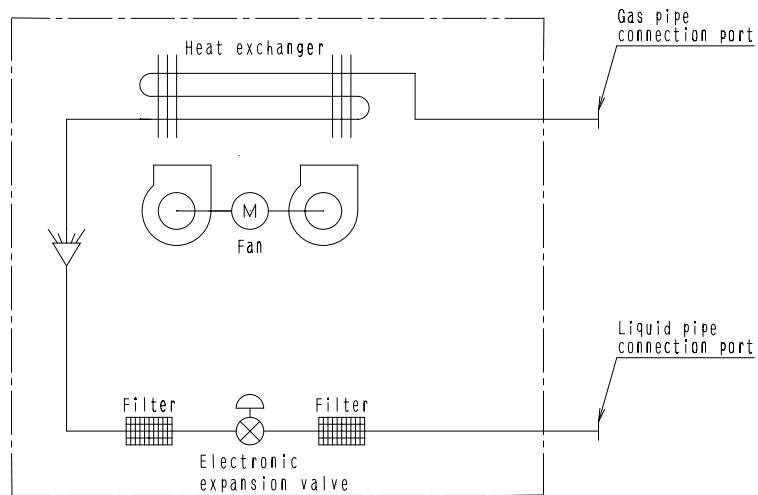
1. Control box surface
2. Mount the air filter at the suction side. (Select its color/method (gravity method) 50% or more.)
3. Do not locate things should not be wet under the indoor unit. Dews may drop when humidity reaches over 80%, or a drain gets stuck, or air filters are not clean.



ITEM	PART NAME	REMARK
12	Drain hose (Accessory)	O. D. φ 32 (Outlet)
11	Socket (For maintenance)	VP25 (O. D. φ 32, I. D. φ 25)
10	Hook	For M10
9	Air suction flange	
8	Air discharge flange	
7	Power supply connection	
6	Interunit wiring connection	
5	Control box (Inside)	
4	Ground terminal (Terminal in Control box)	M4
3	Drain pipe connection	VP25 (O. D. φ 32, I. D. φ 25)
2	Gas pipe connection	φ 15.9 flare connection
1	Liquid pipe connection	φ 9.5 flare connection

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4. Piping Diagrams



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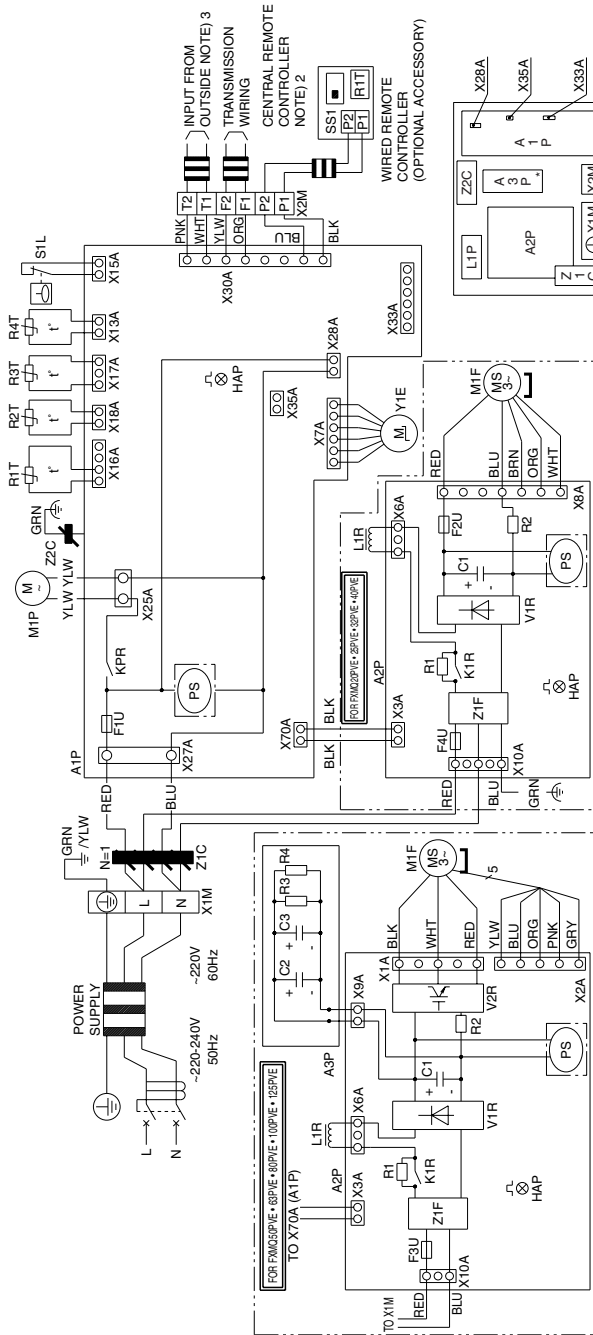
■ Refrigerant pipe connection port diameters

(mm)

Model	Gas	Liquid
FXMQ40P / 50PVE	φ12.7	φ6.4
FXMQ63P / 80P / 100P / 125PVE	φ15.9	φ9.5

5. Wiring Diagrams

FXMQ40P / 50P / 63P / 80P / 100P / 125PVE



EL. COMPO. BOX (INDOOR)
 *ONLY FXMQ50PVE • 63PVE • 80PVE • 100PVE • 125PVE

- NOTES) 1. : TERMINAL : CONNECTOR : FIELD WIRING
 2. IN CASE USING CENTRAL REMOTE CONTROLLER, CONNECT IT TO THE UNIT IN ACCORDANCE WITH THE ATTACHED INSTALLATION MANUAL.
 3. WHEN CONNECTING THE INPUT WIRES FROM OUTSIDE, FORCED OFF OR ON/OFF CONTROL OPERATION CAN BE SELECTED BY REMOTE CONTROLLER. IN DETAILS, REFER TO THE INSTALLATION MANUAL ATTACHED THE UNIT.
 4. COLORS: BLK : BLACK RED : RED BLU : BLUE WHT : WHITE
 PNK : PINK YLW : YELLOW BRN : BROWN GRY : GRAY GRN : GREEN ORG : ORANGE.

INDOOR UNIT	SWITCHING POWER SUPPLY (A1P, A2P)	ELECTRONIC EXPANSION VALVE
A1P	PS	Y1E
A2P	R1	Z1C, Z2C
A3P	R2	Z1F
C1, C2, C3	R3, R4	CONNECTOR OPTIONAL ACCESSORY
F1U	R1T	X28A
F2U	R2T	X33A
F3U	R3T	X35A
F4U	R4T	WIRED REMOTE CONTROLLER
HAP	S1L	R1T
KPR	V1R	SS1
K1R	V2R	SELECTOR SWITCH (MAIN/SUB)
L1R	X1M	
M1F	X2M	
M1P		

3D058783

6. Electric Characteristics

Model	Power supply			IFM		Input(W)			
	Hz	Volts	Voltage range	MCA	MFA	KW	FLA	Cooling	Heating
FXMQ40PVE	50	220~240V	Max. 264V Min. 198V	1.4	16	0.140	1.1	194	182
FXMQ50PVE				1.6	16	0.350	1.3	215	203
FXMQ63PVE				1.8	16	0.350	1.4	230	218
FXMQ80PVE				2.3	16	0.350	1.8	298	286
FXMQ100PVE				2.9	16	0.350	2.3	376	364
FXMQ125PVE				3.4	16	0.350	2.7	461	449
FXMQ40PVE	60	220V	Max. 242V Min. 198V	1.4	16	0.140	1.1	193	182
FXMQ50PVE				1.6	16	0.350	1.3	214	203
FXMQ63PVE				1.8	16	0.350	1.4	229	218
FXMQ80PVE				2.3	16	0.350	1.8	297	286
FXMQ100PVE				2.9	16	0.350	2.3	375	364
FXMQ125PVE				3.4	16	0.350	2.7	460	449

Symbols :

MCA : Min. Circuit Amps (A)
 MFA : Max. Fuse Amps (See note 5)
 KW : Fan Motor Rated Output(kW)
 FLA : Full Load Amps(A)
 IFM : Indoor Fan Motor

Note :

- Voltage range
Units are suitable for use on electrical systems where voltage supplied to unit terminals is not below or above listed range limits.
- Maximum allowable voltage unbalance between phases is 2%.
- MCA/MFA
 $MCA = 1.25 \times FLA$
 $MFA \leq 4 \times FLA$
 (Next lower standard fuse rating, Min. 16A)
- Select wire size based on the MCA.
- Instead of fuse, use circuit breaker.

4D060439

7. Capacity Tables

7.1 Cooling Capacity

FXMQ-P

[50/60Hz]

Cooling capacity

Unit Size	Outdoor air temp. °CDB	Indoor air temp.													
		14.0°CWB		16.0°CWB		18.0°CWB		19.0°CWB		20.0°CWB		22.0°CWB		24.0°CWB	
		20°CDB		23°CDB		26°CDB		27°CDB		28°CDB		30°CDB		32°CDB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
40	10.0	3.0	2.9	3.6	3.4	4.2	3.8	4.5	3.8	4.8	3.8	5.4	3.9	5.7	4.0
	12.0	3.0	2.9	3.6	3.4	4.2	3.8	4.5	3.8	4.8	3.8	5.4	3.9	5.6	4.0
	14.0	3.0	2.9	3.6	3.4	4.2	3.8	4.5	3.8	4.8	3.8	5.4	3.9	5.5	4.0
	16.0	3.0	2.9	3.6	3.4	4.2	3.8	4.5	3.8	4.8	3.8	5.4	3.9	5.5	3.9
	18.0	3.0	2.9	3.6	3.4	4.2	3.8	4.5	3.8	4.8	3.8	5.3	3.9	5.4	3.9
	20.0	3.0	2.9	3.6	3.4	4.2	3.8	4.5	3.8	4.8	3.8	5.2	3.8	5.3	3.9
	21.0	3.0	2.9	3.6	3.4	4.2	3.8	4.5	3.8	4.8	3.8	5.2	3.8	5.3	3.8
	23.0	3.0	2.9	3.6	3.4	4.2	3.8	4.5	3.8	4.8	3.8	5.1	3.8	5.2	3.8
	25.0	3.0	2.9	3.6	3.4	4.2	3.8	4.5	3.8	4.8	3.8	5.0	3.7	5.1	3.8
	27.0	3.0	2.9	3.6	3.4	4.2	3.8	4.5	3.8	4.8	3.8	5.0	3.7	5.1	3.7
	29.0	3.0	2.9	3.6	3.4	4.2	3.8	4.5	3.8	4.8	3.8	4.9	3.7	5.0	3.7
	31.0	3.0	2.9	3.6	3.4	4.2	3.8	4.5	3.8	4.7	3.8	4.8	3.6	4.9	3.6
	33.0	3.0	2.9	3.6	3.4	4.2	3.8	4.5	3.8	4.6	3.7	4.7	3.6	4.8	3.6
35.0	3.0	2.9	3.6	3.4	4.2	3.2	4.5	3.8	4.6	3.7	4.7	3.5	4.8	3.6	
37.0	3.0	2.9	3.6	3.4	4.2	3.2	4.4	3.8	4.5	3.6	4.6	3.5	4.7	3.5	
39.0	3.0	2.9	3.6	3.4	4.2	3.2	4.4	3.7	4.4	3.6	4.5	3.4	4.6	3.5	
50	10.0	3.8	3.6	4.5	4.1	5.2	4.5	5.6	4.6	6.0	4.6	6.7	4.8	7.1	4.3
	12.0	3.8	3.6	4.5	4.1	5.2	4.5	5.6	4.6	6.0	4.6	6.7	4.8	7.0	4.3
	14.0	3.8	3.6	4.5	4.1	5.2	4.5	5.6	4.6	6.0	4.6	6.7	4.8	6.9	4.2
	16.0	3.8	3.6	4.5	4.1	5.2	4.5	5.6	4.6	6.0	4.6	6.7	4.8	6.8	4.1
	18.0	3.8	3.6	4.5	4.1	5.2	4.5	5.6	4.6	6.0	4.6	6.6	4.7	6.7	4.1
	20.0	3.8	3.6	4.5	4.1	5.2	4.5	5.6	4.6	6.0	4.6	6.5	4.7	6.6	4.0
	21.0	3.8	3.6	4.5	4.1	5.2	4.5	5.6	4.6	6.0	4.6	6.4	4.6	6.6	4.0
	23.0	3.8	3.6	4.5	4.1	5.2	4.5	5.6	4.6	6.0	4.6	6.4	4.6	6.5	4.0
	25.0	3.8	3.6	4.5	4.1	5.2	4.5	5.6	4.6	6.0	4.6	6.3	4.5	6.4	3.9
	27.0	3.8	3.6	4.5	4.1	5.2	4.5	5.6	4.6	6.0	4.6	6.2	4.5	6.3	3.8
	29.0	3.8	3.6	4.5	4.1	5.2	4.5	5.6	4.6	5.9	4.6	6.1	4.4	6.2	3.8
	31.0	3.8	3.6	4.5	4.1	5.2	4.5	5.6	4.6	5.9	4.6	6.0	4.4	6.1	3.7
	33.0	3.8	3.6	4.5	4.1	5.2	4.5	5.6	4.6	5.8	4.5	5.9	4.3	6.0	3.7
35.0	3.8	3.6	4.5	4.1	5.2	4.5	5.6	4.6	5.7	4.5	5.8	4.3	5.9	3.6	
37.0	3.8	3.6	4.5	4.1	5.2	4.5	5.5	4.6	5.6	4.4	5.7	4.2	5.8	3.6	
39.0	3.8	3.6	4.5	4.1	5.2	4.5	5.4	4.5	5.5	4.4	5.6	4.2	5.8	3.5	
63	10.0	4.8	4.2	5.7	4.9	6.6	5.4	7.1	5.5	7.6	5.6	8.5	5.8	9.0	6.4
	12.0	4.8	4.2	5.7	4.9	6.6	5.4	7.1	5.5	7.6	5.6	8.5	5.8	8.9	6.3
	14.0	4.8	4.2	5.7	4.9	6.6	5.4	7.1	5.5	7.6	5.6	8.5	5.8	8.7	6.3
	16.0	4.8	4.2	5.7	4.9	6.6	5.4	7.1	5.5	7.6	5.6	8.5	5.8	8.6	6.3
	18.0	4.8	4.2	5.7	4.9	6.6	5.4	7.1	5.5	7.6	5.6	8.3	5.8	8.5	6.2
	20.0	4.8	4.2	5.7	4.9	6.6	5.4	7.1	5.5	7.6	5.6	8.2	5.7	8.4	6.2
	21.0	4.8	4.2	5.7	4.9	6.6	5.4	7.1	5.5	7.6	5.6	8.2	5.7	8.3	6.2
	23.0	4.8	4.2	5.7	4.9	6.6	5.4	7.1	5.5	7.6	5.6	8.1	5.6	8.2	6.1
	25.0	4.8	4.2	5.7	4.9	6.6	5.4	7.1	5.5	7.6	5.6	7.9	5.6	8.1	6.1
	27.0	4.8	4.2	5.7	4.9	6.6	5.4	7.1	5.5	7.6	5.6	7.8	5.5	8.0	6.1
	29.0	4.8	4.2	5.7	4.9	6.6	5.4	7.1	5.5	7.5	5.6	7.7	5.4	7.9	6.0
	31.0	4.8	4.2	5.7	4.9	6.6	5.4	7.1	5.5	7.4	5.5	7.6	5.4	7.8	6.0
	33.0	4.8	4.2	5.7	4.9	6.6	5.4	7.1	5.5	7.3	5.5	7.5	5.3	7.6	5.9
35.0	4.8	4.2	5.7	4.9	6.6	5.4	7.1	5.5	7.2	5.4	7.4	5.3	7.5	5.9	
37.0	4.8	4.2	5.7	4.9	6.6	5.4	7.0	5.5	7.1	5.4	7.2	5.2	7.4	5.9	
39.0	4.8	4.2	5.7	4.9	6.6	5.4	6.9	5.4	7.0	5.3	7.1	5.1	7.3	5.8	
80	10.0	6.1	5.3	7.2	6.1	8.4	6.9	9.0	7.0	9.6	7.1	10.8	7.4	11.4	7.4
	12.0	6.1	5.3	7.2	6.1	8.4	6.9	9.0	7.0	9.6	7.1	10.8	7.4	11.2	7.4
	14.0	6.1	5.3	7.2	6.1	8.4	6.9	9.0	7.0	9.6	7.1	10.8	7.4	11.1	7.3
	16.0	6.1	5.3	7.2	6.1	8.4	6.9	9.0	7.0	9.6	7.1	10.7	7.4	10.9	7.2
	18.0	6.1	5.3	7.2	6.1	8.4	6.9	9.0	7.0	9.6	7.1	10.6	7.3	10.8	7.2
	20.0	6.1	5.3	7.2	6.1	8.4	6.9	9.0	7.0	9.6	7.1	10.4	7.2	10.6	7.1
	21.0	6.1	5.3	7.2	6.1	8.4	6.9	9.0	7.0	9.6	7.1	10.4	7.2	10.6	7.1
	23.0	6.1	5.3	7.2	6.1	8.4	6.9	9.0	7.0	9.6	7.1	10.2	7.1	10.4	7.0
	25.0	6.1	5.3	7.2	6.1	8.4	6.9	9.0	7.0	9.6	7.1	10.1	7.0	10.3	6.9
	27.0	6.1	5.3	7.2	6.1	8.4	6.9	9.0	7.0	9.6	7.1	9.9	7.0	10.1	6.9
	29.0	6.1	5.3	7.2	6.1	8.4	6.9	9.0	7.0	9.5	7.1	9.8	6.9	10.0	6.8
	31.0	6.1	5.3	7.2	6.1	8.4	6.9	9.0	7.0	9.4	7.0	9.6	6.8	9.8	6.7
	33.0	6.1	5.3	7.2	6.1	8.4	6.9	9.0	7.0	9.3	7.0	9.5	6.7	9.7	6.7
35.0	6.1	5.3	7.2	6.1	8.4	6.9	9.0	7.0	9.1	6.9	9.3	6.6	9.5	6.6	
37.0	6.1	5.3	7.2	6.1	8.4	6.9	8.9	6.9	9.0	6.8	9.2	6.6	9.4	6.5	
39.0	6.1	5.3	7.2	6.1	8.4	6.9	8.7	6.8	8.8	6.7	9.0	6.5	9.3	6.5	

[50/60Hz]

Cooling capacity

Unit Size	Outdoor air temp. °CDB	Indoor air temp.													
		14.0°CWB		16.0°CWB		18.0°CWB		19.0°CWB		20.0°CWB		22.0°CWB		24.0°CWB	
		20°CDB		23°CDB		26°CDB		27°CDB		28°CDB		30°CDB		32°CDB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
100	10.0	7.6	6.4	9.0	7.3	10.5	8.3	11.2	8.5	11.9	8.7	13.4	9.0	14.2	8.9
	12.0	7.6	6.4	9.0	7.3	10.5	8.3	11.2	8.5	11.9	8.7	13.4	9.0	14.0	8.9
	14.0	7.6	6.4	9.0	7.3	10.5	8.3	11.2	8.5	11.9	8.7	13.4	9.0	13.8	8.8
	16.0	7.6	6.4	9.0	7.3	10.5	8.3	11.2	8.5	11.9	8.7	13.3	9.0	13.6	8.7
	18.0	7.6	6.4	9.0	7.3	10.5	8.3	11.2	8.5	11.9	8.7	13.2	8.9	13.4	8.6
	20.0	7.6	6.4	9.0	7.3	10.5	8.3	11.2	8.5	11.9	8.7	13.0	8.8	13.2	8.5
	21.0	7.6	6.4	9.0	7.3	10.5	8.3	11.2	8.5	11.9	8.7	12.9	8.8	13.2	8.5
	23.0	7.6	6.4	9.0	7.3	10.5	8.3	11.2	8.5	11.9	8.7	12.7	8.7	13.0	8.4
	25.0	7.6	6.4	9.0	7.3	10.5	8.3	11.2	8.5	11.9	8.7	12.5	8.6	12.8	8.3
	27.0	7.6	6.4	9.0	7.3	10.5	8.3	11.2	8.5	11.9	8.7	12.3	8.5	12.6	8.2
	29.0	7.6	6.4	9.0	7.3	10.5	8.3	11.2	8.5	11.9	8.6	12.2	8.4	12.4	8.1
	31.0	7.6	6.4	9.0	7.3	10.5	8.3	11.2	8.5	11.7	8.5	12.0	8.3	12.2	8.0
	33.0	7.6	6.4	9.0	7.3	10.5	8.3	11.2	8.5	11.5	8.5	11.8	8.2	12.1	7.9
	35.0	7.6	6.4	9.0	7.3	10.5	8.3	11.2	8.5	11.3	8.4	11.6	8.1	11.9	7.8
	37.0	7.6	6.4	9.0	7.3	10.5	8.3	11.0	8.4	11.2	8.3	11.4	8.0	11.7	7.7
	39.0	7.6	6.4	9.0	7.3	10.5	8.3	10.8	8.3	11.0	8.2	11.2	7.9	11.5	7.6
125	10.0	9.4	8.0	11.3	9.2	13.1	10.3	14.0	10.5	14.9	10.8	16.7	11.1	17.7	11.1
	12.0	9.4	8.0	11.3	9.2	13.1	10.3	14.0	10.5	14.9	10.8	16.7	11.1	17.5	11.0
	14.0	9.4	8.0	11.3	9.2	13.1	10.3	14.0	10.5	14.9	10.8	16.7	11.1	17.2	10.9
	16.0	9.4	8.0	11.3	9.2	13.1	10.3	14.0	10.5	14.9	10.8	16.7	11.1	17.0	10.8
	18.0	9.4	8.0	11.3	9.2	13.1	10.3	14.0	10.5	14.9	10.8	16.4	11.0	16.8	10.7
	20.0	9.4	8.0	11.3	9.2	13.1	10.3	14.0	10.5	14.9	10.8	16.2	10.9	16.6	10.6
	21.0	9.4	8.0	11.3	9.2	13.1	10.3	14.0	10.5	14.9	10.8	16.1	10.9	16.4	10.5
	23.0	9.4	8.0	11.3	9.2	13.1	10.3	14.0	10.5	14.9	10.8	15.9	10.8	16.2	10.4
	25.0	9.4	8.0	11.3	9.2	13.1	10.3	14.0	10.5	14.9	10.8	15.6	10.6	16.0	10.3
	27.0	9.4	8.0	11.3	9.2	13.1	10.3	14.0	10.5	14.9	10.8	15.4	10.5	15.8	10.2
	29.0	9.4	8.0	11.3	9.2	13.1	10.3	14.0	10.5	14.9	10.7	15.2	10.4	15.5	10.1
	31.0	9.4	8.0	11.3	9.2	13.1	10.3	14.0	10.5	14.6	10.6	15.0	10.3	15.3	10.0
	33.0	9.4	8.0	11.3	9.2	13.1	10.3	14.0	10.5	14.4	10.5	14.7	10.2	15.1	9.8
	35.0	9.4	8.0	11.3	9.2	13.1	10.3	14.0	10.5	14.2	10.4	14.5	10.1	14.9	9.7
	37.0	9.4	8.0	11.3	9.2	13.1	10.3	13.8	10.4	13.9	10.3	14.3	10.0	14.6	9.6
	39.0	9.4	8.0	11.3	9.2	13.1	10.3	13.5	10.3	13.7	10.2	14.1	9.9	14.4	9.5

TC : Total capacity ; kW
 SHC : Sensible heat capacity ; kW



Refer to Engineering Data concerning about Outdoor Unit Capacity Table for the actual performance data of each Indoor and Outdoor Unit combination.

7.2 Heating Capacity

FXMQ-P

[50/60Hz]

Heating Capacity

Unit Size	Outdoor air temp.		Indoor air temp.°CDB					
			16.0	18.0	20.0	21.0	22.0	24.0
	°CDB	°CWB	kW	kW	kW	kW	kW	kW
40	-19.8	-20.0	3.0	2.9	2.9	2.9	2.9	2.9
	-18.8	-19.0	3.0	3.0	3.0	3.0	3.0	3.0
	-16.7	-17.0	3.2	3.2	3.2	3.2	3.2	3.2
	-14.7	-15.0	3.4	3.4	3.4	3.4	3.4	3.4
	-12.6	-13.0	3.6	3.6	3.6	3.5	3.5	3.5
	-10.5	-11.0	3.7	3.7	3.7	3.7	3.7	3.7
	-9.5	-10.0	3.8	3.8	3.8	3.8	3.8	3.8
	-8.5	-9.1	3.9	3.9	3.9	3.9	3.9	3.9
	-7.0	-7.6	4.0	4.0	4.0	4.0	4.0	4.0
	-5.0	-5.6	4.2	4.2	4.2	4.2	4.2	4.2
	-3.0	-3.7	4.4	4.4	4.4	4.4	4.4	4.4
	0.0	-0.7	4.7	4.6	4.6	4.6	4.6	4.4
	3.0	2.2	4.9	4.9	4.9	4.8	4.7	4.4
	5.0	4.1	5.1	5.1	5.0	4.8	4.7	4.4
	7.0	6.0	5.2	5.2	5.0	4.8	4.7	4.4
	9.0	7.9	5.4	5.3	5.0	4.8	4.7	4.4
11.0	9.8	5.6	5.3	5.0	4.8	4.7	4.4	
13.0	11.8	5.6	5.3	5.0	4.8	4.7	4.4	
15.0	13.7	5.6	5.3	5.0	4.8	4.7	4.4	
50	-19.8	-20.0	3.7	3.7	3.7	3.7	3.7	3.7
	-18.8	-19.0	3.8	3.8	3.8	3.8	3.8	3.8
	-16.7	-17.0	4.1	4.0	4.0	4.0	4.0	4.0
	-14.7	-15.0	4.3	4.3	4.3	4.2	4.2	4.2
	-12.6	-13.0	4.5	4.5	4.5	4.5	4.5	4.5
	-10.5	-11.0	4.7	4.7	4.7	4.7	4.7	4.7
	-9.5	-10.0	4.8	4.8	4.8	4.8	4.8	4.8
	-8.5	-9.1	4.9	4.9	4.9	4.9	4.9	4.9
	-7.0	-7.6	5.1	5.1	5.1	5.1	5.1	5.1
	-5.0	-5.6	5.3	5.3	5.3	5.3	5.3	5.3
	-3.0	-3.7	5.5	5.5	5.5	5.5	5.5	5.5
	0.0	-0.7	5.9	5.9	5.8	5.8	5.8	5.5
	3.0	2.2	6.2	6.2	6.2	6.1	5.9	5.5
	5.0	4.1	6.4	6.4	6.3	6.1	5.9	5.5
	7.0	6.0	6.6	6.6	6.3	6.1	5.9	5.5
	9.0	7.9	6.8	6.7	6.3	6.1	5.9	5.5
11.0	9.8	7.0	6.7	6.3	6.1	5.9	5.5	
13.0	11.8	7.1	6.7	6.3	6.1	5.9	5.5	
15.0	13.7	7.1	6.7	6.3	6.1	5.9	5.5	
63	-19.8	-20.0	4.7	4.7	4.7	4.7	4.7	4.7
	-18.8	-19.0	4.9	4.9	4.8	4.8	4.8	4.8
	-16.7	-17.0	5.1	5.1	5.1	5.1	5.1	5.1
	-14.7	-15.0	5.4	5.4	5.4	5.4	5.4	5.4
	-12.6	-13.0	5.7	5.7	5.7	5.7	5.7	5.7
	-10.5	-11.0	6.0	6.0	6.0	6.0	6.0	5.9
	-9.5	-10.0	6.1	6.1	6.1	6.1	6.1	6.1
	-8.5	-9.1	6.3	6.3	6.2	6.2	6.2	6.2
	-7.0	-7.6	6.5	6.5	6.4	6.4	6.4	6.4
	-5.0	-5.6	6.8	6.7	6.7	6.7	6.7	6.7
	-3.0	-3.7	7.0	7.0	7.0	7.0	7.0	7.0
	0.0	-0.7	7.5	7.4	7.4	7.4	7.4	7.0
	3.0	2.2	7.9	7.8	7.8	7.7	7.5	7.0
	5.0	4.1	8.1	8.1	8.0	7.7	7.5	7.0
	7.0	6.0	8.4	8.4	8.0	7.7	7.5	7.0
	9.0	7.9	8.7	8.5	8.0	7.7	7.5	7.0
11.0	9.8	8.9	8.5	8.0	7.7	7.5	7.0	
13.0	11.8	9.0	8.5	8.0	7.7	7.5	7.0	
15.0	13.7	9.0	8.5	8.0	7.7	7.5	7.0	
80	-19.8	-20.0	5.9	5.9	5.9	5.9	5.9	5.8
	-18.8	-19.0	6.1	6.1	6.0	6.0	6.0	6.0
	-16.7	-17.0	6.4	6.4	6.4	6.4	6.4	6.4
	-14.7	-15.0	6.8	6.8	6.8	6.7	6.7	6.7
	-12.6	-13.0	7.1	7.1	7.1	7.1	7.1	7.1
	-10.5	-11.0	7.5	7.5	7.5	7.5	7.4	7.4
	-9.5	-10.0	7.7	7.7	7.6	7.6	7.6	7.6
	-8.5	-9.1	7.8	7.8	7.8	7.8	7.8	7.8
	-7.0	-7.6	8.1	8.1	8.1	8.1	8.0	8.0
	-5.0	-5.6	8.4	8.4	8.4	8.4	8.4	8.4
	-3.0	-3.7	8.8	8.8	8.7	8.7	8.7	8.7
	0.0	-0.7	9.3	9.3	9.3	9.3	9.3	8.7
	3.0	2.2	9.8	9.8	9.8	9.7	9.4	8.7
	5.0	4.1	10.2	10.1	10.0	9.7	9.4	8.7
	7.0	6.0	10.5	10.5	10.0	9.7	9.4	8.7
	9.0	7.9	10.8	10.6	10.0	9.7	9.4	8.7
11.0	9.8	11.2	10.6	10.0	9.7	9.4	8.7	
13.0	11.8	11.3	10.6	10.0	9.7	9.4	8.7	
15.0	13.7	11.3	10.6	10.0	9.7	9.4	8.7	

[50/60Hz] Heating Capacity

Unit Size	Outdoor air temp.		Indoor air temp. °CDB					
			16.0	18.0	20.0	21.0	22.0	24.0
	°CDB	°CWB	kW	kW	kW	kW	kW	kW
100	-19.8	-20.0	7.4	7.4	7.3	7.3	7.3	7.3
	-18.8	-19.0	7.6	7.6	7.6	7.5	7.5	7.5
	-16.7	-17.0	8.0	8.0	8.0	8.0	8.0	8.0
	-14.7	-15.0	8.5	8.5	8.4	8.4	8.4	8.4
	-12.6	-13.0	8.9	8.9	8.9	8.9	8.9	8.8
	-10.5	-11.0	9.4	9.3	9.3	9.3	9.3	9.3
	-9.5	-10.0	9.6	9.6	9.5	9.5	9.5	9.5
	-8.5	-9.1	9.8	9.8	9.7	9.7	9.7	9.7
	-7.0	-7.6	10.1	10.1	10.1	10.1	10.1	10.0
	-5.0	-5.6	10.6	10.5	10.5	10.5	10.5	10.5
	-3.0	-3.7	11.0	11.0	10.9	10.9	10.9	10.9
	0.0	-0.7	11.6	11.6	11.6	11.6	11.6	10.9
	3.0	2.2	12.3	12.3	12.2	12.1	11.7	10.9
	5.0	4.1	12.7	12.7	12.5	12.1	11.7	10.9
	7.0	6.0	13.1	13.1	12.5	12.1	11.7	10.9
	9.0	7.9	13.5	13.3	12.5	12.1	11.7	10.9
11.0	9.8	14.0	13.3	12.5	12.1	11.7	10.9	
13.0	11.8	14.1	13.3	12.5	12.1	11.7	10.9	
15.0	13.7	14.1	13.3	12.5	12.1	11.7	10.9	
125	-19.8	-20.0	9.4	9.4	9.4	9.4	9.4	9.3
	-18.8	-19.0	9.7	9.7	9.7	9.7	9.6	9.6
	-16.7	-17.0	10.3	10.3	10.2	10.2	10.2	10.2
	-14.7	-15.0	10.9	10.8	10.8	10.8	10.8	10.7
	-12.6	-13.0	11.4	11.4	11.4	11.4	11.3	11.3
	-10.5	-11.0	12.0	12.0	11.9	11.9	11.9	11.9
	-9.5	-10.0	12.3	12.2	12.2	12.2	12.2	12.2
	-8.5	-9.1	12.5	12.5	12.5	12.5	12.4	12.4
	-7.0	-7.6	13.0	12.9	12.9	12.9	12.9	12.8
	-5.0	-5.6	13.5	13.5	13.5	13.4	13.4	13.4
	-3.0	-3.7	14.1	14.0	14.0	14.0	14.0	13.9
	0.0	-0.7	14.9	14.9	14.8	14.8	14.8	13.9
	3.0	2.2	15.7	15.7	15.7	15.5	15.0	13.9
	5.0	4.1	16.3	16.2	16.0	15.5	15.0	13.9
	7.0	6.0	16.8	16.8	16.0	15.5	15.0	13.9
	9.0	7.9	17.3	17.0	16.0	15.5	15.0	13.9
11.0	9.8	17.9	17.0	16.0	15.5	15.0	13.9	
13.0	11.8	18.1	17.0	16.0	15.5	15.0	13.9	
15.0	13.7	18.1	17.0	16.0	15.5	15.0	13.9	

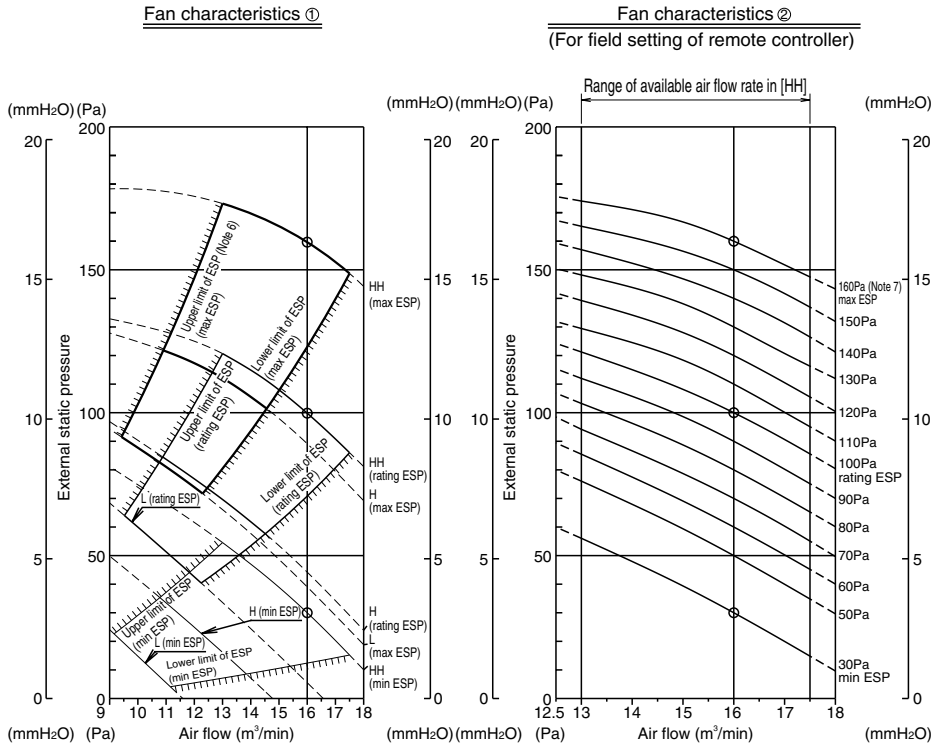


Refer to Engineering Data concerning about Outdoor Unit Capacity Table for the actual performance data of each Indoor and Outdoor Unit combination.

8. Fan Performances

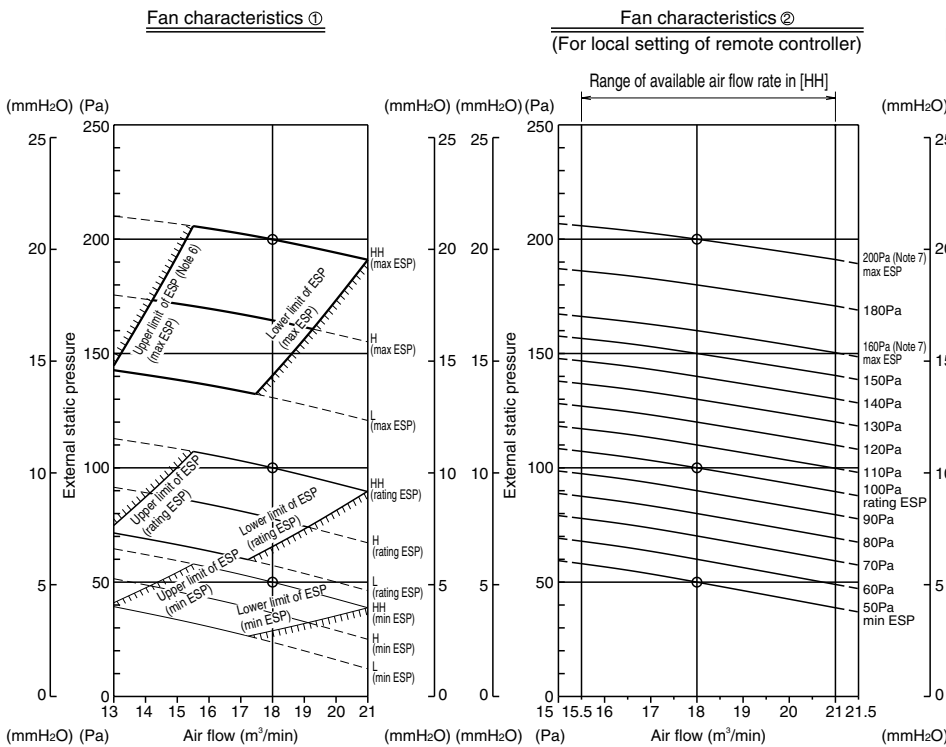
8.1 Fan Performance

FXMQ40PVE



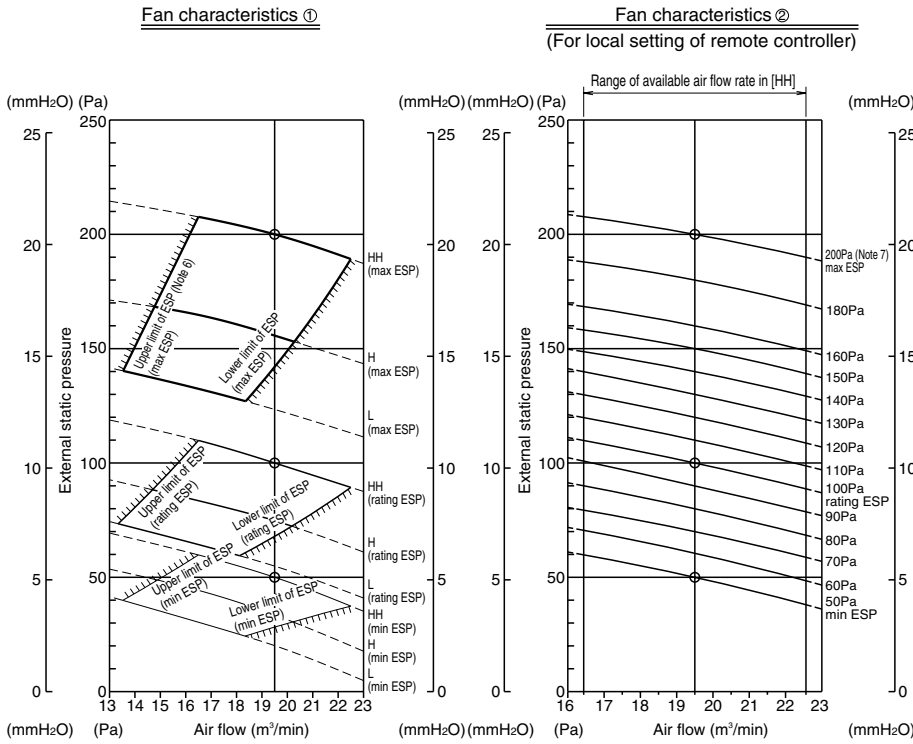
3D060456

FXMQ50PVE



3D060457A

FXMQ63PVE

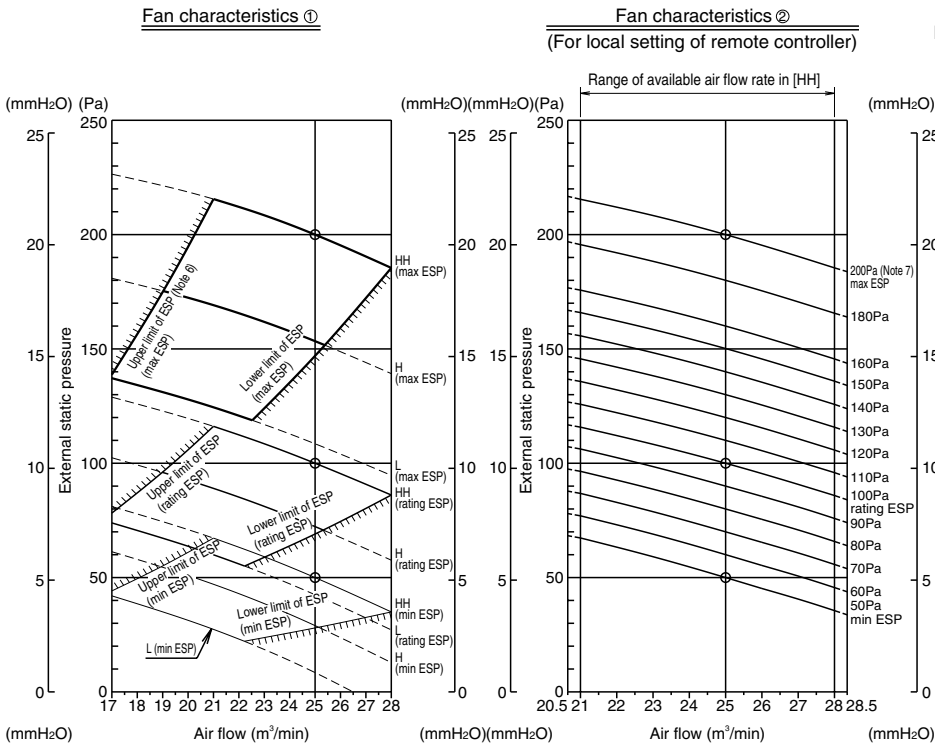


Notes :

1. As for this machine, setting is possible by 14 position of ESP.
2. Fan characteristics ① shows a fan characteristic at the time of the "maximum ESP" "rating ESP" "minimum ESP" as a representative.
3. Fan characteristics ② (for field setting of remote controller) shows a fan characteristic of each ESP of field setting possible air flow "HH".
4. Please choose ESP setting by using Fan characteristics ① and Fan characteristics ② by the resistance of a connected duct.
5. The remote controller can be used to change "HH" "H" and "L".
6. ESP : external static pressure
7. The value in this figure shows ESP in rating air flow.

3D060458

FXMQ80PVE

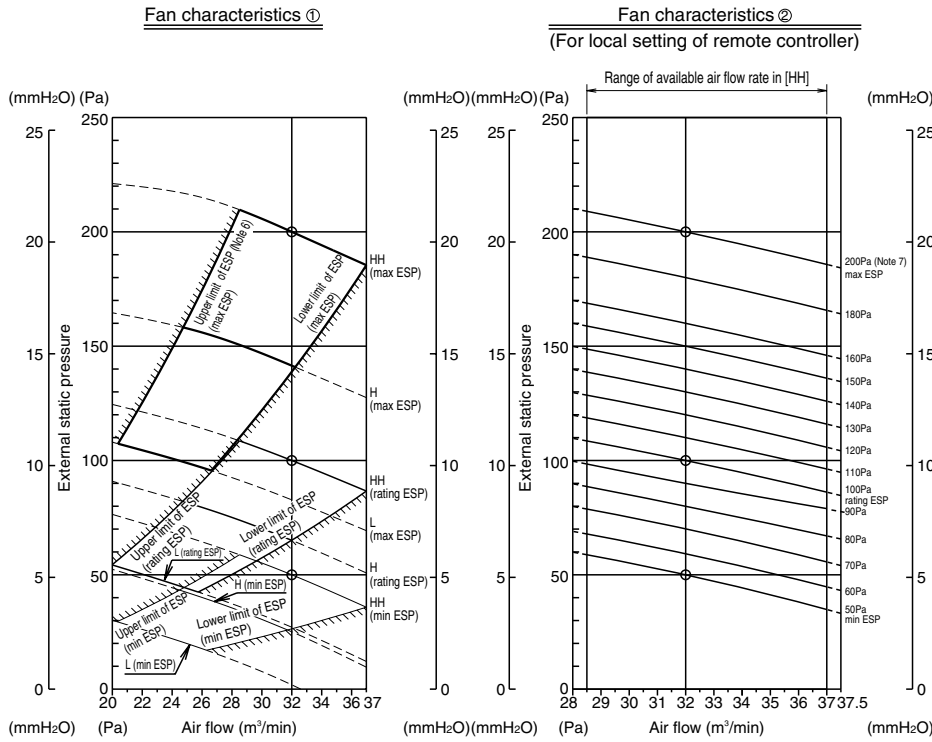


Notes :

1. As for this machine, setting is possible by 14 position of ESP.
2. Fan characteristics ① shows a fan characteristic at the time of the "maximum ESP" "rating ESP" "minimum ESP" as a representative.
3. Fan characteristics ② (for field setting of remote controller) shows a fan characteristic of each ESP of field setting possible air flow "HH".
4. Please choose ESP setting by using Fan characteristics ① and Fan characteristics ② by the resistance of a connected duct.
5. The remote controller can be used to change "HH" "H" and "L".
6. ESP : external static pressure
7. The value in this figure shows ESP in rating air flow.

3D060459

FXMQ100PVE

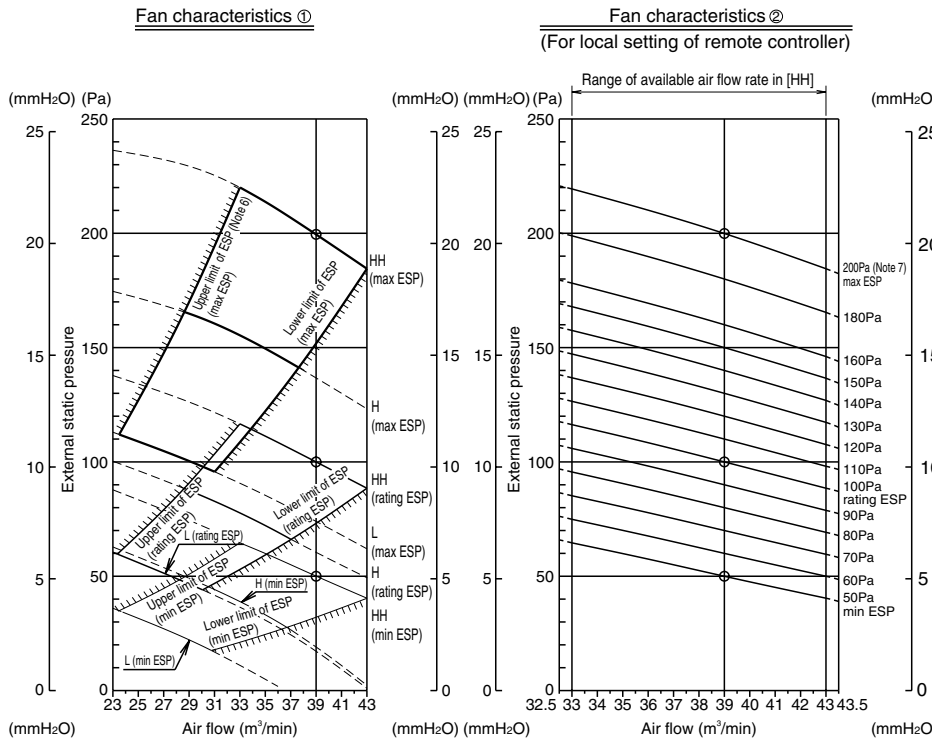


Notes :

1. As for this machine, setting is possible by 14 position of ESP.
2. Fan characteristics ① shows a fan characteristic at the time of the "maximum ESP" "rating ESP" "minimum ESP" as a representative.
3. Fan characteristics ② (for field setting of remote controller) shows a fan characteristic of each ESP of field setting possible air flow "HH".
4. Please choose ESP setting by using Fan characteristics ① and Fan characteristics ② by the resistance of a connected duct.
5. The remote controller can be used to change "HH" "H" and "L".
6. ESP : external static pressure
7. The value in this figure shows ESP in rating air flow.

3D060460

FXMQ125PVE



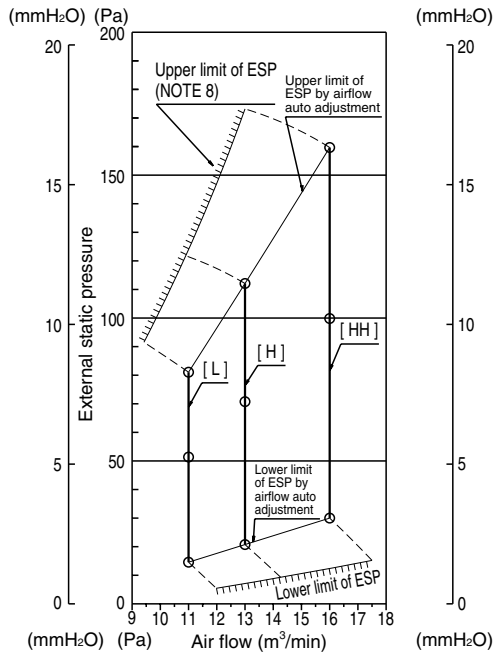
Notes :

1. As for this machine, setting is possible by 14 position of ESP.
2. Fan characteristics ① shows a fan characteristic at the time of the "maximum ESP" "rating ESP" "minimum ESP" as a representative.
3. Fan characteristics ② (for field setting of remote controller) shows a fan characteristic of each ESP of field setting possible air flow "HH".
4. Please choose ESP setting by using Fan characteristics ① and Fan characteristics ② by the resistance of a connected duct.
5. The remote controller can be used to change "HH" "H" and "L".
6. ESP : external static pressure
7. The value in this figure shows ESP in rating air flow.

3D060461

8.2 "Air Flow Auto Adjustment" Characteristics

FXMQ40PVE

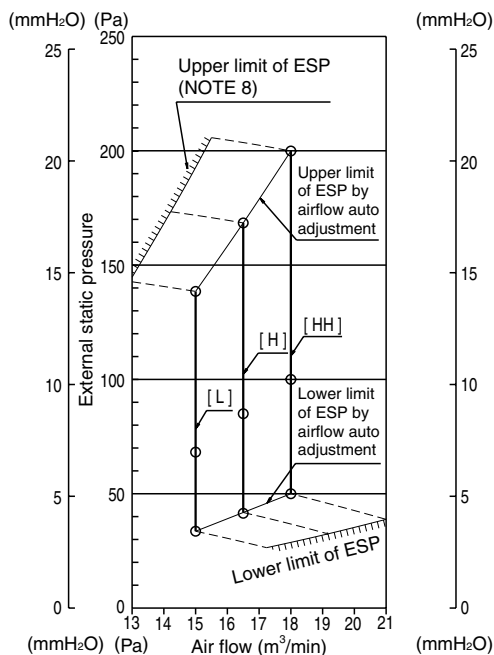


Notes :

1. As for this machine, less than 10% of the volume of blow-off air is automatically adjusted to the rated quantity by airflow auto adjustment at the time of installation.
2. After duct construction completion, please perform local setting "airflow auto adjustment" by remote controller.
3. About the local setting method of the "airflow auto adjustment", look at the installation manual which is attached to an indoor unit.
4. External static pressure that can adjust by "airflow auto adjustment" function is 30Pa - 160Pa (When air flow is HH).
5. It is not operated auto adjustment, operated in air flow that is different from rated quantity in the case of use out of external static pressure range mentioned above.
6. This figure shows a fan characteristics at the time of "HH" "H" and "L".
7. The remote controller can be used to change "HH" "H" and "L".
8. ESP : external static pressure.

3D060577

FXMQ50PVE

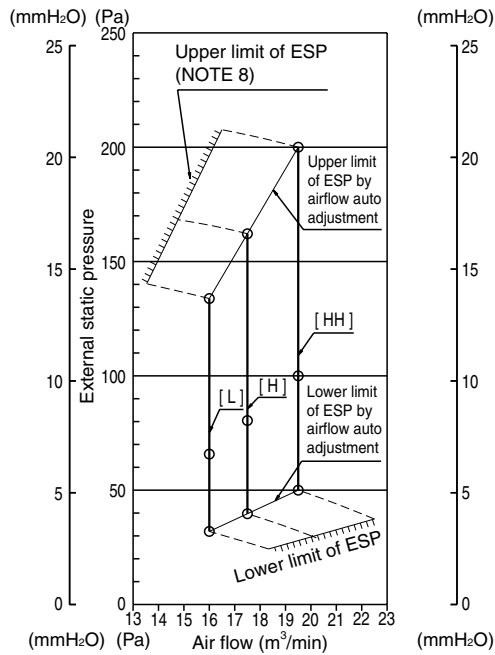


Notes :

1. As for this machine, less than 10% of the volume of blow-off air is automatically adjusted to the rated quantity by airflow auto adjustment at the time of installation.
2. After duct construction completion, please perform local setting "airflow auto adjustment" by remote controller.
3. About the local setting method of the "airflow auto adjustment", look at the installation manual which is attached to an indoor unit.
4. External static pressure that can adjust by "airflow auto adjustment" function is 50Pa - 200Pa (When air flow is HH).
5. It is not operated auto adjustment, operated in air flow that is different from rated quantity in the case of use out of external static pressure range mentioned above.
6. This figure shows a fan characteristics at the time of "HH" "H" and "L".
7. The remote controller can be used to change "HH" "H" and "L".
8. ESP : external static pressure.

3D060578

FXMQ63PVE

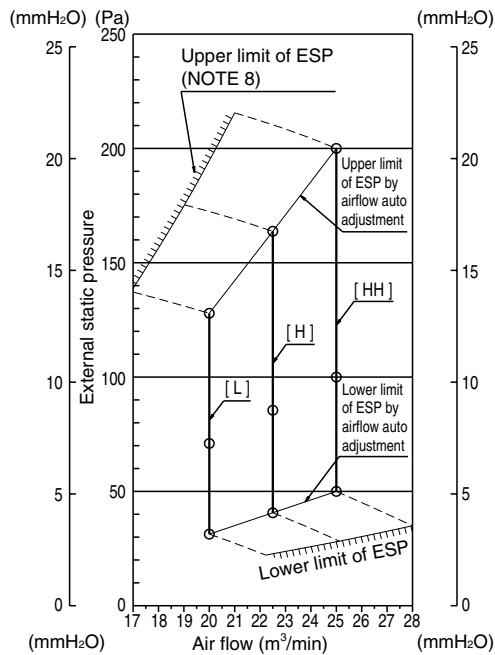


Notes :

1. As for this machine, less than 10% of the volume of blow-off air is automatically adjusted to the rated quantity by airflow auto adjustment at the time of installation.
2. After duct construction completion, please perform local setting "airflow auto adjustment" by remote controller.
3. About the local setting method of the "airflow auto adjustment", look at the installation manual which is attached to an indoor unit.
4. External static pressure that can adjust by "airflow auto adjustment" function is 50Pa - 200Pa (When air flow is HH).
5. It is not operated auto adjustment, operated in air flow that is different from rated quantity in the case of use out of external static pressure range mentioned above.
6. This figure shows a fan characteristics at the time of "HH" "H" and "L".
7. The remote controller can be used to change "HH" "H" and "L".
8. ESP : external static pressure.

3D060579

FXMQ80PVE

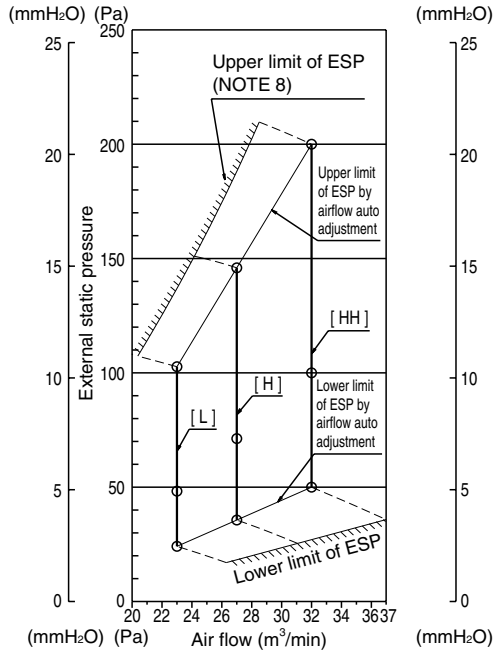


Notes :

1. As for this machine, less than 10% of the volume of blow-off air is automatically adjusted to the rated quantity by airflow auto adjustment at the time of installation.
2. After duct construction completion, please perform local setting "airflow auto adjustment" by remote controller.
3. About the local setting method of the "airflow auto adjustment", look at the installation manual which is attached to an indoor unit.
4. External static pressure that can adjust by "airflow auto adjustment" function is 50Pa - 200Pa (When air flow is HH).
5. It is not operated auto adjustment, operated in air flow that is different from rated quantity in the case of use out of external static pressure range mentioned above.
6. This figure shows a fan characteristics at the time of "HH" "H" and "L".
7. The remote controller can be used to change "HH" "H" and "L".
8. ESP : external static pressure.

3D060580

FXMQ100PVE

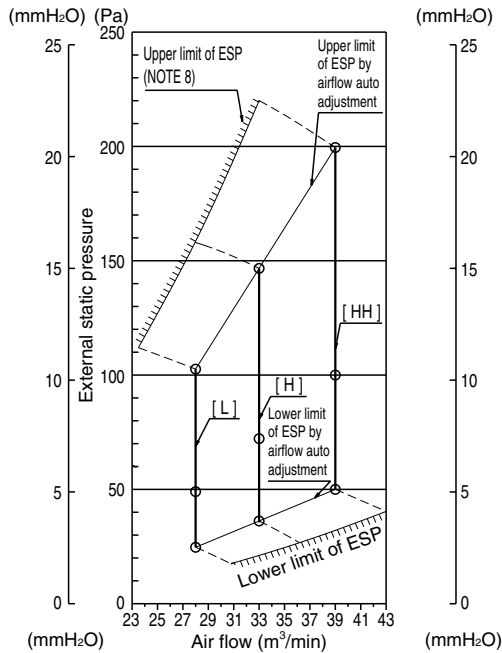


Notes :

1. As for this machine, less than 10% of the volume of blow-off air is automatically adjusted to the rated quantity by airflow auto adjustment at the time of installation.
2. After duct construction completion, please perform local setting "airflow auto adjustment" by remote controller.
3. About the local setting method of the "airflow auto adjustment", look at the installation manual which is attached to an indoor unit.
4. External static pressure that can adjust by "airflow auto adjustment" function is 50Pa - 200Pa (When air flow is HH).
5. It is not operated auto adjustment, operated in air flow that is different from rated quantity in the case of use out of external static pressure range mentioned above.
6. This figure shows a fan characteristics at the time of "HH" "H" and "L".
7. The remote controller can be used to change "HH" "H" and "L".
8. ESP : external static pressure.

3D060581

FXMQ125PVE



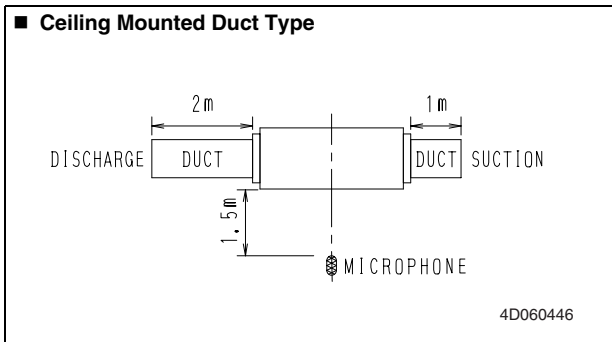
Notes :

1. As for this machine, less than 10% of the volume of blow-off air is automatically adjusted to the rated quantity by airflow auto adjustment at the time of installation.
2. After duct construction completion, please perform local setting "airflow auto adjustment" by remote controller.
3. About the local setting method of the "airflow auto adjustment", look at the installation manual which is attached to an indoor unit.
4. External static pressure that can adjust by "airflow auto adjustment" function is 50Pa - 200Pa (When air flow is HH).
5. It is not operated auto adjustment, operated in air flow that is different from rated quantity in the case of use out of external static pressure range mentioned above.
6. This figure shows a fan characteristics at the time of "HH" "H" and "L".
7. The remote controller can be used to change "HH" "H" and "L".
8. ESP : external static pressure.

3D060582

9. Sound Levels

Overall



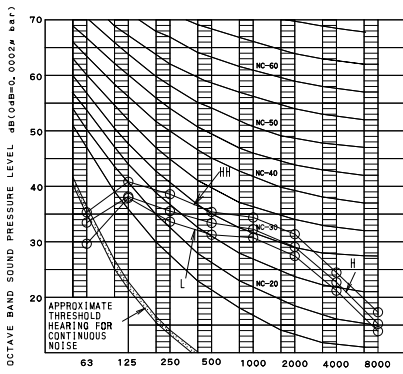
Note:

1. The operating conditions are assumed to be standard (JIS conditions).
2. These operating values were obtained in a dead room (conversion values). Sound level will vary depending on a range of factors such as the construction (acoustic absorption coefficient) of the particular room in which the equipments installed.

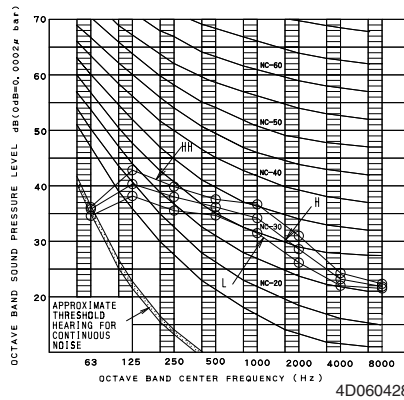
dBA

Model	220-240V / 220V, 50 / 60Hz		
	HH	H	L
FXMQ40P	39	37	35
FXMQ50P	41	39	37
FXMQ63P	42	40	38
FXMQ80P	43	41	39
FXMQ100P	43	41	39
FXMQ125P	44	42	40

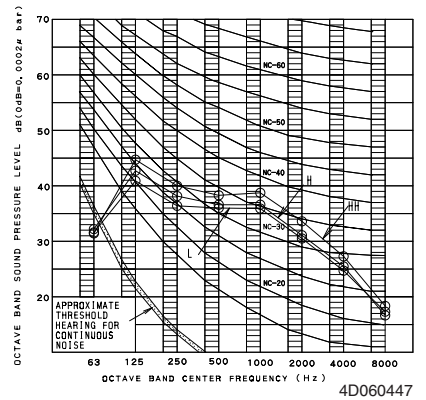
Octave Band Level FXMQ40PVE



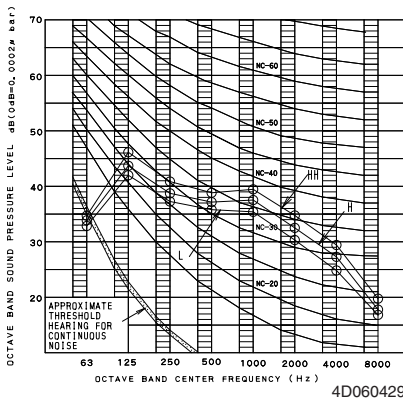
FXMQ50PVE



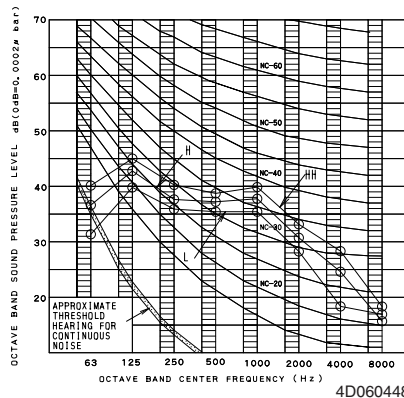
FXMQ63PVE



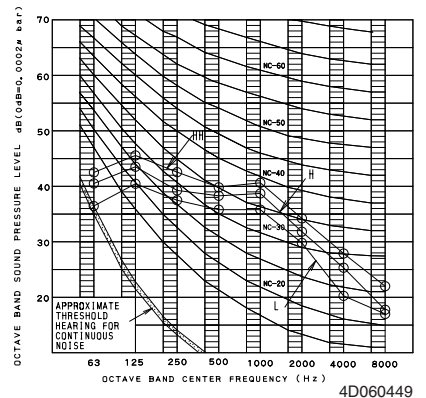
FXMQ80PVE



FXMQ100PVE



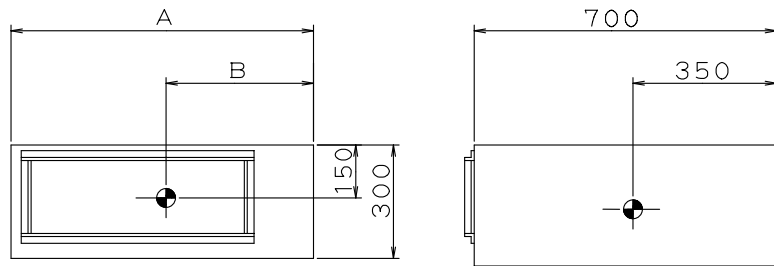
FXMQ125PVE



10. Center of Gravity

2

FXMQ40P / 50P / 63P / 80P / 100P / 125PVE



MODEL NAME	A	B
FXMQ40PVE	700	280
FXMQ50・63・80PVE	1000	460
FXMQ100・125PVE	1400	600

4D060438

11. Installation Manual



CONTENTS

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- 3. SELECTING INSTALLATION SITE 3
- 4. PREPARATIONS BEFORE INSTALLATION..... 4
- 5. INDOOR UNIT INSTALLATION 5
- 6. REFRIGERANT PIPING WORK 5
- 7. DRAIN PIPING WORK 7
- 8. DUCT WORK 8
- 9. ELECTRIC WIRING WORK 9
- 10. WIRING EXAMPLE AND HOW TO SET
THE REMOTE CONTROLLER..... 10
- 11. FIELD SETTING 12
- 12. TEST OPERATION..... 14

1. SAFETY PRECAUTIONS

Please read these "SAFETY PRECAUTIONS" carefully before installing air conditioning unit and be sure to install it correctly. After completing installation, conduct a trial operation to check for faults and explain to the customer how to operate the air conditioner and take care of it with the aid of the operation manual. Ask the customer to store the installation manual along with the operation manual for future reference.

This air conditioner comes under the term "appliances not accessible to the general public".

Safety Precaution

This unit is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Meaning of WARNING and CAUTION notices

⚠ WARNING Failure to follow these instructions properly may result in personal injury or loss of life.

⚠ CAUTION Failure to observe these instructions properly may result in property damage or personal injury, which may be serious depending on the circumstances.

— ⚠ WARNING —

- Ask your dealer or qualified personnel to carry out installation work.
Do not attempt to install the air conditioner yourself. Improper installation may result in water leakage, electric shocks or fire.
- Install the air conditioner in accordance with the instructions in this installation manual.
Improper installation may result in water leakage, electric shocks or fire.
- Consult your local dealer regarding what to do in case of refrigerant leakage. When the air conditioner is to be installed in a small room, it is necessary to take proper measures so that the amount of any leaked refrigerant does not exceed the concentration limit in the event of a leakage. Otherwise, this may lead to an accident due to oxygen depletion.

- Be sure to use only the specified accessories and parts for installation work.
Failure to use the specified parts may result in the unit falling, water leakage, electric shocks or fire.
- Install the air conditioner on a foundation strong enough to withstand the weight of the unit.
A foundation of insufficient strength may result in the equipment falling and causing injury.
- Carry out the specified installation work after taking into account strong winds, typhoons or earthquakes.
Failure to do so during installation work may result in the unit falling and causing accidents.
- Make sure that a separate power supply circuit is provided for this unit and that all electrical work is carried out by qualified personnel according to local laws and regulations and this installation manual.
An insufficient power supply capacity or improper electrical construction may lead to electric shocks or fire.
- Make sure that all wiring is secured, the specified wires are used, and that there is no strain on the terminal connections or wires.
Improper connections or securing of wires may result in abnormal heat build-up or fire.
- When wiring the power supply and connecting the remote controller wiring and transmission wiring, position the wires so that the control box lid can be securely fastened.
Improper positioning of the control box lid may result in electric shocks, fire or the terminals overheating.
- If refrigerant gas leaks during installation, ventilate the area immediately.
Toxic gas may be produced if the refrigerant comes into contact with fire.
- After completing installation, check for refrigerant gas leakage.
Toxic gas may be produced if the refrigerant gas leaks into the room and comes into contact with a source of fire, such as a fan heater, stove or cooker.
- Be sure to switch off the unit before touching any electrical parts.
- Be sure to earth the air conditioner.
Do not earth the unit to a utility pipe, lightning conductor or telephone earth lead. Imperfect earthing may result in electric shocks or fire.
A high surge current from lightning or other sources may cause damage to the air conditioner.
- Be sure to install an earth leakage breaker.
Failure to install an earth leakage breaker may result in electric shocks or fire.

— ⚠ CAUTION —

- While following the instructions in this installation manual, install drain piping to ensure proper drainage and insulate piping to prevent condensation.
Improper drain piping may result in indoor water leakage and property damage.
- Install the indoor and outdoor units, power cord and connecting wires at least 1 meter away from televisions or radios to prevent picture interference and noise.
(Depending on the incoming signal strength, a distance of 1 meter may not be sufficient to eliminate noise.)
- Remote controller (wireless kit) transmitting distance can be shorter than expected in rooms with electronic fluorescent lamps (inverter or rapid start types).
Install the indoor unit as far away from fluorescent lamps as possible.

- Do not install the air conditioner in the following locations:
 - Where there is a high concentration of mineral oil spray or vapour (e.g. a kitchen).
Plastic parts will deteriorate, parts may fall off and water leakage could result.
 - Where corrosive gas, such as sulphurous acid gas, is produced.
Corroding of copper pipes or soldered parts may result in refrigerant leakage.
 - Near machinery emitting electromagnetic radiation.
Electromagnetic radiation may disturb the operation of the control system and result in a malfunction of the unit.
 - Where flammable gas may leak, where there is carbon fibre or ignitable dust suspensions in the air, or where volatile flammables such as paint thinner or gasoline are handled.
Operating the unit in such conditions may result in fire.

2. BEFORE INSTALLATION

- When moving the unit while removing it from the carton box, be sure to lift it by holding on to the four lifting lugs without exerting any pressure on other parts, especially, the refrigerant piping, drain piping, flanges and other resin parts.**
- Be sure to check the type of R410A refrigerant to be used before installing the unit. (Using an incorrect refrigerant will prevent normal operation of the unit.)
- The accessories needed for installation must be retained in your custody until the installation work is completed. Do not discard them!
- Decide upon a line of transport.
- Leave the unit inside its packaging while moving, until reaching the installation site. Where unpacking is unavoidable, use a sling of soft material or protective plates together with a rope when lifting, to avoid damage or scratches to the unit.
- When moving the unit or after opening, hold the unit by the hanger brackets (x 4). Do not apply force to the refrigerant piping, drain piping, flanges or plastic parts.
- For the installation of outdoor unit, refer to the installation manual attached to the outdoor unit.
- Do not install or operate the unit in rooms mentioned below.
 - Laden with mineral oil, or filled with oil vapor or spray like in kitchens. (Plastic parts may deteriorate which could eventually cause the unit to fall out of place, or could lead to leaks.)**
 - Where corrosive gas like sulfurous gas exists. (Copper tubing and brazed spots may corrode which could eventually lead to refrigerant leaks.)**
 - Where exposed to combustible gases and where volatile flammable gas like thinner or gasoline is used. (Gas in the vicinity of the unit could ignite.)**
 - Where machines can generate electromagnetic waves. (Control system may malfunction.)**
 - Where the air contains high levels of salt such as that near the ocean and where voltage fluctuates greatly such as that in factories. Also in vehicles or vessels.**
- This unit, both indoor and outdoor, is suitable for installation in a commercial and light industrial environment.
If installed as a household appliance it could cause electromagnetic interference.

2-1 PRECAUTIONS

- Be sure to read this manual before installing the indoor unit.
- Entrust installation to the place of purchase or a qualified serviceman. Improper installation could lead to leaks and, in worse cases, electric shock or fire.

- Use only parts provided with the unit or parts satisfying required specifications. Unspecified parts could cause the unit to fall out of place, or could lead to leaks and, in worse cases, electric shock or fire.
- Be sure to mount an air filter (part to be procured in the field) in the suction air passage in order to prevent water leaking, etc.

2-2 ACCESSORIES

Check that the following accessories are provided and that each accessory is correct in amount. Refer to the Fig. 1 of this sheet.

[PRECAUTION]

The accessories are required for the installation of the air conditioner. Be sure to keep them until the installation work is completed.

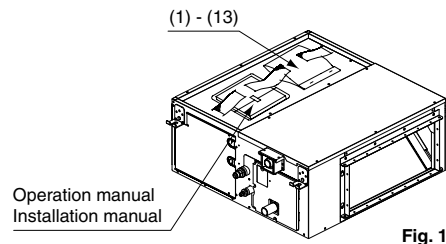


Fig. 1

Name	Metal clamp (1)	Drain hose (2)	Screws for duct flanges (3)	Insulation for fitting						
Quantity	1 pc.	1 pc.	As described in table below	1 each						
Shape			M5x16 <table border="1"> <tr> <td>40 type</td> <td>10</td> </tr> <tr> <td>50 • 63 • 80 type</td> <td>18</td> </tr> <tr> <td>100 • 125 type</td> <td>26</td> </tr> </table>	40 type	10	50 • 63 • 80 type	18	100 • 125 type	26	 Thin for liquid pipe (4) Thick for gas pipe (5)
40 type	10									
50 • 63 • 80 type	18									
100 • 125 type	26									

Name	Sealing pad	Clamp (8)	Washer fixing plate (9)	Wire sealing material (10)
Quantity	-	9 pcs.	4 pcs.	2 pcs.
Shape	 1 pc. Large (Dark gray) (6) 2 pcs. Middle (Dark gray) (7)			 Small (Gray)

Name	Washer (11)	Wire fixing bracket (12)	Wire fixing screw (13)	(Other)
Quantity	8 pcs.	2 pcs.	2 pcs.	• Operation manual • Installation manual
Shape			M4x8 	

2-3 OPTIONAL ACCESSORIES

- These are two types of remote controllers: wired and wireless. Select a remote controller according to customer request and install in an appropriate place.

Table 1

Remote controller	
Wired type	
Wireless type	Heat pump type
	Cooling only type

NOTE

- If you wish to use a remote controller that is not listed in Table 1, select a suitable remote controller after consulting catalogs and technical materials.

FOR THE FOLLOWING ITEMS, TAKE SPECIAL CARE DURING CONSTRUCTION AND CHECK AFTER INSTALLATION IS FINISHED.

a. Items to be checked after completion of work

Items to be checked	If not properly done, what is likely to occur.	Check
Are the indoor and outdoor unit fixed firmly?	The units may drop, vibrate or make noise.	
Was the installation of the outdoor unit completed?	The unit may malfunction or the components burn out.	
Is the gas leak test finished?	No cooling or heating.	
Is the unit fully insulated? (Refrigerant piping, drain piping, and duct)	Condensate water may drip.	
Dose drainage flow smoothly?	Condensate water may drip.	
Does the power supply voltage conform to the indication on the name plate?	The unit may malfunction or the components burn out.	
Are wiring and piping correct?	The unit may malfunction or the components burn out.	
Is the air conditioner properly grounded?	Dangerous in case of current leakage.	
Is wiring size according to specifications?	The unit may malfunction or the components burn out.	
Is something blocking the air outlet or inlet of either the indoor or outdoor units?	No cooling or heating.	
Did you set the external static pressure?	No cooling or heating.	
Are refrigerant piping length and additional refrigerant charge noted down?	The refrigerant charge in the system is not clear.	
Did you check that no wiring connection screws were loose?	Electric shock or fire.	

Also review the "SAFETY PRECAUTIONS".

b. Items to be checked at time of delivery

Items to be checked	Check
Are you sure the control box lid, air filter, air inlet grille, and air outlet grille are mounted?	
Did you explain about operations while showing the operation manual to your customer?	
Did you deliver the operation manual along with the installation manual to the customer?	
Did you explain the customer the handling and cleaning methods of the field supplies (e.g., the air filter, air inlet grilles, and air outlet grille)?	
Did you deliver instruction manual, if any, for the field supplies to the customer?	

c. Points for explanation about operations

The items with **⚠** WARNING and **⚠** CAUTION marks in the operation manual are the items pertaining to possibilities for bodily injury and material damage in addition to the general usage of the product. Accordingly, it is necessary that you make a full explanation about the described contents and also ask your customers to read the operation manual.

2-4 NOTE TO INSTALLER

- Be sure to instruct customers how to properly operate the unit (especially cleaning filters, operating different functions, and adjusting the temperature) by having them carry out operations themselves while looking at the manual.

3. SELECTING INSTALLATION SITE

<Hold the hanging brackets in the case of moving the indoor and outdoor units at the time of and after opening the packages. Do not impose undue force on other parts, such as the refrigerant piping, drain piping, or flanges, in particular.>

<Add heat insulation material to the indoor unit if the temperature above the ceiling is likely to exceed 30°C and a relative humidity of 80%.>

<Make sure that the insulation material is made of glass wool or polyethylene foam, has a minimum thickness of 10 mm, and can be accommodated in the opening on the ceiling.>

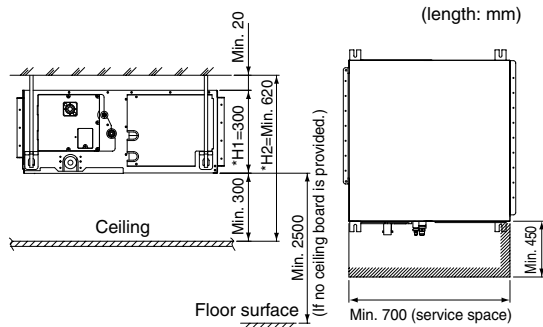
- (1) Select an installation site where the following conditions are fulfilled and that meets with your customer's approval.
 - A place where cool (warm) air is delivered to the entire room.
 - Where nothing blocks the air passage.
 - Where condensate can be properly drained.
 - If supporting structural members are not strong enough to take the unit's weight, the unit could fall out of place and cause serious injury.
 - Where the false ceiling is not noticeably on an incline.
 - Where there is no risk of flammable gas leakage.
 - Where sufficient clearance for maintenance and service can be ensured. **(Refer to Fig. 2-1)**
 - Where piping between indoor and outdoor units is possible within the allowable limit. (Refer to the installation manual of the outdoor unit.)

⚠ CAUTION

- Install the indoor and outdoor units, power supply wiring and connecting wires at least 1 meter away from televisions or radios in order to prevent image interference or noise. (Depending on the radio waves, a distance of 1 meter may not be sufficient enough to eliminate the noise.)

- In the case of the installation of a wireless remote controller, the transmission distance of the wireless remote controller may be shortened if the room has a fluorescent light of electronic lighting type (i.e., an inverter or rapid-start fluorescent light). Keep the distance between the receiver and the fluorescent light as far as possible.

- (2) Use hanging bolts to install the indoor unit. Check that the place of installation withstands the weight of the indoor unit. Secure the hanging bolts with proper beams if necessary.



- The H1 dimension indicates the height of the product.
 - Determine the H2 dimension by maintaining a downward slope of at least 1/100 as specified in "7. DRAIN PIPING WORK".
- [Required installation place]
The dimensions indicate the minimum required space of installation.

Fig. 2-1

4. PREPARATIONS BEFORE INSTALLATION

- (1) Check the positional relationship between the ceiling opening hole and the hanging bolt of the unit.
 - For the maintenance, inspection, and other servicing purposes of the control box and drain pump, prepare one of the following service spaces.
 1. Inspection hatch 1 (450 × 450) for the control box and a minimum space of 300 mm for the lower part of the product. (Refer to Fig. 2-2)
 2. Inspection hatch 1 (450 × 450) for the control box and inspection hatch 2 for the lower part of the product (see axial direction view A-1). (Refer to Fig. 2-3)
 3. Inspection hatch 3 for the lower part of the product and the lower part of the control box (see axial direction view A-2). (Refer to Fig. 2-3)

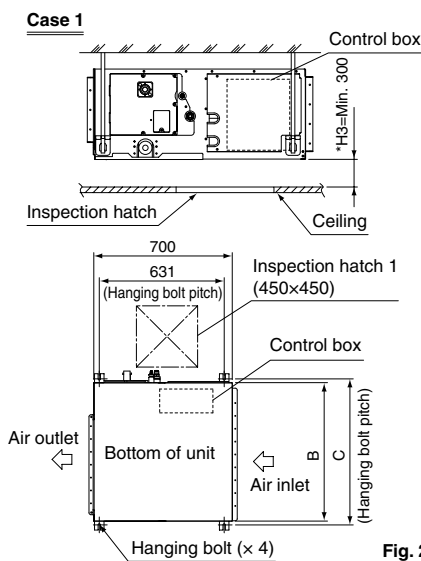
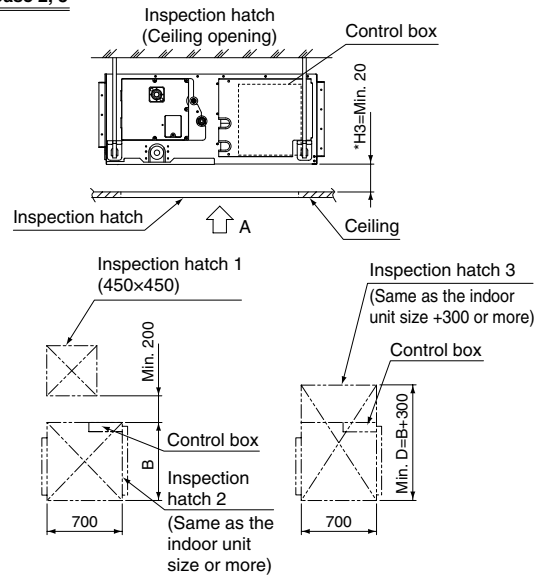


Fig. 2-2

Case 2, 3



Axial direction view A-1

Axial direction view A-2

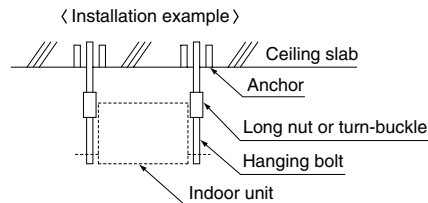
Fig. 2-3

- Determine the H3 dimension by maintaining a downward slope of at least 1/100 as specified in "7. DRAIN PIPING WORK".

Model	B	C	D
40 type	700	738	1000
50 • 63 • 80 type	1000	1038	1300
100 • 125 type	1400	1438	1700

(length: mm)

- (2) Mount the canvas ducts to the air outlet and inlet so that the vibration of the air conditioner will not be transmitted to the duct or ceiling. Apply a sound-absorbing material (insulation material) to the inner wall of the duct and vibration insulation rubber to the hanging bolts (refer to 8. DUCT WORK).
- (3) Open installation holes (if the ceiling already exists).
 - Open the installation holes on the ceiling. Lay the refrigerant piping, drain piping, power line, transmission wiring, and remote controller wiring for the piping and wiring connection port of the unit.
In the case of the installation of a wireless remote controller, refer to the installation manual provided with the wireless remote controller.
Refer to 6. REFRIGERANT PIPING WORK, 7. DRAIN PIPING WORK, and 10. WIRING EXAMPLE AND HOW TO SET THE REMOTE CONTROLLER.
 - The ceiling framework may need reinforcement in order to keep the ceiling horizontal and prevent the vibration of the ceiling after the installation holes are opened. For details, consult your construction or interior contractor.
- (4) Install the hanging bolts. Make sure that the hanging bolts are M10 in size.
 - Use hole-in anchors if the hanging bolts already exist; otherwise use embedded inserts and embedded foundation bolts so that they will withstand the weight of the unit. Adjust the distance to the ceiling surface in advance.



Note) All the above parts are field supplied.

5. INDOOR UNIT INSTALLATION

<It may be easier to install accessories (sold separately) before installing the indoor unit. Refer to the installation manuals provided to the accessories as well.>

Be sure to use the accessories and specified parts for installation work.

- (1) Temporarily install the indoor unit.
 - Connect the hanging brackets to the hanging bolts. Be sure to use and tighten the nut and washer (11) for each hanging bracket from both upper and lower sides of the hanging bracket. (Refer to Fig. 3) At that time, the fall of the washer (11) for the hanging bracket can be prevented if the washing fixing plate (9) is used.

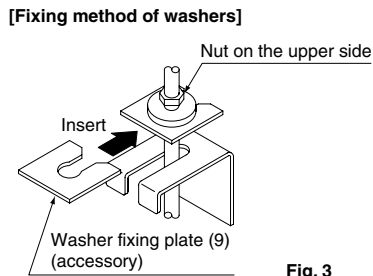
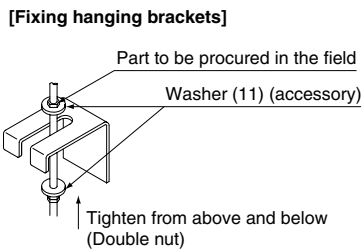
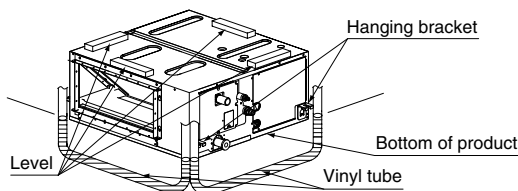


Fig. 3

CAUTION

- During the installation work, perform the curing of the air outlet and protect the resin drain pan of the indoor unit from the intrusion of foreign substances, such as welding spatters. Otherwise, water leakage may occur as a result of damage, such as hole damage, to the resin drain pan.

- (2) Make adjustments so that the unit will be in the right position.
- (3) Check the level of the unit.
- (4) Remove the washer fixing plates for the falling prevention of the washers for the hanging brackets, tighten the nuts on the upper side, and securely fix the unit.



CAUTION

- Use the level and check that the unit is installed horizontally. (4-directions)
- In the case of using a vinyl tube in place of the level, put the both edges of the vinyl tube in close contact with the bottom of the product to make levelness adjustment. If the unit is installed at a slant with the drain pipe side set high, in particular, the float switch will not operate normally and water leakage may result.

6. REFRIGERANT PIPING WORK

<As for the refrigerant piping of the outdoor unit, refer to the installation manual provided to the outdoor unit.>

<Perform heat insulation work on both gas piping and liquid piping, or otherwise water leakage may result.>

<Use the insulation material that withstands a temperature of 120°C.>

<Reinforce the insulation material for the refrigerant piping if the ambient temperature is high, or otherwise dew condensation may result on the surface of the insulation material.>

<Make sure that the refrigerant is R410A before refrigerant piping work. If the refrigerant is different, the air conditioner will not operate normally.>

CAUTION

This product uses new refrigerant (R410A) only. Be sure to keep the items on the right-hand side and conduct the installation work.

- Use a dedicated pipe cutter and flare tool for R410A.
- When connecting the flare, apply ether oil or ester oil to the flare.
- Be sure to use the flare nut provided with the unit. (Do not use a different flare nut (such as a type-1 flare nut), or otherwise refrigerant leakage may result.)
- Perform the curing of the piping with pinching or taping of the piping in order to prevent the intrusion of dirt, dust, and moisture into the piping.

CAUTION

- Be sure to use the specified type of refrigerant for the refrigeration cycle and do not contaminate the refrigerant with air.
- Ventilate the room in case of refrigerant leakage during installation work.

- (1) Connect the piping.
 - The outdoor unit is filled with refrigerant.
 - When connecting or disconnecting piping to or from the unit, be sure to use two spanners and two torque wrenches. (Refer to Fig. 4)

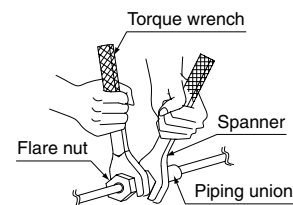


Fig. 4

- Refer to Table 2 for the processing dimensions of the flare.
- Use the flare nut provided with the unit.
- **Apply ether oil or ester oil to both inner and outer sides of the flare** and screw in the flare nut three to four turns first by hand at the time of connecting the flare nut. (Refer to Fig. 5)

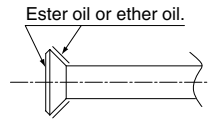


Fig. 5

- Refer to Table 2 for the corresponding tightening torque.

Table 2

Pipe size	Tightening torque	Flare dimensions A (mm)	Flare shape
φ 6.4	14.2 – 17.2N·m	8.7 – 9.1	
φ 9.5	32.7 – 39.9N·m	12.8 – 13.2	
φ 12.7	49.5 – 60.3N·m	16.2 – 16.6	
φ 15.9	61.8 – 75.4N·m	19.3 – 19.7	

CAUTION

- **Do not excessively tighten the flare nut.**
Doing so will break the flare nut and refrigerant leakage may result.
- **Make sure that all parts around the flare are free of oil.**
The drain pan and the resin part may be deteriorated if oil is attached.

- If no torque wrenches are available, refer to Table 3 as a standard.
When the flare nut is tightened with the spanner, the tightening torque should increase suddenly. Tighten the flare nut further for the corresponding angle shown in Table 3.

Table 3

Pipe size	Further tightening angle	Recommended arm length of tool
φ 6.4	60 to 90 degrees	Approx. 150mm
φ 9.5	60 to 90 degrees	Approx. 200mm
φ 12.7	30 to 60 degrees	Approx. 250mm
φ 15.9	30 to 60 degrees	Approx. 300mm

- (2) On completion of installation work, **check that there is no gas leakage.**

- (3) Refer to the illustration on the right-hand side and be sure to perform heat insulation work on the piping joints after gas leakage checks. (Refer to Fig. 6)

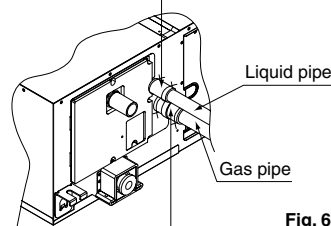
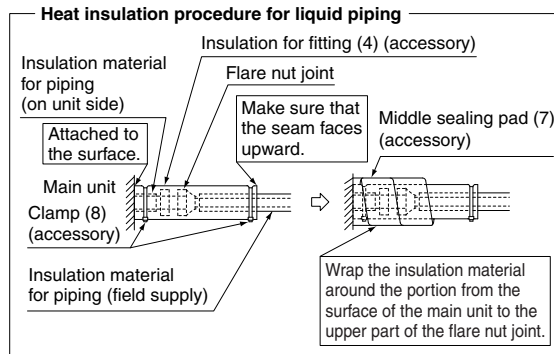
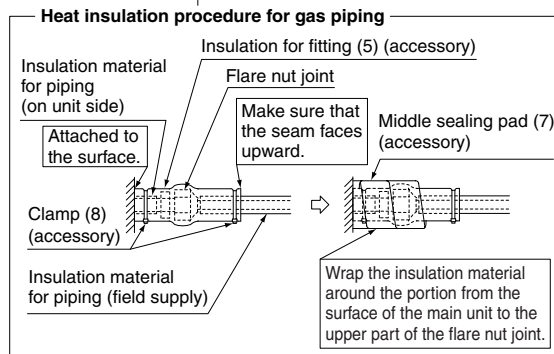


Fig. 6



- Use the insulation for fitting (4) and (5) provided to the liquid piping and gas piping, respectively, and conduct heat insulation work. (Tighten both edges of the insulation for fitting (4) and (5) for each joint with the clamp (8).)
- Make sure that the joint of the insulation for fitting (4) and (5) for the joint on the liquid piping and gas piping side faces upward.
- Wrap the middle sealing material (7) around the insulation for fitting (4) and (5) for the joint (flare nut part).

CAUTION

- **Be sure to perform the heat insulation of the local piping up to the piping joint.**
If the piping is exposed, dew condensation may result. Furthermore, a burn may be caused if a human body comes in contact with the piping.

- Perform nitrogen substituent or apply nitrogen into the refrigerant piping (see NOTE 1) in the case of refrigerant piping brazing (see NOTE 2). Then perform the flare connection of the indoor unit. (Refer to Fig. 7)

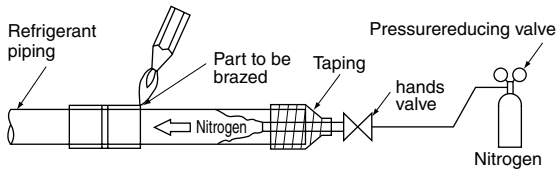


Fig. 7

CAUTION

- Do not use any antioxidant at the time of piping brazing. The piping may be clogged with a residual antioxidant and parts may malfunction.

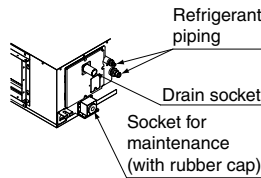
NOTE

1. At the time of brazing, set the pressure of nitrogen to approximately 0.02 MPa (close to the pressure of a breeze coming in contact with the cheek) with a decompression valve.
 2. Do not use flux at the time of brazing and connecting the refrigerant piping. Use a copper phosphorus brazing alloy (BCuP-2: JIS Z 3264/BCu 93P-710/795: ISO3677), which does not require flux, for brazing. (Flux has a bad influence on the refrigerant piping. Chlorine-based flux will cause piping corrosion. Furthermore, if it contains fluorine, the flux will deteriorate refrigerant oil.)
- As for the branching of the refrigerant piping or refrigerant, refer to the installation manual provided with the outdoor unit.

7. DRAIN PIPING WORK

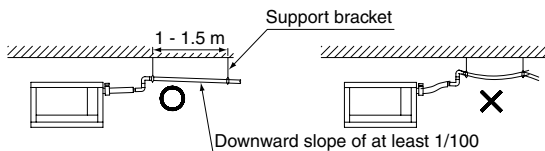
- (1) Conduct drain piping work. **Check that the piping ensures proper draining.**

- Make sure that the diameter of the piping excluding the rising part is the same as or larger than the diameter of the connecting pipe (vinyl chloride pipe with an outer diameter of 32 mm and a nominal inner diameter of 25 mm).
- Make sure that the piping is short enough **with a downward slope of at least 1/100** and that there is no air bank formed. No drain trap is required.

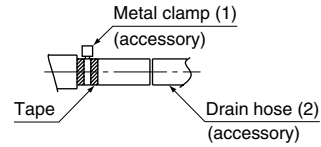


CAUTION

- The drain piping will be clogged with water and water leakage may result if the water is accumulated in the drain piping.
- Conduct drain-up piping work if the gradient is insufficient.
- Attach a support bracket at 1 to 1.5 m intervals for the prevention of piping deflection.

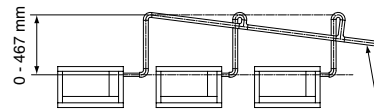


- Be sure to use the drain hose (2) and metal clamp (1). **Insert the drain hose (2) deep into the base of the drain socket, and securely fasten the metal clamp (1) within the taped part on the insertion front end of the hose.** Be sure to fasten the screw of the metal clamp (1) until the margin of the screw thread decreases to 4 mm or less.



NOTE

- Be sure to follow the instructions as below.
- Do not connect the drain piping directly to a sewer that smells of ammonia. The ammonia in the sewer may reach through the drain piping and corrode the heat exchanger of the indoor unit.
 - Do not bend or twist the provided drain hose (2) in order not to impose excessive force on the hose. (Doing so may result in water leakage.)
 - Take the procedure shown in the following illustration to perform concentrated drain piping.

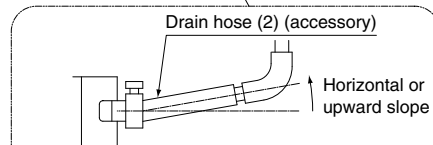
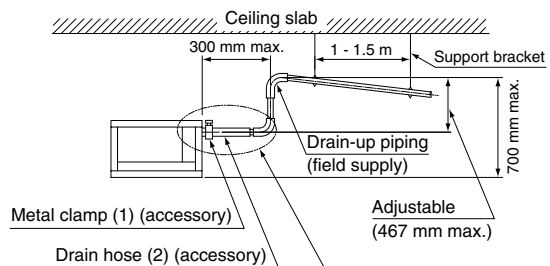


Concentrated drain piping

Maintain a downward slope of at least 1/100 so that no air bank will be formed.

The drain piping will be clogged with water and water leakage may result if the water is accumulated in the drain piping.

- Select the diameter of the concentrated drain piping to suit the capacity of equipment connecting to the concentrated drain piping (see the equipment design sheet).



Locate the drain hose horizontally or with a little upward gradient.

If there is an air bank, noise may be generated as a result of a water backflow when the drain pump comes to a stop.

- (2) Check the smooth draining of the piping on completion of the installation of the piping.

[Before electrical work]

⚠ CAUTION

- A licensed electrical engineering technician must conduct electrical wiring work (including grounding work).
- If no licensed electrical engineering technician is available, take steps 3 and 4 after the test operation of the air conditioner is finished.

1. Remove the control box lid, and connect the single-phase electric wires to terminals L and N of the terminal block and the ground wire to the ground terminal. Perform wiring according to 10-1 CONNECTING POWER SUPPLY, GROUND, REMOTE CONTROLLER, AND TRANSMISSION WIRING in 10. WIRING EXAMPLE AND HOW TO SET THE REMOTE CONTROLLER.

⚠ CAUTION

- In order not to impose tension on the wire connections, perform clamping securely with the provided clamp (8) specified in 3 in 10-1 CONNECTING POWER SUPPLY, GROUND, REMOTE CONTROLLER, AND TRANSMISSION WIRING.

2. Check that the control box lid is closed before turning the air conditioner ON.
3. Provide approximately one liter of water gradually into the drain pan through the water inlet on the bottom of the drain socket or the outlet. Make sure that the water is not spilled onto the drain pump.
4. The drain pump will operate with the power turned ON. Check that the pump drains water smoothly. (The drain pump will stop automatically in 10 minutes.) The drainage can be checked with the water level change in the drain pan through the water inlet.

⚠ CAUTION

- Do not touch the drain pump. Otherwise, an electric shock may be received.
- Do not impose external force on the float switch. Otherwise, a failure may result.

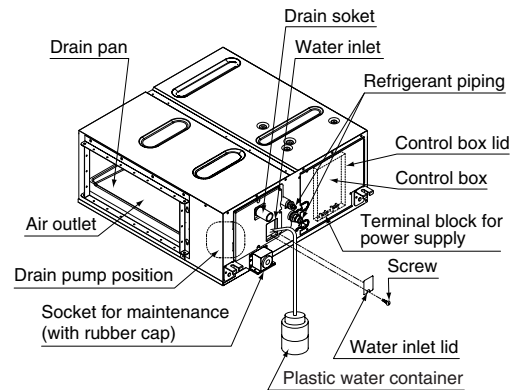
5. On completion of the drainage check, shut off the power supply and disconnect the power supply line.
6. Put the control box lid to the original position.

[After electrical work]

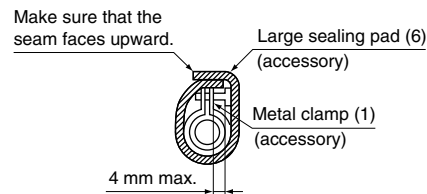
- After completion of 8. DUCT WORK provide approximately one liter of water gradually into the drain pan through the water inlet on the bottom of the drain socket, and check that the water is drained while the air conditioner is in cooling operation according to 11. FIELD SETTING and 12. TEST OPERATION. Make sure that the water is not spilled onto the electric parts of the drain pump and others.

- (3) Be sure to conduct heat insulation work on the following portions, or otherwise water leakage may occur as a result of dew condensation.

- Drain piping indoors
- Drain socket



- On completion of the drainage check, refer to the following illustration, and use the provided large sealing pad (6) and heat insulate the metal clamp (1) and drain hose (2).



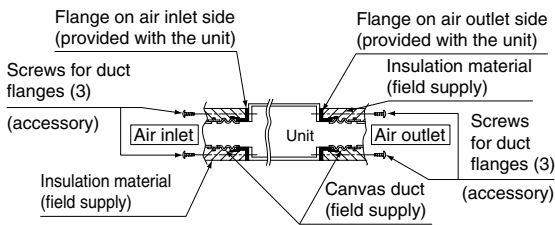
8. DUCT WORK

Pay the utmost attention to the following items and conduct the ductwork.

- Check that the duct will not be in excess of the setting range of external static pressure for the unit. (Refer to the technical datasheet for the setting range.)
- Attach a canvas duct each to the air outlet and air inlet so that the vibration of the equipment will not be transmitted to the duct or ceiling. Use a sound-absorbing material (insulation material) for the lining of the duct and apply vibration insulation rubber to the hanging bolts.
- At the time of duct welding, perform the curing of the duct so that the sputter will not come in contact with the drain pan for the filter.
- If the metal duct pass through a metal lath, wire lath, or metal plate of a wooden structure, separate the duct and wall electrically.
- Be sure to heat insulate the duct for the prevention of dew condensation. (Material: Glass wool or styrene foam; Thickness: 25 mm)
- Be sure to attach the field supply air filter to the air inlet of the unit or field supply inlet in the air passage on the air suction side. (Be sure to select an air filter with a duct collection efficiency of 50 weight percent.)
- Explain the operation and washing methods of the locally procured components (i.e., the air filter, air inlet grille, and air outlet grille) to the customer.
- Locate the air outlet grille on the indoor side for the prevention of drafts in a position where indirect contact with people.
- The air conditioner incorporates a function to adjust the fan to rated speed automatically. (11. FIELD SETTING) Therefore, do not use booster fans midway in the duct.

Connection method of ducts on air inlet and outlet sides.

- Connect the field supply duct in alignment with the inner side of the flange.
- Connect the flange and unit with the flange connection screw (3).
- Wrap aluminum tape around the flange and duct joint in order to prevent air leakage.



CAUTION
 Connect the flange and unit with the flange connection screw (3) regardless of whether the duct is connected to the air inlet side.

9. ELECTRIC WIRING WORK

9-1 GENERAL INSTRUCTIONS

- All field supplied parts and materials and electric works must conform to local codes.
- Use copper wire only.
- For electric wiring work, refer to also "Wiring diagram" attached to the control box lid.
- For remote controller wiring details, refer to the installation manual attached to the remote controller.
- All wiring must be performed by an authorized electrician.
- This system consists of multiple indoor units. Mark each indoor unit as unit A, unit B..., and be sure the terminal board wiring to the outdoor unit and BS unit are properly matched. If wiring and piping between the outdoor unit and an indoor unit are mismatched, the system may cause a malfunction.
- A circuit breaker capable of shutting down power supply to the entire system must be installed.
- Refer to the installation manual attached to the outdoor unit for the size of power supply wiring connected to the outdoor unit, the capacity of the circuit breaker and switch, and wiring instructions.
- Be sure to ground the air conditioner.
- Do not connect the ground wire to gas and water pipes, lightning rods, or telephone ground wires.
 - Gas pipes : might cause explosions or fire if gas leaks.
 - Water pipes : no grounding effect if hard vinyl piping is used.
 - Telephone ground wires or lightning rods : might cause abnormally high electric potential in the ground during lighting storms.

9-2 ELECTRICAL CHARACTERISTICS

Model	Units			Power supply		Fan motor	
	Hz	Volts	Voltage range	MCA	MFA	kW	FLA
FXMQ40PVE	50	220-240	Max. 264 Min. 198	1.4	16	0.140	1.1
FXMQ50PVE				1.6	16	0.350	1.3
FXMQ63PVE				1.8	16	0.350	1.4
FXMQ80PVE				2.3	16	0.350	1.8
FXMQ100PVE				2.9	16	0.350	2.3
FXMQ125PVE				3.4	16	0.350	2.7
FXMQ40PVE	60	220	Max. 242 Min. 198	1.4	16	0.140	1.1
FXMQ50PVE				1.6	16	0.350	1.3
FXMQ63PVE				1.8	16	0.350	1.4
FXMQ80PVE				2.3	16	0.350	1.8
FXMQ100PVE				2.9	16	0.350	2.3
FXMQ125PVE				3.4	16	0.350	2.7

MCA: Min. Circuit Amps (A); MFA: Max. Fuse Amps (A)
 kW: Fan Motor Rated Output (kW); FLA: Full Load Amps (A)

9-3 SPECIFICATIONS FOR FIELD SUPPLIED FUSES AND WIRE

Model	Power supply wiring			Remote controller wiring Transmission wiring	
	Field fuses 	Wire	Size	Wire	Size
FXMQ40PVE	16A	H05VV-U3G	Size must comply with local codes.	Sheathed wire (2 wire)	0.75 - 1.25 mm ²
FXMQ50PVE					
FXMQ63PVE					
FXMQ80PVE					
FXMQ100PVE					
FXMQ125PVE					

Allowable length of transmission wirings and remote controller wiring are as follows.

- (1) Outdoor unit – Indoor unit:
 Max. 1000 m (Total wiring length: 2000 m)
- (2) Indoor unit – Remote controller:
 Max. 500 m

NOTE

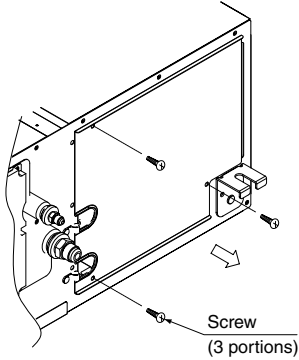
1. Shows only in case of protected pipes. Use H07RN-F in case of no protection.
2. Vinyl cord with sheath or cable (Insulated thickness : 1mm or more)

10. WIRING EXAMPLE AND HOW TO SET THE REMOTE CONTROLLER

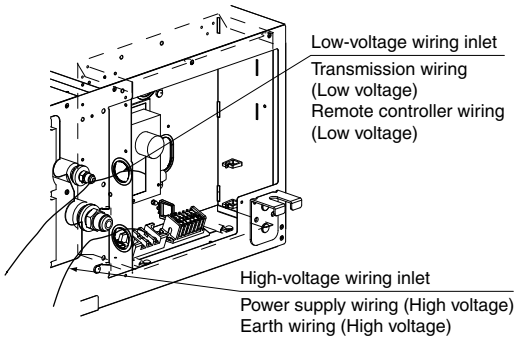
10-1 CONNECTING POWER SUPPLY, GROUND, REMOTE CONTROLLER, AND TRANSMISSION WIRING

(Remove the control box lid as shown below and connect each wire.)

(1) Remove the control box lid.



(2) Lay the wires in the control box through the wire inlet on the side of the control box.



CAUTION

- Do not lay the remote controller wiring or transmission wiring along with the power supply wiring or other electric wiring in the same route. Separate the remote controller wiring and transmission wiring at least 50 mm from the power supply wiring or other electric wiring, or otherwise malfunctions or failures may be caused by external electric noise that may interfere with the remote controller wiring and transmission wiring.
- For the installation and wiring of the remote controller, refer to the remote controller installation manual provided with the remote controller.
- For power supply wiring, refer to the wiring diagram as well.
- Be sure to connect the remote controller wiring and transmission wiring correctly to the right terminal block.

(3) Follow the instructions below, and lay the wires in the control box.

Fix the wires with clamp (8) to the wire fixing bracket provided to the control box.

Transmission wiring (Low voltage)
Remote controller wiring (Low voltage)

Insert the cord into the wire clips provided with the control box.

Power supply wiring (High voltage)
Earth wiring (High voltage)

Ground L N
Connection method of power supply terminals (X1M)

PROHIBITED
Never connect the power supply wiring.

Transmission wiring (No polarity)
Remote controller wiring (No polarity)

Connection method of remote controller terminals (X2M)
• If stranded wires are used, do not solder the front end of the wires.

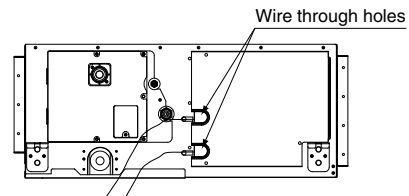
Twist and fix the upper part so that the wires will not drop out.
Fix the cord with the clamp (8) to the wire fixing bracket provided to the control box.

WARNING

Trim and lay the wiring neatly and attach the control box lid securely.

An electric shock or fire may result if the control box lid catches any wiring or the wires push up the lid.

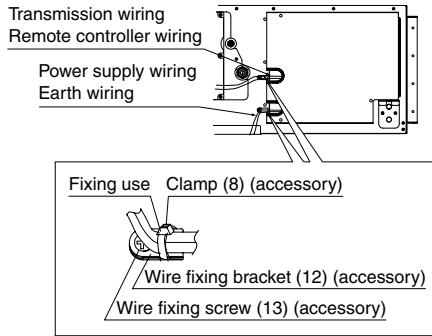
(4) Put the control box lid, and wrap the wire sealing material (Small) (10) around the wires so as to block the wire through holes.



CAUTION

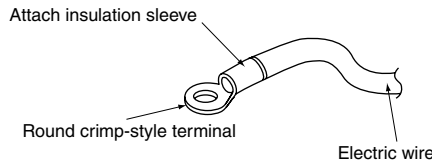
- After all the wiring connections are done, fill in any gaps in the through holes with putty or insulation (procured locally) to prevent small animals and insects from entering the unit from outside. (If any do get in, they could cause short circuits in the control box.)

- (5) Mount the provided wire fixing bracket (12) with the wire fixing screw (13). Fix each wire with the provided clamp (8).



[Precautions for Power Supply Wiring]

- Connect round crimp-style terminals provided with insulation sleeves to the terminal block for power supply.



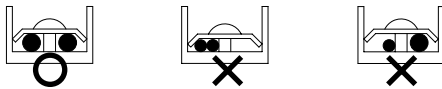
Be sure to follow the instructions provided below if the specified terminals cannot be used.

Otherwise, abnormal heat may be generated as a result of the loosening of the wires.

Connect the wires evenly.

Do not connect a wire to the single side only.

Do not connect wires different from each other in diameter.



- If stranded wires are used, do not solder the front end of the wires.
- Connect proper wires securely and fix the wires so that external force will not be imposed on the terminals.
- Use an appropriate screwdriver to tighten the terminal screws. The screw heads may be damaged if the screwdriver is too small and the terminal screws will not be tightened properly.
- Do not tighten the terminal screws excessively, or otherwise the screw heads may be damaged.
- Refer to the table below for the required tightening torque values of the terminal screws.

	Tightening torque (N·m)
Terminal block for remote controller and transmission wires	0.80 - 0.96
Terminal block for power supply	1.18 - 1.44

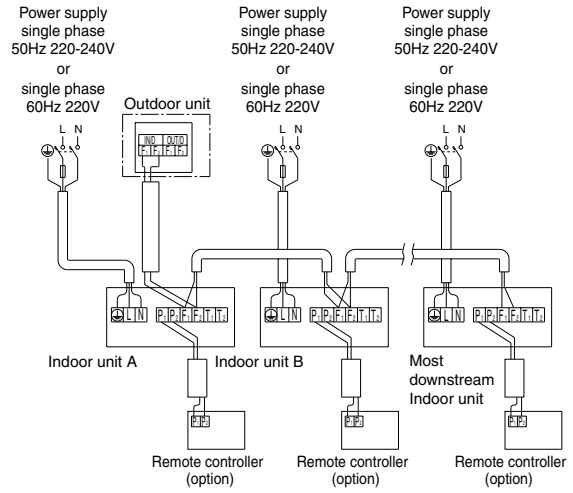
10-2 WIRING EXAMPLE

— ⚠ WARNING —

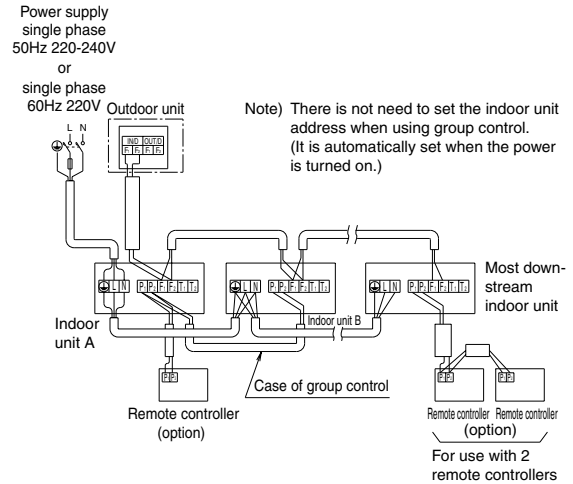
Install an earth leakage breaker.

The installation of an earth leakage breaker is imperative for the prevention of electric shocks and fire accidents.

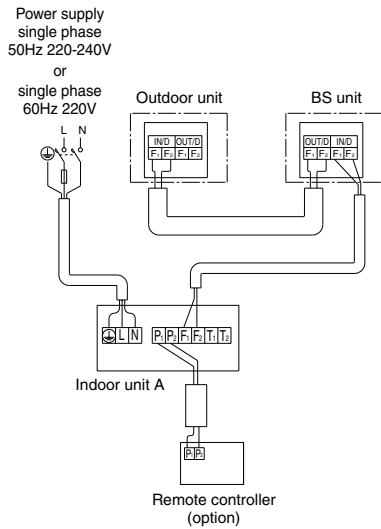
No. 1 system: When using 1 remote controller for 1 indoor unit



No. 2 system: For group control or use with 2 remote controllers



No. 3 system: When including BS unit



[PRECAUTIONS]

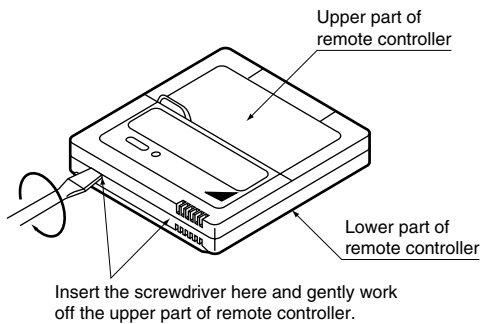
1. If no earth leakage breaker is required, install a breaker or load switch with a fuse for the wiring. If an earth leakage breaker is required, make sure that the earth leakage breaker is designed to protect the air conditioner from ground faults, overloads, and short-circuiting.
2. The remote controller wiring (P1 and P2) and transmission wiring (F1 and F2) have no polarity.

10-3 CONTROL BY 2 REMOTE CONTROLLERS (Controlling 1 indoor unit by 2 remote controllers)

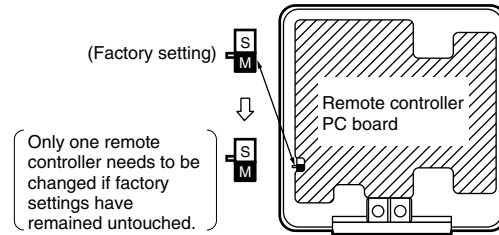
- Set one of the remote controllers to main and the other to sub in the case of remote control with two remote controllers.

Switching Main/Sub

- (1) Insert a ⊖ screwdriver into the clearance between the grooves of the lower casing and the upper casing to remove the upper casing. (2 grooves) (The remote controller PCB is attached to the upper casing.)

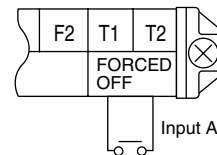


- (2) Set the main/sub switch on one of the remote controller PCBs to sub. (Keep the switch of the other remote controller PCB set to main.)



10-4 COMPUTERISED CONTROL (FORCED OFF AND ON/OFF OPERATION)

- (1) Wire specifications and how to perform wiring
 - Connect the input from outside to terminals T1 and T2 of the terminal block for remote controller.



Wire specification	Sheathed vinyl cord or cable (2 wire)
Gauge	0.75 - 1.25 mm ²
Length	Max. 100 m
External terminal	Contact that can ensure the minimum applicable load of 15 V DC, 10 mA.

- (2) Actuation
 - The following table explains FORCED OFF and ON/OFF OPERATIONS in response to Input A.

FORCED OFF	ON/OFF OPERATION
Input "ON" stops operation (impossible by remote controllers.)	Input OFF → ON turns ON unit.
Input OFF enables control by remote controller.	Input ON → OFF turns OFF unit.

- (3) How to select FORCED OFF and ON/OFF OPERATION
 - Turn the power on and then use the remote controller to select operation.

10-5 CENTRALIZED CONTROL

- For centralized control, it is necessary to designate the group No. For details, refer to the manual of each optional controllers for centralized control.

11. FIELD SETTING

NOTE

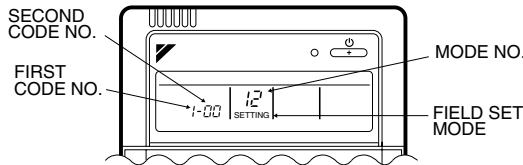
- Before the test operation of the outdoor unit as explained in 12. TEST OPERATION, be sure to make the following field settings as explained in 11. FIELD SETTING.

Make sure the control box lids are closed on the indoor and outdoor units.

Field setting must be made from the remote controller in accordance with the installation condition.

- Setting can be made by changing the "MODE NO.", "FIRST CODE NO.", and "SECOND CODE NO.".

- For setting and operation, refer to the "FIELD SETTING" in the installation manual of the remote controller.



- Set the remote controller to the "FIELD SET MODE". For details, refer to the "HOW TO SET IN THE FIELD", in the remote controller manual.
- When in the "FIELD SET MODE", select "MODE NO. 12", then set the "FIRST CODE NO." to "1". Then set "SECOND CODE NO." to "01" for FORCED OFF and "02" for ON/OFF OPERATION. (FORCED OFF at factory set)

With Wireless Remote Controller Used

Set the wireless remote controller address before using the wireless remote controller. For the setting method of the address, refer to the operation manual provided with the wireless remote controller.

NOTE

- A "MODE NO." is set on a group basis. To make a mode setting on a room unit basis or check the setting made, however, set the corresponding mode number in the parentheses.

1. Settings for Optional Accessories

- In the case of connecting optional accessories, refer to the operation manuals provided with the optional accessories and make necessary settings.

2. External Static Pressure Settings

Make settings in either method (a) or method (b) as explained below.

(a) Use the airflow auto adjustment function to make settings. Airflow auto adjustment: The volume of blow-off air is automatically adjusted to the rated quantity.

- (1) Check that power supply wiring to the air conditioner is completed along with duct installation. If a closing damper is installed in the air-conditioning system, make sure that the closing damper is opened. Furthermore, check that the air filter as a field supply is attached to the air passage on the suction side.
- (2) If there are a number of air outlets and inlets, adjust the throttles so that the airflow rate of each air outlet and inlet will coincide with the designed airflow rate. At that time, operate the air conditioner in "fan operation mode". To change the airflow rate, press and set the airflow adjustment button of the remote controller to HH, H, or L.

- (3) Make settings for airflow automatic adjustment. After setting the air conditioner to "fan operation mode", stop the air conditioner, go to "FIELD SET MODE", select "MODE NO. 21" (11 in the case of group settings), set the setting "FIRST CODE NO." to 7, and set the setting "SECOND CODE NO." to 03.

Return to normal mode after these settings, and press the ON/OFF OPERATION button. Then the operation lamp will be lit and the air conditioner will go into fan operation for airflow automatic adjustment. Do not adjust the throttles of the air outlets or inlets during automatic adjustment of the air conditioner. After the air conditioner runs approximately one to eight minutes, the air conditioner will finish airflow adjustment automatically, the operation lamp will be turned OFF, and the air conditioner will come to a stop.

Table 4

MODE NO.	FIRST CODE NO.	Setting contents
11 (21)	7	Airflow adjustment
SECOND CODE NO.		
01	02	03
OFF	Completion of airflow adjustment	Start of airflow adjustment

- (4) After the air conditioner stops operating, check with "MODE NO. 21" on an indoor unit basis that 02 is set for the "SECOND CODE NO." in Table 4. If the air conditioner does not stop operating automatically or the "SECOND CODE NO." is not 02, repeat steps from (3). If the outdoor unit is not turned ON, U4 or UH as explained in Table 8 will be displayed. This display is not problematic, because this function is set for the indoor unit. Continue setting the function. After setting this function, be sure to turn ON the outdoor unit before the test operation of the outdoor unit. If any other error is displayed, refer to Table 8 and the operation manual provided with the outdoor unit and check the defective point.

CAUTION

- If there is any change after airflow adjustment in the ventilation paths (e.g., the duct and air outlet), be sure to make airflow auto adjustment again.
- Consult your Daikin representative if there is any change in the ventilation paths (e.g., the duct and air outlet) after the test operation of the outdoor unit is finished or the air conditioner is moved to another place.

- (b) Select External Static Pressure with Remote Controller. Check that 01 (OFF) is set for the "SECOND CODE NO." in "MODE NO. 21" for airflow adjustment on an indoor unit basis in Table 4. The "SECOND CODE NO." is set to 01 (OFF) at factory set. Change the "SECOND CODE NO." as shown in Table 5 according to the external static pressure of the duct to be connected.

- (1) The "SECOND CODE NO." is set to 07 (an external static pressure of 100 Pa) at factory set.
 - *1 The FXMQ50 · 63 · 80 · 100 · 125PVE cannot be set to 30 Pa.
 - *2 The FXMQ40PVE cannot be set to 180 or 200 Pa.

Table 5

External Static Pressure	MODE NO.	FIRST CODE NO.	SECOND CODE NO.
30Pa (*1)	13 (23)	06	01
50Pa			02
60Pa			03
70Pa			04
80Pa			05
90Pa			06
100Pa			07
110Pa			08
120Pa			09
130Pa			10
140Pa			11
150Pa			12
160Pa			13
180Pa (*2)			14
200Pa (*2)			15

⚠ CAUTION

Keep in mind that a shortage of airflow quantity or water leakage will result because the air conditioner will be operated outside the rated range of airflow quantity if the external static pressure is wrongly set.

3. Filter Sign Settings

- The remote controller is provided with an LCD that tells the time of air filter cleaning.
- If the air conditioner is used in places with excessive dust, change the "SECOND CODE NO." as shown in Table 6. The "SECOND CODE NO." is set to 01 (standard) at factory set.

Table 6

Dirt	Time for display	MODE NO.	FIRST CODE NO.	SECOND CODE NO.
Standard	Approximately 2500 hours	10 (20)	0	01
Excessive dust	Approximately 1250 hours			02
No display (*)			3	

* Select "No display" under conditions in which the cleaning display is not required, such as the time of regular maintenance.

12. TEST OPERATION

Refer to the installation manual of the outdoor unit.

- The operation lamp of the remote controller will flash when an malfunction occurs. Check the malfunction code on the liquid crystal display to identify the point of trouble. An explanation of malfunction codes and the corresponding trouble is provided in "CAUTION FOR SERVICING" of the outdoor unit. If any of the items in Table 8 are displayed, there may be a problem with the wiring or power, so check the wiring again.

Table 7

Remote controller display	Contents
"A8" lit	Error in power supply voltage to indoor unit.
"C1" lit	Fan driver PCB of indoor unit ↔ indoor control PCB transmission error.
"C6" lit	Improper combination of fan driver PCB of indoor unit or setting failure in control PCB type.
"U3" lit	Test operation of outdoor unit has not been finished.

Table 8











Remote control display	Content
"E" is lit up	• There is a short circuit at the FORCED OFF terminals (T1, T2)
"U4" is lit up "UH" is lit up	• The power on the outdoor unit is off. • The outdoor unit has not been wired for power supply. • Incorrect wiring for the transmission wiring and / or FORCED OFF wiring.
No display	• The power on the indoor unit is off. • The indoor unit has not been wired for power supply. • Incorrect wiring for the remote controller wiring, the transmission wiring and / or the FORCED OFF wiring.




⚠ CAUTION

If interior finish work is continuing on completion of the test operation of the air conditioner, explain the customer not to operate the air conditioner until the interior finish work is completed for the protection of the air conditioner. Otherwise, substances that will be generated from interior finish work materials, such as paint and adhesive agents, may contaminate the air conditioner.

12. Accessories

Standard Accessories FXMQ40~125P

Name	Metal clamp (1)	Drain hose (2)	Screws for duct flanges (3)	Insulation for fitting	Sealing pad	Clamp (8)	Washer fixing plate (9)	Wire sealing material (10)						
Quantity	1 pc.	1 pc.	As described in table below	1 each	-	9 pcs.	4 pcs.	2 pcs.						
Shape			 M5x16 <table border="1"> <tr> <td>40 type</td> <td>10</td> </tr> <tr> <td>50 • 63 • 80 type</td> <td>18</td> </tr> <tr> <td>100 • 125 type</td> <td>26</td> </tr> </table>	40 type	10	50 • 63 • 80 type	18	100 • 125 type	26	 Thin for liquid pipe (4)  Thick for gas pipe (5)	 1 pc. Large (Dark gray) (6)  2 pcs. Middle (Dark gray) (7)			 Small (Gray)
40 type	10													
50 • 63 • 80 type	18													
100 • 125 type	26													

Name	Washer (11)	Wire fixing bracket (12)	Wire fixing screw (13)	(Other)
Quantity	8 pcs.	2 pcs.	2 pcs.	• Operation manual • Installation manual
Shape			 M4x8	

3PN06583-7K

Optional Accessories (For Unit)

Item	Type	FXMQ40P	FXMQ50P	FXMQ63P	FXMQ80P	FXMQ100P	FXMQ125P
	High efficiency filter	65%	KAF372AA56		KAF372AA80		KAF372AA160
	90%	KAF373AA56		KAF373AA80		KAF373AA160	
Filter chamber		KDDF37AA56		KDDF37AA80		KDDF37AA160	
Long life replacement filter		KAF371AA56		KAF371AA80		KAF371AA160	
Service panel		KTBJ25K56W		KTBJ25K80W		KTBJ25K160W	
		KTBJ25K56F		KTBJ25K80F		KTBJ25K160F	
		KTBJ25K56T		KTBJ25K80T		KTBJ25K160T	
Air discharge adapter		KDAJ25K56A		KDAJ25K71A		KDAJ25K140A	

3D060443A

Optional Accessories (for Controls)

No.	Item	Type	FXMQ-P	
1	Remote controller	Wireless	H/P	BRC4C65
			C/O	BRC4C66
		Wired		BRC1C62
2	Wired remote controller with weekly schedule timer		BRC1D61	
3	Simplified remote controller (Exposed type)		BRC2C51	
4	Remote controller for hotel use (Concealed type)		BRC3A61	
5	Adaptor for wiring		* KRP1C64	
6-1	Wiring adaptor for electrical appendices (1)		* KRP2A61	
6-2	Wiring adaptor for electrical appendices (2)		* KRP4AA51	
7	Remote sensor		KRCS01-4B	
8	Installation box for adaptor PCB ☆		Note 2,3 KRP4A96	
9	External control adaptor for outdoor unit (Must be installed on indoor units)		* DTA104A61	

Note:

1. Installation box ☆ is necessary for each adaptor marked * .
2. Up to 2 adaptors can be fixed for each installation box.
3. Only one installation box can be installed for each indoor unit.

MEMO

MEMO

MEMO

Warning



- Daikin Industries, Ltd.'s products are manufactured for export to numerous countries throughout the world. Daikin Industries, Ltd. does not have control over which products are exported to and used in a particular country. Prior to purchase, please therefore confirm with your local authorised importer, distributor and/or retailer whether this product conforms to the applicable standards, and is suitable for use, in the region where the product will be used. This statement does not purport to exclude, restrict or modify the application of any local legislation.
- Ask a qualified installer or contractor to install this product. Do not try to install the product yourself. Improper installation can result in water or refrigerant leakage, electrical shock, fire or explosion.
- Use only those parts and accessories supplied or specified by Daikin. Ask a qualified installer or contractor to install those parts and accessories. Use of unauthorised parts and accessories or improper installation of parts and accessories can result in water or refrigerant leakage, electrical shock, fire or explosion.
- Read the User's Manual carefully before using this product. The User's Manual provides important safety instructions and warnings. Be sure to follow these instructions and warnings.

If you have any enquiries, please contact your local importer, distributor and/or retailer.

Cautions on product corrosion

1. Air conditioners should not be installed in areas where corrosive gases, such as acid gas or alkaline gas, are produced.
2. If the outdoor unit is to be installed close to the sea shore, direct exposure to the sea breeze should be avoided. If you need to install the outdoor unit close to the sea shore, contact your local distributor.



JMI-0107



JQA-1452

About ISO 9001

ISO 9001 is a plant certification system defined by the International Organization for Standardization (ISO) relating to quality assurance. ISO 9001 certification covers quality assurance aspects related to the "design, development, manufacture, installation, and supplementary service" of products manufactured at the plant.



EC99J2044

About ISO 14001

ISO 14001 is the standard defined by the International Organization for Standardization (ISO) relating to environmental management systems. Our group has been acknowledged by an internationally accredited compliance organisation as having an appropriate programme of environmental protection procedures and activities to meet the requirements of ISO 14001.

Dealer

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