



EDUS 39 - 900A - F4

R-410A

Engineering Data

FXMQ-P **Ceiling Mounted Duct Type**



DAIKIN AC (AMERICAS), INC.

FXMQ-P

Ceiling Mounted Duct Type

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1. Specifications

Ceiling Mounted Duct Type

Model			FXMQ07PVJU	FXMQ09PVJU	FXMQ12PVJU
★1, ★3 Cooling Capacity	Btu/h		7,500	9,500	12,000
★2, ★3 Heating Capacity	Btu/h		8,500	10,500	13,500
Casing / Color			Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
Dimensions: (HxWxD)		in	11-13/16 x 21-5/8 x 27-9/16	11-13/16 x 21-5/8 x 27-9/16	11-13/16 x 21-5/8 x 27-9/16
Coil (Cross Fin Coil)	RowsxStagesxFPI		3x16x15	3x16x15	3x16x15
	Face Area	ft ²	1.05	1.05	1.05
Fan	Model		—	—	—
	Type		Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor Output	W	90	90	90
	Air Flow Rate (HH/H/L)	cfm	317/264/229	317/264/229	335/282/246
	External Static Pressure	in. H ₂ O	Standard 0.20 (0.40-0.12 ★4)	Standard 0.20 (0.40-0.12 ★4)	Standard 0.20 (0.40-0.12 ★4)
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
Air Filter			— ★5	— ★5	— ★5
Piping Connections	Liquid Pipes	in	φ1/4 (Flare Connection)	φ1/4 (Flare Connection)	φ1/4 (Flare Connection)
	Gas Pipes	in	φ1/2 (Flare Connection)	φ1/2 (Flare Connection)	φ1/2 (Flare Connection)
	Drain Pipe	in	VP25 (External Dia. 1-1/4 Internal Dia. 1)	VP25 (External Dia. 1-1/4 Internal Dia. 1)	VP25 (External Dia. 1-1/4 Internal Dia. 1)
Mass (Weight)	Lbs		55	55	55
Safety Devices			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
Connectable outdoor unit			R-410A Series	R-410A Series	R-410A Series
Standard Accessories			Operation Manual, Installation Manual, Drain Hose, Sealing Pads, Clamps, Washers, Screws, Insulation for Fitting, Clamp Metal, Air Discharge Flange, Air Suction Flange	Operation Manual, Installation Manual, Drain Hose, Sealing Pads, Clamps, Washers, Screws, Insulation for Fitting, Clamp Metal, Air Discharge Flange, Air Suction Flange	Operation Manual, Installation Manual, Drain Hose, Sealing Pads, Clamps, Washers, Screws, Insulation for Fitting, Clamp Metal, Air Discharge Flange, Air Suction Flange
Drawing No.			3D066117B		

Notes:

- ★ 1 Nominal cooling capacities are based on the following conditions:
Return air temperature: 80°FDB, 67°FWB
Outdoor temperature: 95°FDB
Standard external static pressure
Equivalent ref. piping length: 25ft (Horizontal)
- ★ 2 Nominal heating capacities are based on the following conditions:
Return air temperature: 70°FDB.
Outdoor temperature: 47°FDB, 43°FWB
Standard external static pressure
Equivalent ref. piping length: 25ft (Horizontal)
- ★ 3 Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.
- ★ 4 External static pressure is changeable in 7 (FXMQ07, 09, 12PVJU), 14 (FXMQ18, 24, 30, 36PVJU), 10 (FXMQ48PVJU) 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 Refer to page 11 for Power Input.

Ceiling Mounted Duct Type

Model			FXMQ18PVJU	FXMQ24PVJU	FXMQ30PVJU
★1, ★3 Cooling Capacity	Btu/h		18,000	24,000	30,000
★2, ★3 Heating Capacity	Btu/h		20,000	27,000	34,000
Casing / Color			Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
Dimensions: (H×W×D)		in	11-13/16 × 39-3/8 × 27-9/16	11-13/16 × 39-3/8 × 27-9/16	11-13/16 × 39-3/8 × 27-9/16
Coil (Cross Fin Coil)	Rows×Stages×FPI		3×16×15	3×16×15	3×16×15
	Face Area	ft ²	2.68	2.68	2.68
Fan	Model		—	—	—
	Type		Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor Output	W	350	350	350
	Air Flow Rate (HH/H/L)	cfm	635/582/529	688/618/565	882/794/706
	External Static Pressure	in. H ₂ O	Standard 0.40 (0.80-0.20 ★4)	Standard 0.40 (0.80-0.20 ★4)	Standard 0.40 (0.80-0.20 ★4)
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
Air Filter			— ★5	— ★5	— ★5
Piping Connections	Liquid Pipes	in	φ1/4 (Flare Connection)	φ3/8 (Flare Connection)	φ3/8 (Flare Connection)
	Gas Pipes	in	φ1/2 (Flare Connection)	φ5/8 (Flare Connection)	φ5/8 (Flare Connection)
	Drain Pipe	in	VP25 (External Dia. 1-1/4 Internal Dia. 1)	VP25 (External Dia. 1-1/4 Internal Dia. 1)	VP25 (External Dia. 1-1/4 Internal Dia. 1)
Mass (Weight)	Lbs		80	80	80
Safety Devices			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
Connectable outdoor unit			R-410A Series	R-410A Series	R-410A Series
Standard Accessories			Operation Manual, Installation Manual, Drain Hose, Sealing Pads, Clamps, Washers, Screws, Insulation for Fitting, Clamp Metal, Air Discharge Flange, Air Suction Flange	Operation Manual, Installation Manual, Drain Hose, Sealing Pads, Clamps, Washers, Screws, Insulation for Fitting, Clamp Metal, Air Discharge Flange, Air Suction Flange	Operation Manual, Installation Manual, Drain Hose, Sealing Pads, Clamps, Washers, Screws, Insulation for Fitting, Clamp Metal, Air Discharge Flange, Air Suction Flange
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Return air temperature: 80°FDB, 67°FWB
Outdoor temperature: 95°FDB
Standard external static pressure
Equivalent ref. piping length: 25ft (Horizontal)
- ★ 2 Nominal heating capacities are based on the following conditions:
Return air temperature: 70°FDB.
Outdoor temperature: 47°FDB, 43°FWB
Standard external static pressure
Equivalent ref. piping length: 25ft (Horizontal)
- ★ 3 Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.
- ★ 4 External static pressure is changeable in 7 (FXMQ07, 09, 12PVJU), 14 (FXMQ18, 24, 30, 36PVJU), 10 (FXMQ48PVJU) stages within the () range by remote controller.
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Select its colorimetric method (gravity method) 50% or more.
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Ceiling Mounted Duct Type

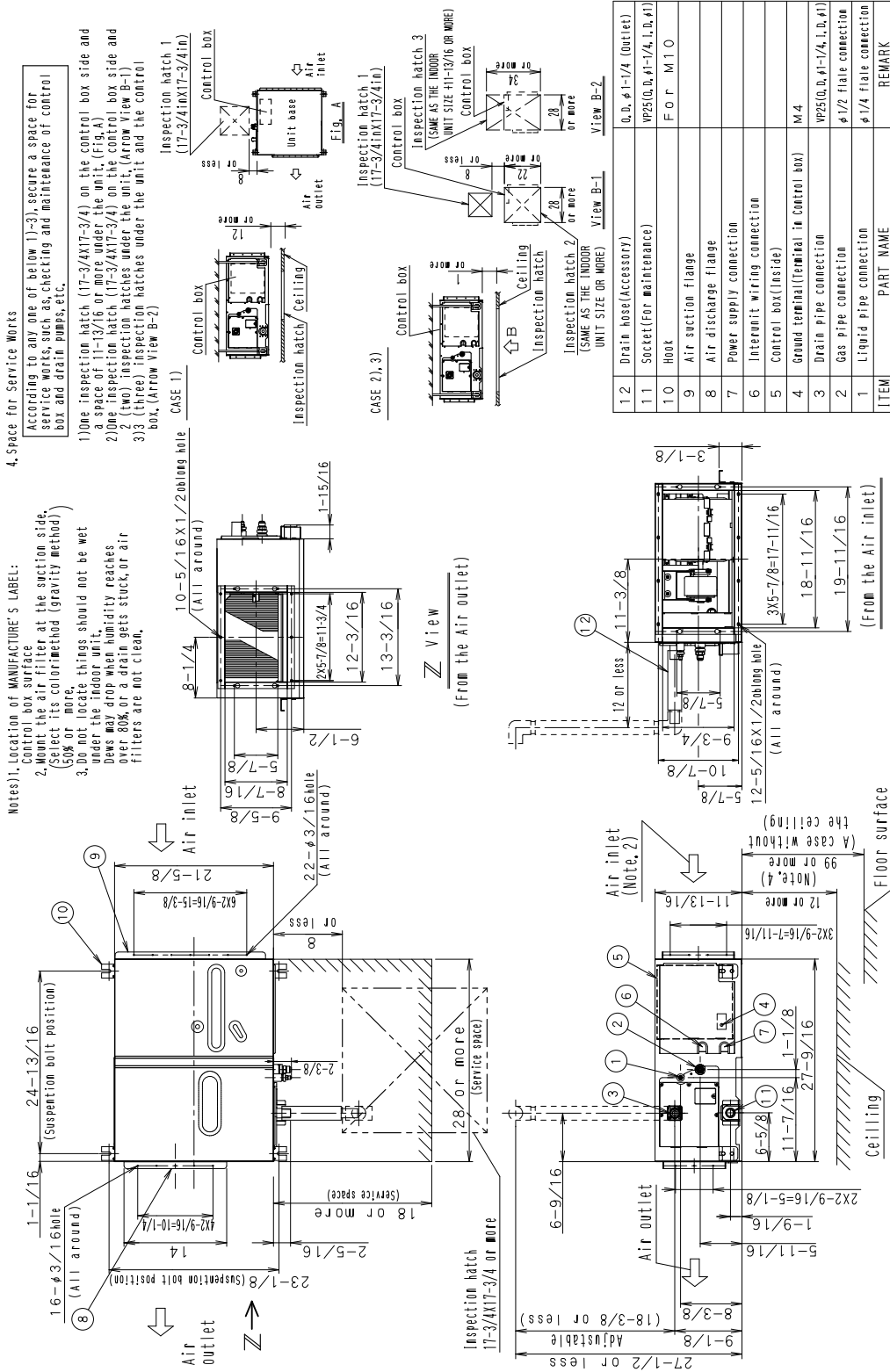
Model		FXMQ36PVJU	FXMQ48PVJU
★1, ★3 Cooling Capacity	Btu/h	36,000	48,000
★2, ★3 Heating Capacity	Btu/h	40,000	54,000
Casing / Color		Galvanized Steel Plate	Galvanized Steel Plate
Dimensions: (HxWxD)		11-13/16 x 55-1/8 x 27-9/16	11-13/16 x 55-1/8 x 27-9/16
Coil (Cross Fin Coil)	RowsxStagesxFPI	3x16x15	3x16x15
	Face Area	ft ² 4.12	4.12
Fan	Model	—	—
	Type	Sirocco Fan	Sirocco Fan
	Motor Output	W 350	350
	Air Flow Rate (HH/H/L)	cfm 1130/953/812	1377/1165/988
	External Static Pressure	in. H ₂ O 0.80-0.20 ★4	0.80-0.20 ★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	in ϕ 3/8 (Flare Connection)	ϕ 3/8 (Flare Connection)
	Gas Pipes	in ϕ 5/8 (Flare Connection)	ϕ 5/8 (Flare Connection)
	Drain Pipe	in VP25 (External Dia. 1-1/4 Internal Dia. 1)	VP25 (External Dia. 1-1/4 Internal Dia. 1)
Mass (Weight)	Lbs 102	102	
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 Series	R-410A Series
Standard Accessories		Operation Manual, Installation Manual, Drain Hose, Sealing Pads, Clamps, Washers, Screws, Insulation for Fitting, Clamp Metal, Air Discharge Flange, Air Suction Flange	Operation Manual, Installation Manual, Drain Hose, Sealing Pads, Clamps, Washers, Screws, Insulation for Fitting, Clamp Metal, Air Discharge Flange, Air Suction Flange
Drawing No.		3D066117B	

Notes:

- ★ 1 Nominal cooling capacities are based on the following conditions:
Return air temperature: 80°FDB, 67°FWB
Outdoor temperature: 95°FDB
Standard external static pressure
Equivalent ref. piping length: 25ft (Horizontal)
- ★ 2 Nominal heating capacities are based on the following conditions:
Return air temperature: 70°FDB.
Outdoor temperature: 47°FDB, 43°FWB
Standard external static pressure
Equivalent ref. piping length: 25ft (Horizontal)
- ★ 3 Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.
- ★ 4 External static pressure is changeable in 7 (FXMQ07, 09, 12PVJU), 14 (FXMQ18, 24, 30, 36PVJU), 10 (FXMQ48PVJU) 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 Refer to page 11 for Power Input.

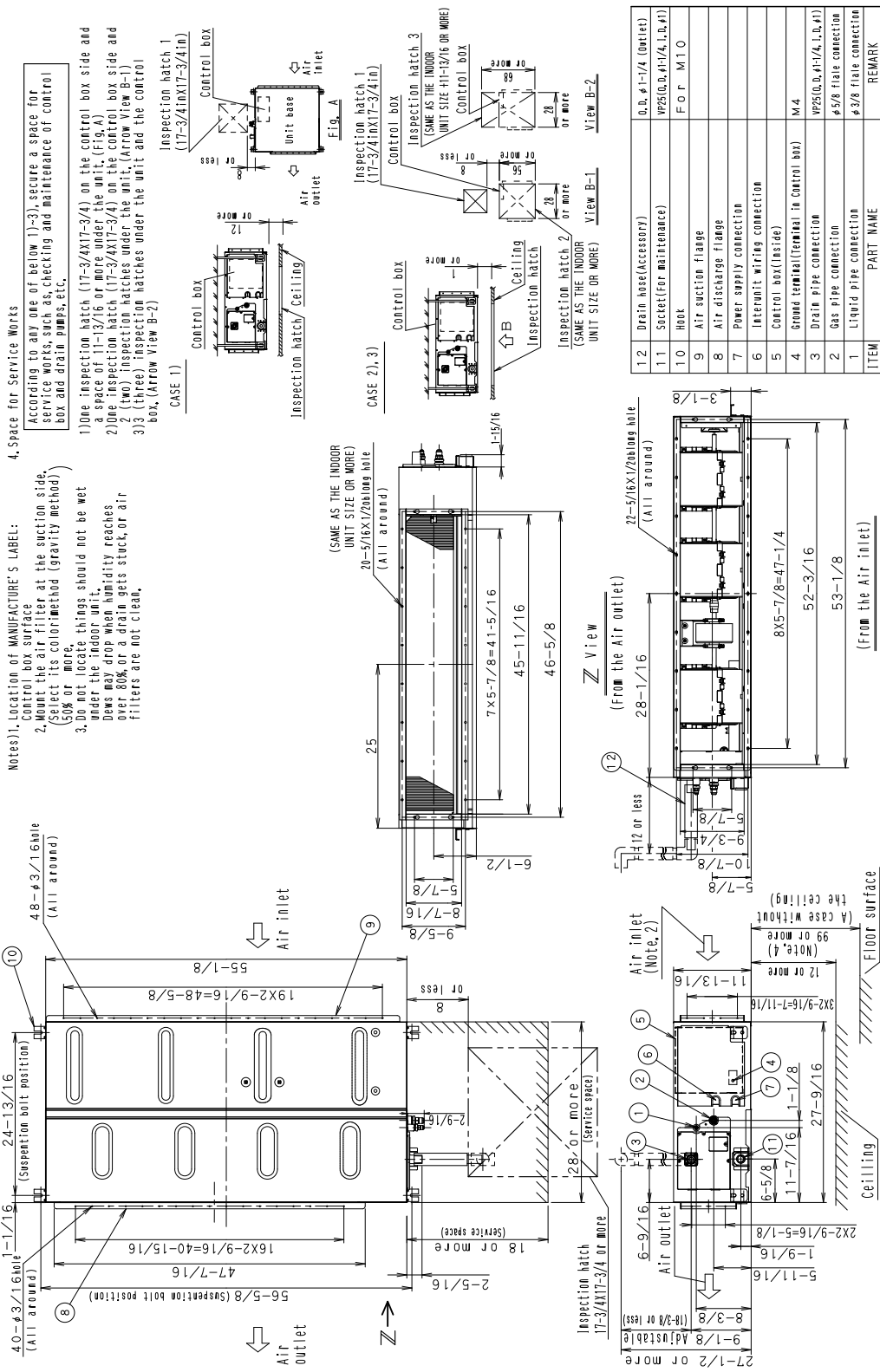
2. Dimensions

FXMQ07PVJU
 FXMQ09PVJU
 FXMQ12PVJU



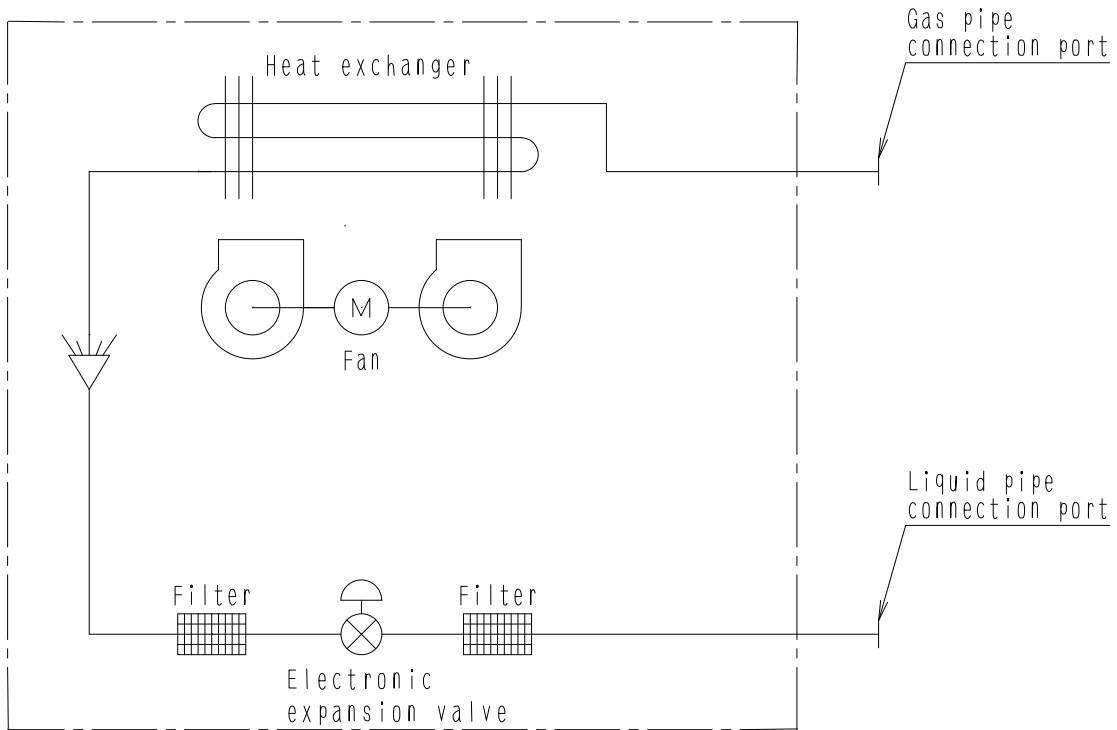
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FXMQ36PVJU
FXMQ48PVJU



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3. Piping Diagrams



APPLICABLE MODEL

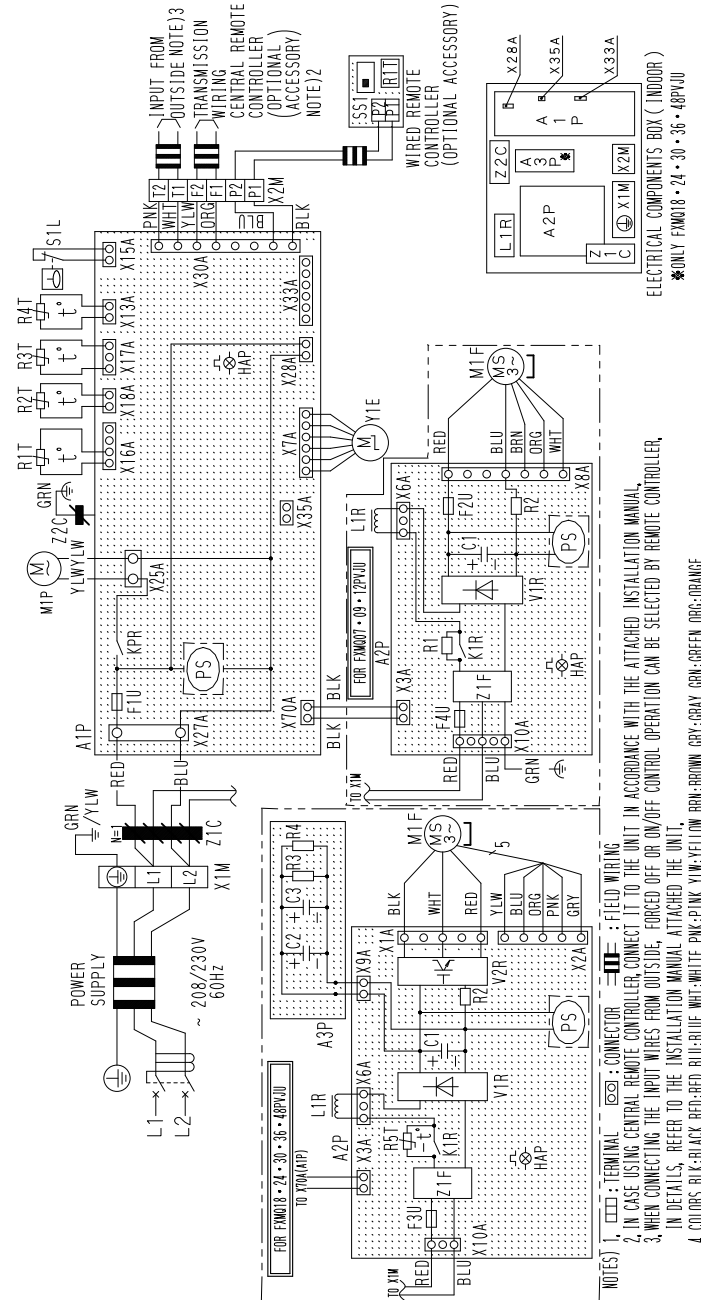
FXC, FXM, FXL, FXN FXH, FXK, FXS, FJSP CBXLS, FXSP, FXCP FZSP, FXNP, FJNP FHQ, FXA
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Capacity	GAS	Liquid
07/09/12/18P	φ 1/2	φ 1/4
24/30/36/48P	φ 5/8	φ 3/8

4. Wiring Diagrams

FXMQ07PVJU / FXMQ09PVJU / FXMQ12PVJU / FXMQ18PVJU / FXMQ24PVJU / FXMQ30PVJU / FXMQ36PVJU / FXMQ48PVJU



A1P	INDOOR UNIT BOARD	R1T	THERMISTOR(SUCTION AIR)
A2P	PRINTED BOARD(FAN)	R2T	THERMISTOR(LOUD)
A3P	PRINTED BOARD(CAPACITOR)	R3T	THERMISTOR(GAS)
F1U	FUSE (T. 3, 15A, 250V)	R4T	THERMISTOR (DISCHARGE AIR)
F2U	FUSE (T. 5A, 250V)	R5T	THERMISTOR MTC (CURRENT LIMITING)
F3U	FUSE (T. 6, 3A, 250V)	S1L	FLOAT SWITCH
F4U	FUSE (T. 6, 3A, 250V)	V1R	DIODE BRIDGE
HAP	LIGHT EMITTING DIODE (SERVICE MONITOR-GREEN)	V2R	POWER MODULE
KPR	MAGNETIC RELAY	X1M	TERMINAL STRIP (POWER SUPPLY)
L1R	REACTOR	X2M	TERMINAL STRIP (CONTROL)
M1F	MOTOR(FAN)	Y1E	ELECTRONIC EXPANSION VALVE
M1P	MOTOR(DRAIN PUMP)	Z1C	NOISE FILTER
PS	SWITCHING POWER SUPPLY (A1P, A2P)	Z2C	NOISE FILTER (FERRITE CORE)
R1	RESISTOR (CURRENT LIMITING)	Z1F	NOISE FILTER CONNECTOR OPTIONAL
R2	RESISTOR (FOR WIRING)	X28A	CONNECTOR (POWER SUPPLY FOR WIRING)
R3, R4	RESISTOR (ELECTRIC DISCHARGE)	X33A	CONNECTOR (FOR WIRING)
SS1	SELECTOR SWITCH (MAIN/SUB)	X35A	CONNECTOR (ADAPTER)

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5. Electric Characteristics

Model	Power supply					IFM		Input (W)	
	Hz	Volts	Voltage range	MCA	MFA	KW	FLA	Cooling	Heating
FXMQ07PVJU	60	208V/230V	Max. 253V Min. 187V	0.6	15	0.090	0.5	80	69
FXMQ09PVJU				0.6	15	0.090	0.5	80	69
FXMQ12PVJU				0.6	15	0.090	0.5	84	73
FXMQ18PVJU				1.6	15	0.350	1.3	214	203
FXMQ24PVJU				1.8	15	0.350	1.4	229	218
FXMQ30PVJU				2.3	15	0.350	1.8	297	286
FXMQ36PVJU				2.9	15	0.350	2.3	375	364
FXMQ48PVJU				3.4	15	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. 15A)
- Select wire size based on the MCA.
- Instead of fuse, use circuit breaker.

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6. Capacity Tables

6.1 Cooling Capacity

FXMQ-P [Cooling capacity]

Unit size	Outdoor air temp.	Indoor air temp.											
		61.0 °FWB		64.0 °FWB		67.0 °FWB		70.0 °FWB		72.0 °FWB		75.0 °FWB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	°FDB	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh
07	75	5.9	5.7	6.7	6.1	7.5	6.4	8.3	6.7	8.4	6.5	8.6	6.5
	79	5.9	5.7	6.7	6.1	7.5	6.4	8.2	6.7	8.3	6.4	8.4	6.4
	83	5.9	5.7	6.7	6.1	7.5	6.4	8.0	6.7	8.1	6.4	8.3	6.3
	87	5.9	5.7	6.7	6.1	7.5	6.4	7.9	6.7	8.0	6.3	8.2	6.2
	91	5.9	5.7	6.7	6.1	7.5	6.4	7.8	6.7	7.9	6.2	8.0	6.1
	95	5.9	5.7	6.7	6.1	7.5	6.4	7.6	6.7	7.8	6.1	7.9	6.0
	99	5.9	5.7	6.7	6.1	7.4	6.4	7.5	6.6	7.6	6.0	7.8	5.8
09	75	5.9	5.7	6.7	6.1	7.2	6.4	7.4	6.5	7.5	5.9	7.6	5.7
	79	7.5	6.9	8.5	7.3	9.5	7.8	10.5	8.2	10.7	7.7	10.9	7.8
	83	7.5	6.9	8.5	7.3	9.5	7.8	10.2	8.2	10.3	7.5	10.5	7.6
	87	7.5	6.9	8.5	7.3	9.5	7.8	10.0	8.2	10.2	7.4	10.4	7.5
	91	7.5	6.9	8.5	7.3	9.5	7.8	9.9	8.2	10.0	7.3	10.2	7.4
	95	7.5	6.9	8.5	7.3	9.5	7.8	9.7	8.1	9.8	7.1	10.0	7.2
	99	7.5	6.9	8.5	7.3	9.3	7.8	9.5	2.4	9.6	7.0	9.8	7.1
12	75	7.5	6.9	8.5	7.3	9.2	7.7	9.3	2.4	9.5	6.8	9.7	7.0
	79	9.5	8.5	10.7	9.1	12.0	9.7	13.3	10.3	13.5	9.9	13.8	9.8
	83	9.5	8.5	10.7	9.1	12.0	9.7	13.1	10.3	13.3	9.8	13.5	9.7
	87	9.5	8.5	10.7	9.1	12.0	9.7	12.9	10.3	13.0	9.6	13.3	9.6
	91	9.5	8.5	10.7	9.1	12.0	9.7	12.6	10.3	12.9	9.5	13.1	9.5
	95	9.5	8.5	10.7	9.1	12.0	9.7	12.5	10.3	12.6	9.4	12.9	9.3
	99	9.5	8.5	10.7	9.1	11.8	9.6	12.0	9.9	12.2	9.1	12.4	9.1
18	75	9.5	8.5	10.7	9.1	11.6	9.5	11.8	9.8	12.0	8.9	12.2	8.9
	79	14.2	12.9	16.1	13.6	18.0	14.4	19.9	15.1	20.3	15.6	20.6	13.4
	83	14.2	12.9	16.1	13.6	18.0	14.4	19.7	15.1	19.9	15.5	20.3	13.2
	87	14.2	12.9	16.1	13.6	18.0	14.4	19.3	15.1	19.5	15.3	19.9	12.9
	91	14.2	12.9	16.1	13.6	18.0	14.4	18.9	15.1	19.3	15.1	19.7	12.7
	95	14.2	12.9	16.1	13.6	18.0	14.4	18.7	15.1	18.9	14.8	19.3	12.4
	99	14.2	12.9	16.1	13.6	18.0	14.4	18.4	14.7	18.6	14.6	18.9	12.1
24	75	14.2	12.9	16.1	13.6	17.3	14.2	17.7	14.4	17.9	14.1	18.3	11.5
	79	19.0	13.9	21.5	14.7	24.0	15.6	26.5	16.4	27.0	24.1	27.5	24.2
	83	19.0	13.9	21.5	14.7	24.0	15.6	26.3	16.4	26.5	23.9	27.0	23.9
	87	19.0	13.9	21.5	14.7	24.0	15.6	25.8	16.4	26.0	23.6	26.5	23.6
	91	19.0	13.9	21.5	14.7	24.0	15.6	25.3	16.4	25.8	23.2	26.3	23.2
	95	19.0	13.9	21.5	14.7	24.0	15.6	24.9	16.3	25.3	22.9	25.8	22.9
	99	19.0	13.9	21.5	14.7	23.6	15.6	24.1	15.7	24.4	22.1	24.8	22.1
30	75	19.0	13.9	21.5	14.7	23.1	15.4	23.6	15.5	23.9	21.6	24.4	21.7
	79	23.7	20.8	26.8	22.3	30.0	23.8	33.1	25.3	33.8	28.6	34.4	28.6
	83	23.7	20.8	26.8	22.3	30.0	23.8	32.8	25.3	33.1	28.3	33.8	28.3
	87	23.7	20.8	26.8	22.3	30.0	23.8	32.2	25.3	32.5	27.9	33.1	27.9
	91	23.7	20.8	26.8	22.3	30.0	23.8	31.6	25.3	32.2	27.5	32.8	27.5
	95	23.7	20.8	26.8	22.3	30.0	23.8	31.1	25.0	31.6	27.1	32.2	27.1
	99	23.7	20.8	26.8	22.3	30.0	23.8	30.6	24.4	31.0	26.6	31.6	26.6
36	75	23.7	20.8	26.8	22.3	29.5	23.5	30.1	24.1	30.4	26.2	31.0	26.2
	79	28.4	25.0	32.2	26.9	36.0	28.8	39.8	30.7	40.5	29.6	41.3	29.6
	83	28.4	25.0	32.2	26.9	36.0	28.8	39.4	30.7	39.8	29.3	40.5	29.3
	87	28.4	25.0	32.2	26.9	36.0	28.8	38.6	30.7	39.0	28.9	39.8	28.9
	91	28.4	25.0	32.2	26.9	36.0	28.8	37.9	30.7	38.6	28.6	39.4	28.6
	95	28.4	25.0	32.2	26.9	36.0	28.8	37.4	30.6	37.9	28.2	38.6	28.2
	99	28.4	25.0	32.2	26.9	36.0	28.8	36.7	30.0	37.2	27.7	37.9	27.7
48	75	28.4	25.0	32.2	26.9	34.7	28.2	35.4	29.4	35.9	26.8	36.6	26.8
	79	37.9	31.3	43.0	33.6	48.0	35.8	53.0	38.1	54.0	36.7	55.0	35.6
	83	37.9	31.3	43.0	33.6	48.0	35.8	52.5	38.1	53.0	36.4	54.0	35.2
	87	37.9	31.3	43.0	33.6	48.0	35.8	51.5	38.1	52.0	36.0	53.0	34.7
	91	37.9	31.3	43.0	33.6	48.0	35.8	50.5	38.0	51.5	35.6	52.5	34.3
	95	37.9	31.3	43.0	33.6	48.0	35.8	49.8	37.6	50.5	35.1	51.5	33.8
	99	37.9	31.3	43.0	33.6	48.0	35.8	49.0	36.9	49.6	34.7	50.5	33.2

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

6.2 Heating Capacity

FXMQ-P [Heating capacity]

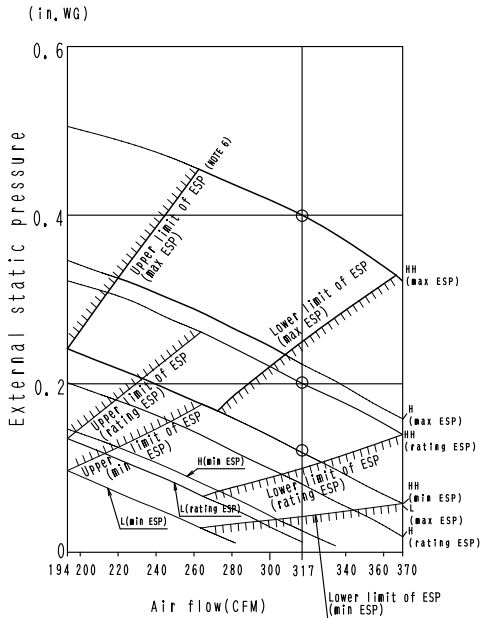
Unit size	Outdoor air temp.		Indoor air temp.					
			62.0°FDB	65.0°FDB	68.0°FDB	70.0°FDB	72.0°FDB	75.0°FDB
	°FDB	°FWB	TC	TC	TC	TC	TC	TC
07	22.0	20.0	7.6	7.6	7.5	7.5	7.5	7.5
	26.0	24.0	8.0	8.0	7.9	7.9	7.9	7.7
	30.0	28.0	8.5	8.5	8.4	8.4	8.2	7.7
	35.0	32.0	9.0	9.0	8.8	8.5	8.2	7.7
	39.0	36.0	9.5	9.3	8.8	8.5	8.2	7.7
	44.0	40.0	9.9	9.3	8.8	8.5	8.2	7.7
	47.0	43.0	9.9	9.3	8.8	8.5	8.2	7.7
	51.0	47.0	9.9	9.3	8.8	8.5	8.2	7.7
	54.0	50.0	9.9	9.3	8.8	8.5	8.2	7.7
	57.0	53.0	9.9	9.3	8.8	8.5	8.2	7.7
	60.0	56.0	9.9	9.3	8.8	8.5	8.2	7.7
	60.0	56.0	9.9	9.3	8.8	8.5	8.2	7.7
09	22.0	20.0	9.4	9.3	9.3	9.3	9.3	9.3
	26.0	24.0	9.9	9.9	9.8	9.8	9.8	9.5
	30.0	28.0	10.5	10.5	10.4	10.4	10.1	9.5
	35.0	32.0	11.1	11.1	10.9	10.5	10.1	9.5
	39.0	36.0	11.8	11.5	10.9	10.5	10.1	9.5
	44.0	40.0	12.3	11.5	10.9	10.5	10.1	9.5
	47.0	43.0	12.3	11.5	10.9	10.5	10.1	9.5
	51.0	47.0	12.3	11.5	10.9	10.5	10.1	9.5
	54.0	50.0	12.3	11.5	10.9	10.5	10.1	9.5
	57.0	53.0	12.3	11.5	10.9	10.5	10.1	9.5
	60.0	56.0	12.3	11.5	10.9	10.5	10.1	9.5
	60.0	56.0	12.3	11.5	10.9	10.5	10.1	9.5
12	22.0	20.0	12.0	12.0	12.0	12.0	12.0	11.9
	26.0	24.0	12.8	12.8	12.6	12.6	12.6	12.3
	30.0	28.0	13.5	13.5	13.4	13.4	13.0	12.3
	35.0	32.0	14.3	14.3	14.0	13.5	13.0	12.3
	39.0	36.0	15.1	14.8	14.0	13.5	13.0	12.3
	44.0	40.0	15.8	14.8	14.0	13.5	13.0	12.3
	47.0	43.0	15.8	14.8	14.0	13.5	13.0	12.3
	51.0	47.0	15.8	14.8	14.0	13.5	13.0	12.3
	54.0	50.0	15.8	14.8	14.0	13.5	13.0	12.3
	57.0	53.0	15.8	14.8	14.0	13.5	13.0	12.3
	60.0	56.0	15.8	14.8	14.0	13.5	13.0	12.3
	60.0	56.0	15.8	14.8	14.0	13.5	13.0	12.3
18	22.0	20.0	17.8	17.8	17.8	17.7	17.7	17.7
	26.0	24.0	18.9	18.9	18.7	18.7	18.7	18.1
	30.0	28.0	20.0	20.0	19.8	19.8	19.3	18.1
	35.0	32.0	21.1	21.1	20.7	20.0	19.3	18.1
	39.0	36.0	22.4	21.9	20.7	20.0	19.3	18.1
	44.0	40.0	23.3	21.9	20.7	20.0	19.3	18.1
	47.0	43.0	23.3	21.9	20.7	20.0	19.3	18.1
	51.0	47.0	23.3	21.9	20.7	20.0	19.3	18.1
	54.0	50.0	23.3	21.9	20.7	20.0	19.3	18.1
	57.0	53.0	23.3	21.9	20.7	20.0	19.3	18.1
	60.0	56.0	23.3	21.9	20.7	20.0	19.3	18.1
	60.0	56.0	23.3	21.9	20.7	20.0	19.3	18.1
24	22.0	20.0	24.1	24.0	24.0	24.0	23.9	23.9
	26.0	24.0	25.5	25.5	25.3	25.3	25.3	24.5
	30.0	28.0	27.0	27.0	26.8	26.8	26.0	24.5
	35.0	32.0	28.5	28.5	28.0	27.0	26.0	24.5
	39.0	36.0	30.3	29.5	28.0	27.0	26.0	24.5
	44.0	40.0	31.5	29.5	28.0	27.0	26.0	24.5
	47.0	43.0	31.5	29.5	28.0	27.0	26.0	24.5
	51.0	47.0	31.5	29.5	28.0	27.0	26.0	24.5
	54.0	50.0	31.5	29.5	28.0	27.0	26.0	24.5
	57.0	53.0	31.5	29.5	28.0	27.0	26.0	24.5
	60.0	56.0	31.5	29.5	28.0	27.0	26.0	24.5
	60.0	56.0	31.5	29.5	28.0	27.0	26.0	24.5
30	22.0	20.0	30.3	30.3	30.2	30.2	30.1	30.1
	26.0	24.0	32.1	32.1	31.8	31.8	31.8	30.9
	30.0	28.0	34.0	34.0	33.7	33.7	32.7	30.9
	35.0	32.0	35.9	35.9	35.3	34.0	32.7	30.9
	39.0	36.0	38.1	37.1	35.3	34.0	32.7	30.9
	44.0	40.0	39.7	37.1	35.3	34.0	32.7	30.9
	47.0	43.0	39.7	37.1	35.3	34.0	32.7	30.9
	51.0	47.0	39.7	37.1	35.3	34.0	32.7	30.9
	54.0	50.0	39.7	37.1	35.3	34.0	32.7	30.9
	57.0	53.0	39.7	37.1	35.3	34.0	32.7	30.9
	60.0	56.0	39.7	37.1	35.3	34.0	32.7	30.9
	60.0	56.0	39.7	37.1	35.3	34.0	32.7	30.9
36	22.0	20.0	35.7	35.6	35.5	35.5	35.4	35.4
	26.0	24.0	37.8	37.8	37.4	37.4	37.4	36.3
	30.0	28.0	40.0	40.0	39.6	39.6	38.5	36.3
	35.0	32.0	42.2	42.2	41.5	40.0	38.5	36.3
	39.0	36.0	44.8	43.7	41.5	40.0	38.5	36.3
	44.0	40.0	46.7	43.7	41.5	40.0	38.5	36.3
	47.0	43.0	46.7	43.7	41.5	40.0	38.5	36.3
	51.0	47.0	46.7	43.7	41.5	40.0	38.5	36.3
	54.0	50.0	46.7	43.7	41.5	40.0	38.5	36.3
	57.0	53.0	46.7	43.7	41.5	40.0	38.5	36.3
	60.0	56.0	46.7	43.7	41.5	40.0	38.5	36.3
	60.0	56.0	46.7	43.7	41.5	40.0	38.5	36.3

TC: Total capacity ; MBh

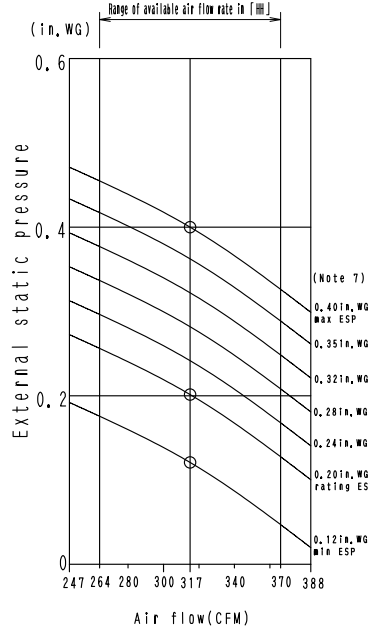
7. Fan Performances

FXMQ07PVJU / FXMQ09PVJU

Fan characteristics ①



Fan characteristics ②
(For field setting of remote controller)



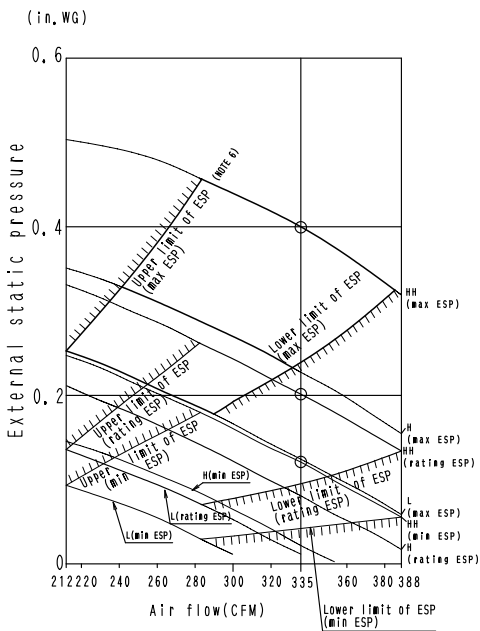
Notes:

1. As for this machine, setting is possible by 7 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 ② shows ESP in rating air flow.

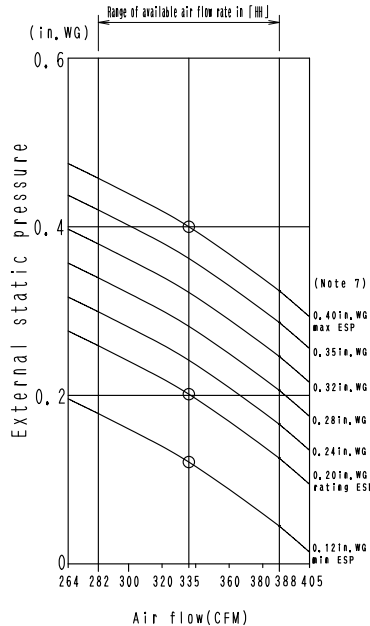
3D066118A

FXMQ12PVJU

Fan characteristics ①



Fan characteristics ②
(For field setting of remote controller)



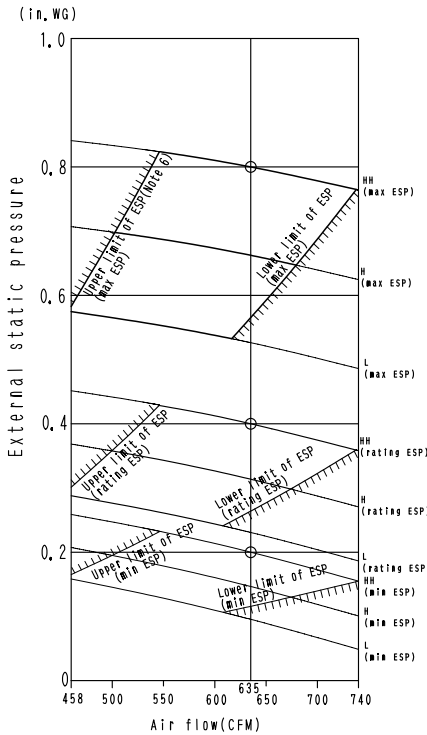
Notes:

1. As for this machine, setting is possible by 7 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 ② shows ESP in rating air flow.

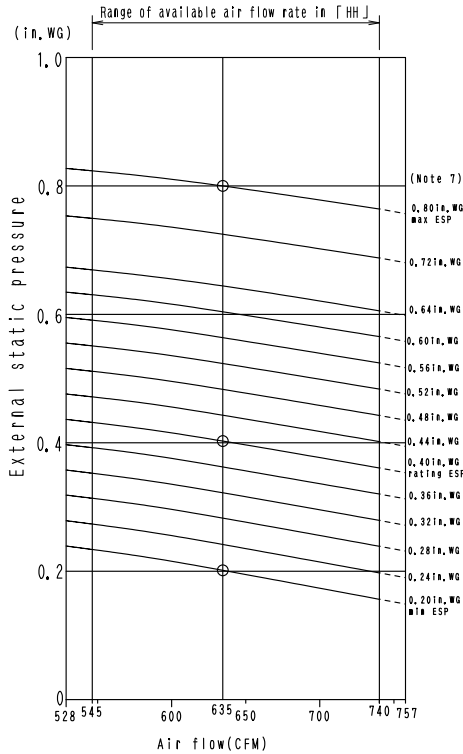
3D066119A

FXMQ18PVJU

Fan characteristics ①



Fan characteristics ②
(For local setting of remote controller)



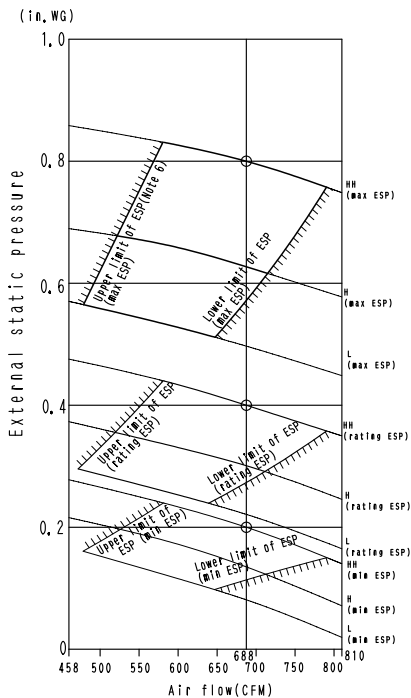
Notes:

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 ② shows ESP in rating air flow.
8. Please set the external static pressure of the suction duct at 0.6 in. WG or less.

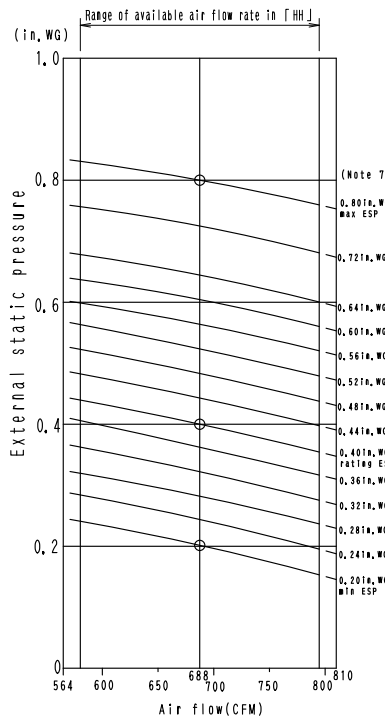
3D066120B

FXMQ24PVJU

Fan characteristics ①



Fan characteristics ②
(For local setting of remote controller)

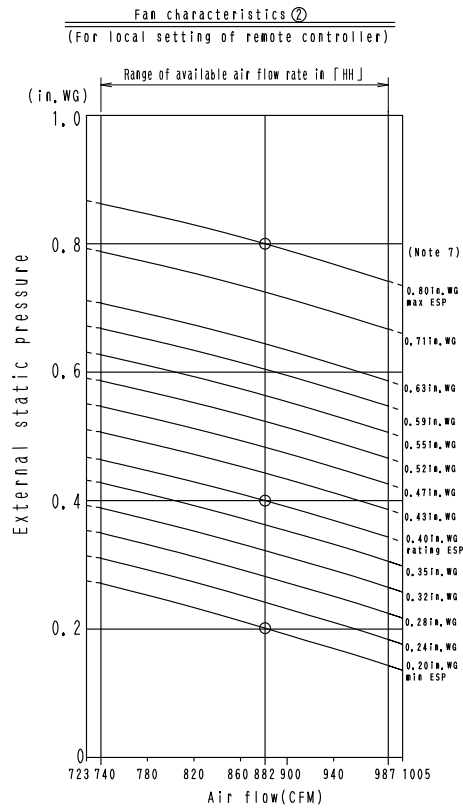
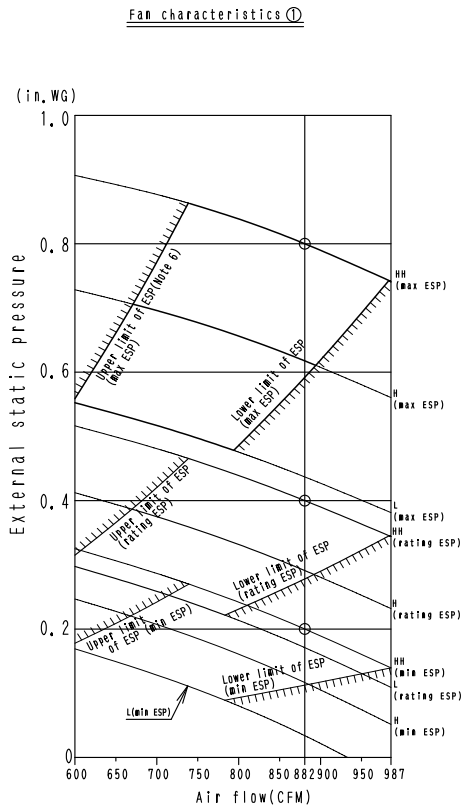


Notes:

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 ② shows ESP in rating air flow.
8. Please set the external static pressure of the suction duct at 0.6 in. WG or less.

3D066121B

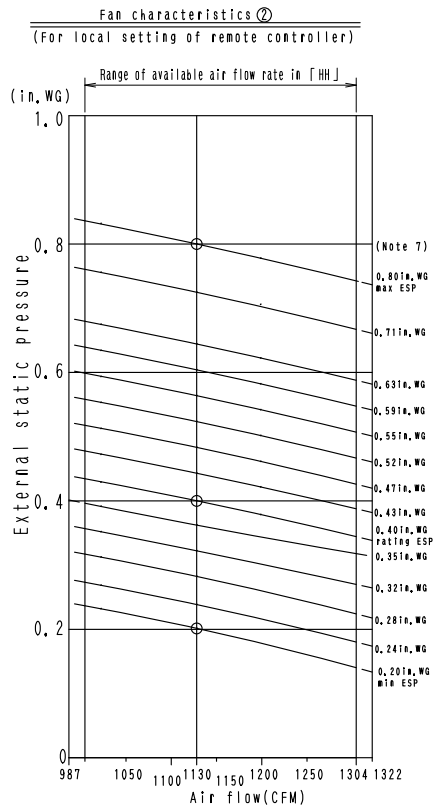
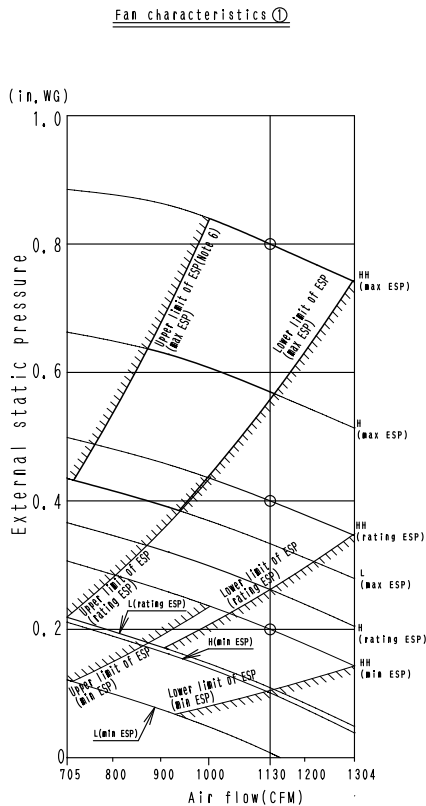
FXMQ30PVJU



- 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 ② shows ESP in rating air flow.
 8. Please set the external static pressure of the suction duct at 0.59 in. WG or less.

3D066122B

FXMQ36PVJU

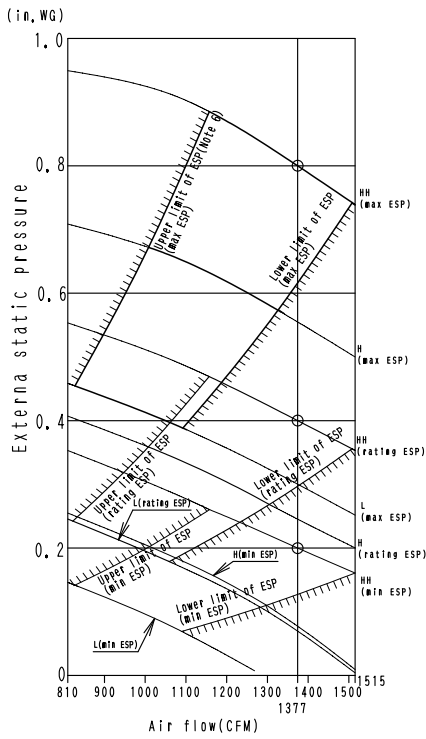


- Notes:
1. As for this machine, setting is possible by 14 position of ESP.
 2. Fan characteristics ① shows a fan characteristic at the time of the "maximum ESP" rating ESP "minimum ESP" as a representative.
 3. Fan characteristics ② (for field setting of remote controller) shows a fan characteristic 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 ② shows ESP in rating air flow.
 8. Please set the external static pressure of the suction duct at 0.59 in. WG or less.

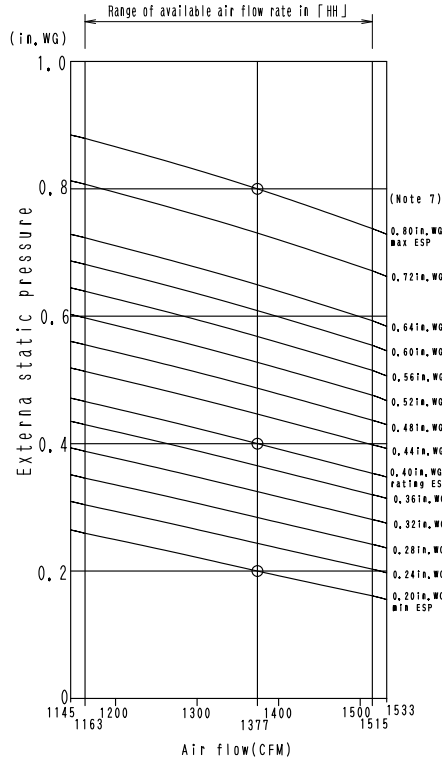
3D066123B

FXMQ48PVJU

Fan characteristics ①



Fan characteristics ②
(For local setting of remote controller)



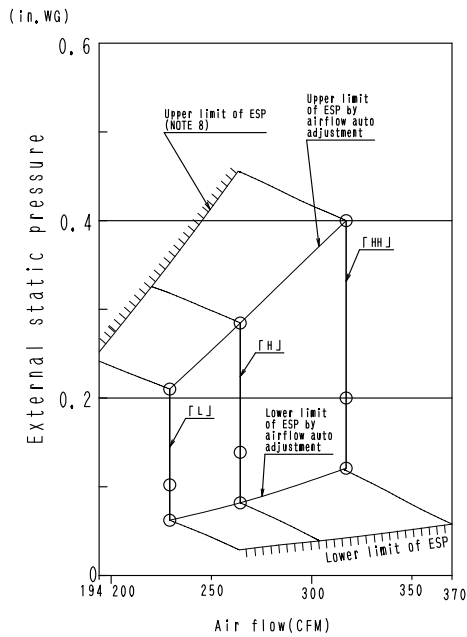
Notes:

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 ② shows ESP in rating air flow.
8. Please set the external static pressure of the suction duct at 0.60 in. WG or less.

3D066449

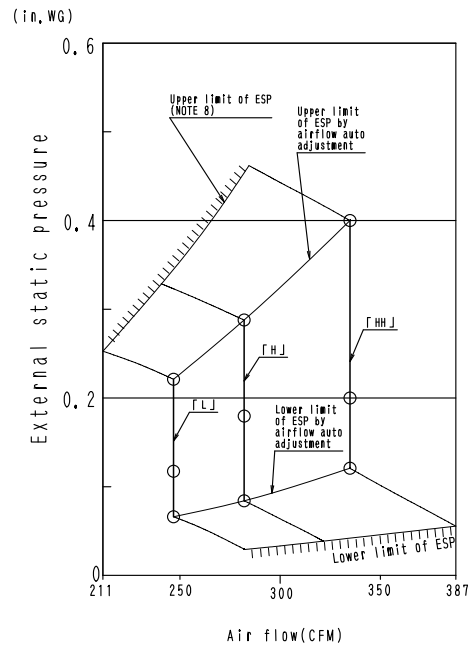
8. Airflow Auto Adjustment Characteristics

FXMQ07PVJU / FXMQ09PVJU



3D066128A

FXMQ12PVJU

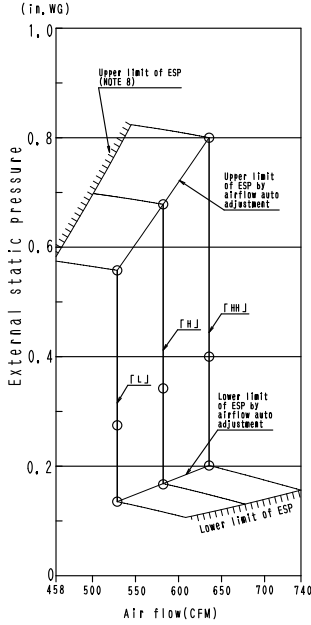


3D066129B

Notes:

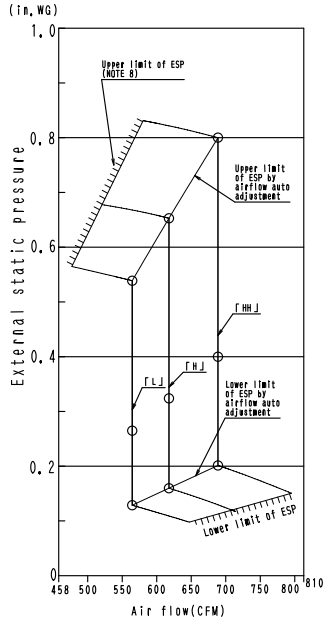
1. To offset the reduction in airflow volume from the rated value, it is possible to adjust the airflow volume up to 10% using the **Airflow Auto-Adjustment** function during installation and commissioning
2. After completing the installation of the indoor unit ductwork, use the remote controller to set the airflow auto-adjustment.
3. For instructions on how to set the **Airflow Auto-Adjustment**, refer to the Installation Manual attached to the indoor unit.
4. External static pressure of 0.12 to 0.4" Wg can be adjusted by the **Airflow Auto-Adjustment** function if airflow is HH.
5. If the **Auto-Adjustment Function** is not utilized, the airflow rate will be in accordance with the fan characteristics shown above.
6. This figure shows 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.

FXMQ18PVJU



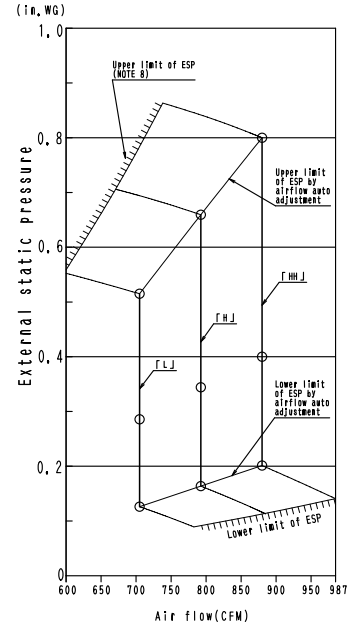
3D066130A

FXMQ24PVJU



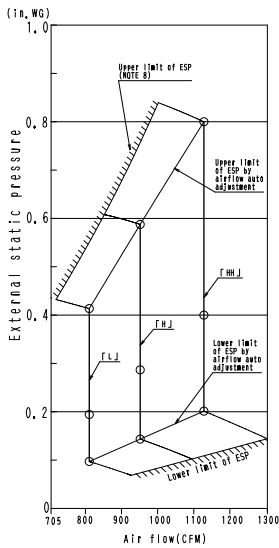
3D066131A

FXMQ30PVJU



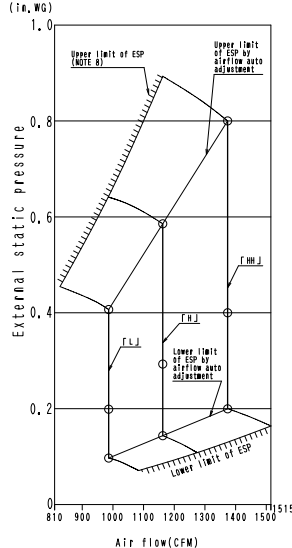
3D066132A

FXMQ36PVJU



3D066133A

FXMQ48PVJU



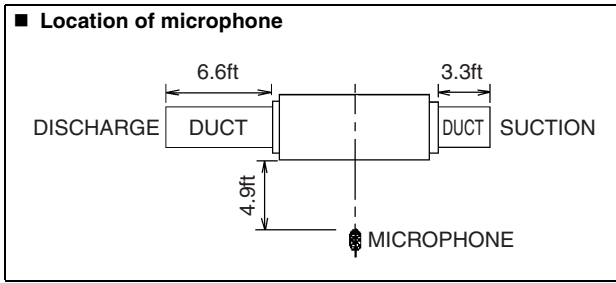
3D066450

Notes:

1. To offset the reduction in airflow volume from the rated value, it is possible to adjust the airflow volume up to 10% using the **Airflow Auto-Adjustment** function during installation and commissioning.
2. After completing the installation of the indoor unit ductwork, use the remote controller to set the airflow auto-adjustment.
3. For instructions on how to set the **Airflow Auto-Adjustment**, refer to the Installation Manual attached to the indoor unit.
4. External static pressure of 0.12 to 0.8" Wg can be adjusted by the **Airflow Auto-Adjustment** function if airflow is HH.
5. If the auto-adjustment function is not utilized, the airflow rate will be in accordance with the fan characteristics shown 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.
9. Please set the external static pressure of the suction duct at 0.6in. WG or less.

9. Sound Levels (Reference)

9.1 Overall



Notes:

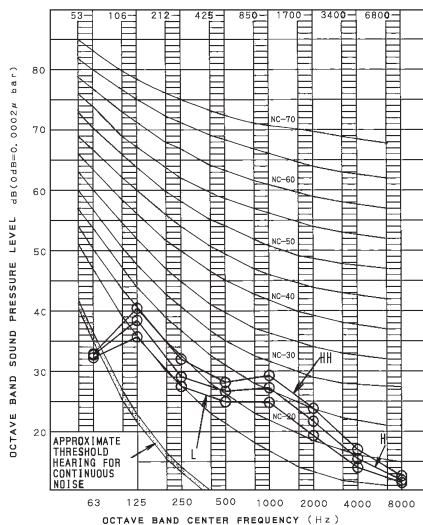
1. The operating conditions are assumed to be standard (JIS conditions). Power source 208-230V, 60hz.
2. The operating values were obtained in an anechoic chamber (conversion values).
3. Sound levels will vary depending on a range of factors such as the construction (acoustic absorption coefficient) of the particular room in which the equipment is installed.

Model	208-230V, 60Hz		
	HH	H	L
FXMQ07/09PVJU	33.0	31.0	29.0
FXMQ12PVJU	34.0	32.0	30.0
FXMQ18PVJU	41.0	39.0	37.0
FXMQ24PVJU	42.0	40.0	38.0
FXMQ30PVJU	43.0	41.0	39.0
FXMQ36PVJU	43.0	41.0	39.0
FXMQ48PVJU	44.0	42.0	40.0

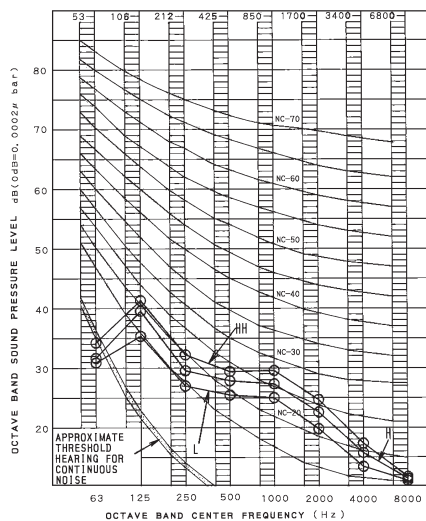
9.2 Octave Band Level

○ — ○ 208V-230V, 60Hz

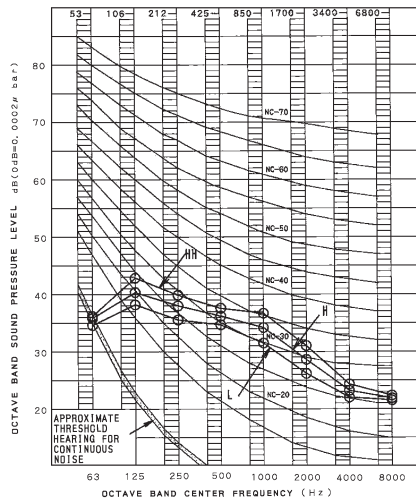
FXMQ07/09PVJU



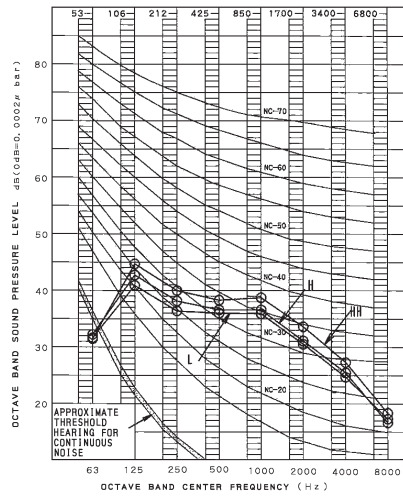
FXMQ12PVJU



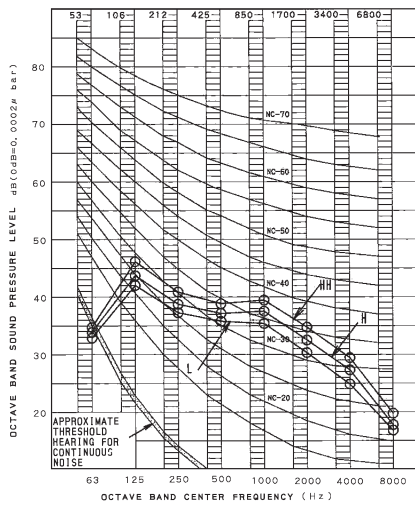
FXMQ018PVJU



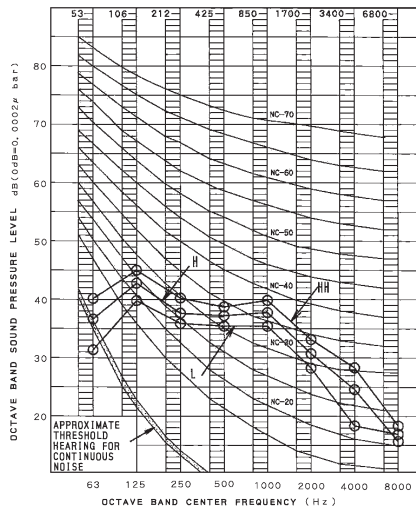
FXMQ24PVJU



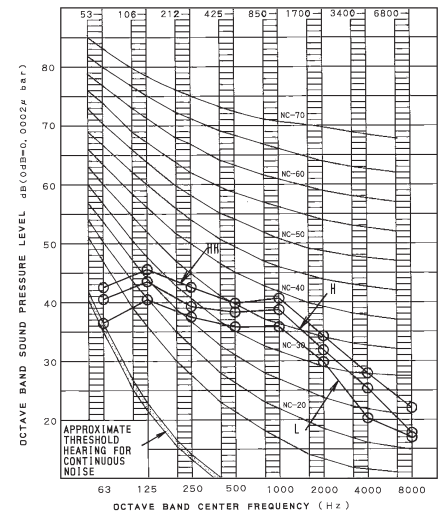
FXMQ030PVJU



FXMQ36PVJU

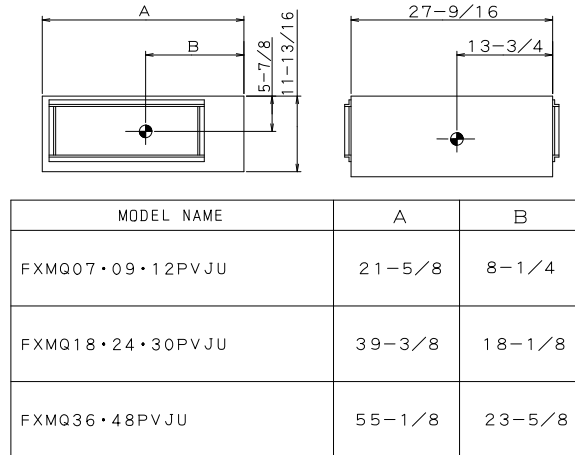


FXMQ48PVJU



10. Installation

10.1 Center of Gravity



4D065975

10.2 Safety Considerations

Read these **SAFETY CONSIDERATIONS for Installation** carefully before installing air conditioning equipment. After completing the installation, make sure that the unit operates properly during the startup operation.

Instruct the customer on how to operate and maintain the unit. Inform customers that they should store this Installation Manual with the Operation Manual for future reference.

Always use a licensed installer or contractor to install this product. Improper installation can result in water or refrigerant leakage, electrical shock, fire, or explosion.

Meanings of **DANGER, WARNING, CAUTION, and NOTE** Symbols:

- DANGER** Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
- WARNING** Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
- CAUTION** Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.
- NOTE** Indicates situations that may result in equipment or property-damage accidents only.

DANGER —————

- Refrigerant gas is heavier than air and replaces oxygen. A massive leak can lead to oxygen depletion, especially in basements, and an asphyxiation hazard could occur leading to serious injury or death.

- Do not ground units to water pipes, gas pipes, telephone wires, or lightning rods as incomplete grounding can cause a severe shock hazard resulting in severe injury or death. Additionally, grounding to gas pipes could cause a gas leak and potential explosion causing severe injury or death.
 - If refrigerant gas leaks during installation, ventilate the area immediately. Refrigerant gas may produce toxic gas if it comes into contact with fire. Exposure to this gas could cause severe injury or death.
 - After completing the installation work, check that the refrigerant gas does not leak throughout the system.
 - Do not install unit in an area where flammable materials are present due to risk of explosions that can cause serious injury or death.
 - Safely dispose all packing and transportation materials in accordance with federal/state/local laws or ordinances. Packing materials such as nails and other metal or wood parts, including plastic packing materials used for transportation may cause injuries or death by suffocation.
- WARNING** —————
- Only qualified personnel must carry out the installation work. Installation must be done in accordance with this installation manual. Improper installation may result in water leakage, electric shock, or fire.
 - When installing the unit in a small room, take measures to keep the refrigerant concentration from exceeding allowable safety limits. Excessive refrigerant leaks, in the event of an accident in a closed ambient space, can lead to oxygen deficiency.

- Use only specified accessories and parts for installation work. Failure to use specified parts may result in water leakage, electric shocks, fire, or the unit falling.
 - Install the air conditioner on a foundation strong enough that it can withstand the weight of the unit. A foundation of insufficient strength may result in the unit falling and causing injuries.
 - Take into account strong winds, typhoons, or earthquakes when installing. Improper installation 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, state, and national regulations. An insufficient power supply capacity or improper electrical construction may lead to electric shocks or fire.
 - Make sure that all wiring is secured, that specified wires are used, and that no external forces act on the terminal connections or wires. Improper connections or installation may result in fire.
 - When 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.
 - Before touching electrical parts, turn off the unit.
 - It is recommended to install a ground fault circuit interrupter if one is not already available. This helps prevent electrical shocks or fire.
 - Securely fasten the outside unit terminal cover (panel). If the terminal cover/panel is not installed properly, dust or water may enter the outside unit causing fire or electric shock.
 - When installing or relocating the system, keep the refrigerant circuit free from substances other than the specified refrigerant (R-410A) such as air. Any presence of air or other foreign substance in the refrigerant circuit can cause an abnormal pressure rise or rupture, resulting in injury.
 - Do not change the setting of the protection devices. If the pressure switch, thermal switch, or other protection device is shorted and operated forcibly, or parts other than those specified by Daikin are used, fire or explosion may occur.
- ⚠ CAUTION**
- Do not touch the switch with wet fingers. Touching a switch with wet fingers can cause electric shock.
 - Do not allow children to play on or around the unit to prevent injury.
 - Do not touch the refrigerant pipes during and immediately after operation as the refrigerant pipes may be hot or cold, depending on the condition of the refrigerant flowing through the refrigerant piping, compressor, and other refrigerant cycle parts. Your hands may suffer burns or frostbite if you touch the refrigerant pipes. To avoid injury, give the pipes time to return to normal temperature or, if you must touch them, be sure to wear proper gloves.
- Install drain piping to proper drainage. Improper drain piping may result in water leakage and property damage.
 - Insulate piping to prevent condensation.
 - Be careful when transporting the product.
 - Do not turn off the power immediately after stopping operation. Always wait for at least 5 minutes before turning off the power. Otherwise, water leakage may occur.
 - Do not use a charging cylinder. Using a charging cylinder may cause the refrigerant to deteriorate.
 - Refrigerant R-410A in the system must be kept clean, dry, and tight.
 - (a) Clean and Dry -- Foreign materials (including mineral oils such as SUNISO oil or moisture) should be prevented from getting into the system.
 - (b) Tight -- R-410A does not contain any chlorine, does not destroy the ozone layer, and does not reduce the earth's protection against harmful ultraviolet radiation. R-410A can contribute to the greenhouse effect if it is released. Therefore take proper measures to check for the tightness of the refrigerant piping installation. Read the chapter *Refrigerant Piping* and follow the procedures.
 - Since R-410A is a blend, the required additional refrigerant must be charged in its liquid state. If the refrigerant is charged in a state of gas, its composition can change and the system will not work properly.
 - The indoor unit is for R-410A. See the catalog for indoor models that can be connected. Normal operation is not possible when connected to other units.
 - 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 far away from fluorescent lamps as much as possible.
 - Indoor units are for indoor installation only. Outdoor units can be installed either outdoors or indoors. This unit is for indoor use.

- Do not install the air conditioner in the following locations:
 - (a) Where a mineral oil mist or oil spray or vapor is produced, for example, in a kitchen.
Plastic parts may deteriorate and fall off or result in water leakage.
 - (b) Where corrosive gas, such as sulfurous acid gas, is produced.
Corroding copper pipes or soldered parts may result in refrigerant leakage.
 - (c) Near machinery emitting electromagnetic waves.
Electromagnetic waves may disturb the operation of the control system and cause the unit to malfunction.
 - (d) Where flammable gas may leak, where there is carbon fiber, or ignitable dust suspension in the air, or where volatile flammables such as thinner or gasoline are handled. Operating the unit in such conditions can cause a fire.
- Take adequate measures to prevent the outside unit from being used as a shelter by small animals. Small animals making contact with electrical parts can cause malfunctions, smoke, or fire. Instruct the customer to keep the area around the unit clean.

10.3 ACCESSORIES

Check that the following accessories are provided and that each accessory is correct in amount.

Refer to the Fig. 1 of this sheet.

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

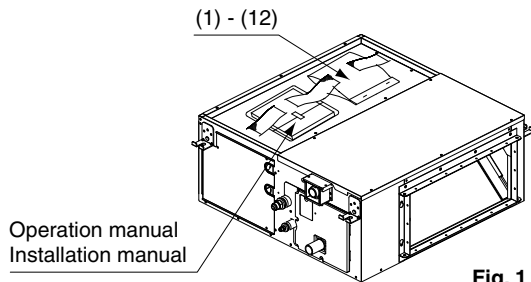


Fig. 1

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			M5x5/8 <table border="1"> <tr> <td>07 • 09 • 12 type</td> <td>6</td> </tr> <tr> <td>18 • 24 • 30 type</td> <td>18</td> </tr> <tr> <td>36 • 48 type</td> <td>26</td> </tr> </table>	07 • 09 • 12 type	6	18 • 24 • 30 type	18	36 • 48 type	26	Thin for liquid pipe (4) Thick for gas pipe (5)
07 • 09 • 12 type	6									
18 • 24 • 30 type	18									
36 • 48 type	26									

NOTE

- Install the power supply and control wires for the indoor and outdoor units at least 3.5 feet away from televisions or radios to prevent image interference or noise. Depending on the radio waves, a distance of 3.5 feet may not be sufficient to eliminate the noise.
- Dismantling the unit, treatment of the refrigerant, oil and additional parts must be done in accordance with the relevant local, state, and national regulations.
- Do not use the following tools that are used with conventional refrigerants: gauge manifold, charge hose, gas leak detector, reverse flow check valve, refrigerant charge base, vacuum gauge, or refrigerant recovery equipment.
- If the conventional refrigerant and refrigerator oil are mixed in R-410A, the refrigerant may deteriorate.
- This air conditioner is an appliance that should not be accessible to the general public.

As design pressure is 478 psi, the wall thickness of field-installed pipes should be selected in accordance with the relevant local, state, and national regulations.

Name	Sealing pad	Clamp (8)	Washer fixing plate (9)	Wire sealing material (10)
Quantity	—	11 pcs.	4 pcs.	2 pcs.
Shape	 1 pc. Large (Dark gray) (6) 2 pcs. Middle (Dark gray) (7)			 Small (Gray)

Name	Washer (11)	Insulation tube (12)	(Other) • Operation manual • Installation manual
Quantity	8 pcs.	2 pcs.	
Shape			

1. OPTIONAL ACCESSORIES

- These is one type of remote controller: wired.
- If you wish to use a remote controller that is different from the above, 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 CONSIDERATIONS".

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?	
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c. Points for explanation about operations

The items with \triangle WARNING and \triangle 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.

1-1 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.

2. 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 86°F 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 3/8 in., 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.)

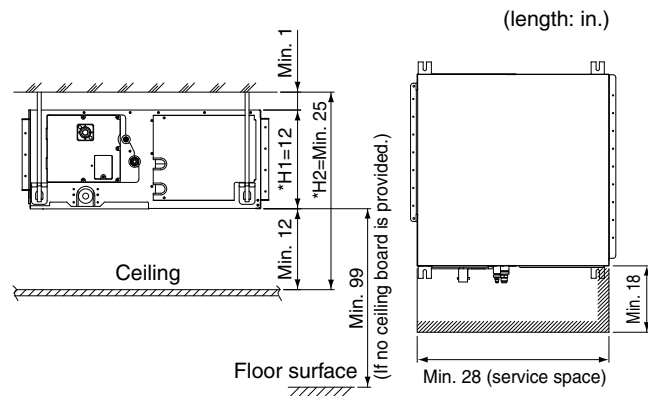
CAUTION

- Install the indoor and outdoor units, power supply wiring and connecting wires at least 3.3 ft away from televisions or radios in order to prevent image interference or noise. (Depending on the radio waves, a distance of 3.3 ft 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.

3. 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 (17-3/4 × 17-3/4) for the control box and a minimum space of 12 in. for the lower part of the product. **(Refer to Fig. 2-2)**
 2. Inspection hatch 1 (17-3/4 × 17-3/4) 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)**



- 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**

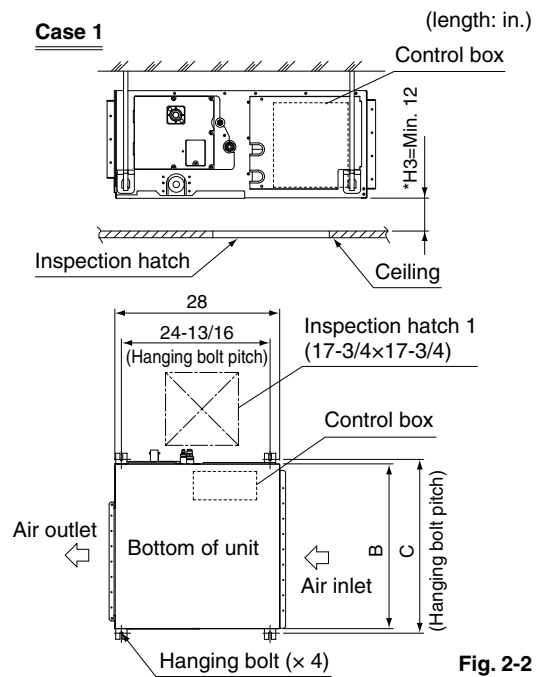


Fig. 2-2

Case 2, 3

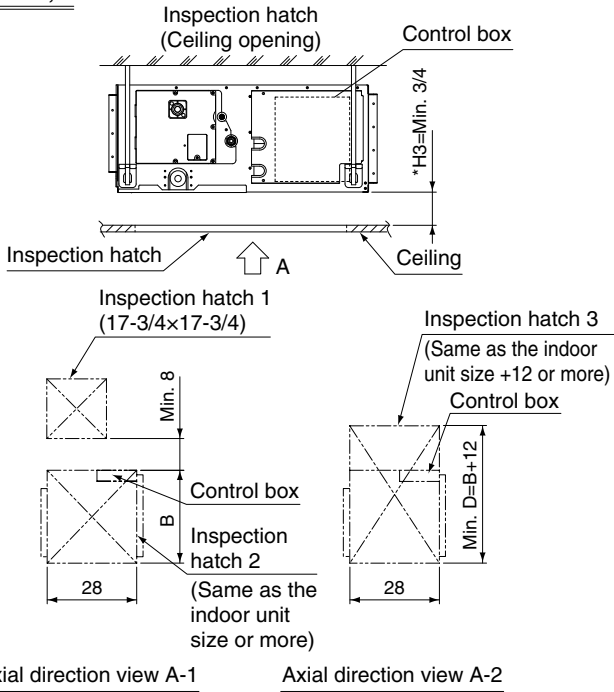


Fig. 2-3

Model	B	C	D
07 • 09 • 12 type	22	23-1/8	34
18 • 24 • 30 type	40	40-7/8	52
36 • 48 type	56	56-5/8	68

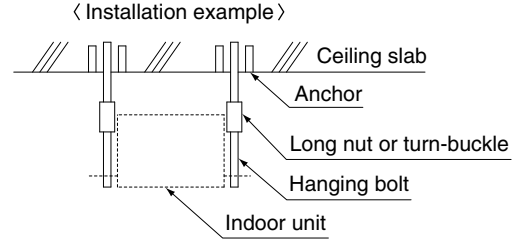
(length: in.)

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

- (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.

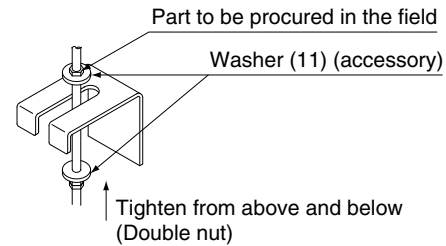
4. INDOOR UNIT INSTALLATION

<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) Temporally 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.

[Fixing hanging brackets]



[Fixing method of washers]

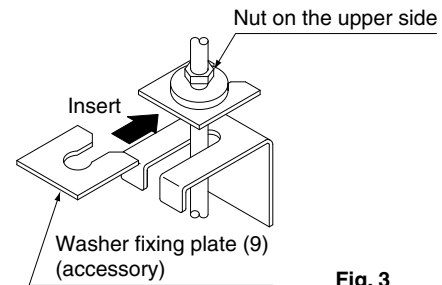
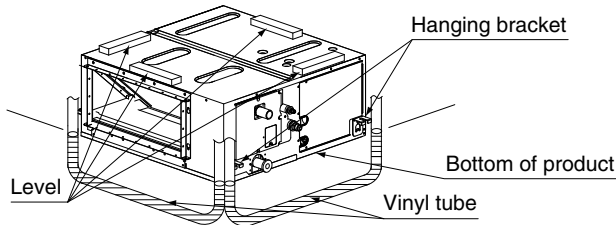


Fig. 3

! 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.



- 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.

5. 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.>

Be sure to use insulation that is designed for use with HVAC Systems.

<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 only to inner side of 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 tapping 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)**

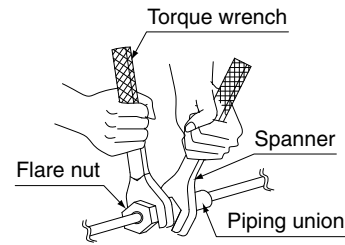


Fig. 4

- Refer to Table 1 for the processing dimensions of the flare.
- Use the flare nut provided with the unit.
- **Apply ether oil or ester oil only to inner side 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)

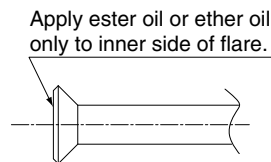


Fig. 5

- Refer to Table 1 for the corresponding tightening torque.

Table 1

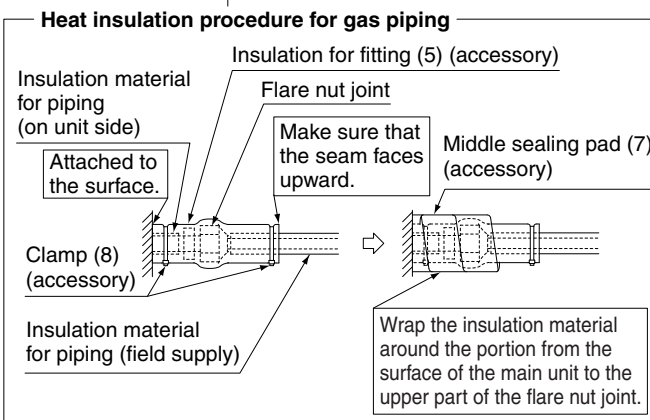
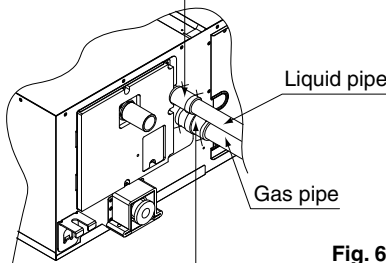
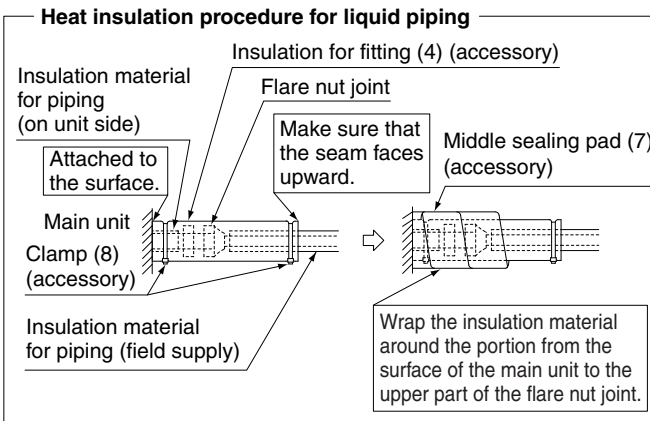
Pipe size	Tightening torque	Flare dimensions A (in.)	Flare shape
φ 1/4	10.4 – 12.7 lbf-ft	0.342 – 0.358	
φ 3/8	24.1 – 29.4 lbf-ft	0.504 – 0.520	
φ 1/2	36.5 – 44.5 lbf-ft	0.638 – 0.654	
φ 5/8	45.6 – 55.6 lbf-ft	0.760 – 0.776	

- **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 2 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 2.

Table 2

Pipe size	Further tightening angle	Recommended arm length of tool
φ 1/4	60 to 90 degrees	Approx. 5-7/8 in.
φ 3/8	60 to 90 degrees	Approx. 7-7/8 in.
φ 1/2	30 to 60 degrees	Approx. 9-13/16 in.
φ 5/8	30 to 60 degrees	Approx. 11-13/16 in.

- (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)



- 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 blazing (see NOTE 2). Then perform the flare connection of the indoor unit. (Refer to Fig. 7)

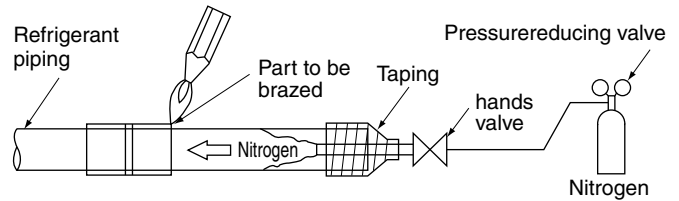


Fig. 7

CAUTION

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

NOTE

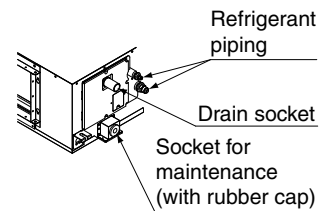
1. At the time of blazing, set the pressure of nitrogen to approximately 2.9 PSI (close to the pressure of a breeze coming in contact with the cheek) with a decompression valve.
 2. Do not use flux at the time of blazing and connecting the refrigerant piping. Use a copper phosphorus brazing alloy (BCuP-2/BCu 93P-710/795), which does not require flux, for blazing. (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.

6. DRAIN PIPING WORK

- (1) Conduct drain piping work.

Check that the piping ensures proper draining.

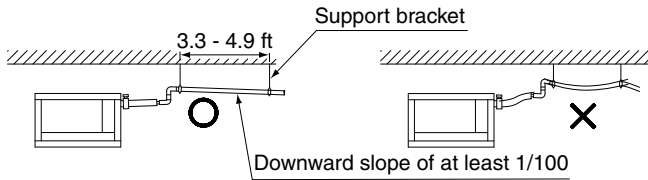
- Make sure that the diameter of the piping excluding the rising part is the same as or larger than the diameter of the connecting pipe (vinyl chloride pipe with an outer diameter of 1/4 in. and a nominal inner diameter of 31/32 in.).



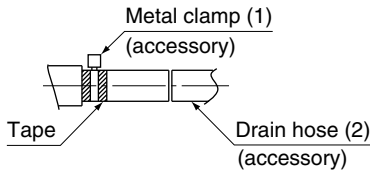
- Make sure that the piping is short enough **with a downward slope of at least 1/100** and that there is no air bank formed. No drain trap is required.

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 3.3 to 4.9 ft intervals for the prevention of piping deflection.

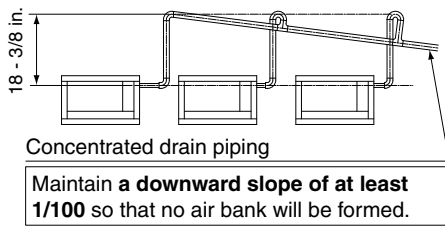


- Be sure to use the drain hose (2) and metal clamp (1). **Insert the drain hose (2) deep into the base of the drain socket, and securely fasten the metal clamp (1) within the taped part on the insertion front end of the hose.**
Be sure to fasten the screw of the metal clamp (1) until the margin of the screw thread decreases to 3/16 in. or less.



NOTE

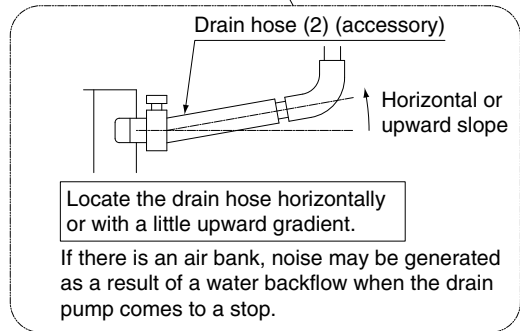
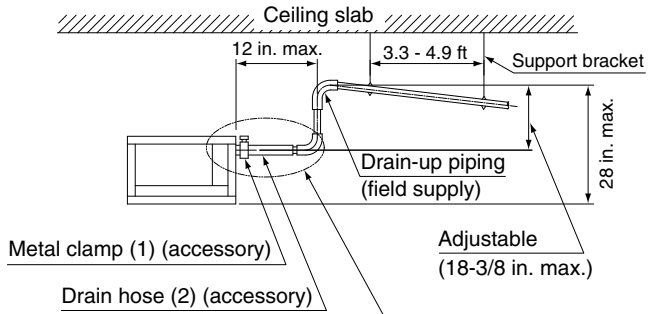
- Be sure to follow the instructions as below.
- Do not connect the drain piping directly to a sewer that smells of ammonia. The ammonia in the sewer may reach through the drain piping and corrode the heat exchanger of the indoor unit.
- Do not bend or twist the provided drain hose (2) in order not to 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.



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).



- (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 L1 and L2 of the terminal block and the ground wiring 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 61 in³ 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.

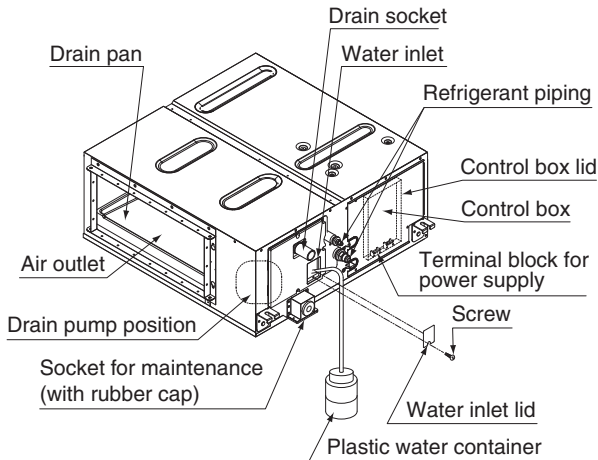
- CAUTION**
- **Do not touch the drain pump.** Otherwise, an electric shock may be received.
 - **Do not impose external force on the float switch.** Otherwise, a failure may result.

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.

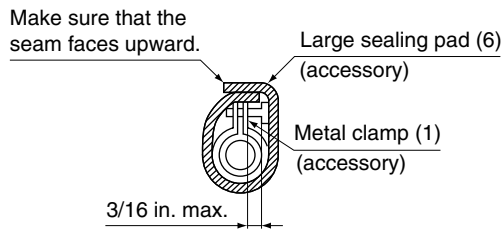
[After electrical work]

- After completion of **8. DUCT WORK** provide **approximately 61 in³ 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).



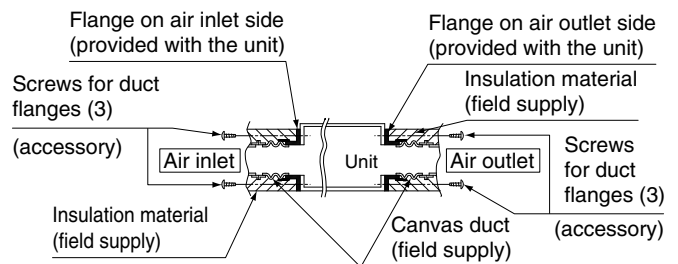
7. DUCT WORK

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. Each model has each setting range of external static pressure.)
- 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: 31/32 in.)
- 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.



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

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 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 ground fault circuit interrupter 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 ground fault circuit interrupter and switch, and wiring instructions.
- Be sure to ground the air conditioner.
- Do not connect the ground wiring 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 lightning storms.

8-2 ELECTRICAL CHARACTERISTICS

Model	Power supply				Fan motor		
	Hz	Volts	Voltage range	MCA	MOP	KW	FLA
FXMQ07PVJU	60	208V / 230V	Max. 253V Min. 187V	0.6	15	0.090	0.5
FXMQ09PVJU				0.6	15	0.090	0.5
FXMQ12PVJU				0.6	15	0.090	0.5
FXMQ18PVJU				1.6	15	0.350	1.3
FXMQ24PVJU				1.8	15	0.350	1.4
FXMQ30PVJU				2.3	15	0.350	1.8
FXMQ36PVJU				2.9	15	0.350	2.3
FXMQ48PVJU				3.4	15	0.350	2.7

MCA: Min. Circuit Amps (A); MOP: Maximum Overcurrent Protection (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	
	Breaker 	Size	Wire	Size
FXMQ07PVJU	15A	Size must comply with local codes.	2--conductor, stranded non-shielded copper cable/ PVC or vinyl jacket	AWG18-2
FXMQ09PVJU				
FXMQ12PVJU				
FXMQ18PVJU				
FXMQ24PVJU				
FXMQ30PVJU				
FXMQ36PVJU				
FXMQ48PVJU				

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

- (1) Outdoor unit – Indoor unit:
Max. 3280 ft (Total wiring length: 6560 ft)
- (2) Indoor unit – Remote controller:
Max. 1640 ft

NOTE

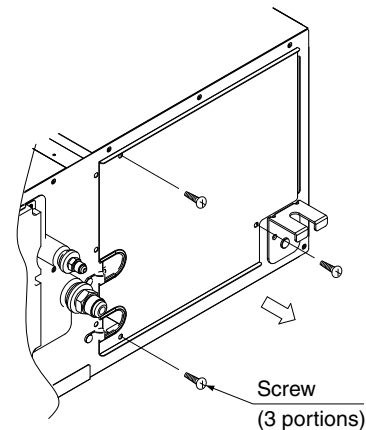
1. Shows only in case of protected pipes. Use H07RN-F in case of no protection.
2. Vinyl cord with sheath or cable (Insulated thickness : 0.04 in. or more)

9. WIRING EXAMPLE AND HOW TO SET THE REMOTE CONTROLLER

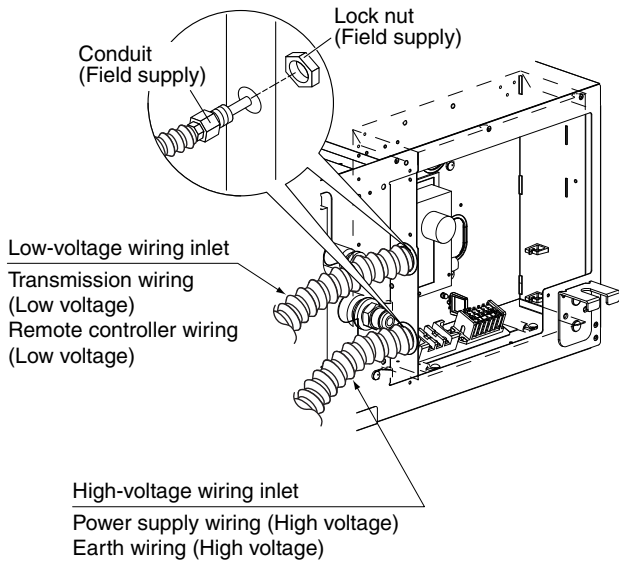
9-1 CONNECTING POWER SUPPLY, GROUND, REMOTE CONTROLLER, AND TRANSMISSION WIRING

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

- (1) Remove the control box lid.

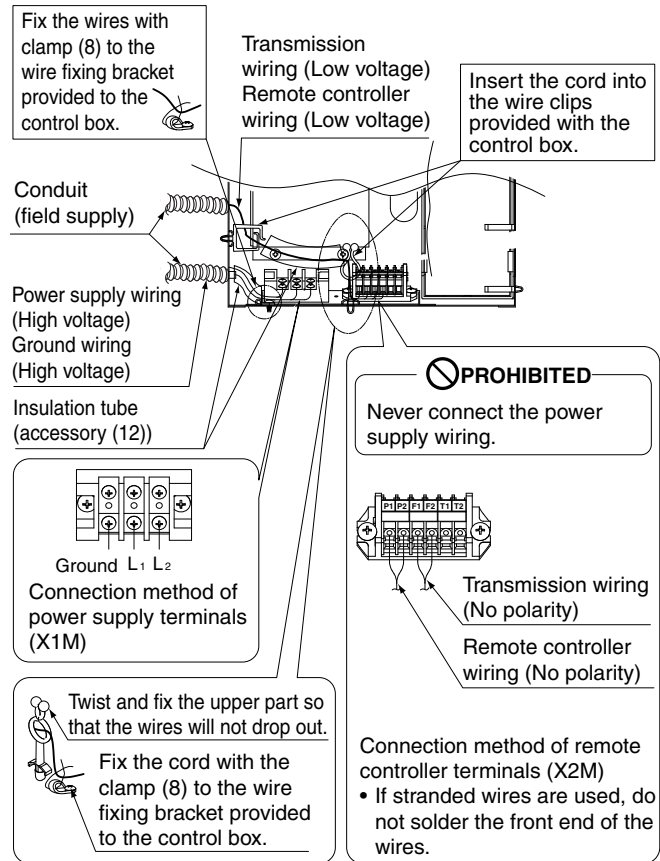


- (2) Lay the wires in the control box through the wire inlet on the side of the control box.



- 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 2 in. 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.

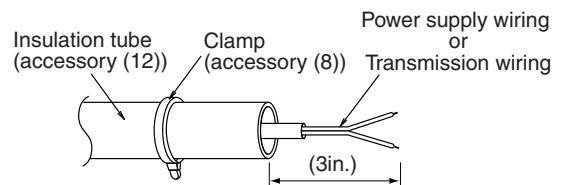
- (3) Follow the instructions below, and lay the wires in the control box.



Routing power supply wiring and transmission wiring

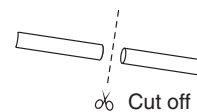
Let the power supply wiring with a conduit pass through one of the holes on the side cover, and let the transmission wiring with a conduit pass through another hole.

- For protection from uninsulated live parts, thread the power supply wiring or the transmission wiring through the included insulation tube and secure it with the included clamp.



When use the insulation tube.

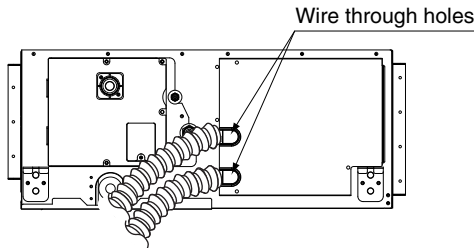
- Cut off the insulation tube as need length.



- 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 conduit so as to block the wire through holes.

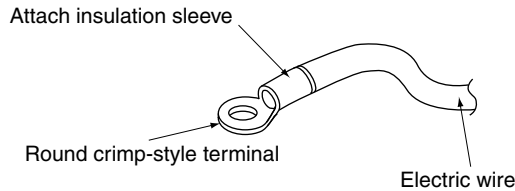
Terminal block for power supply Ground wiring	0.87 - 1.06
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- After all the wiring connections are done, fill in any gaps in the through holes with putty or insulation (procured locally) to prevent small animals and insects from entering the unit from outside. (If any do get in, they could cause short circuits in the control box.)

[Precautions for Power Supply Wiring]

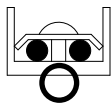
- Connect round crimp-style terminals provided with insulation sleeves to the terminal block for power supply.



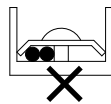
Be sure to follow the instructions provided below if the specified terminals cannot be used.

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

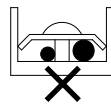
Connect the wires evenly.



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.

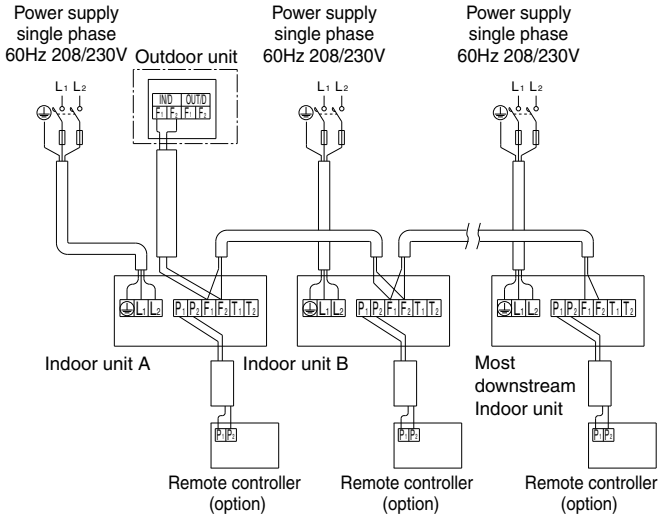
- Do not tighten the terminal screws excessively, or otherwise the screw heads may be damaged.

- Refer to the table below for the required tightening torque values of the terminal screws.

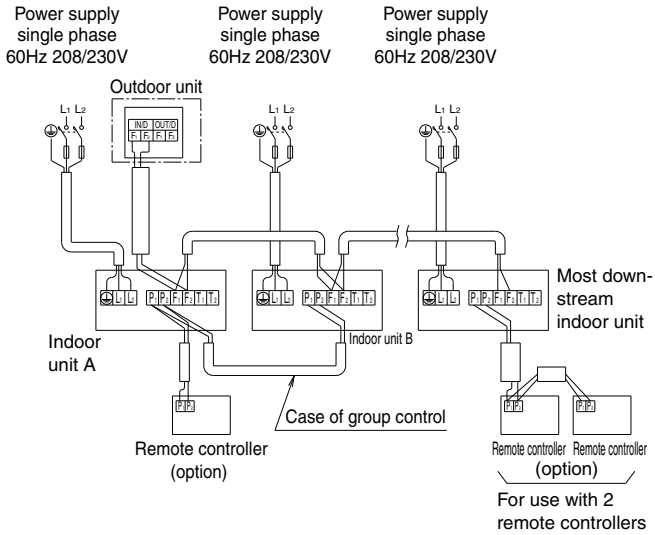
	Tightening torque (lbf-ft)
Terminal block for remote controller and transmission wires	0.58 - 0.72

9-2 WIRING EXAMPLE

- Install a ground fault circuit interrupter.
- The installation of a ground fault circuit interrupter is imperative for the prevention of electric shocks and fire accidents.
- No. 1 system: When using 1 remote controller for 1 indoor unit

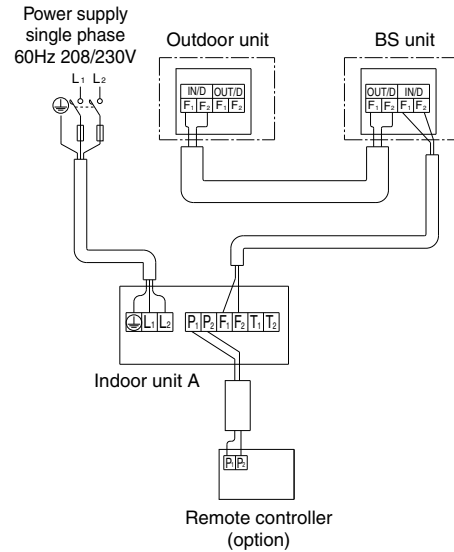


- No. 2 system: For group control or use with 2 remote controllers



Note) There is not need to set the indoor unit address when using group control. (It is automatically set when the power is turned on.)

- No. 3 system: When including BS unit



[PRECAUTIONS]

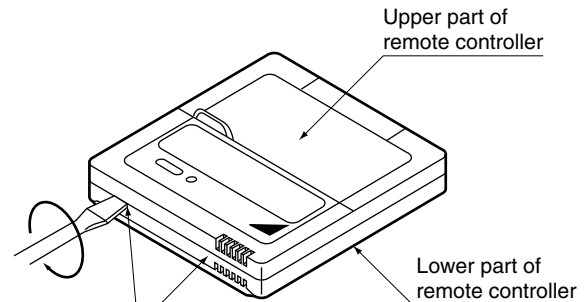
1. Make sure that the ground fault circuit interrupter is designed to protect the air conditioner from ground faults, overloads, and short-circuiting.
2. The remote controller wiring (P1 and P2) and transmission wiring (F1 and F2) have no polarity.

9-3 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.

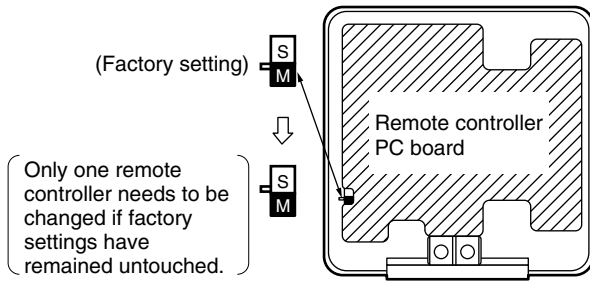
Switching Main/Sub

- (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.)



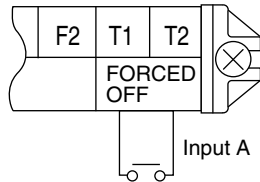
Insert the screwdriver here and gently work off the upper part of remote controller.

- (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.)



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	AWG18-16
Length	Max. 328 ft
External terminal	Contact that can ensure the minimum applicable load of 15 V DC, 1 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.

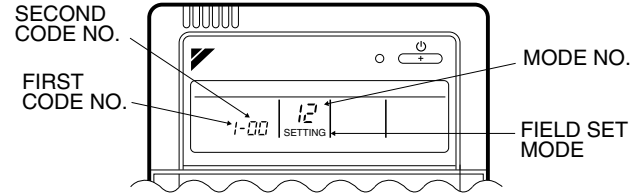
10. FIELD SETTING

- 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.

- 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 3

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 3. 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 7 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 7 and the operation manual provided with the outdoor unit and check the defective point.

- 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 3. The “SECOND CODE NO.” is set to 01 (OFF) at factory set. Change the “SECOND CODE NO.” as shown in Table 4 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 0.4 inWG) at factory set. (FXMQ18 · 24 · 30 · 36 · 48PVJU)
The “SECOND CODE NO.” is set to 02 (an external static pressure of 0.2 inWG) at factory set. (FXMQ07 · 09 · 12PVJU)

*1 The FXMQ18 · 24 · 30 · 36 · 48PVJU cannot be set to 0.12 inWG.

- *2 The FXMQ07 · 09 · 12PVJU cannot be set to 0.44-0.80 inWG.

Table 4

External Static Pressure	MODE NO.	FIRST CODE NO.	SECOND CODE NO.
0.12 inWG (*1)	13 (23)	06	01
0.20 inWG			02
0.24 inWG			03
0.28 inWG			04
0.32 inWG			05
0.36 inWG			06
0.40 inWG			07
0.44 inWG (*2)			08
0.48 inWG (*2)			09
0.52 inWG (*2)			10
0.56 inWG (*2)			11
0.60 inWG (*2)			12
0.64 inWG (*2)			13
0.72 inWG (*2)			14
0.80 inWG (*2)			15

- 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 5.
The “SECOND CODE NO.” is set to 01 (standard) at factory set.

Table 5

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.

11. 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 7 are displayed, there may be a problem with the wiring or power, so check the wiring again.

Table 6

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 7

Remote control display	Content
“  ” 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 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.

3PN06583-9R

11. Accessories

Standard Accessories

Name	Metal clamp (1)	Drain hose (2)	Screws for duct flanges (3)	Insulation for fitting	Sealing pad	Clamp (8)						
Quantity	1 pc.	1 pc.	As described in table below	1 each	—	11 pcs.						
Shape			<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>07 • 09 • 12 type</td> <td>6</td> </tr> <tr> <td>18 • 24 • 30 type</td> <td>18</td> </tr> <tr> <td>36 • 48 type</td> <td>26</td> </tr> </table>	07 • 09 • 12 type	6	18 • 24 • 30 type	18	36 • 48 type	26	Thin for liquid pipe (4) Thick for gas pipe (5)	1 pc. Large (Dark gray) (6) 2 pcs. Middle (Dark gray) (7)	
07 • 09 • 12 type	6											
18 • 24 • 30 type	18											
36 • 48 type	26											

Name	Washer fixing plate (9)	Wire sealing material (10)	Washer (11)	Insulation tube (12)	(Other) • Operation manual • Installation manual
Quantity	4 pcs.	2 pcs.	8 pcs.	2 pcs.	
Shape		Small (Gray)			

3PN06583-9R

Optional Accessories (For Controls): Refer to booklet of “Controls”.



- 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 authorized 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 unauthorized 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 inquiries, please contact your local importer, distributor and/or retailer.



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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

Organization:
DAIKIN INDUSTRIES, LTD.
AIR CONDITIONING MANUFACTURING DIVISION

Scope of Registration:
THE DESIGN/DEVELOPMENT AND MANUFACTURE OF COMMERCIAL AIR CONDITIONING, HEATING, COOLING, REFRIGERATING EQUIPMENT, COMMERCIAL HEATING EQUIPMENT, RESIDENTIAL AIR CONDITIONING EQUIPMENT, HEAT RECLAIM VENTILATION, AIR CLEANING EQUIPMENT, MARINE TYPE CONTAINER REFRIGERATION UNITS, COMPRESSORS AND VALVES.



JQA-1452

Organization:
DAIKIN INDUSTRIES
(THAILAND) LTD.

Scope of Registration:
THE DESIGN/DEVELOPMENT AND MANUFACTURE OF AIR CONDITIONERS AND THE COMPONENTS INCLUDING COMPRESSORS USED FOR THEM



All of the Daikin Group's business facilities and subsidiaries in Japan are certified under the ISO 14001 international standard for environment management.

Dealer

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