

FXMQ200/250PVM

Ceiling Mounted Duct Type

50 / 60 Hz

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1. Lineup

Capacity range	22.4 kW	28.0 kW
	8 HP	10 HP
Capacity index	200	250
FXMQ	200PVM	250PVM

VM : 1 phase, 220-240/220-230 V, 50/60 Hz



2. Specifications

Model			FXMQ200PVM	FXMQ250PVM
Power supply			1 phase, 220-240/220-230 V, 50/60 Hz	1 phase, 220-240/220-230 V, 50/60 Hz
★1 ★3 Cooling capacity		kcal/h	19,300	24,100
		Btu/h	76,400	95,500
		kW	22.4	28.0
★2 ★3 Heating capacity		kcal/h	21,500	27,100
		Btu/h	85,300	107,500
		kW	25.0	31.5
★7 Power input	Cooling	kW	0.55	0.67
	Heating	kW	0.54	0.65
Casing / Colour			Galvanized steel plate	Galvanized steel plate
Dimensions: (H×W×D)			mm	470×1,490×1,100
Fan	Model		KH9X9-PR708	KH9X9-PR708
	Type		Sirocco fan	Sirocco fan
	Motor output × Number of units	W	648 × 1	750 × 1
	Airflow rate (HH/H/L)	m³/min	74/61/50	84/71/58
		l/s	1,233/1,017/833	1,400/1,183/967
		cfm	2,612/2,153/1,765	2,965/2,506/2,047
	External static pressure	Pa	Rated 150 (250-50) ★4	Rated 150 (250-50) ★4
Drive			Direct drive	Direct drive
Temperature control			Microprocessor thermostat for cooling and heating	Microprocessor thermostat for cooling and heating
Air filter			— ★5	— ★5
Piping connections	Liquid	mm	φ9.5 (Flare connection)	φ9.5 (Flare connection)
	Gas	mm	φ19.1 (Flange connection)	φ22.2 (Flange connection)
	Drain		BSP 1 inch internal thread	BSP 1 inch internal thread
Mass		kg	95	105
★6 Sound pressure level (HH/H/L)		dB(A)	42/38/35	44/40/37
Safety devices			Fuse, Fan driver overload protector	Fuse, Fan driver overload protector
Refrigerant control			Electronic expansion valve	Electronic expansion valve
Standard accessories			Operation manual, Installation manual, Connection pipe with flange, Screws, Clamps	Operation manual, Installation manual, Connection pipe with flange, Screws, Clamps
Drawing No.	Specification		C: 3D117713B	C: 3D117713B
	Sound level		C: 3D118400A	C: 3D118342

Notes:

- ★1. Indoor temp.: 27°CDB, 19°CWB / Outdoor temp.: 35°CDB / Rated external static pressure / Equivalent piping length: 7.5 m, level difference: 0 m.
- ★2. Indoor temp.: 20°CDB / Outdoor temp.: 7°CDB, 6°CWB / Rated external static pressure / Equivalent piping length: 7.5 m, level difference: 0 m.
- ★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 15 stages within the () range by remote controller.
- ★5. Pre-filter is an optional accessory. There is a slot for pre-filter at the suction flange.
Other type of filter is not standard accessory, but please mount it in the duct system of the suction side.
Select its dust collection efficiency (gravity method) 50% or more.
- ★6. Anechoic chamber conversion value, measured at a point 1.5 m downward from the unit centre.
These values are normally somewhat higher during actual operation as a result of ambient conditions.
- ★7. Power input values are based on conditions of rated external static pressure.
- 8. Refer to **Electric Characteristics** for the power input when the airflow rate is maximum at maximum external static pressure.

Conversion formulae
kcal/h=kW×860
Btu/h=kW×3412
cfm=m³/min×35.3
l/s=m³/min×1000/60

3. Dimensions

FXMQ200PVM

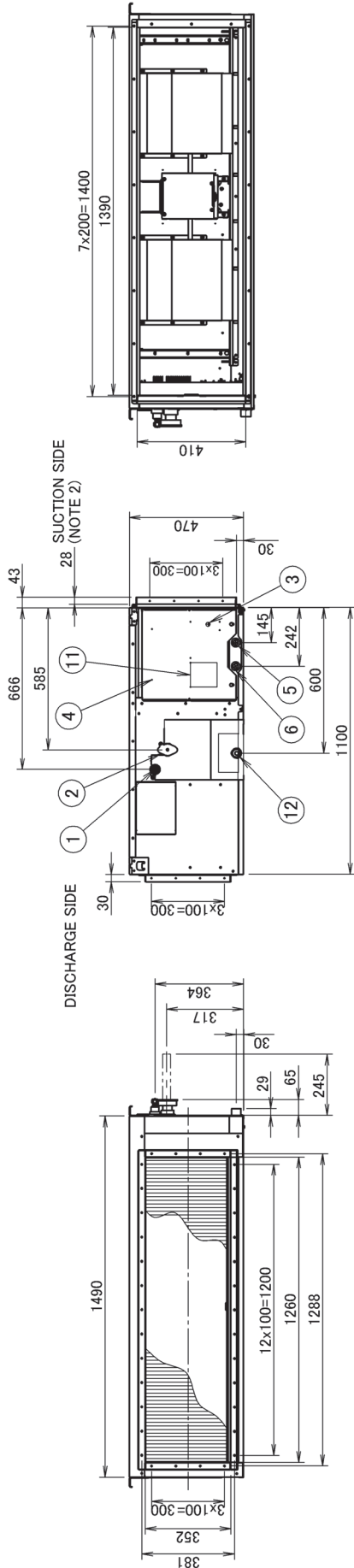
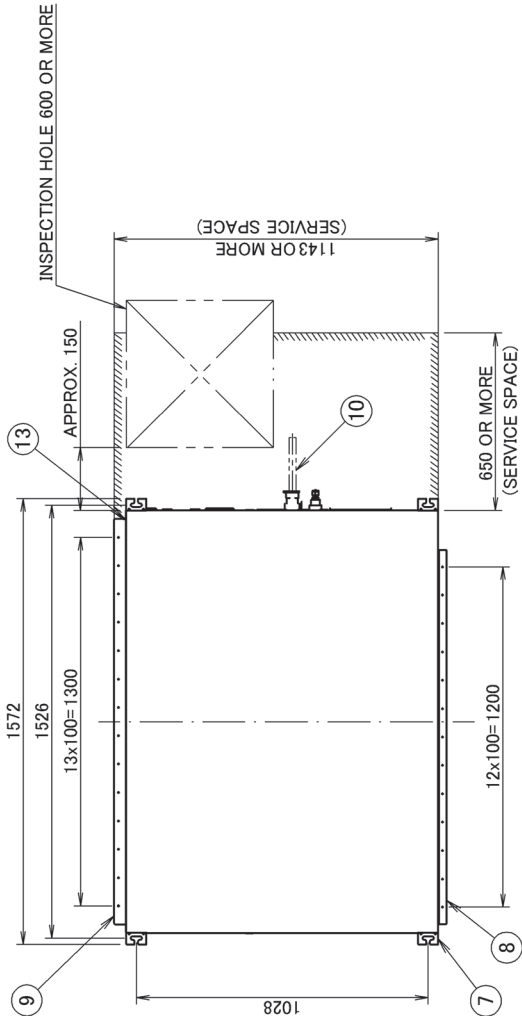
Unit: mm

Piping size (Field supply)

Indoor unit	Gas side	Liquid side
FXMQ200PVM	Ø 19.1 attached piping	Ø 9.5

- Notes:
- 1. Location of unit's Manufacturer's label : Control box surface.
 - 2. Mount the air filter at the suction side.
 - (Select its dust collection efficiency (gravity method) 50% or more.)

Number	Name	Description
13	Pre-filter service cover	
12	Drain piping connection	RSP 1 inch Internal thread Major dia. Ø33.3 Minor dia. Ø30.3
11	Manufacturer's Label	
10	Attached piping	Brazing
9	Suction flange	
8	Discharge flange	
7	Hook	M10
6	Transmission wiring connection	
5	Power supply wiring connection	
4	Control box	
3	Ground terminal	M5 (Inside control box)
2	Gas pipe connection	Attendant piping connection
1	Liquid pipe connection	Flare connection



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FXMQ250PVM

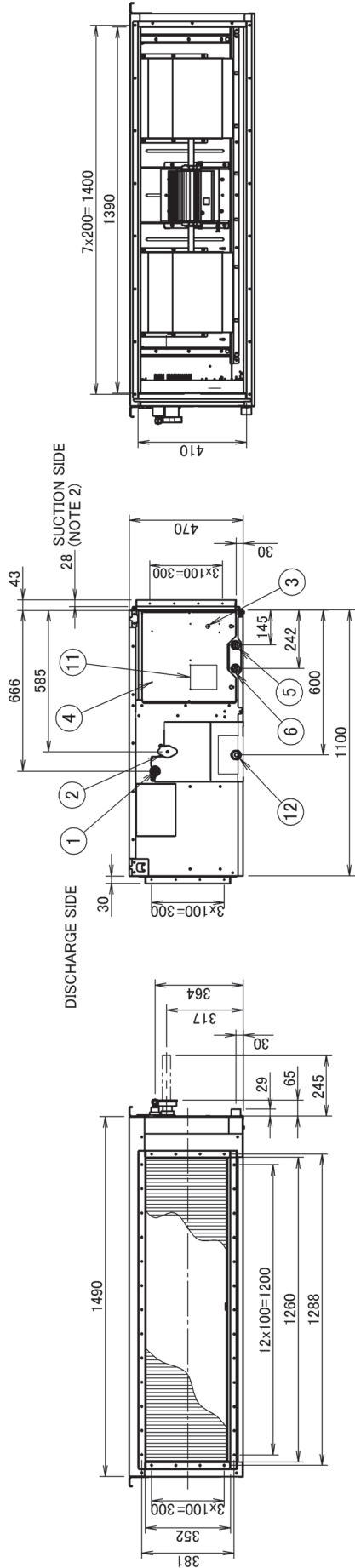
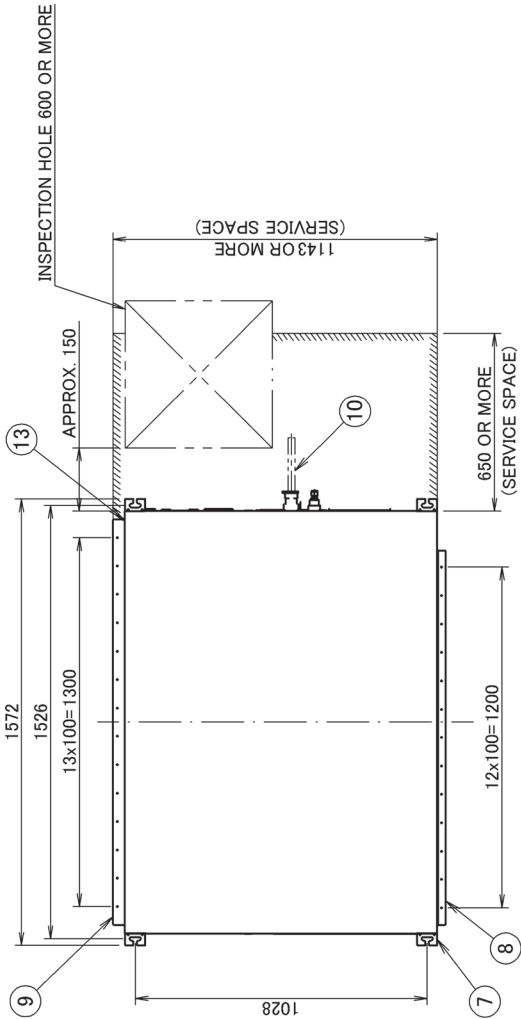
Unit: mm

Piping size (Field supply)

Indoor unit	Gas side	Liquid side
FXMQ250PVM	Ø 22.2 attached piping	Ø 9.5

- Notes:
- Location of unit's Manufacturer's label : Control box surface.
 - Mount the air filter at the suction side.
 - Select its dust collection efficiency (gravity method) 50% or more.)

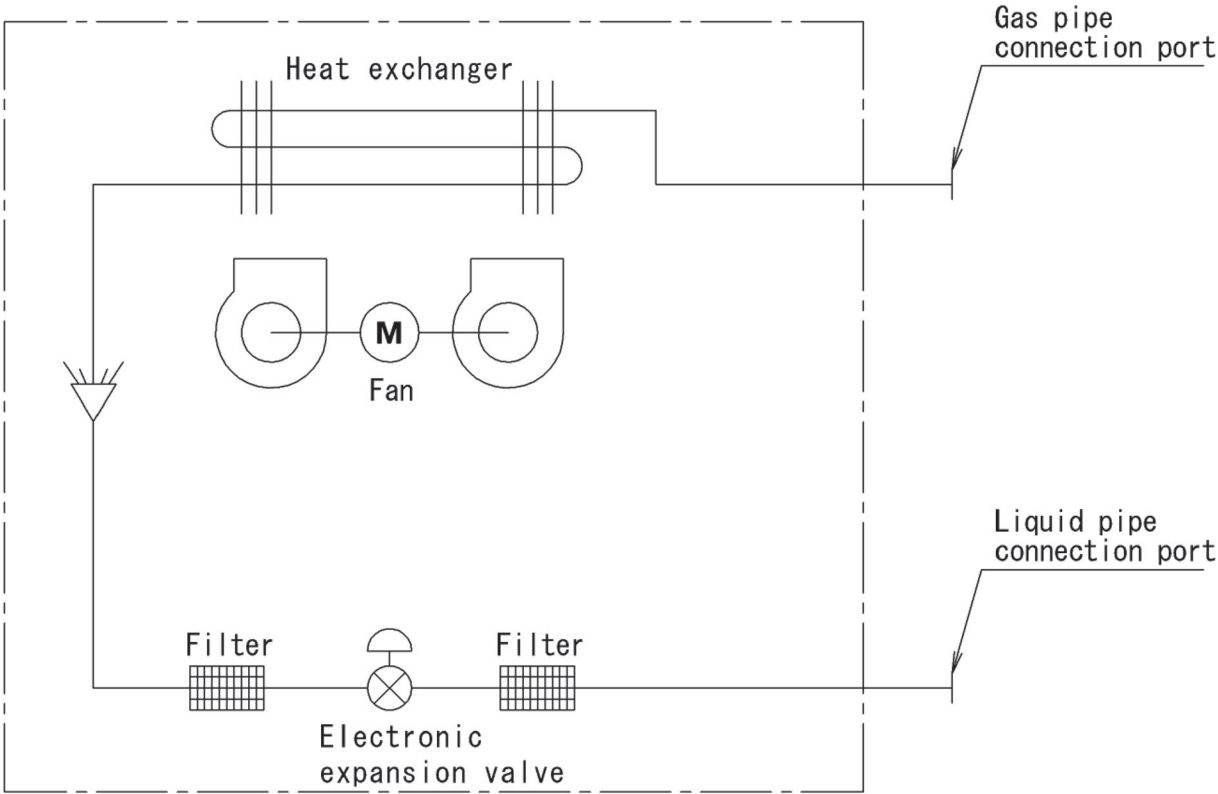
Number	Name	Description
13	Pre-filter service cover	BSP 1 inch Internal thread
12	Drain piping connection	Major dia. Ø33.3
11	Manufacturer's Label	Minor dia. Ø30.3
10	Attached piping	Brazing
9	Suction flange	
8	Discharge flange	
7	Hook	M10
6	Transmission wiring connection	
5	Power supply wiring connection	
4	Control box	
3	Ground terminal	M5 (Inside control box)
2	Gas pipe connection	Attendant piping connection
1	Liquid pipe connection	Flare connection



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4. Piping Diagrams

FXMQ200PVM / FXMQ250PVM



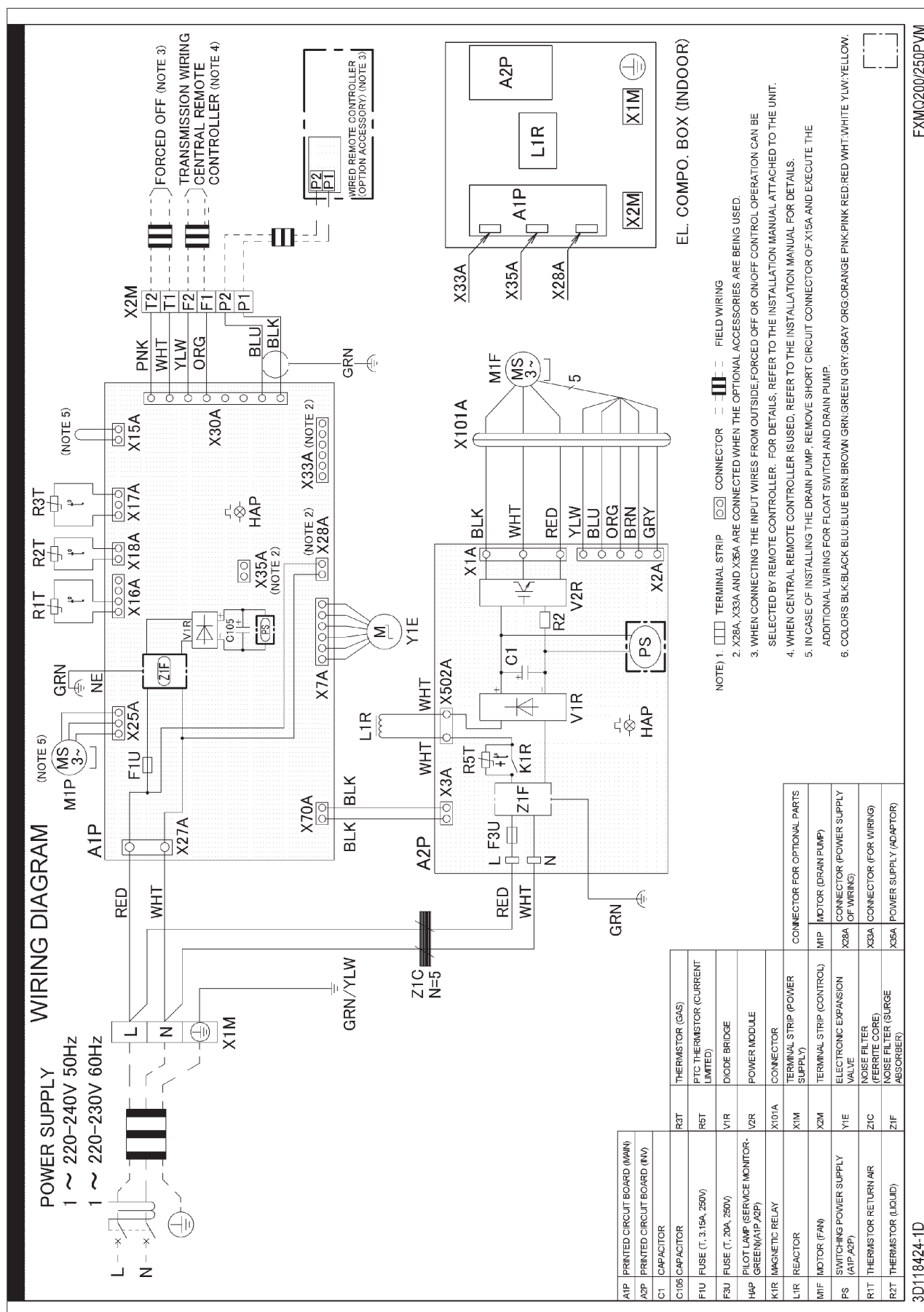
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■ Refrigerant pipe connection port diameters

Model	Gas	Unit: mm
		Liquid
FXMQ200PVM	φ19.1	φ9.5
FXMQ250PVM	φ22.2	

5. Wiring Diagrams

FXMQ200PVM / FXMQ250PVM



6. Electric Characteristics

FXMQ200PVM / FXMQ250PVM

Model	Power supply					IFM		Input (W)	
	Hz	Volts	Voltage range	MCA	MFA	kW	FLA	Cooling	Heating
FXMQ200PVM	50	220-240	Max. 264 Min. 198	4.9	15	0.648	3.9	550	540
FXMQ250PVM				5.9	15	0.750	4.7	670	650
FXMQ200PVM	60	220-230	Max. 253 Min. 198	4.9	15	0.648	3.9	550	540
FXMQ250PVM				5.9	15	0.750	4.7	670	650

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

Notes:

- 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. 15 A)
- Select wire size based on the MCA.
- Instead of fuse, use circuit breaker.

7. Safety Devices Setting

Model	FXMQ200PVM	FXMQ250PVM
Printed circuit board fuse	250 V, 3.15 A	250 V, 3.15 A
Printed circuit board fuse (fan driver)	250 V, 20 A	250 V, 20 A

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8. Capacity Tables

8.1 Cooling Capacity for Te: Auto

Model	Capacity indication	Indoor air temp.													
		14°CWB		16°CWB		18°CWB		19°CWB		20°CWB		22°CWB		24°CWB	
		20°CDB		23°CDB		26°CDB		27°CDB		28°CDB		30°CDB		32°CDB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
FXMQ200PVM	200	19.8	15.5	21.0	16.4	22.0	17.2	22.4	17.1	22.7	16.9	23.2	16.3	23.7	15.4
FXMQ250PVM	250	24.7	19.6	26.3	20.9	27.5	21.9	28.0	21.7	28.3	21.4	29.0	20.7	29.6	20.4

TC: Total capacity: kW

SHC: Sensible heat capacity: kW

Notes:

- These capacity tables are for use when selecting a VRV indoor unit. The actual capacity of the VRV system depends on factors such as the selected model of outdoor units, outdoor air temperature and piping length. Please confirm that the corrected capacity of the VRV system satisfies the required heat load.
- ☐ shows rated condition.

8.2 Cooling Capacity for Te: 6°C

Model	Capacity indication	Indoor air temp.													
		14°CWB		16°CWB		18°CWB		19°CWB		20°CWB		22°CWB		24°CWB	
		20°CDB		23°CDB		26°CDB		27°CDB		28°CDB		30°CDB		32°CDB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
FXMQ200PVM	200	15.1	12.9	18.0	14.8	21.0	16.7	22.4	17.1	23.6	17.3	24.2	16.8	24.6	15.9
FXMQ250PVM	250	18.9	16.5	22.5	19.0	26.2	21.3	28.0	21.7	29.5	22.0	30.2	21.3	30.8	20.9

TC: Total capacity: kW

SHC: Sensible heat capacity: kW

Notes:

- These capacity tables are for use when selecting a VRV indoor unit. The actual capacity of the VRV system depends on factors such as the selected model of outdoor units, outdoor air temperature and piping length. Please confirm that the corrected capacity of the VRV system satisfies the required heat load.
- ☐ shows rated condition.

8.3 Heating Capacity

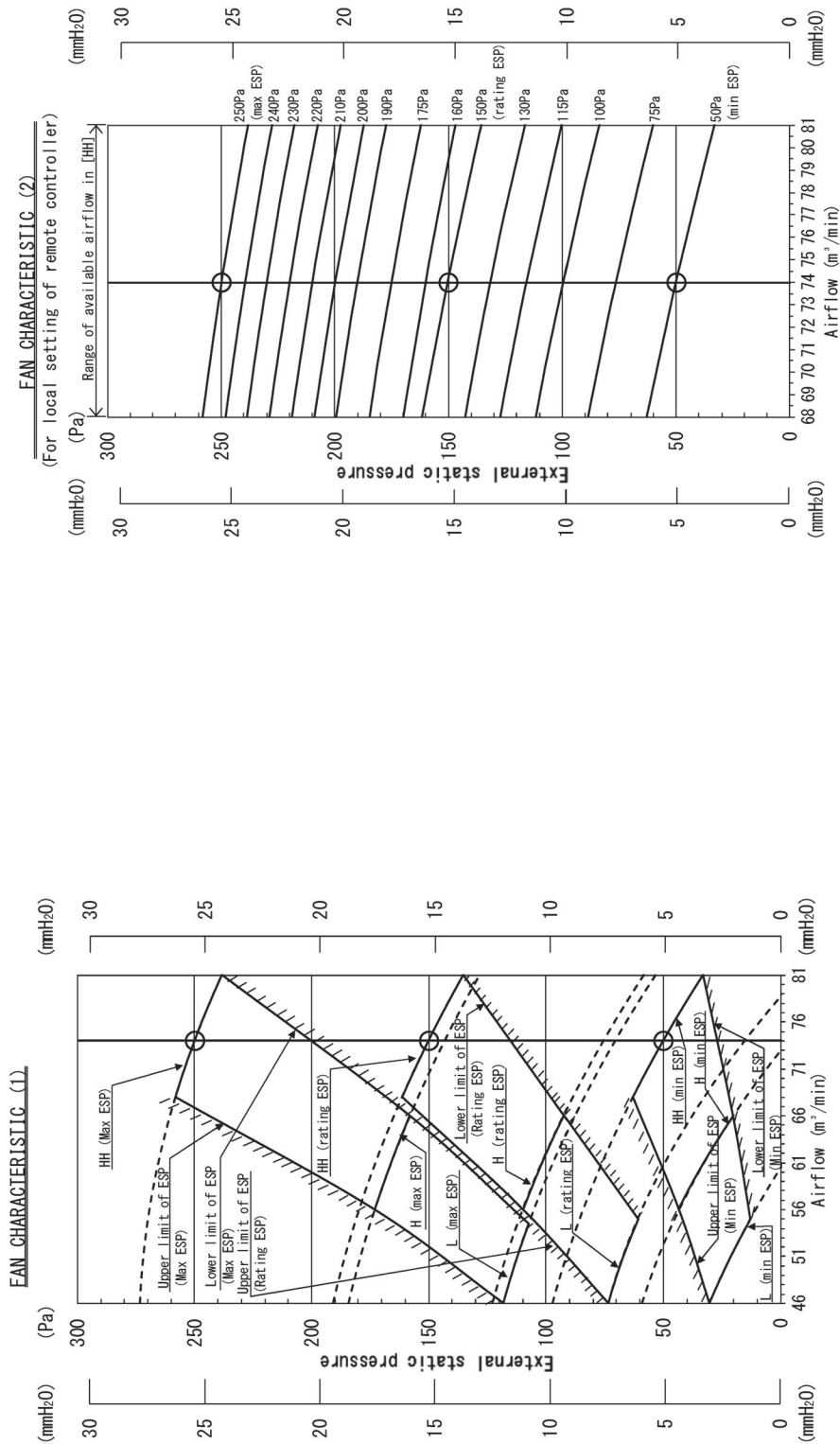
Model	Capacity indication	Indoor air temp.					
		16°CDB	18°CDB	20°CDB	21°CDB	22°CDB	24°CDB
		kW	kW	kW	kW	kW	kW
FXMQ200PVM	200	26.2	26.2	25.0	24.2	23.4	21.8
FXMQ250PVM	250	33.1	33.0	31.5	30.5	29.5	27.5

Notes:

1. These capacity tables are for use when selecting a VRV indoor unit. The actual capacity of the VRV system depends on factors such as the selected model of outdoor units, outdoor air temperature and piping length. Please confirm that the corrected capacity of the VRV system satisfies the required heat load.
2. ☐ shows rated condition.

9. Fan Performances

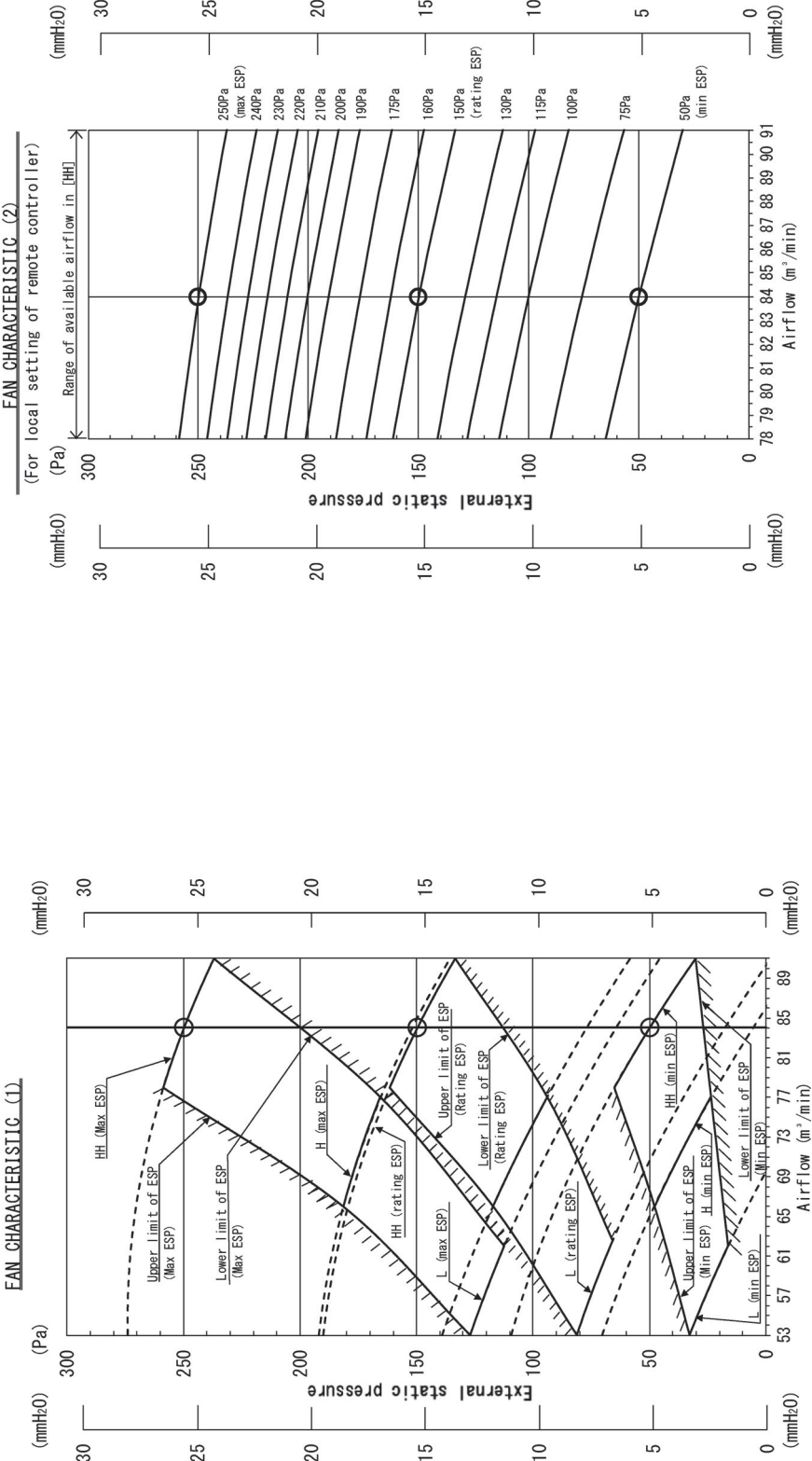
FXMQ200PVM



- Notes:
1. As for this machine, setting is possible by 15 positions of ESP.
 2. Fan characteristics (1) shows a fan characteristics at the time of "maximum ESP", "rating ESP", "minimum ESP" as a representative.
 3. Fan characteristics (2) (for field setting of remote controller) shows a fan characteristics of each ESP of field setting possible air flow rate "HH".
 4. Please choose air flow rate by fan characteristics (1) and fan characteristics (2) by the resistance of a connected duct.
 5. A remote controller can be used to change air flow rate of "HH", "H" and "L".
 6. ESP: External static pressure.

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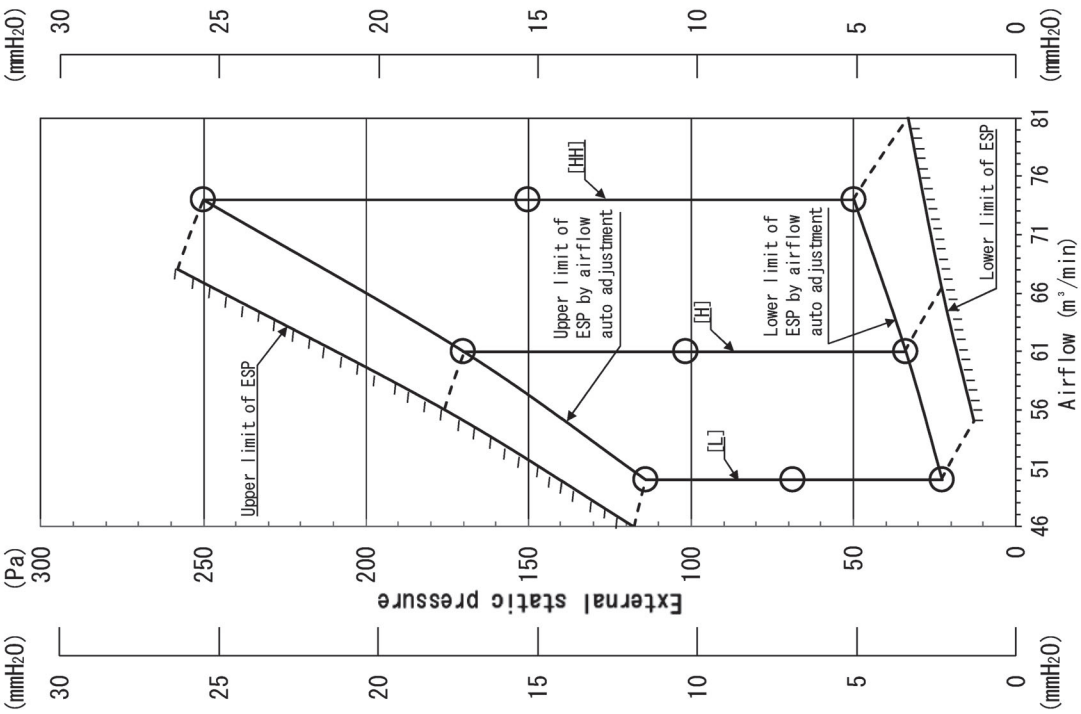
FXMQ250PVM



- Notes:
1. As for this machine, setting is possible by 15 positions of ESP.
 2. Fan characteristics (1) shows a fan characteristics at the time of "maximum ESP", "rating ESP", "minimum ESP" as a representative.
 3. Fan characteristics (2) (for field setting of remote controller) shows a fan characteristics of each ESP of field setting possible air flow rate "HH".
 4. Please choose air flow rate by fan characteristics (1) and fan characteristics (2) by the resistance of a connected duct.
 5. A remote controller can be used to change air flow rate of "HH", "H" and "L".
 6. ESP: External static pressure.

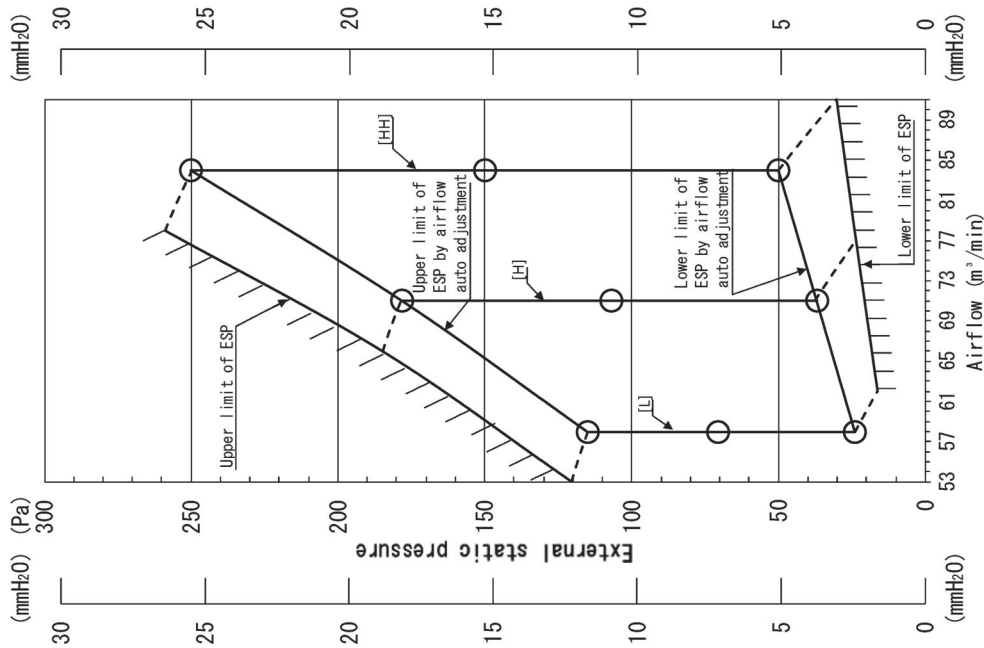
10.Airflow Auto Adjustment Characteristics

FXMQ200PVM



- Notes:
1. This indoor unit has the "Automatic air flow rate adjustment" function, which automatically adjust the air flow rate so as to be approximately in the range of $\pm 10\%$ of the rated value, at the time of installation.
 2. After duct construction completion, please perform local setting "air flow rate auto adjustment" by remote controller.
 3. About the local setting method of the "air flow rate auto adjustment", look at the installation manual which is attached to an indoor unit.
 4. External static pressure that can be adjusted by "air flow rate auto adjustment" function is 50Pa-250Pa (when air flow rate is HH).
 5. If the unit is used beyond the range of the above-mentioned external static pressure, the air flow rate can not be well-adjusted automatically, and the unit will operate with the air flow rate different from the rated value.
 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.

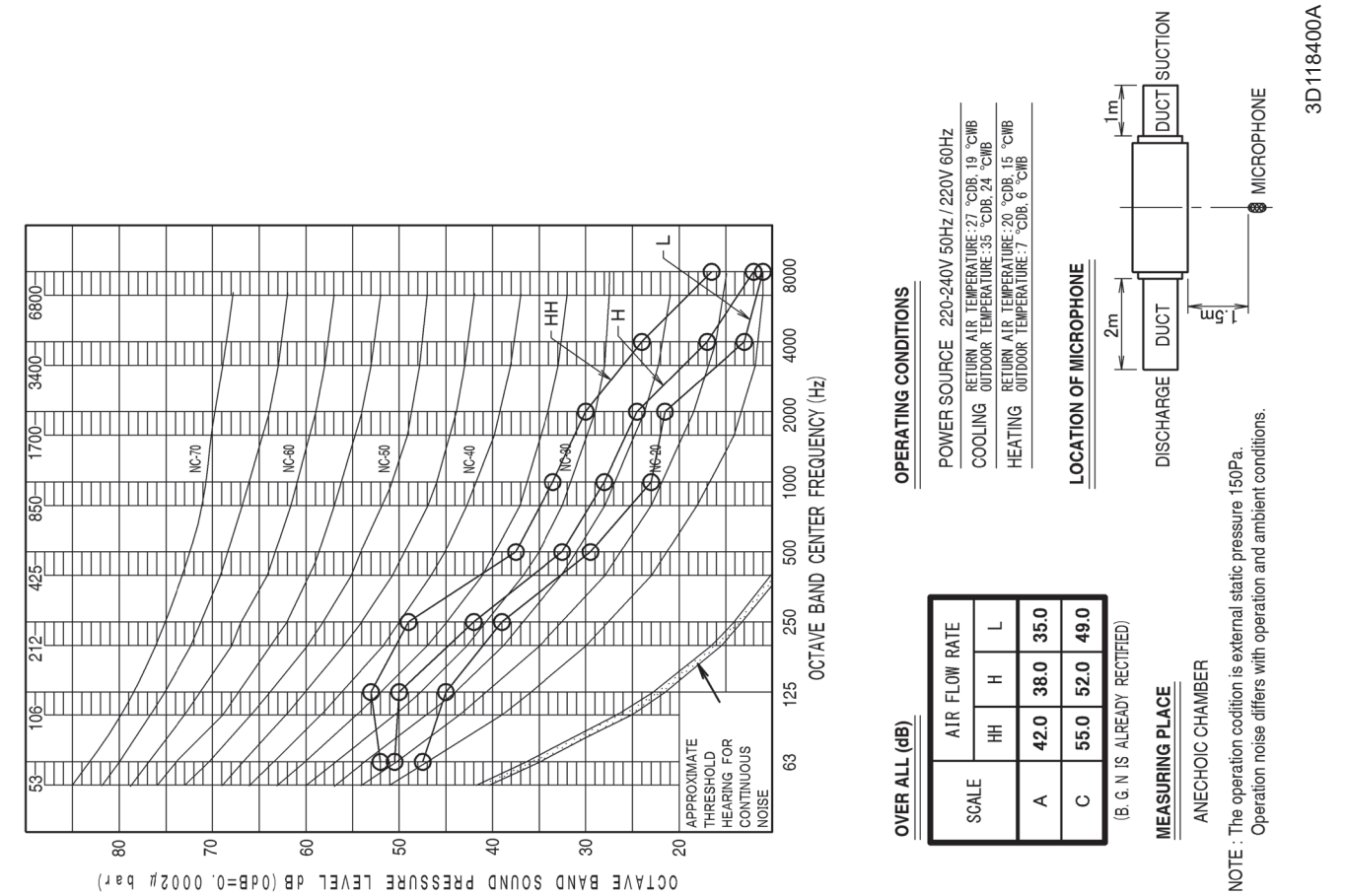
FXMQ250PVM



- Notes:
1. This indoor unit has the "Automatic air flow rate adjustment" function, which automatically adjust the air flow rate so as to be approximately in the range of $\pm 10\%$ of the rated value, at the time of installation.
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 5. If the unit is used beyond the range of the above-mentioned external static pressure, the air flow rate can not be well-adjusted automatically, and the unit will operate with the air flow rate different from the rated value.
 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.

11.Sound Levels

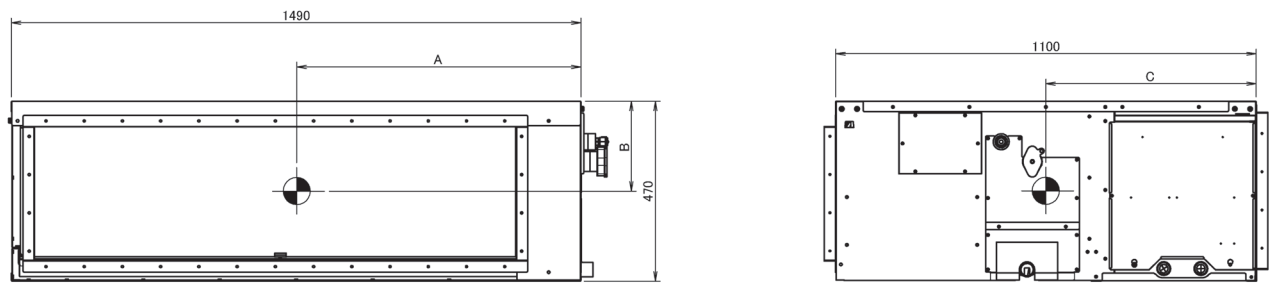
FXMQ200PVM



12.Centre of Gravity

FXMQ200PVM / FXMQ250PVM

Unit: mm



MODEL NAME	A	B	C
FXMQ200PVM	680	235	500
FXMQ250PVM	700	255	510