Ventilation

Technical Data

Outdoor air processing unit, ventilation and air processing

EEDEN11-205

FXMQ-MF

DAIKIN

Ventilation

Technical Data

Outdoor air processing unit, ventilation and air processing

EEDEN11-205

FXMQ-MF

TABLE OF CONTENTS

FXMQ-MF

1 Features

- 100% fresh air intake possible
- Ideal solution for shops, restaurants or offices requiring maximum floor space for furniture, decorations and fittings
- Operation range: -5ºC to 43ºC
- Up to 225Pa external static pressure allows extensive ductwork runs and flexible application: ideal for use in large areas
- Drain pump kit available as accessory

2 Specifications

2-1 Technical Specifications					FXMQ125MF	FXMQ200MF	FXMQ250MF
Casing	Material				Galvanised steel		
Dimensions	Unit	Height		mm	470		
		Width		mm	744	1,380	
		Depth		mm	1,100		
Weight	Unit			kg	86	123	
Heat exchanger	Rows	Quantity			3		
	Stages	Quantity			26		
	Fin pitch			mm	2.0		
	Face area			m²	0.28	0.65	
Fan	Type				Sirocco fan		
Fan motor	Model				D13/4G2DA1		
Operation range	On coil temperature	Cooling	Max.	ºCDB	43 (13)		
		Heating	Min.	ºCDB	-5		
Refrigerant	Control				Electronic expansion valve		
Piping connections	Liquid	Type			Flare connection		
		OD		mm	9.52		
	Gas	Type			Flare connection	Braze connection	
		OD		mm	15.9	19.1	22.2
	Drain				PS1B		
Air filter					Optional / cf.note	Optional / cf.note	Optional / cf.note
Connection ratio	Outdoor units	with only ventilation units connected	Minimum	%	50		
			Maximum	%	100		
	Ventilation units	when combined with VRV® indoor units	Maximum	%	30		

Standard Accessories : Clamps;

Standard Accessories : Screws;

Standard Accessories : Sealing pads;

Standard Accessories : Installation and operation manual;

Standard Accessories : Connection pipes;

2-2 Electrical Specifications			FXMQ125MF	FXMQ200MF	FXMQ250MF
Power supply	Phase		1~		
	Frequency	Hz	50		
	Voltage	V	220-240		
Voltage range	Min.	%	-10		
	Max.	%	10		

Notes

(1) Cooling: outdoor temp.: 33ºCDB, 28ºCWB (68%RH), discharge set temperature: 18ºCDB, equivalent piping length 7.5m (horizontal)

(2) Heating: outdoor temp. 0ºCDB, -2.9ºCWB (50%RH); discharge set temp. 25ºCDB; equivalent piping length: 7.5m (horizontal)

(3) Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.

(4) The air filter is not a standard accessory, but please mount it in the duct system of the suction side. Select its colorimetric method (gravity method) 50% or more.

(5) When connected to VRV® water-cooled outdoor units a mix of ventilation units and VRV® indoor units is not possible

(6) Voltage range: units are suitable for use on electrical systems where voltage supplied to unit terminal is not below or above listed range limits.

(7) Maximum allowable voltage range variation between phases is 2%.

(8) MCA/MFA: MCA = 1.25 x FLA

(9) MFA ≤ 4 x FLA

(10) Next lower standard fuse rating minimum 15A

(11) Select wire size based on the value of MCA

(12) Instead of a fuse, use a circuit breaker

(13) 45% Relative humidity

3 Safety device settings

3 - 1 Safety Device Settings

FXMQ-MF

Safety devices		125	200	250
PC board fuse		250V 10A	250V 10A	250V 10A
Fan motor thermal fuse	°C	-	-	-
Fan motor thermal protector	°C	OFF: 135 $^{\pm 8}$ ON: 85 $^{\pm 15}$	OFF: 135 $^{\pm 8}$ ON: 85 $^{\pm 15}$	OFF: 135 $^{\pm 8}$ ON: 85 $^{\pm 15}$

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4 Options

FXMQ-MF		125	200	250
DRAIN PUMP KIT		KDU30L250VE		
HIGH EFFICIENCY FILTER	65%	KAFJ372L140	KAFJ372L280	
	90%	KAFJ373L140	KAFJ373L280	
FILTER CHAMBER		KDJ3705L140	KDJ3705L280	
LONG LIFE REPLACEMENT FILTER		KAFJ371L140	KAFJ371L280	

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5 Control systems

FXMQ-MF

No.	Item / Type			FXMQ-MF
1	Remote control	Infrared	H/P	-
			C/O	-
		Wired		BRC1A62
2	Simplified remote control			-
3	Remote control for hotel use			-
4	Adapter for wiring			KRP1B61
5-1	Wiring adapter for electrical appendices (1)			KRP2A61
5-1	Wiring adapter for electrical appendices (2)			KRP4A51
6	Remote sensor			-
7	Installation box for adapter PCB.			-
8	Central remote control			DCS302C61
8-1	Electrical box with earth terminal (3 blocks)			KJB311A
9	Unified on/off controller			DCS301B61
9-1	Electrical box with eart terminal (2 blocks)			KJB212A
9-2	Noise filter (for electromagnetic interface use only)			KEK26-1
10	Schedule timer			DST301B61
11	External control adapter fot outdoor unit (Must be installed on indoor units)			DTA104A61

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6 Capacity tables

6 - 1 Cooling/Heating Capacity Tables

<FXMQ125MF>

Cooling

Outdoor temperature	°CWB							
°CDB	15.0	17.0	20.0	23.0	26.0	28.0	30.0	32.0
	Capacity							
	kW	kW	kW	kW	kW	kW	kW	kW
20.0	3.6	3.8	-	-	-	-	-	-
22.0	3.6	3.8	5.1	-	-	-	-	-
25.0	3.6	3.8	5.1	6.8	-	-	-	-
27.0	-	3.8	5.1	6.7	-	-	-	-
29.0	-	-	5.1	6.7	11.0	-	-	-
31.0	-	-	5.0	6.6	10.9	14.1	-	-
33.0	-	-	5.0	6.5	10.8	14.0	16.4	-
35.0	-	-	-	6.4	10.7	13.9	16.3	17.4

Heating

Outdoor temperature	°CWB								
°CDB	-7.0	-5.2	-2.9	0.0	2.0	4.0	6.0	10.0	14.0
	Capacity								
	kW	kW	kW	kW	kW	kW	kW	kW	kW
-5.0	9.7	9.7	-	-	-	-	-	-	-
0.0	-	-	8.9	-	-	-	-	-	-
3.0	-	-	7.9	7.9	7.9	-	-	-	-
7.0	-	-	-	-	6.4	6.4	6.4	-	-
11.0	-	-	-	-	-	5.0	5.0	5.0	-
15.0	-	-	-	-	-	-	3.6	3.6	3.6

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NOTES

1 The above capacities are based on the following conditions:
- Air discharge temperature setting:18°C for cooling operation, 25°C for heating (Factory setting)
- Equivalent piping length: 7.5 m
- Level difference: 0m

2 The above capacity values are general average values which can be generated by each compressor operation level.

3 A value enclosed in a box means rated capacity.

6 Capacity tables

6 - 1 Cooling/Heating Capacity Tables

<FXMQ200MF>

Cooling

Outdoor temperature	°CWB							
°CDB	15.0	17.0	20.0	23.0	26.0	28.0	30.0	32.0
	Capacity							
	kW	kW	kW	kW	kW	kW	kW	kW
20.0	5.7	6.1	-	-	-	-	-	-
22.0	5.7	6.1	8.2	-	-	-	-	-
25.0	5.7	6.1	8.2	10.8	-	-	-	-
27.0	-	6.1	8.1	10.7	-	-	-	-
29.0	-	-	8.1	10.6	17.6	-	-	-
31.0	-	-	8.0	10.5	17.4	22.6	-	-
33.0	-	-	8.0	10.3	17.3	22.4	26.2	-
35.0	-	-	-	10.2	17.1	22.2	26.1	27.8

Heating

Outdoor temperature	°CWB								
°CDB	-7.0	-5.2	-2.9	0.0	2.0	4.0	6.0	10.0	14.0
	Capacity								
	kW	kW	kW	kW	kW	kW	kW	kW	kW
-5.0	15.0	15.0	-	-	-	-	-	-	-
0.0	-	-	13.9	-	-	-	-	-	-
3.0	-	-	12.2	12.2	12.2	-	-	-	-
7.0	-	-	-	-	10.0	10.0	10.0	-	
11.0	-	-	-	-	-	7.8	7.8	7.8	-
15.0	-	-	-	-	-	-	5.6	5.6	5.6

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NOTES

1 The above capacities are based on the following conditions:
- Air discharge temperature setting:18°C for cooling operation, 25°C for heating (Factory setting)
- Equivalent piping length: 7.5 m
- Level difference: 0m

2 The above capacity values are general average values which can be generated by each compressor operation level.

3 A value enclosed in a box means rated capacity.

6 Capacity tables

6 - 1 Cooling/Heating Capacity Tables

<FXMQ250MF>

Cooling

Outdoor temperature	°CWB							
°CDB	15.0	17.0	20.0	23.0	26.0	28.0	30.0	32.0
	Capacity							
	kW	kW	kW	kW	kW	kW	kW	kW
20.0	7.1	7.6	-	-	-	-	-	-
22.0	7.1	7.6	10.2	-	-	-	-	-
25.0	7.1	7.6	10.2	13.5	-	-	-	-
27.0	-	7.6	10.1	13.4	-	-	-	-
29.0	-	-	10.1	13.3	22.0	-	-	-
31.0	-	-	10.0	13.1	21.8	28.2	-	-
33.0	-	-	10.0	12.9	21.6	28.0	32.8	-
35.0	-	-	-	12.8	21.4	27.8	32.6	34.8

Heating

Outdoor temperature	°CWB								
°CDB	-7.0	-5.2	-2.9	0.0	2.0	4.0	6.0	10.0	14.0
	Capacity								
	kW	kW	kW	kW	kW	kW	kW	kW	kW
-5.0	18.8	18.8	-	-	-	-	-	-	-
0.0	-	-	17.4	-	-	-	-	-	-
3.0	-	-	15.3	15.3	15.3	-	-	-	-
7.0	-	-	-	-	12.5	12.5	12.5	-	
11.0	-	-	-	-	-	9.8	9.8	9.8	-
15.0	-	-	-	-	-	-	7.0	7.0	7.0

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NOTES

1 The above capacities are based on the following conditions:
- Air discharge temperature setting:18°C for cooling operation, 25°C for heating (Factory setting)
- Equivalent piping length: 7.5 m
- Level difference: 0m

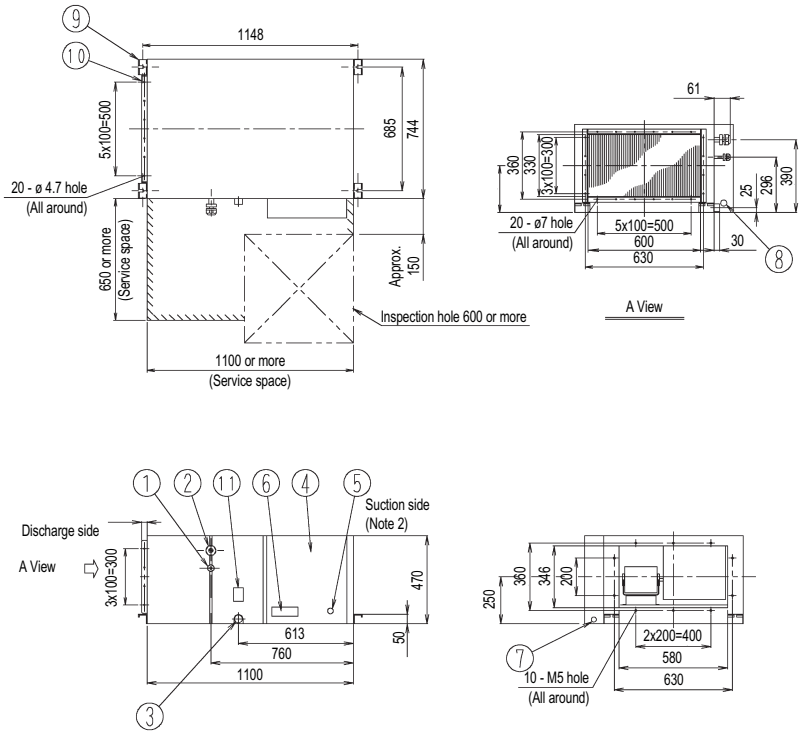
2 The above capacity values are general average values which can be generated by each compressor operation level.

3 A value enclosed in a box means rated capacity.

7 Dimensional drawings

7 - 1 Dimensional Drawings

FXMQ125MF



Nr	Name	Description
1	Liquid pipe connection	ø 9.5 flare connection
2	Gas pipe connection	ø 15.9 flare connection
3	Drain pipe connection	PS1B Internal thread Major dia. ø 33.349, Minor dia. ø 30.391
4	Control box	
5	Ground terminal	M5 (Inside control box)
6	Name plate	Note 1
7	Power supply wiring connection	
8	Transmission wiring connection	
9	Hanger bracket	M10
10	Discharge companion flange	
11	Water supply port	

NOTES

1 Location of unit's name plates: Control box surface.

2 Mount the air filter at the suction side.
(Select its colorimethod (gravity method) 50% or more).

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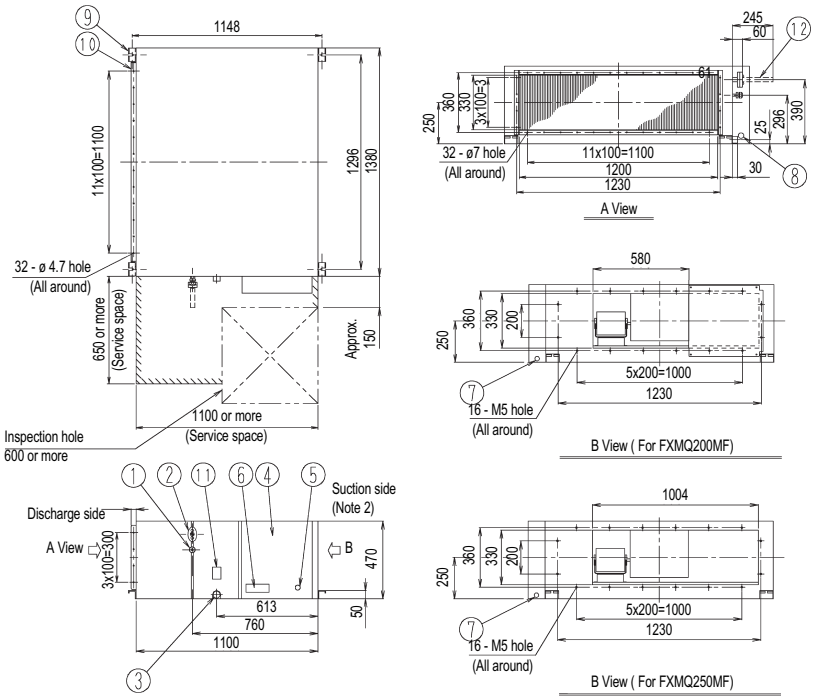
FXMQ200,250MF

Piping size (field supply)

Indoor unit	Gas side	Liquid side
FXMQ200MF	ø 19.1 attached piping	ø 9.5
FXMQ250MF	ø 22.2 attached piping	ø 9.5



Nr	Name	Description
1	Liquid pipe connection	Flare connection
2	Gas pipe connection	Attendant piping connection
3	Drain pipe connection	PS1B Internal thread Major dia. ø 33.349, Minor dia. ø 30.391
4	Control box	
5	Ground terminal	M5 (Inside control box)
6	Name plate	Note 1
7	Power supply wiring connection	
8	Transmission wiring connection	
9	Hanger bracket	M10
10	Discharge companion flange	
11	Water supply port	
12	Attached piping	Brazing

NOTES

1 Location of unit's name plates: Control box surface.

2 Mount the air filter at the suction side.
(Select its colorimethod (gravity method) 50% or more).

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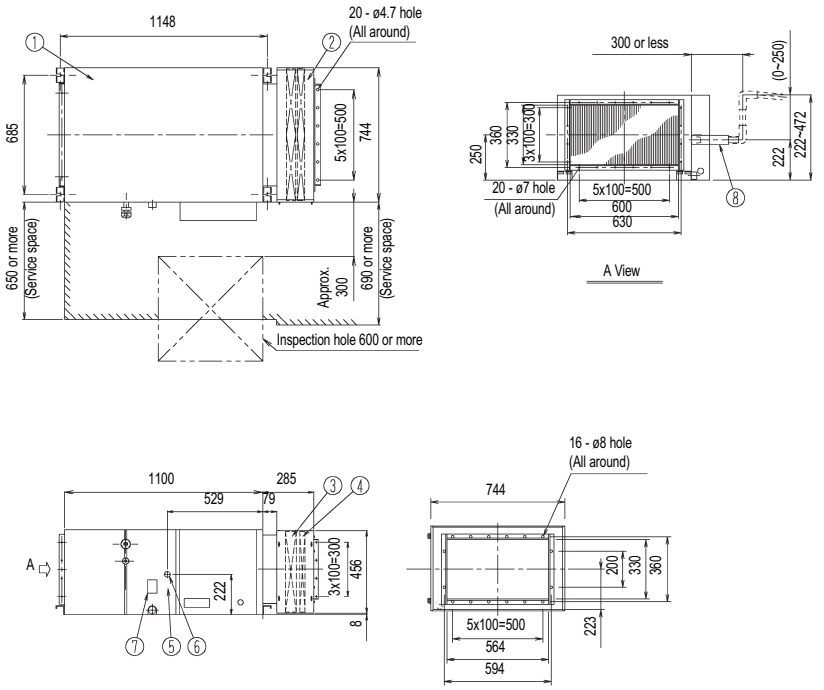
7 Dimensional drawings

7 - 1 Dimensional Drawings

FXMQ125MF



Nr	Name	Description
1	VRV D.P. Unit C. duct type	
2	Filter chamber	
3	High-efficiency filter	
4	Long-life replacement filter	
5	Drain pump kit	Built-in
6	Drain pipe connection (drain pump kit)	VP25 (O.D. ø 32, I.D. ø 25)
7	Water supply port	
8	Drain hose	Attached to drain pump kit

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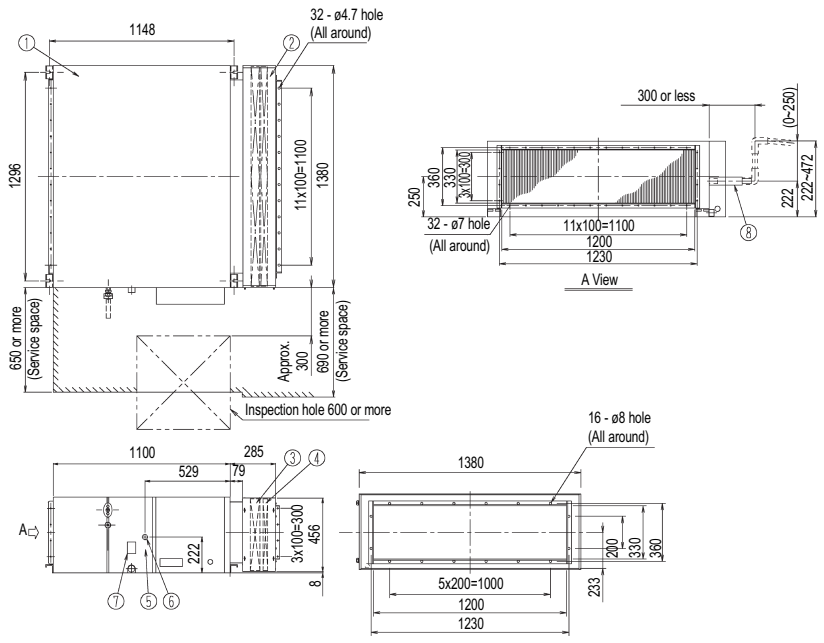
FXMQ125MF



Nr	Name	Description
1	VRV D.P. Unit C. duct type	
2	Filter chamber	
3	High-efficiency filter	
4	Long-life replacement filter	
5	Drain pump kit	Built-in
6	Drain pipe connection (drain pump kit)	VP25 (O.D. ø 32, I.D. ø 25)
7	Water supply port	
8	Drain hose	Attached to drain pump kit

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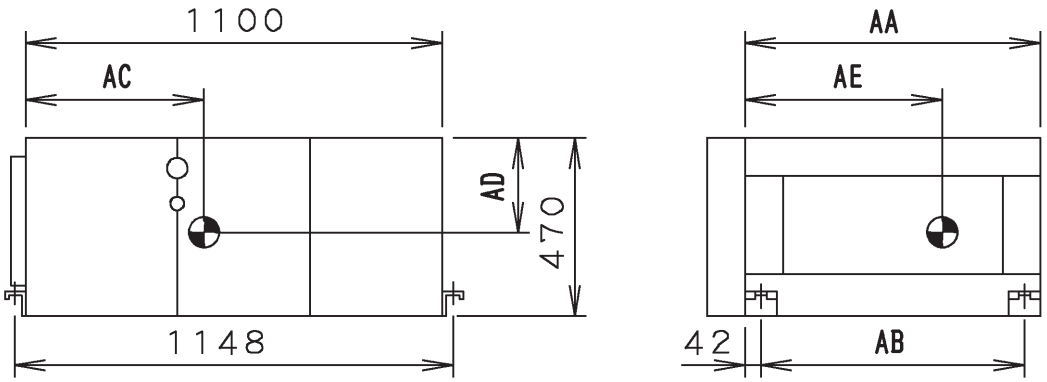
8 Centre of gravity

8 - 1 Centre of Gravity

FXMQ-MF



Model	Product mass	AA	AB	AC	AD	AE
FXMQ125MF	86 kg	780	696	600	250	300
FXMQ200MF	123 kg	1380	1296	570	250	600
FXMQ250MF	123 kg	1380	1296	570	250	600

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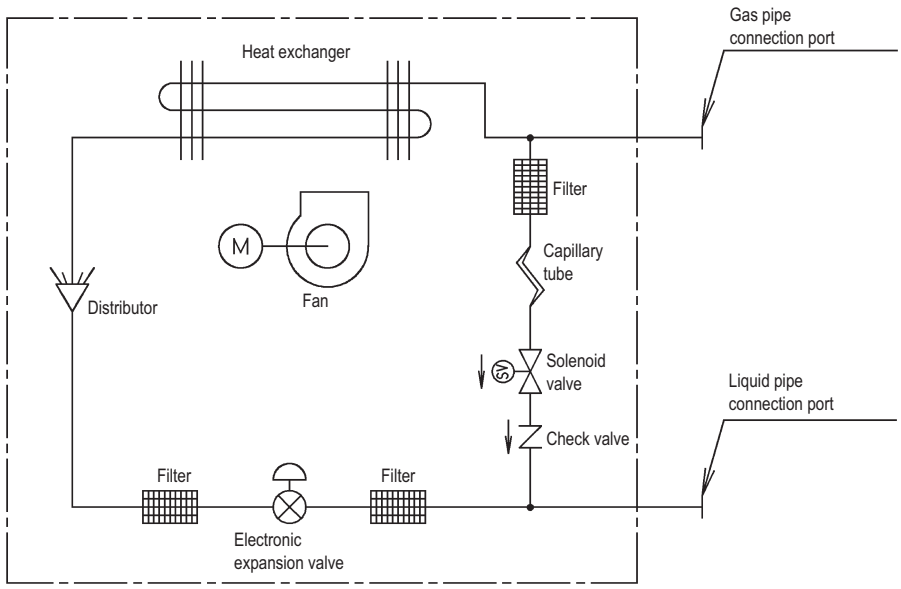
9 Piping diagrams

9 - 1 Piping Diagrams

FXMQ-MF



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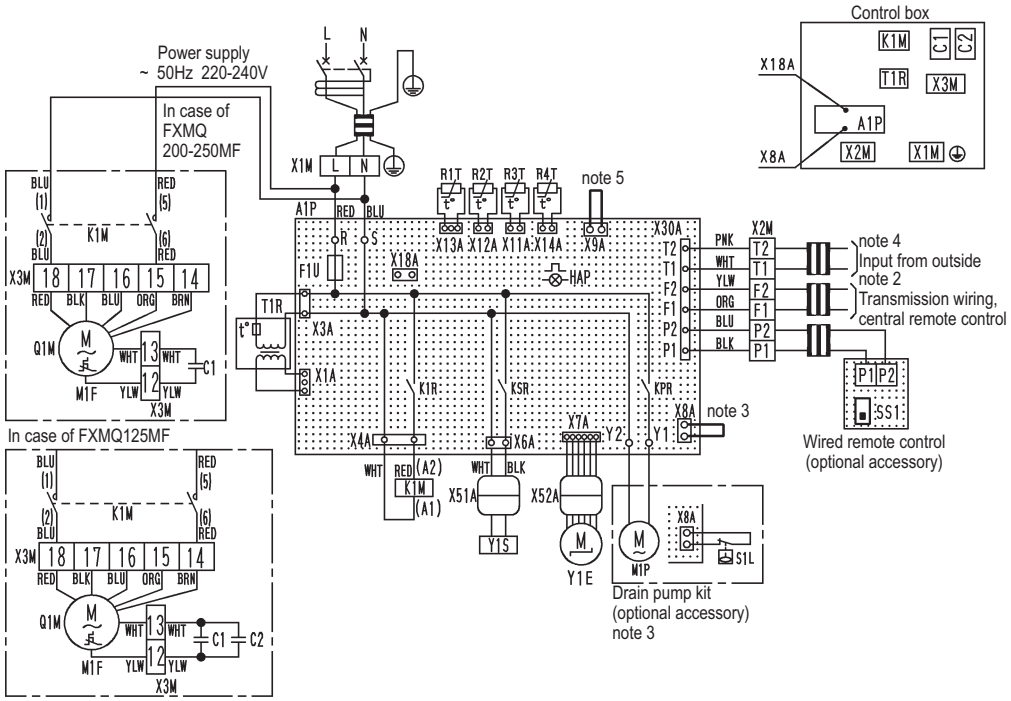
10 Wiring diagrams

10 - 1 Wiring Diagrams - Single Phase

FXMQ-MF



Indoor unit		R3T	Thermistor (coil, gas)	Wired remote control	
A1P	Printed circuit board	R4T	Thermistor (discharge air)	SS1	Select switch (main/sub)
C1, C2	Capacitor (M1F)	T1R	Transformer (220-240V/22V)		
F1U	Fuse (Ⓑ , 5A, 250V) (A1P)	X1M	Terminal block (power)	Connector for optional parts	
HAP	Light emitting diode (service monitor green)	X2M	Terminal block (control)	X18A	Connector (wiring adapter for electrical appendices)
K1M	Magnetic relay (M1F)	X3M	Terminal block		
K1R	Magnetic relay (M1F)	X51A, X52A	Connector		
KPR	Magnetic relay (M1P)	Y1E	Electronic expansion valve		
KSR	Magnetic relay (Y1S)	Y1S	Solenoid valve (hot gas)		
M1F	Motor (fan)			PNK: pink	WHT: white
Q1M	Thermal protector (M1F embedded 135°C)	Optional parts		YLW: yellow	ORG: orange
R1T	Thermistor (suction air)	M1P	Motor (drain pump)	BLU: blue	BLK: black
R2T	Thermistor (coil, liquid)	S1L	Float switch (drain pump)	RED: red	BRN: brown

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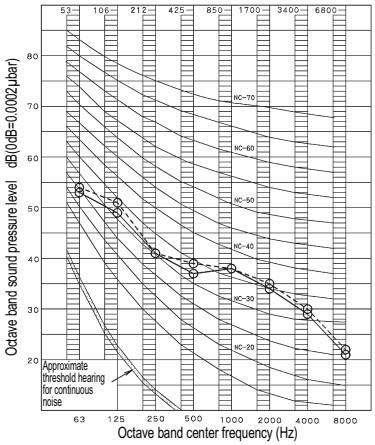
NOTES

1. ☐☐☐☐ : terminal block, ⊙⊙, ⊃ : connector, -o- : terminal, ⊡ : short circuit connector, ▬▮▮▮ : field wiring
2. In case using central remote control, connect it to the unit in accordance with the attached instruction manual.
3. In case installing the drain pump kit, remove the short circuit connector of X8A and execute the additional wiring for float switch and drain pump.
4. In case connecting the input wires form outside, forced off or on/off control operation can be selected by remote control, in details, refer to the installation manual attached to the unit.
5. Do not remove short circuit connector of X9A.

11 Sound data

11 - 1 Sound Pressure Spectrum

FXMQ125MF



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NOTES

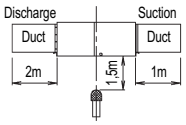
1 Over All (dB):
(B, G, N is already rectified)

Scale	220V	240V
A	42	43

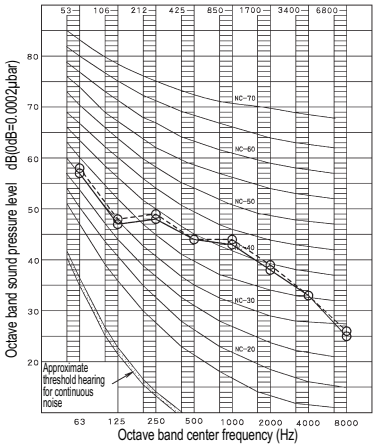
2 Operating conditons:
- Power source: 220-240V 50Hz
- Standard condition
- External static Pressure: 185Pa (220V), 225Pa (240V)
  - ○———○ : 220 Hz
  - ○ - - - ○ : 240 Hz

3 Measuring place: Anechoic chamber

4 Location of microphone



FXMQ200MF



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NOTES

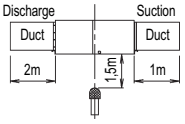
1 Over All (dB):
(B, G, N is already rectified)

Scale	220V	240V
A	47	48

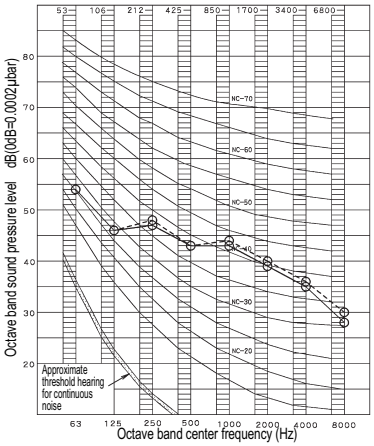
2 Operating conditons:
- Power source: 220-240V 50Hz
- Standard condition
- External static Pressure: 225Pa (220V), 275Pa (240V)
  - ○———○ : 220 Hz
  - ○ - - - ○ : 240 Hz

3 Measuring place: Anechoic chamber

4 Location of microphone



FXMQ250MF



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NOTES

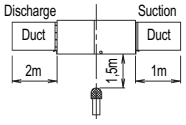
1 Over All (dB):
(B, G, N is already rectified)

Scale	220V	240V
A	47	48

2 Operating conditons:
- Power source: 220-240V 50Hz
- Standard condition
- External static Pressure: 205Pa (220V), 255Pa (240V)
  - ○———○ : 220 Hz
  - ○ - - - ○ : 240 Hz

3 Measuring place: Anechoic chamber

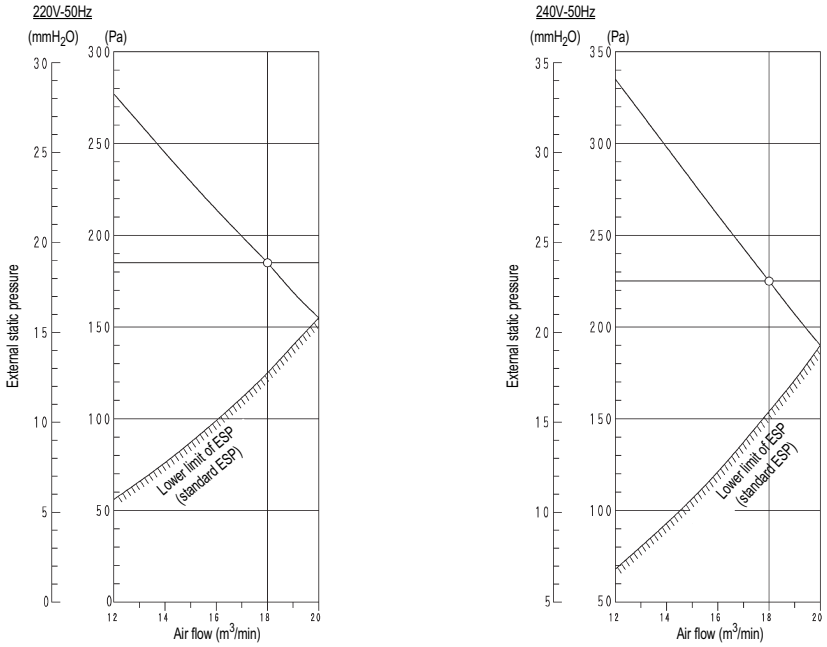
4 Location of microphone



12 Fan characteristics

12 - 1 Fan Characteristics

FXMQ125MF



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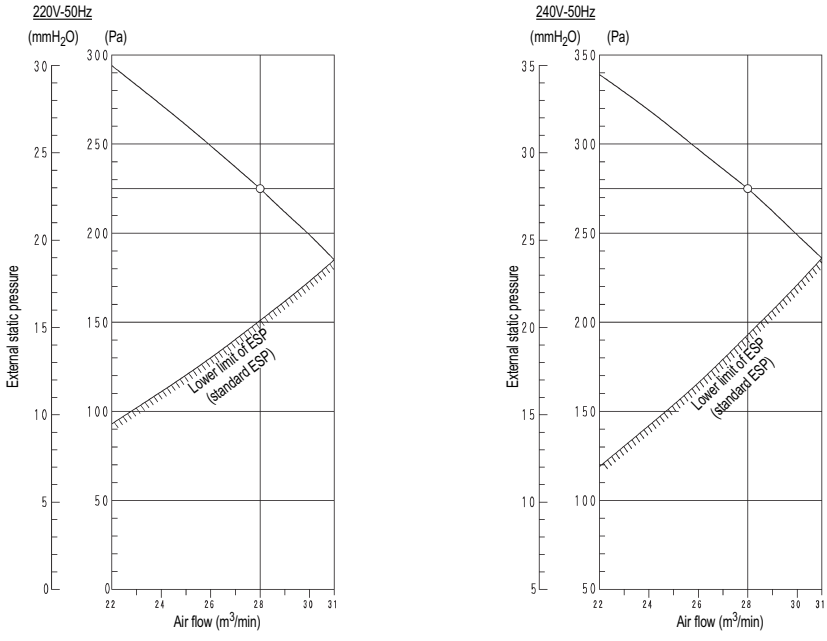
FXMQ200MF



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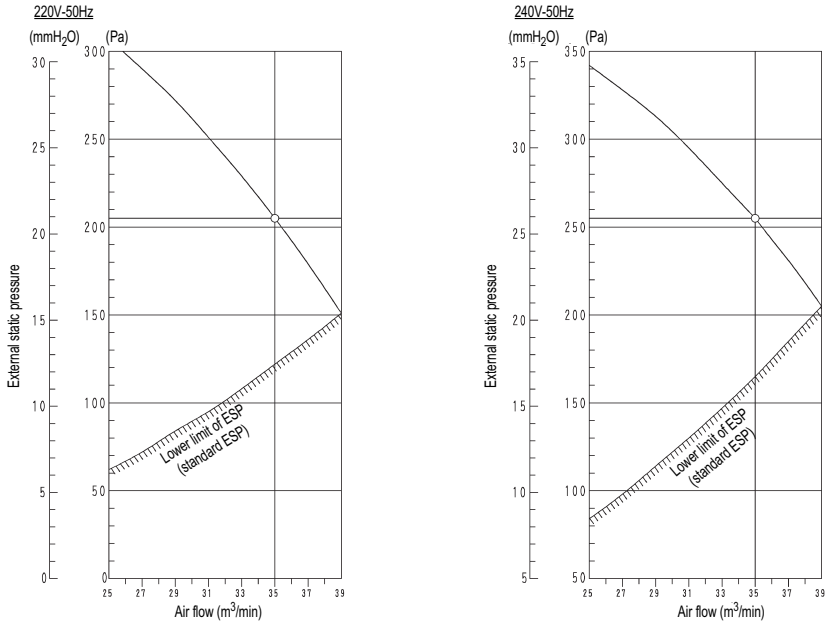
12 Fan characteristics

12 - 1 Fan Characteristics

FXMQ250MF



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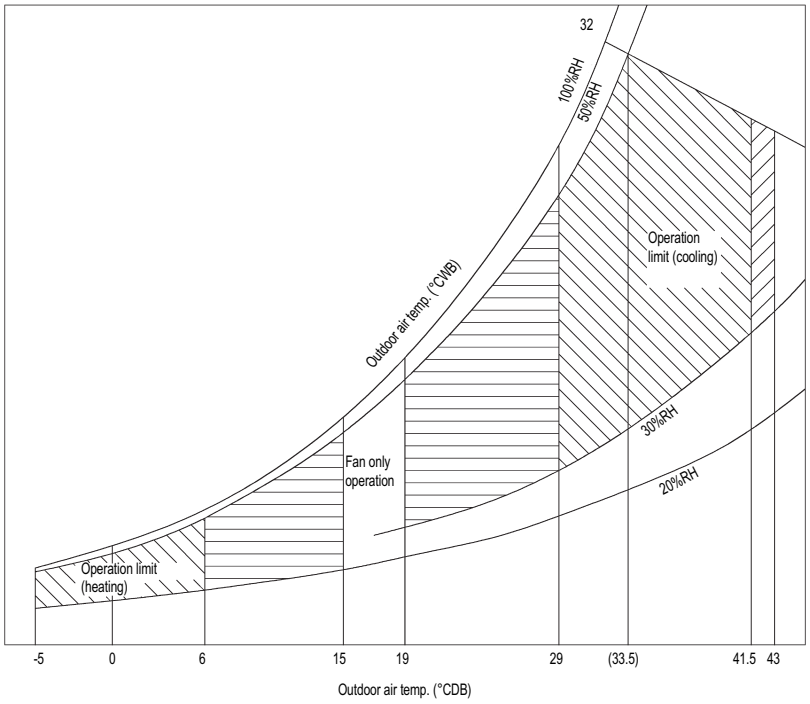
13 Operation range

13 - 1 Operation Range

FXMQ125MF



NOTES

1 These figures assume the following operating conditions. (Indoor and outdoor units)
- Equivalent piping length: 7.5m
- Level difference: 0m

2 : The discharge air temperature may nog match the temperature setting for too large outdoor-air processing capacity. Thermostat OFF may be carried out.

3 : The discharge air temperature may nog match the temperature setting for too small outdoor-air processing capacity.

4 The system will not operate in fan mode when the outdoor-air temperature is 5°C below.

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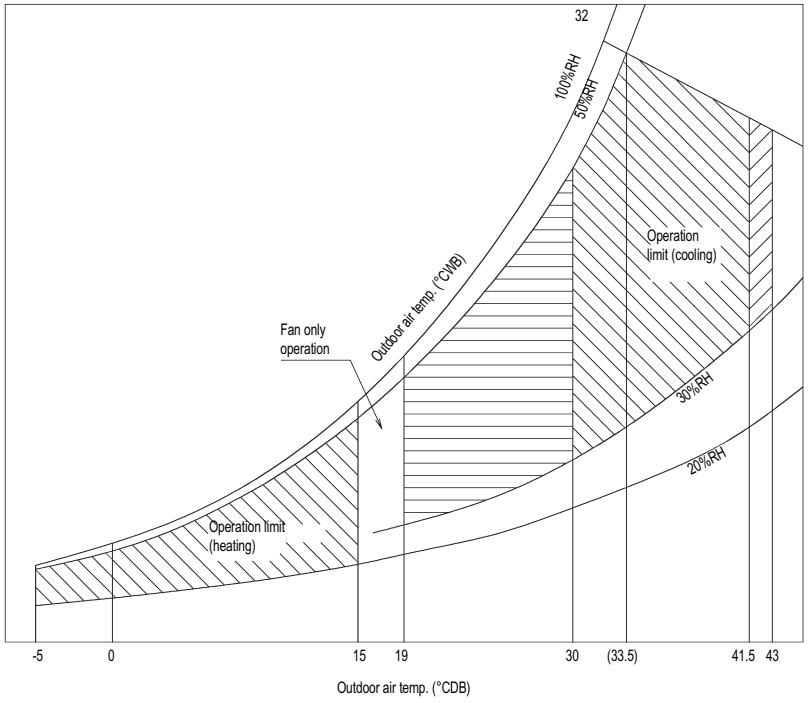
FXMQ200MF



NOTES

1 These figures assume the following operating conditions. (Indoor and outdoor units)
- Equivalent piping length: 7.5m
- Level difference: 0m

2 : The discharge air temperature may nog match the temperature setting for too large outdoor-air processing capacity. Thermostat OFF may be carried out.

3 : The discharge air temperature may nog match the temperature setting for too small outdoor-air processing capacity.

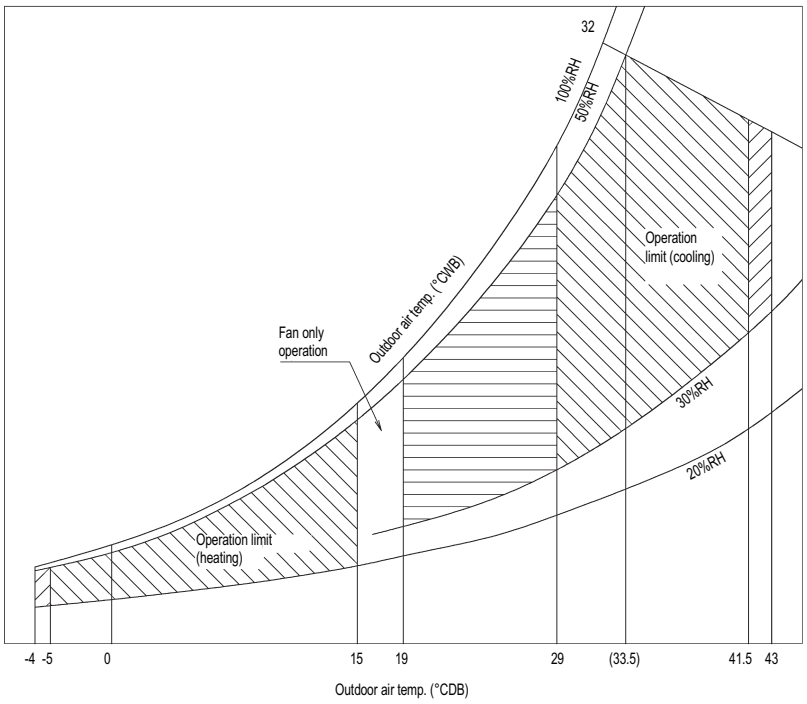
4 The system will not operate in fan mode when the outdoor-air temperature is 5°C below.

3D047750

13 Operation range

13 - 1 Operation Range

FXMQ250MF



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3D046313

Daikin's unique position as a manufacturer of air conditioning equipment, compressors and refrigerants has led to its close involvement in environmental issues. For several years Daikin has had the intention to become a leader in the provision of products that have limited impact on the environment. This challenge demands the eco design and development of a wide range of products and an energy management system, resulting in energy conservation and a reduction of waste.

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