



Air Conditioners

# Technical Data



Outdoor air processing unit, ventilation and air processing



EEDEN12-205

FXMQ-MF



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EEDEN12-205

FXMQ-MF

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# 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: -5°C to 43°C
- 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

1



## 2 Specifications

2-1 Technical Specifications					FXMQ125MF	FXMQ200MF	FXMQ250MF
Connection ratio	Outdoor units	with only ventilation units connected	Minimum	%	50		
			Maximum	%	100		
	Ventilation units	when combined with VRV® indoor units	Maximum	%	30		
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		m <sup>2</sup>		0.28	0.65	
Fan	Type				Sirocco fan		
Fan motor	Model				D13/4G2DA1		
Operation range	On coil temperature	Cooling	Max.	°CDB	43 (13)		
		Heating	Min.	°CDB	-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	

Standard Accessories : Air filter;

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.: 33°CDB, 28°CWB (68%RH), discharge set temperature: 18°CDB, equivalent piping length 7.5m (horizontal)
- (2) Heating: outdoor temp. 0°CDB, -2.9°CWB (50%RH); discharge set temp. 25°CDB; 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

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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 <sup>+8</sup> (ON: 85 <sup>+19</sup> )	OFF: 135 <sup>+8</sup> (ON: 85 <sup>+15</sup> )	OFF: 135 <sup>+8</sup> (ON: 85 <sup>+15</sup> )

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## 4 Options

### 4 - 1 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	
3D046270				

## 5 Control systems

### 5 - 1 Control Systems

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#### FXMQ-MF

N°	Item	Type		FXMQ-MF
		Wireless	H/P C/O	
1	Remote control	Wireless	H/P	—
			C/O	—
		Wired		BRC1A62
2	Simplified remote control			—
3	Remote control for hotel use			—
4	Adapter for wiring			KRP1B61
5	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			DCS302C51
8-1	Electrical box with earth terminal (3 blocks)			KJB311A
9	Unified on/off controller			DCS301B51
9-1	Electrical box with earth terminal (2 blocks)			KJB212A
9-2	Noise filter (for electromagnetic interface use only)			KEK26-1
10	Schedule timer			DST301B51
11	External control adapter for 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 °CDB	°CWB								
	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	kW
20.0	0.81	1.27	-	-	-	-	-	-	-
22.0	1.45	2.07	3.32	-	-	-	-	-	-
25.0	2.53	2.83	4.54	6.49	-	-	-	-	-
27.0	-	3.26	5.09	7.28	-	-	-	-	-
29.0	-	-	5.52	7.89	10.6	-	-	-	-
31.0	-	-	5.85	8.37	11.2	13.6	-	-	-
33.0	-	-	6.12	8.76	11.8	14.0	15.9	-	-
35.0	-	-	-	9.08	12.1	13.9	15.8	17.4	-

##### Heating

Outdoor temperature °CDB	°CWB								
	-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

- 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
- The above capacity values are general average values which can be generated by each compressor operation level.
- A value enclosed in a box means rated capacity.

## 6 Capacity tables

### 6 - 1 Cooling/Heating Capacity Tables

#### FXMQ200MF

##### Cooling

Outdoor temperature °CDB	°CWB								
	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	kW
20.0	1.29	2.03	-	-	-	-	-	-	-
22.0	2.32	3.31	5.31	-	-	-	-	-	-
25.0	4.05	4.52	7.27	10.4	-	-	-	-	-
27.0	-	5.21	8.15	11.6	-	-	-	-	-
29.0	-	-	8.83	12.6	16.9	-	-	-	-
31.0	-	-	9.36	13.4	18.0	21.8	-	-	-
33.0	-	-	9.80	14.0	18.8	22.4	25.4	-	-
35.0	-	-	-	14.5	19.4	22.2	25.3	27.8	-

##### Heating

Outdoor temperature °CDB	°CWB								
	-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

- 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
- The above capacity values are general average values which can be generated by each compressor operation level.
- A value enclosed in a box means rated capacity.

## 6 Capacity tables

### 6 - 1 Cooling/Heating Capacity Tables

#### FXMQ250MF

##### Cooling

Outdoor temperature °CDB	°CWB								
	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	kW
20.0	1.61	2.54	-	-	-	-	-	-	-
22.0	2.90	4.13	6.63	-	-	-	-	-	-
25.0	5.07	5.65	9.08	13.0	-	-	-	-	-
27.0	-	6.51	10.2	14.6	-	-	-	-	-
29.0	-	-	11.0	15.8	21.2	-	-	-	-
31.0	-	-	11.7	16.7	22.5	27.2	-	-	-
33.0	-	-	12.2	17.5	23.5	28.0	31.8	-	-
35.0	-	-	-	18.2	24.3	27.8	31.7	34.8	-

##### Heating

Outdoor temperature °CDB	°CWB								
	-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

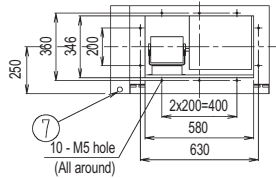
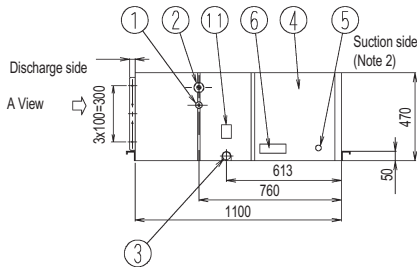
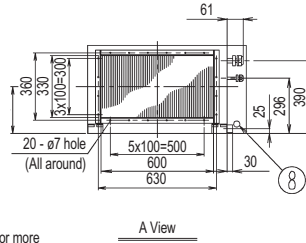
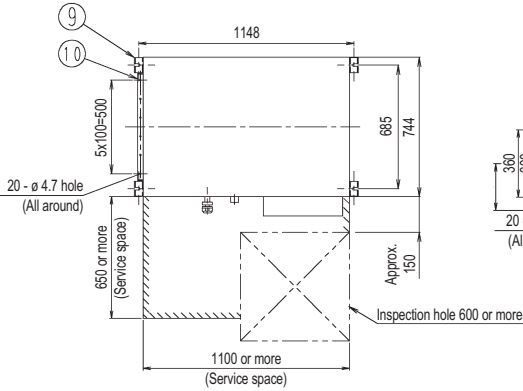
- The above capacities are based on the following conditions:
  - Air discharge temperature setting: 18°C for cooling operation, 25°C for heating (Factory setting)
  - Equivalent piping length: 7.5 m
  - Level difference: 0m
- The above capacity values are general average values which can be generated by each compressor operation level.
- A value enclosed in a box means rated capacity.

# 7 Dimensional drawings

## 7 - 1 Dimensional Drawings

7

FXMQ125MF



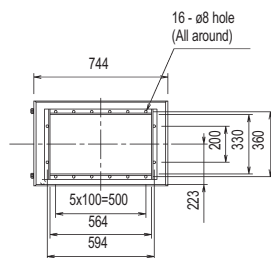
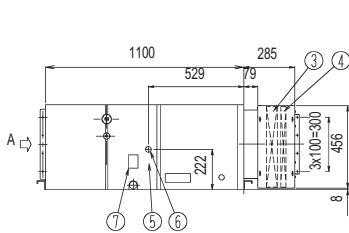
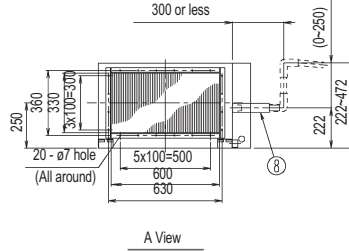
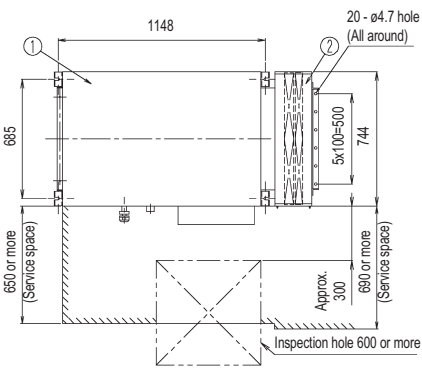
Nr	Name	Description
1	Liquid pipe connection	ø 9.5 flare connection
2	Gas pipe connection	ø 15.9 flare connection
3	Drain pipe connection	PS1B Internal thread Major dia. ø 33.349, Minor dia. ø 30.391
4	Control box	
5	Ground terminal	M5 (Inside control box)
6	Name plate	Note 1
7	Power supply wiring connection	
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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FXMQ125MF



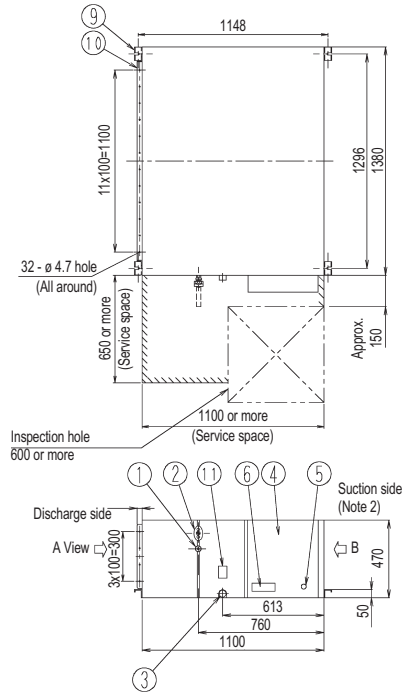
Nr	Name	Description
1	VRV D.P. Unit C. duct type	
2	Filter chamber	
3	High-efficiency filter	
4	Long-life replacement filter	
5	Drain pump kit	Built-in
6	Drain pipe connection (drain pump kit)	VP25 (O.D. ø 32, I.D. ø 25)
7	Water supply port	
8	Drain hose	Attached to drain pump kit

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# 7 Dimensional drawings

## 7 - 1 Dimensional Drawings

### FXMQ200,250MF



Piping size (field supply)

Indoor unit	Gas side	Liquid side
FXMQ200MFV1	$\phi$ 19.1 attached piping	$\phi$ 9.5
FXMQ250MFV1	$\phi$ 22.2 attached piping	$\phi$ 9.5

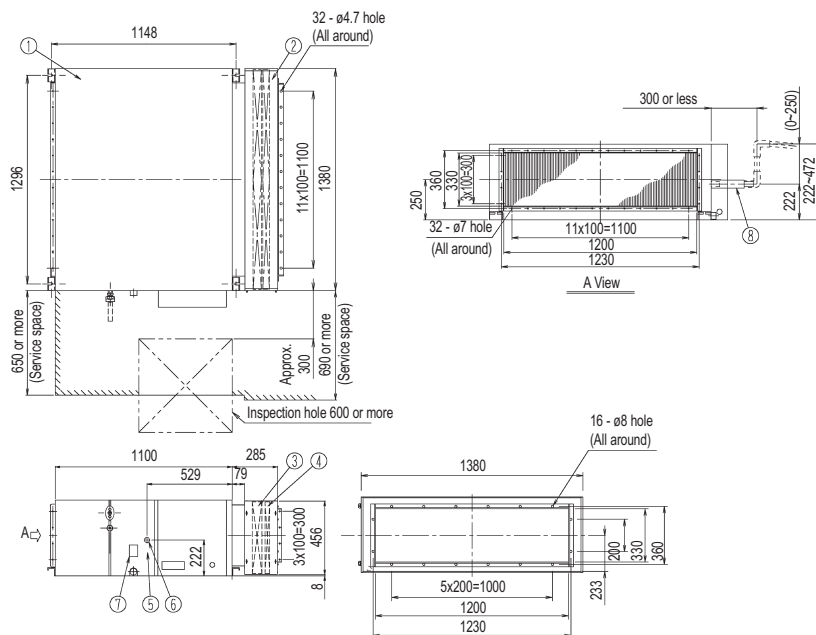
Nr	Name	Description
1	Liquid pipe connection	Flare connection
2	Gas pipe connection	Attendant piping connection
3	Drain pipe connection	PS1B Internal thread Major dia. $\phi$ 33.349, Minor dia. $\phi$ 30.391
4	Control box	
5	Ground terminal	M5 (Inside control box)
6	Name plate	Note 1
7	Power supply wiring 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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### FXMQ200-250MF



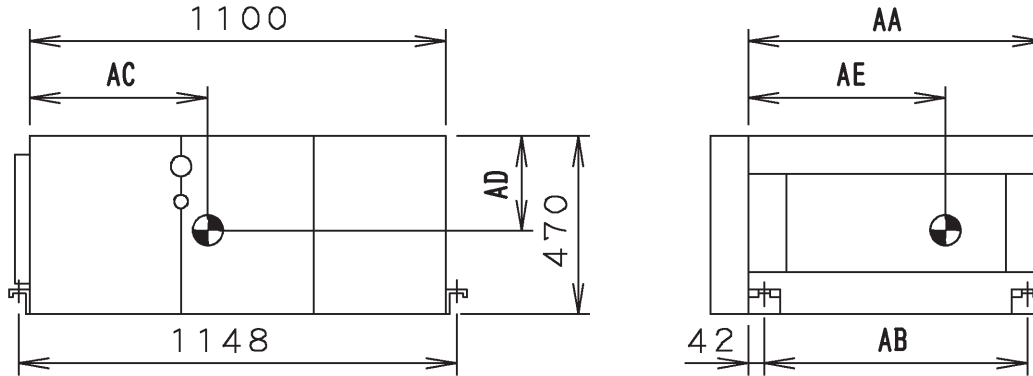
Nr	Name	Description
1	VRV D.P. Unit C. duct type	
2	Filter chamber	
3	High-efficiency filter	
4	Long-life replacement filter	
5	Drain pump kit	Built-in
6	Drain pipe connection (drain pump kit)	VP25 (O.D. $\phi$ 32, I.D. $\phi$ 25)
7	Water supply port	
8	Drain hose	Attached to drain pump kit

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## 8 Centre of gravity

### 8 - 1 Centre of Gravity

FXMQ-MF

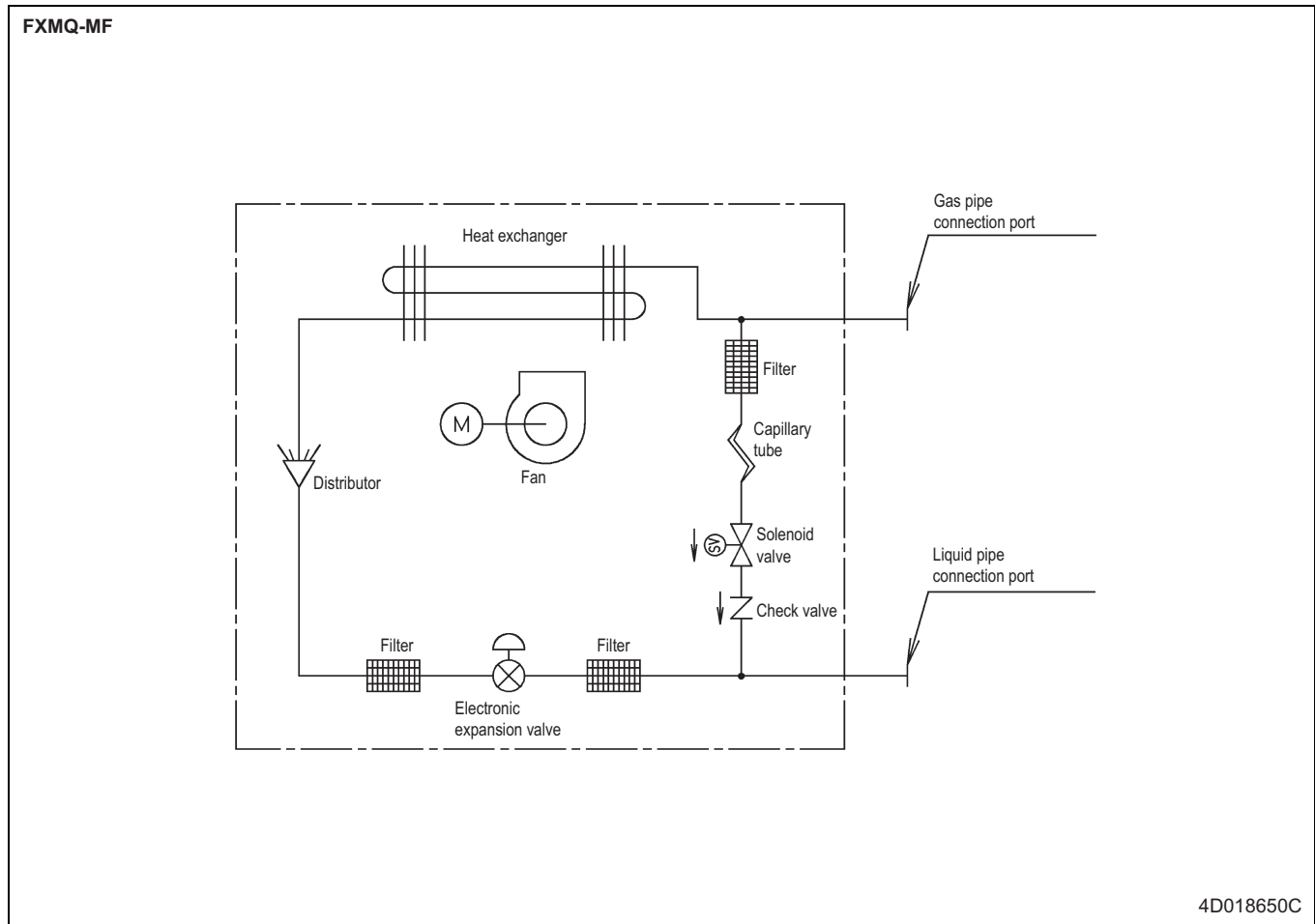


Model	Product mass	AA	AB	AC	AD	AE
FXMQ125MF	86 kg	780	696	600	250	300
FXMQ200MF	123 kg	1380	1296	570	250	600
FXMQ250MF	123 kg	1380	1296	570	250	600

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# 9 Piping diagrams

## 9 - 1 Piping Diagrams

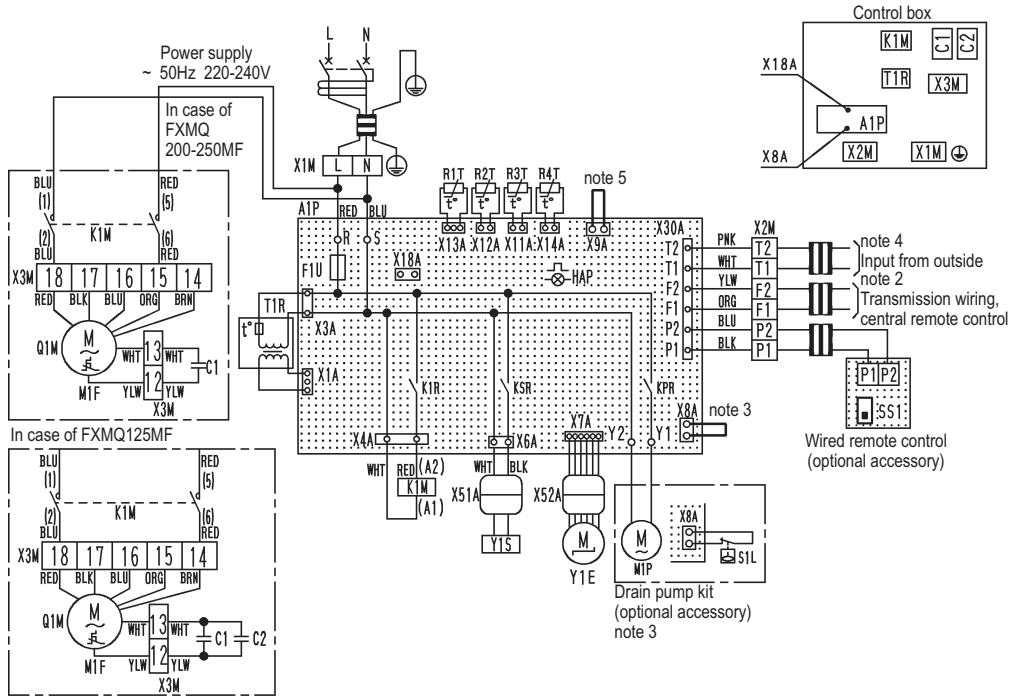


# 10 Wiring diagrams

## 10 - 1 Wiring Diagrams - Single Phase

10

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)	Connector for optional parts	
F1U	Fuse (⊙, 5A, 250V) (A1P)	X1M	Terminal block (power)	X18A	Connector (wiring adapter for electrical appendices)
HAP	Light emitting diode (service monitor green)	X2M	Terminal block (control)		
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)				
Q1M	Thermal protector (M1F embedded 135°C)	Optional parts			
R1T	Thermistor (suction air)	M1P	Motor (drain pump)		
R2T	Thermistor (coil, liquid)	S1L	Float switch (drain pump)		

PNK: pink	WHT: white
YLW: yellow	ORG: orange
BLU: blue	BLK: black
RED: red	BRN: brown

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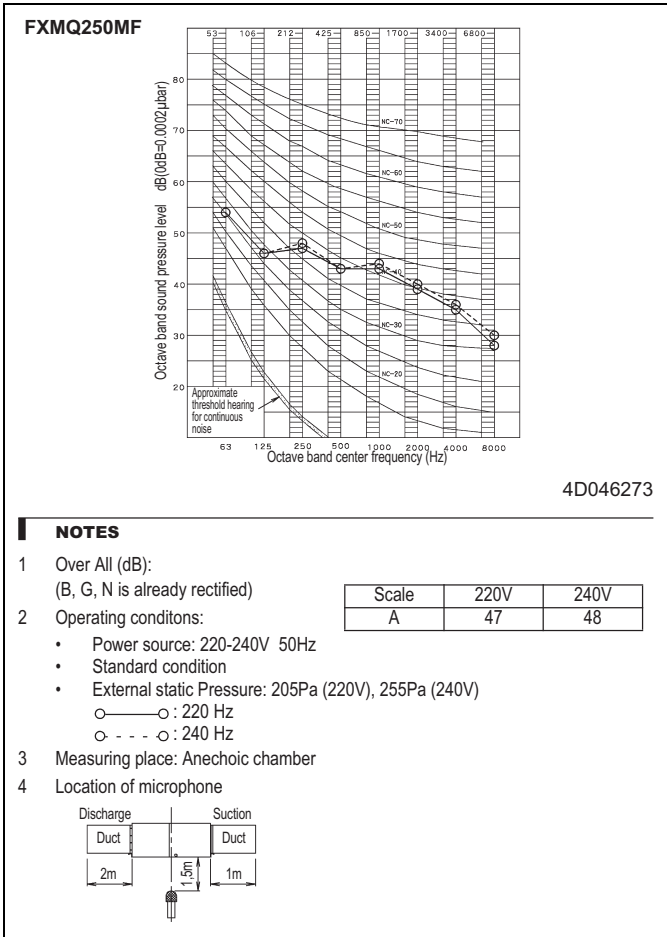
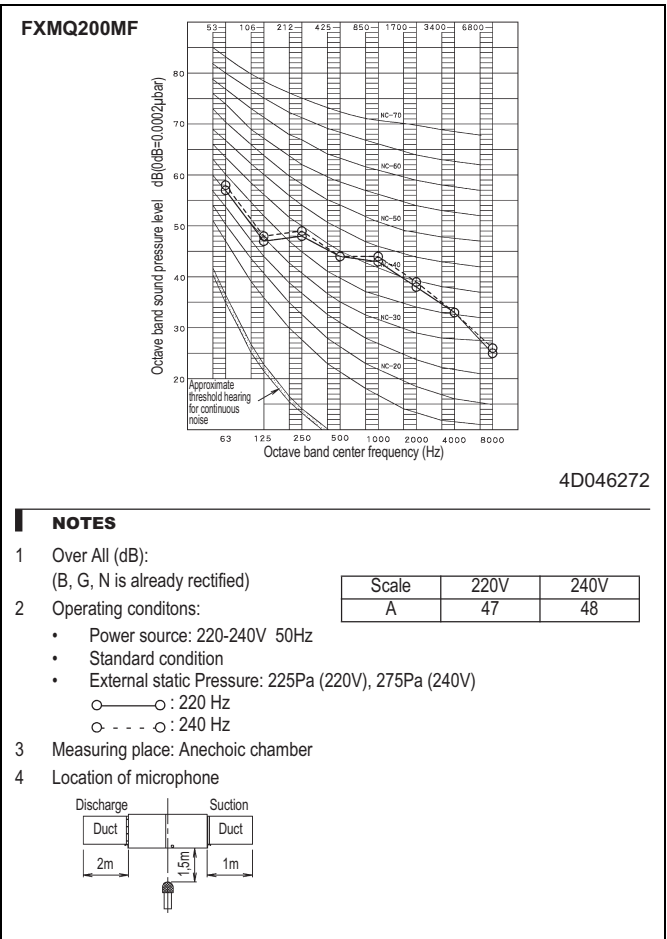
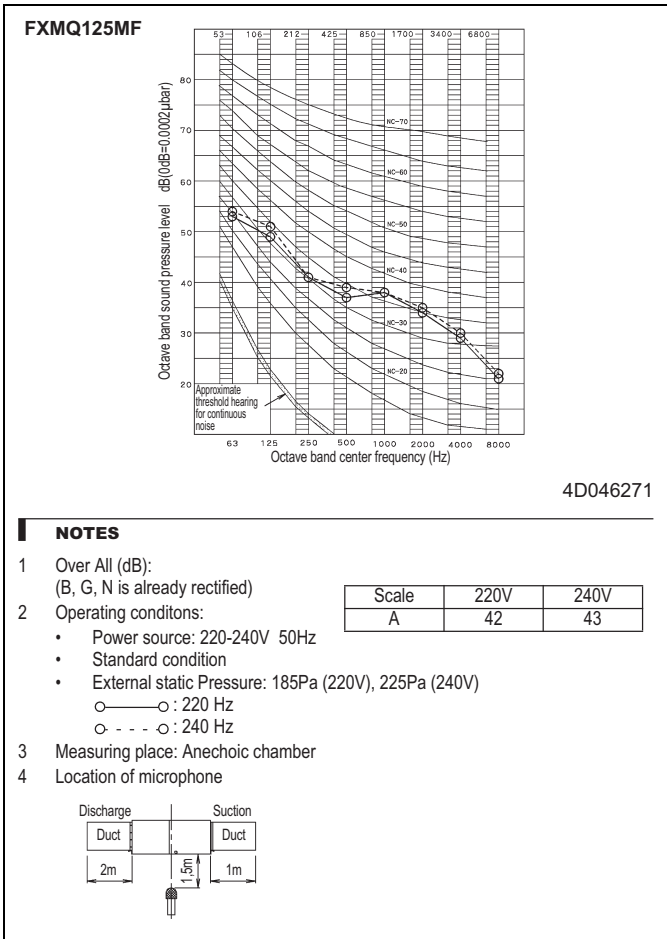
### NOTES

- : terminal block, □□□□- : connector, -○- : terminal, □□ : short circuit connector, - - - : field wiring
- In case using central remote control, connect it to the unit in accordance with the attached instruction manual.
- 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.
- In case connecting the input wires from 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.
- Do not remove short circuit connector of X9A.



# 11 Sound data

## 11 - 1 Sound Pressure Spectrum

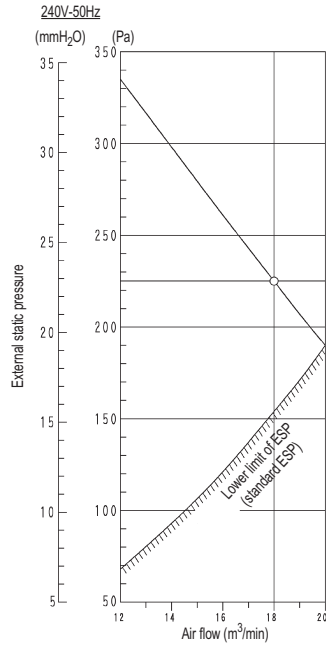
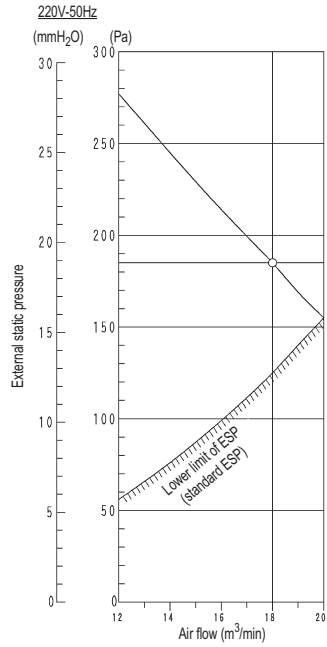


# 12 Fan characteristics

## 12 - 1 Fan Characteristics

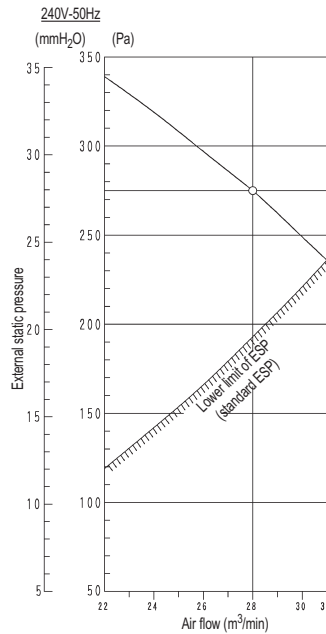
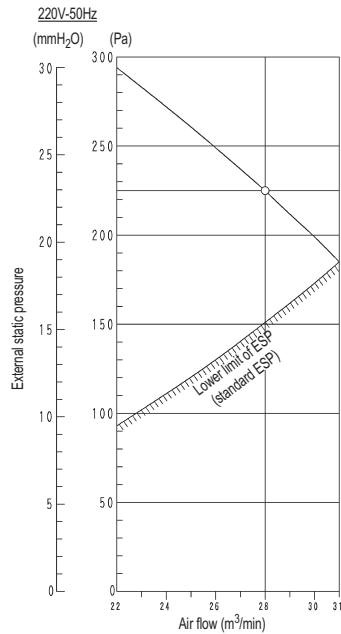
12

FXMQ125MF



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FXMQ200MF

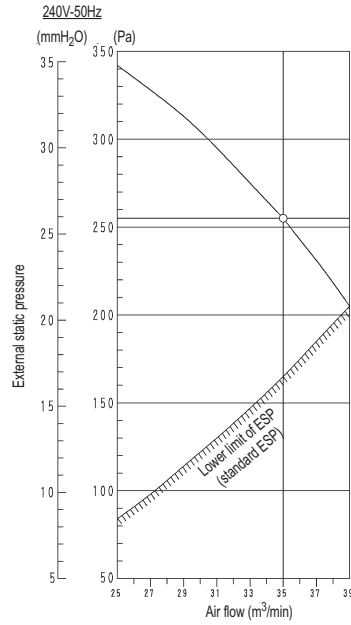
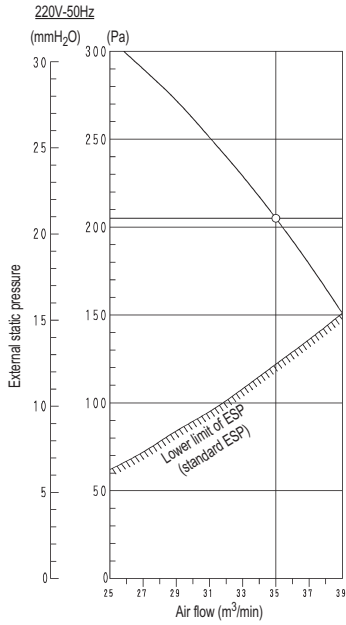


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# 12 Fan characteristics

## 12 - 1 Fan Characteristics

FXMQ250MF



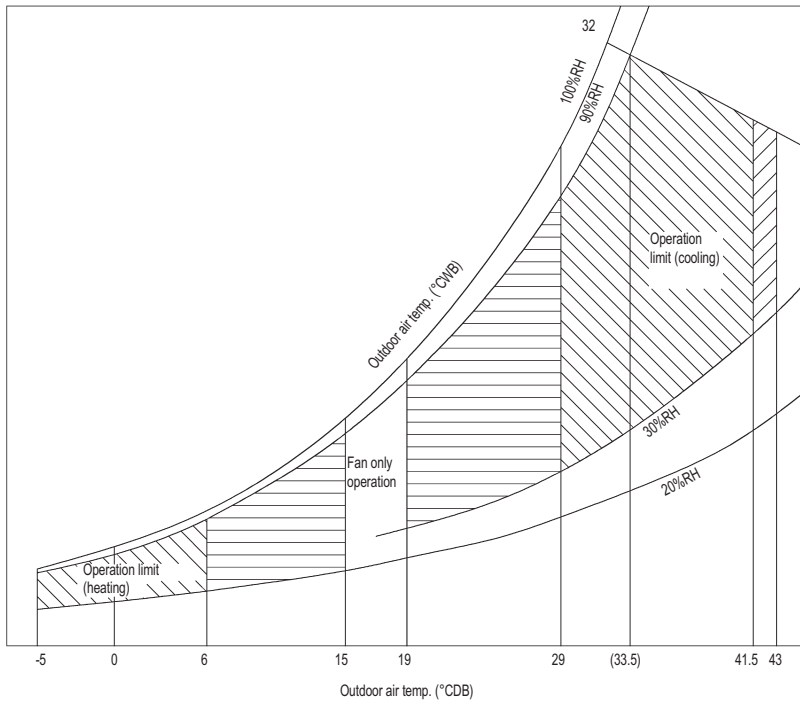
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# 13 Operation range

## 13 - 1 Operation Range

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FXMQ125MF

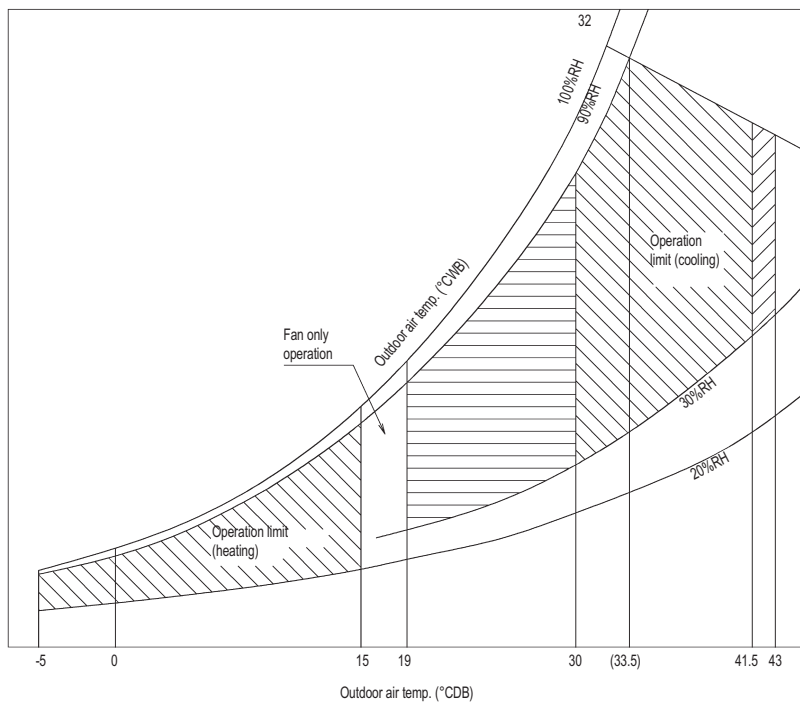


**NOTES**

- 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 not match the temperature setting for too large outdoor-air processing capacity. Thermostat OFF may be carried out.
- 3 The discharge air temperature may not 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



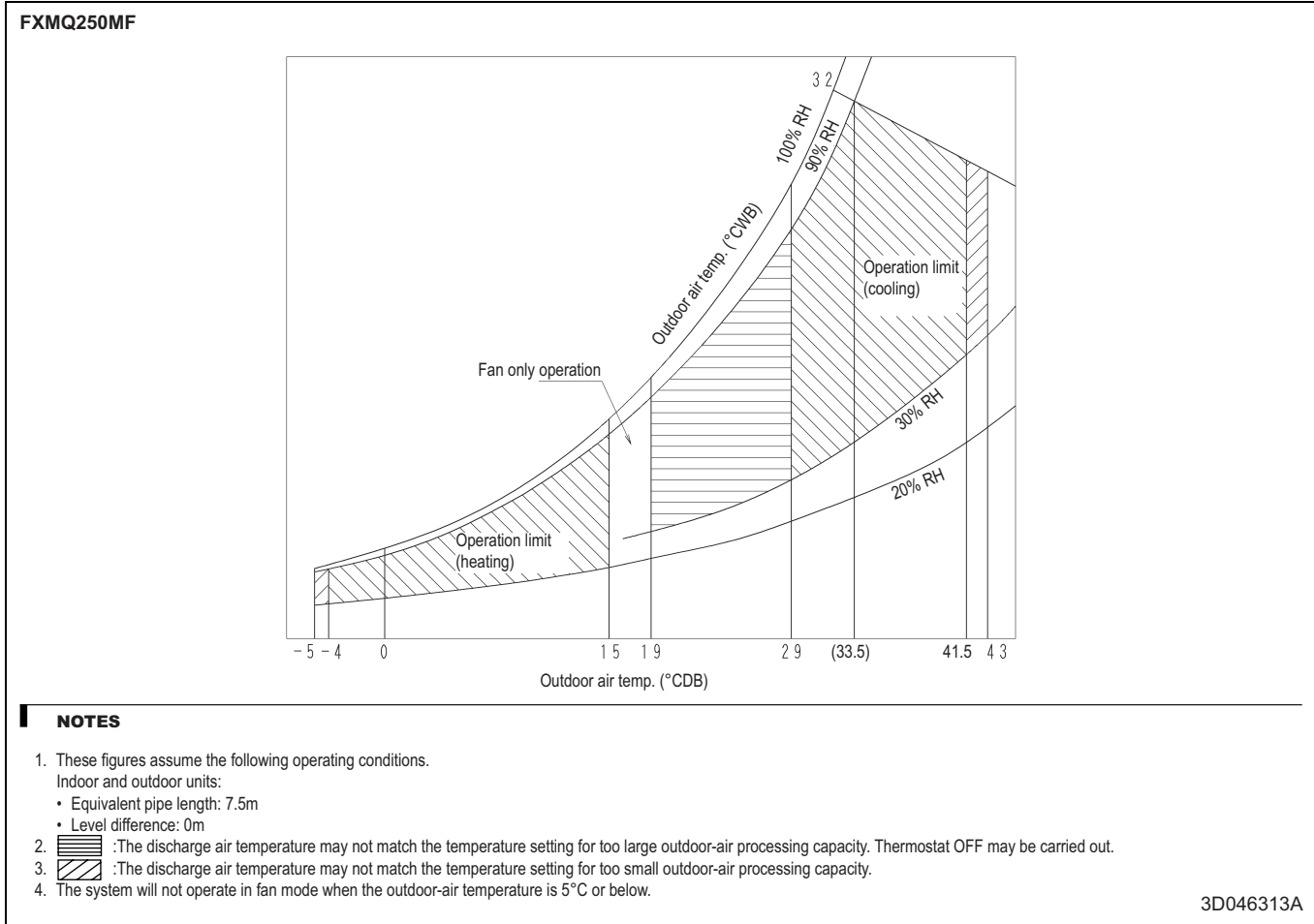
**NOTES**

- 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 not match the temperature setting for too large outdoor-air processing capacity. Thermostat OFF may be carried out.
- 3 The discharge air temperature may not 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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# 13 Operation range

## 13 - 1 Operation Range



In all of us,  
a green heart



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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