DAIKIN

Air Conditioning

Technical Data

Concealed ceiling unit with high ESP

EEDEN15-204

FXMQ-MB

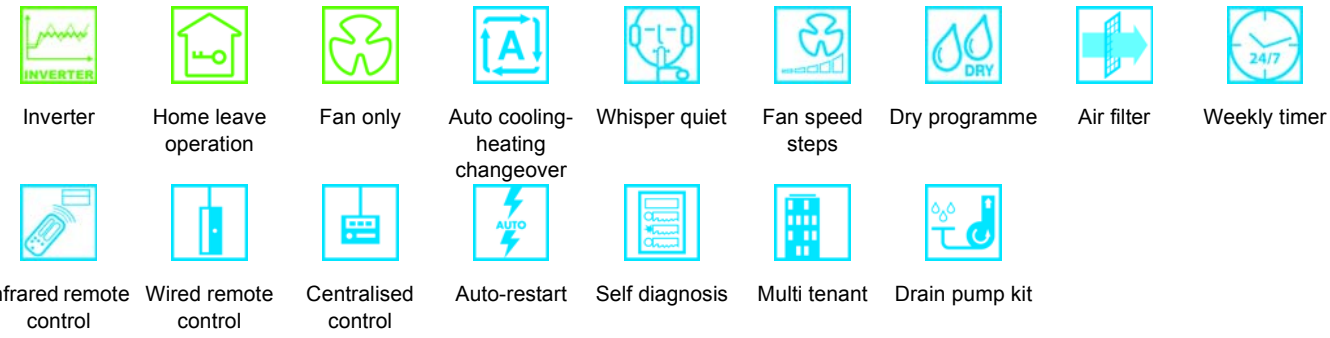
TABLE OF CONTENTS

FXMQ-MB

1 Features

ESP up to 270, ideal for extra large sized spaces

- High external static pressure up to 270Pa facilitates using flexible ducts of varying lengths
- Discretely concealed in the ceiling: only the suction and discharge grilles are visible
- Large capacity unit: up to 31.5 kW heating capacity
- Reduced energy consumption thanks to specially developed DC fan motor



Inverter | Home leave operation | Fan only | Auto cooling-heating changeover | Whisper quiet | Fan speed steps | Dry programme | Air filter | Weekly timer

Infrared remote control | Wired remote control | Centralised control | Auto-restart | Self diagnosis | Multi tenant | Drain pump kit

2 Specifications

2-1 Technical Specifications					FXMQ200MB	FXMQ250MB
Cooling capacity	Nom.			kW	22.4 (1)	28.0 (1)
Heating capacity	Nom.			kW	25.0 (2)	31.5 (2)
Power input - 50Hz	Cooling	Nom.		kW	0.895	1.185
	Heating	Nom.		kW	0.895	1.185
Dimensions	Unit	Height		mm	470	
		Width		mm	1,380	
		Depth		mm	1,100	
Weight	Unit			kg	132	
Casing	Material				Galvanised steel plate	
Heat exchanger	Rows	Quantity			3	
	Fin pitch			mm	2.0	
	Face area			m²	0.68	
	Stages	Quantity			26	
Fan	Type				Sirocco fan	
	Air flow rate - 50Hz	Cooling	High	m³/min	58	72
			Nom.	m³/min	54.0	67.0
			Low	m³/min	50	62
	External static pressure - 50Hz	High		Pa	270	
		Nom.		Pa	160	170
Fan motor	Model				2D1 3/4 G2 CM1	
	Output	High		W	1,100	
	Drive				Direct drive	
Sound pressure level	Cooling	High		dBA	48	
		Low		dBA	45	
Refrigerant	Type				R-410A	
	Control				Electronic expansion valve	
Piping connections	Liquid	Type			Flare connection	
		OD		mm	9.52	
	Gas	Type			Braze connection	
		OD		mm	19.1	22.2
	Drain				PS1B	
	Heat insulation				Glass fiber	
	Sound absorbing insulation				Glass fiber	
Temperature control					Microprocessor thermostat for cooling and heating	
Safety devices	Item	01			Fuse	
		02			Fan driver overload protector	
Control systems	Infrared remote control				BRC4C65	
	Simplified wired remote control for hotel applications				BRC2E52C (heat recovery type) / BRC3E52C (heat pump type)	
	Wired remote control				BRC1E52A/B / BRC1D52	

Standard Accessories : Installation and operation manual;

Standard Accessories : Connection pipes;

Standard Accessories : Sealing pads;

Standard Accessories : Clamps;

Standard Accessories : Screws;

2-2 Electrical Specifications				FXMQ200MB	FXMQ250MB
Power supply	Name			VE	
	Phase			1~	
	Frequency		Hz	50	
	Voltage		V	220-240	
Voltage range	Min.		%	-10	
	Max.		%	10	
Current - 50Hz	Minimum circuit amps (MCA)		A	10.3	
	Maximum fuse amps (MFA)		A	16	
	Full load amps (FLA)	Total	A	4.3	5.6

2 Specifications

Notes

(1) Cooling: indoor temp. 27°CDB, 19°CWB; outdoor temp. 35°CDB; equivalent piping length: 7.5m (horizontal)

(2) Heating: indoor temp. 20°CDB; outdoor temp. 7°CDB, 6°CWB; equivalent refrigerant piping: 7.5m (horizontal)

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

The external static pressure is changeable: change the connectors inside the electrical box, this pressure means: High static pressure - Standard

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.

Sound pressure levels are measured at 220V.

Sound values are measured in an anechoic room.

Operation sound differs with operation and ambient conditions

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

Maximum allowable voltage range variation between phases is 2%.

MCA/MFA: MCA = 1.25 x FLA

MFA ≤ 4 x FLA

Next lower standard fuse rating minimum 15A

Select wire size based on the value of MCA

Instead of a fuse, use a circuit breaker

3 Electrical data

3 - 1 Electrical Data

FXMQ-MB

Units					Power supply		IFM		Input (W)	
Model	Type	Hz	Volts	Voltage range	MCA	MFA	kW	FLA	Cooling	Heating
FXMQ200MB	VE	50	220-240V	Max. 264V Min. 198V	10.3	16	1100	4.3	895	895
FXMQ250MB					10.3	16	1100	5.6	1185	1185

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

1 Voltage range
Units are suitable for use on electrical systems where the voltage supplied to the unit terminals is not below or above the listed range limits.
2 Maximum allowable voltage unbalance between phases is 2%.
3 MCA/MFA
MCA=1.25xFLA
MFA≤4xFLA
(next lower standard fuse rating, min.15A)
4 Select wire size based on the MCA.
5 Instead of fuse, use circuit breaker.

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4 Safety device settings

4 - 1 Safety Device Settings

FXMQ-MB

	Safety devices	200	250
FXMQ~MB	PC board fuse	250V 3.15A	250V 3.15A
	PC board fuse (Fan driver)	250V 20A	250V 20A

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5 Options

5 - 1 Options

FXMQ-MB

Item	Type		FXMQ-MB
Remote controller	Infrared	H/P	BRC4C65
		C/O	BRC4C66
	Wired		BRC1E52
Simplified remote controller			BRC2E52C
Remote control for hotel use			BRC3E52C
Adapter for wiring			KRP1C64
Wiring adapter for electrical appendices (1)			KRP2A61
Wiring adapter for electrical appendices (2)			KRP4AA51
Remote sensor			KRCS01-4B
Central remote control			DCS302CA61
Electric box with earth terminal - 3 blocks			KJB311AA
Unified ON/OFF control			DCS301BA61
Electric box with earth terminal - 2 blocks			KJB212AA
Noise filter (for electromagnetic interface use only)			KEK26-1A
Schedule timer			DST301BA61
Intelligent touch controller			DCS601C51
Intelligent touch manager			DCM601A51
External control adapter for outdoor unit (must be installed on indoor unit)			DTA104A61

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Note:
Up to 2 installation boxes can be installed for each indoor unit.

FXMQ-MB

Item		Model	Duct type	
			FXMQ200MB	FXMQ250MB
Drain pump kit		Type	KDU30M250VE	
		Z No.	Z150304	
High efficiency filter	65%	Type	KAFJ372L280	
		AS No.	AS3600873	
	90%	Type	KAFJ373L280	
		AS No.	AS3600873	
Filter chamber		Type	KDJ3705L280	
		AS No.	AS3600874	
Long life replacement filter		Type	KAFJ371L280	
		AS No.	AS3600872	

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Note:
See the latest for the modification marks

6 Capacity tables

6 - 1 Cooling Capacity Tables

FXMQ-MB

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

Unit Size	Nominal capacity	Outdoor air temp.	Indoor air temperature													
			14.0WB		16.0WB		18.0WB		19.0WB		20.0WB		22.0WB		24.0WB	
			20.0DB		23.0DB		26.0DB		27.0DB		28.0DB		30.0DB		32.0DB	
		°CDB	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
200	22.4	35.0	15.1	13.4	18.0	14.9	21.0	16.3	22.4	16.8	23.6	17.0	24.2	16.1	24.6	15.4
250	28.0	35.0	18.9	16.9	22.5	18.5	26.2	20.4	28.0	20.9	29.5	21.1	30.2	20.2	30.8	19.4

6 Capacity tables

6 - 2 Heating Capacity Tables

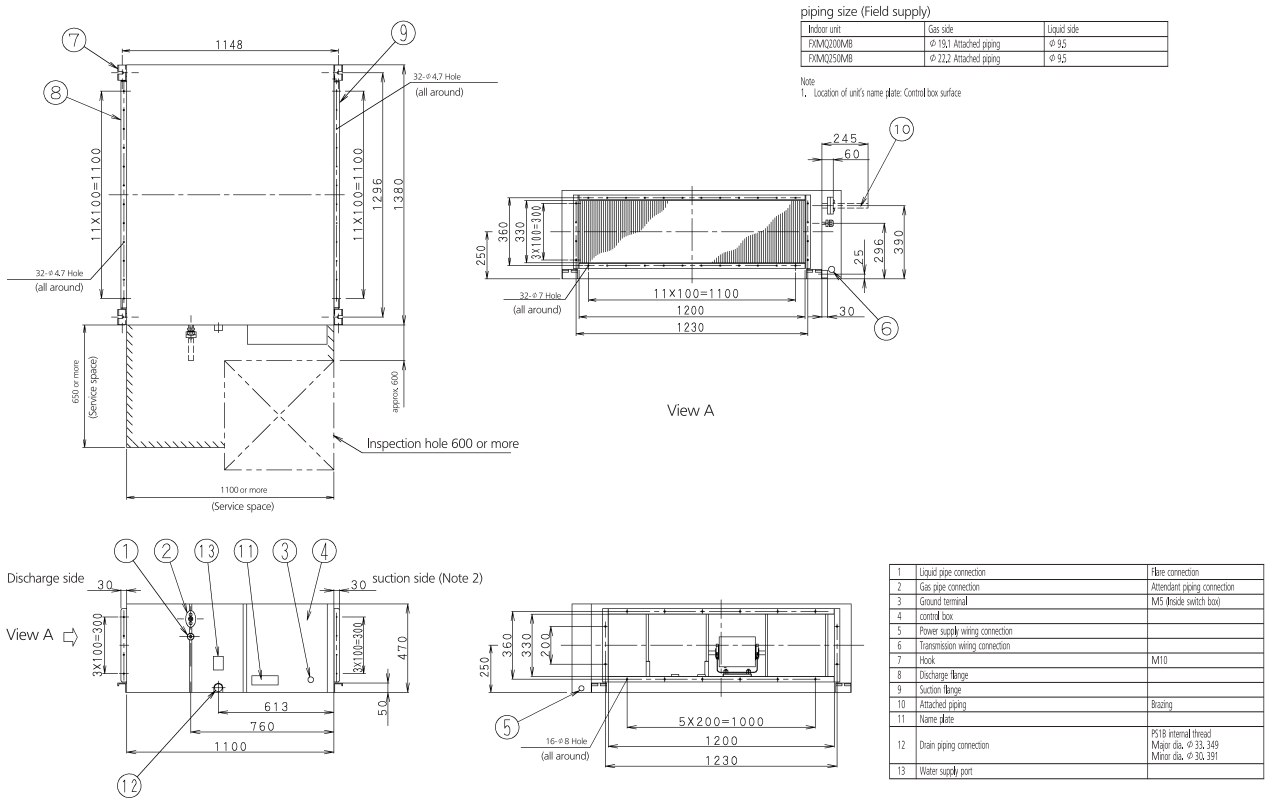
FXMQ-MB

Unit Size	Nominal capacity	Outdoor air temperature		Indoor air temperature °CDB					
				16.0	18.0	20.0	21.0	22.0	24.0
		°CDB	°CWB	kW	kW	kW	kW	kW	kW
200	25.0	7.0	6.0	26.2	26.2	25.0	24.2	23.4	21.8
250	31.5	7.0	6.0	33.1	33.0	31.5	30.5	29.5	27.5

7 Dimensional drawings

7 - 1 Dimensional Drawings

FXMQ-MB



piping size (Field supply)

Indoor unit	Gas side	Liquid side
FXMQ200MB	φ 19,1 Attached piping	φ 9,5
FXMQ250MB	φ 22,2 Attached piping	φ 9,5

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

1	Liquid pipe connection	Flare connection
2	Gas pipe connection	Attendant piping connection
3	Ground terminal	M5 (Inside switch box)
4	control box	
5	Power supply wiring connection	
6	Transmission wiring connection	
7	Hook	M10
8	Discharge flange	
9	Suction flange	
10	Attached piping	Brazing
11	Name plate	
12	Drain piping connection	PS1B internal thread Major dia. φ 33, 349 Minor dia. φ 30, 391
13	Water supply port	

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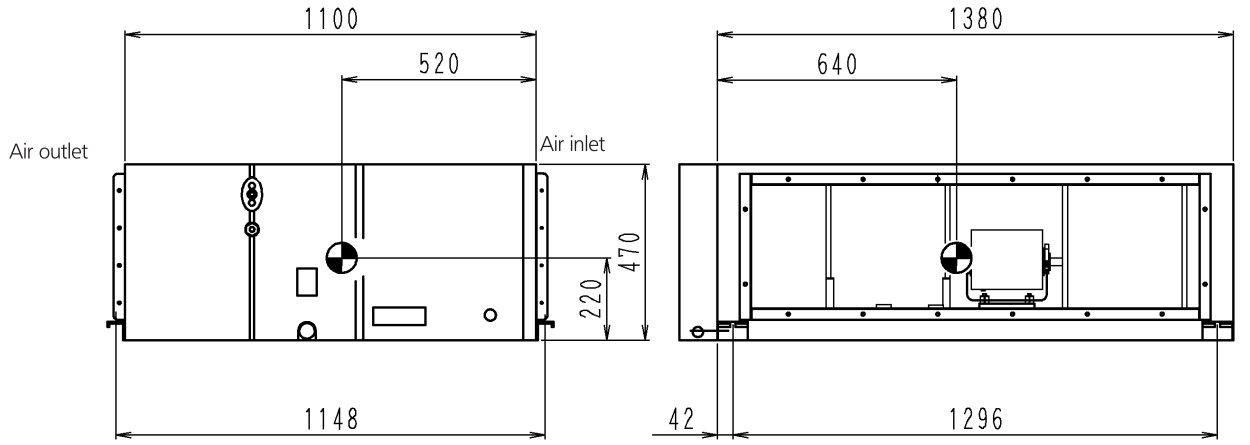
8 Centre of gravity

8 - 1 Centre of Gravity

FXMQ-MB



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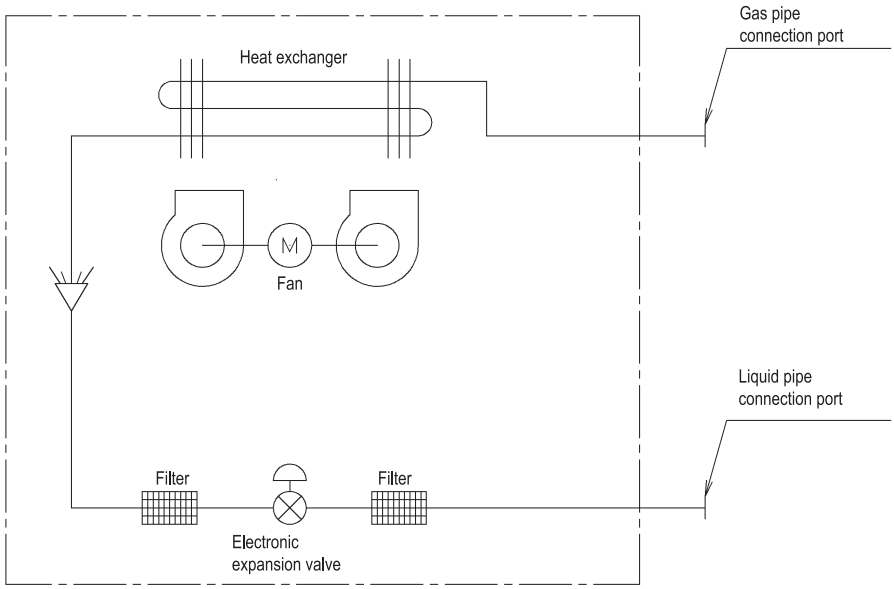
9 Piping diagrams

9 - 1 Piping Diagrams

FXMQ-MB



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10 Wiring diagrams

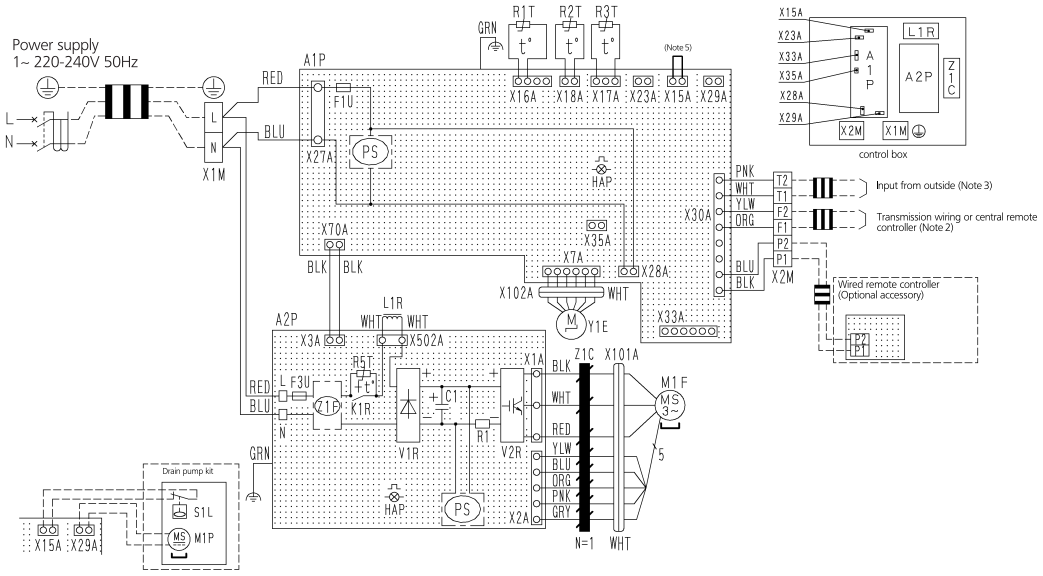
10 - 1 Wiring Diagrams - Single Phase

FXMQ-MB

Indoor unit
A1P : Printed circuit board (Main)
A2P : Printed circuit board (Fan)
C1 : Capacitor
F1U : Fuse (T, 3.15A, 250V)
F3U : Fuse
HAP : Flashing lamp (Service monitor-green) (A1P, A2P)
K1R : Magnetic relay
L1R : Reactor
M1F : Motor (Fan)
PS : Switching power supply (A1P, A2P)
R1 : Resistor (current limiting)
R1T : Thermistor (Air)
R2T : Thermistor (Liquid)
R3T : Thermistor (gas)
R5T : Thermistor (current limiting)
V1R : Diode bridge
V2R : Power module
X1M : Terminal block (Power supply)
X2M : Terminal block (Control)
X101A : Connector (M1F)
X102A : Connector (Y1E)
Y1E : Electronic expansion valve
Z1C : Ferrite core
Z1F : Noise filter

Connector for optional parts
X15A : Connector (Float switch)
X23A : Connector (Capacity setting adaptor)
X28A : Connector (Power supply for wiring)
X29A : Connector (Drain pump)
X33A : Connector (Wiring)
X35A : Connector (Power supply for adapter)

Drain pump kit
M1P : Motor (drain pump)
S1L : Float switch



Notes

1. □□□ : Terminal strip, ⊐: Connector, -▮▮-: Field wiring, ⊐: Short circuit connector, ⏚: Protective earth, ⏚: Noiseless earth
2. In case using central remote controller, connect it to the unit in accordance with the attached installation manual.
3. When connecting the input wires from outside, forced OFF or ON/OFF control operation can be selected by the remote controller. In details, refer to the installation manual attached to the unit.
4. Symbols shows as follows: PNK:Pink WHT:White YLW:Yellow ORG:Orange BLU:Blue BLK:Black RED:Red BRN:Brown
5. In case installing the drain pump, remove the short circuit connector of X15A and execute the additional wiring for float switch and drain pump.

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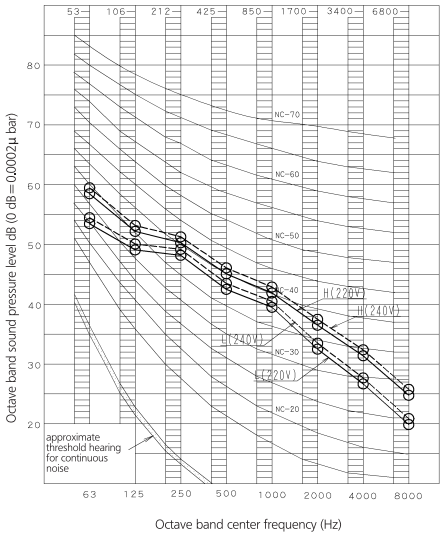
11 Sound data

11 - 1 Sound Pressure Spectrum

FXMQ200MB



NOTES

1 Overall (dB)

Scale	220V		240V	
	A	L	H	L
A	48	45	49	46
C	60	56	61	57

(B,G,N is already rectified)

2 Measuring place: Measure in anechoic room

3 Operation noise differs with operation and ambient conditions.

4 Operating conditions:
Power source 220-240V/220V 50/60Hz

5 standard condition (JIS)
O——O 220V
O- - -O 240V
ESP: 132/132Pa (220V 50/60Hz)

6 Location of microphone: JIS B8616

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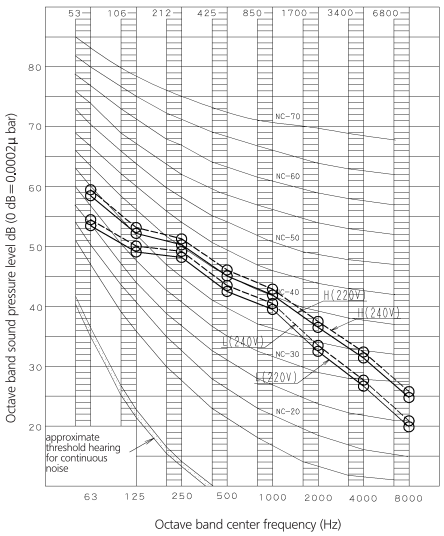
FXMQ250MB



NOTES

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2 Measuring place: Measure in anechoic room

3 Operation noise differs with operation and ambient conditions.

4 Operating conditions:
Power source 220-240V/220V 50/60Hz

5 standard condition (JIS)
O——O 220V
O- - -O 240V
ESP: 132/132Pa (220V 50/60Hz)

6 Location of microphone: JIS B8616

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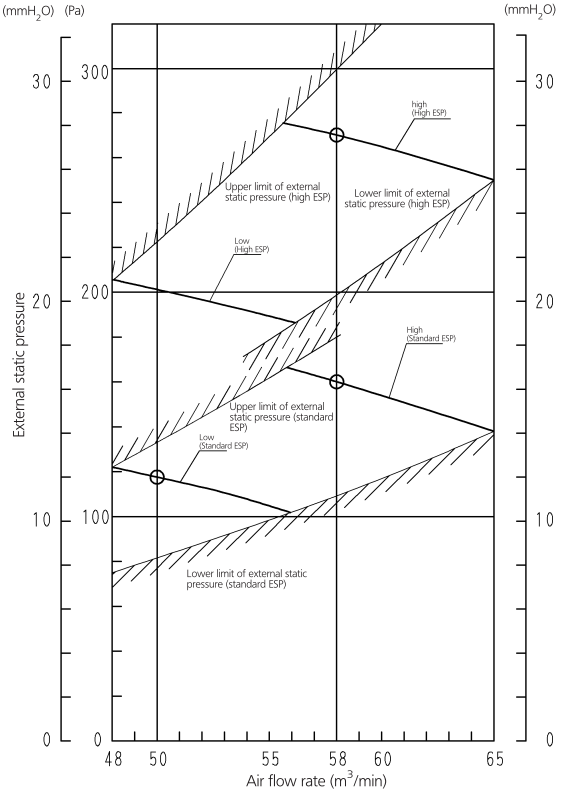
12 Fan characteristics

12 - 1 Fan Characteristics

FXMQ200MB

50Hz 220-240V



Notes:
1. Remote controller can be used to switch between 'HIGH' and 'LOW'.
2. The air flow is set to 'STANDARD' before leaving the factory. It is possible to switch between 'STANDARD ESP' and 'HIGH ESP' by remote controller.

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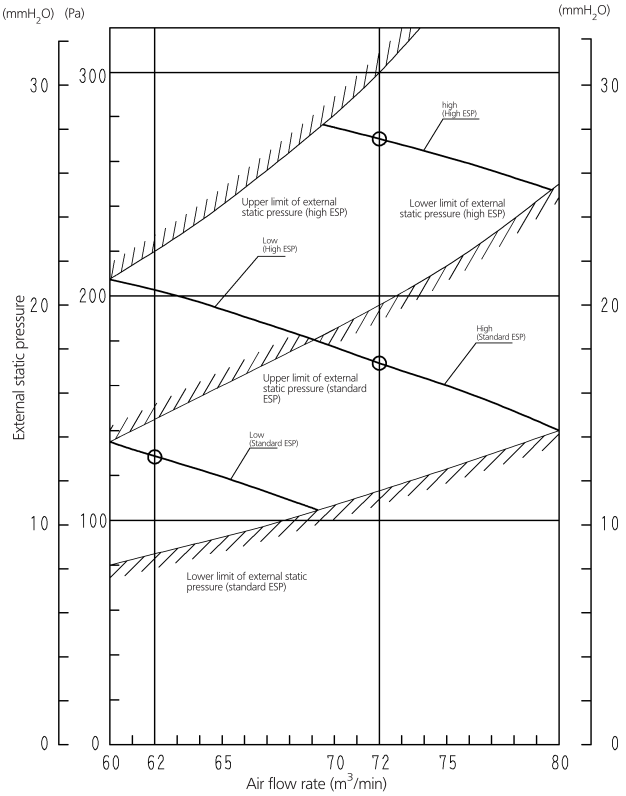
FXMQ250MB

50Hz 220-240V



Notes:
1. Remote controller can be used to switch between 'HIGH' and 'LOW'.
2. The air flow is set to 'STANDARD' before leaving the factory. It is possible to switch between 'STANDARD ESP' and 'HIGH ESP' by remote controller.

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These products are not within the scope of the Eurovent certification program

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