

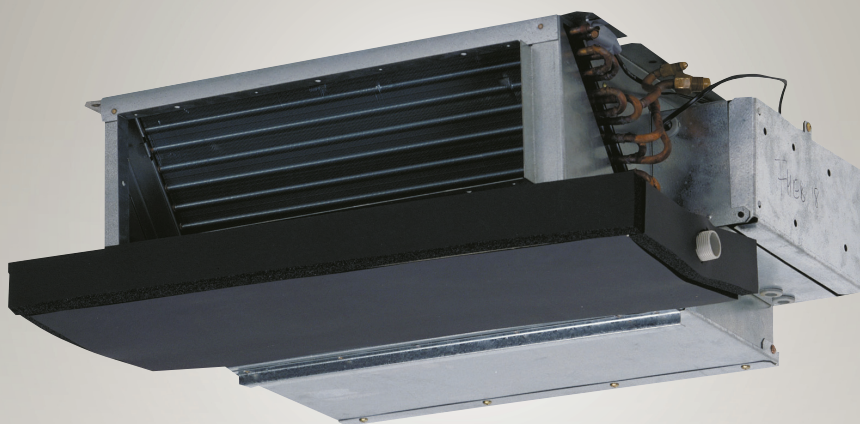


Air Conditioners

Technical Data



Concealed Ceiling Unit (Small)



EEDEN11-204

FXDQ-M9



Air Conditioners

Technical Data



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EEDEN11-204

FXDQ-M9

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FXDQ-M9

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1 Specifications

1-1 Technical Specifications				FXDQ20M9V3B		FXDQ25M9V3B		
Cooling capacity	Nom.		kW	2.2 (1)		2.8 (1)		
Heating capacity	Nom.		kW	2.5 (2)		3.2 (2)		
Power input - 50Hz	Cooling	Nom.	kW	0.050 (1)				
	Heating	Nom.	kW	0.050 (2)				
Casing	Colour			Unpainted				
	Material			Galvanised steel				
Dimensions	Unit	Height	mm	230				
		Width	mm	502				
		Depth	mm	652				
	Packed unit	Height	mm	301				
		Width	mm	584				
		Depth	mm	753				
Required ceiling void			mm	250				
Weight	Unit		kg	17				
	Packed unit		kg	18				
Heat exchanger	Length		mm	430				
	Rows	Quantity		2				
	Fin pitch		mm	1.4				
	Passes	Quantity		2				
	Face area		m ²	0.108				
	Stages	Quantity		12				
	Empty tubeplate hole	Quantity		4		0		
	Tube type			ø7 Hi-XSS				
	Fin	Type		Symmetric waffle louvre				
		Treatment		Hydrophilic				
Fan	Type			Sirocco fan				
	Quantity			1				
	Air flow rate - 50Hz	Cooling	High	m ³ /min	6.7		7.4	
			Low	m ³ /min	5.2		5.8	
		Heating	High	m ³ /min	6.7		7.4	
Low			m ³ /min	5.2		5.8		
Fan motor	Quantity			1				
	Model			Step motor				
	Speed	Steps		3				
	Output	High	W	10				
	Drive			Direct drive				
Sound power level	Cooling	Nom.	dBA	50				
Sound pressure level	Cooling	High	dBA	37				
		Low	dBA	32				
	Heating	High	dBA	37				
		Low	dBA	32				
Refrigerant	Type			R-410A				
	Control			Electronic expansion valve				
Piping connections	Liquid	Type		Flare connection				
		OD	mm	6.35				
	Gas	Type		Flare connection				
		OD	mm	12.7				
	Drain			I.D. 21.6, O.D. 27.2				
Temperature control				Microprocessor thermostat for cooling and heating				
Air direction control				Up and downwards				
Air filter				Resin net with mold resistance				
Safety devices	Item	01		PC board fuse				
		02		Fan motor thermal protection				

1 Specifications

1-2 Electrical Specifications			FXDQ20M9V3B	FXDQ25M9V3B
Power supply	Name		V1	
	Phase		1~	
	Frequency	Hz	50	
	Voltage	V	230	
Voltage range	Min.	%	-10	
	Max.	%	10	
Current - 50Hz	Zmax	List	No requirements	
	Minimum circuit amps (MCA)		A	0.2
	Maximum fuse amps (MFA)		A	16
	Full load amps (FLA)	Total	A	0.1

Notes

- (1) Cooling: indoor temp. 27°CDB, 19°CWB; outdoor temp. 35°CDB; equivalent piping length: 8m; level difference: 0m
- (2) Heating: indoor temp. 20°CDB; outdoor temp. 7°CDB, 6°CWB; equivalent refrigerant piping: 8m; level difference: 0m
- (3) Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.
- (4) Voltage range: units are suitable for use on electrical systems where voltage supplied to unit terminal is not below or above listed range limits.
- (5) Maximum allowable voltage range variation between phases is 2%.
- (6) MCA/MFA: $MCA = 1.25 \times FLA$
- (7) $MFA < 4 \times FLA$
- (8) Next lower standard fuse rating minimum 16A
- (9) Select wire size based on the value of MCA
- (10) Instead of a fuse, use a circuit breaker

2 Safety device settings

2 - 1 Safety Device Settings

		FXDQ20M9	FXDQ25M9
FAN MOTOR THERMAL PROTECTOR	°C	OFF:135 \pm 8, (ON:87 \pm 15)	
PC BOARD FUSE		250V 10A	

3TW25511-3

3 Options

3 - 1 Options

FXDQ20-25M9

Options

Nr.	Item
1	Wiring adaptor (Hour meter)

Type	FXDQ20,25 EKRP1B2 *1
------	-------------------------

Operation Control

Nr.	Item						
1	Remote <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Wired type</th> <th></th> </tr> </thead> <tbody> <tr> <td></td> <td>H/P</td> </tr> <tr> <td>Wireless type</td> <td>C/O</td> </tr> </tbody> </table>	Wired type			H/P	Wireless type	C/O
Wired type							
	H/P						
Wireless type	C/O						
2	Simplified remote control						
3	Remote control for hotel use						
4	Adapter for wiring						
5.1	Wiring adaptor for electrical appendices (1)						
5.2	Wiring adaptor for electrical appendices (2)						
6	Remote sensor						
7	Installation box for adapter PCB						
8	Central remote control						
8.1	Electrical box with earth terminal (3 blocks)						
9	Unified ON/OFF controller						
9.1	Electrical box with earth terminal (2 blocks)						
9.2	Noise filter (For electromagnetic interface use only)						
10	Schedule timer						
11	External adaptor for outdoor unit (installation on indoor unit)						
11	Multi Tenant option						

Type	FXDQ20,25 BRC1D52 / BRC1E51A *4 BRC4C62 BRC4C64 BRC2A51 BRC3A61 KRP1B61 KRP2A51 KRP4A51 KRCS01-1 --- DCS302C51 KJB311A DCS301B51 KJB212A KEK26-1A DST301B51 DTA104A61 EKMTAC *3
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*1 Fixing box is KRP1A90

*2 All options are supplied as kit.

*3 This kit contains parts to connect with 10 multi tenant indoor units.

*4 Included languages are: English, German, French, Dutch, Spanish, Italian, Greek, Portuguese, Russian and Turkish.

Contents of accessory bags

Description	Quantity
Installation and operation manual	1
Glass tube fuse 10A	1
Service instruction label	1

3TW31579-1A

4 Capacity tables

4 - 1 Cooling Capacity Tables

FXDQ-M9		TC: Total capacity;kW – SHC: Sensible capacity;kW														
Unit size	Nominal capacity	Outdoor air temp. °CDB	Indoor air temperature													
			14.OWB		16.OWB		18.OWB		19.OWB		20.OWB		22.OWB		24.OWB	
			20.ODB		23.ODB		26.ODB		27.ODB		28.ODB		30.ODB		32.ODB	
			TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
20	2.2	10.0	1.5	1.4	1.8	1.6	2.1	1.7	2.2	1.8	2.3	1.9	2.6	1.9	2.9	1.9
		12.0	1.5	1.4	1.8	1.6	2.1	1.7	2.2	1.8	2.3	1.9	2.6	1.9	2.9	1.9
		14.0	1.5	1.4	1.8	1.6	2.1	1.7	2.2	1.8	2.3	1.9	2.6	1.9	2.8	1.9
		16.0	1.5	1.4	1.8	1.6	2.1	1.7	2.2	1.8	2.3	1.9	2.6	1.9	2.8	1.8
		18.0	1.5	1.4	1.8	1.6	2.1	1.7	2.2	1.8	2.3	1.9	2.6	1.9	2.7	1.8
		20.0	1.5	1.4	1.8	1.6	2.1	1.7	2.2	1.8	2.3	1.9	2.6	1.9	2.7	1.8
		21.0	1.5	1.4	1.8	1.6	2.1	1.7	2.2	1.8	2.3	1.9	2.6	1.9	2.7	1.8
		23.0	1.5	1.4	1.8	1.6	2.1	1.7	2.2	1.8	2.3	1.9	2.6	1.9	2.6	1.7
		25.0	1.5	1.4	1.8	1.6	2.1	1.7	2.2	1.8	2.3	1.9	2.6	1.8	2.6	1.7
		27.0	1.5	1.4	1.8	1.6	2.1	1.7	2.2	1.8	2.3	1.9	2.5	1.8	2.6	1.7
		29.0	1.5	1.4	1.8	1.6	2.1	1.7	2.2	1.8	2.3	1.9	2.5	1.8	2.5	1.7
		31.0	1.5	1.4	1.8	1.6	2.1	1.7	2.2	1.8	2.3	1.9	2.4	1.8	2.5	1.7
		33.0	1.5	1.4	1.8	1.6	2.1	1.7	2.2	1.8	2.3	1.9	2.4	1.8	2.5	1.7
		35.0	1.5	1.4	1.8	1.6	2.1	1.7	2.2	1.8	2.3	1.8	2.4	1.8	2.4	1.7
		37.0	1.5	1.4	1.8	1.6	2.1	1.7	2.2	1.8	2.3	1.8	2.3	1.8	2.4	1.7
		39.0	1.5	1.4	1.8	1.6	2.1	1.7	2.2	1.8	2.2	1.8	2.3	1.7	2.3	1.6
		25	2.8	10.0	1.9	1.7	2.3	1.9	2.6	2.0	2.8	2.1	3.0	2.2	3.4	2.3
12.0	1.9			1.7	2.3	1.9	2.6	2.0	2.8	2.1	3.0	2.2	3.4	2.3	3.6	2.2
14.0	1.9			1.7	2.3	1.9	2.6	2.0	2.8	2.1	3.0	2.2	3.4	2.3	3.6	2.2
16.0	1.9			1.7	2.3	1.9	2.6	2.0	2.8	2.1	3.0	2.2	3.4	2.3	3.5	2.2
18.0	1.9			1.7	2.3	1.9	2.6	2.0	2.8	2.1	3.0	2.2	3.4	2.3	3.5	2.2
20.0	1.9			1.7	2.3	1.9	2.6	2.0	2.8	2.1	3.0	2.2	3.4	2.3	3.4	2.1
21.0	1.9			1.7	2.3	1.9	2.6	2.0	2.8	2.1	3.0	2.2	3.4	2.3	3.4	2.1
23.0	1.9			1.7	2.3	1.9	2.6	2.0	2.8	2.1	3.0	2.2	3.3	2.2	3.4	2.1
25.0	1.9			1.7	2.3	1.9	2.6	2.0	2.8	2.1	3.0	2.2	3.3	2.2	3.3	2.1
27.0	1.9			1.7	2.3	1.9	2.6	2.0	2.8	2.1	3.0	2.2	3.2	2.2	3.3	2.1
29.0	1.9			1.7	2.3	1.9	2.6	2.0	2.8	2.1	3.0	2.2	3.2	2.2	3.2	2.0
31.0	1.9			1.7	2.3	1.9	2.6	2.0	2.8	2.1	3.0	2.2	3.1	2.1	3.2	2.0
33.0	1.9			1.7	2.3	1.9	2.6	2.0	2.8	2.1	3.0	2.2	3.1	2.1	3.1	2.0
35.0	1.9			1.7	2.3	1.9	2.6	2.0	2.8	2.1	3.0	2.2	3.0	2.1	3.1	2.0
37.0	1.9			1.7	2.3	1.9	2.6	2.0	2.8	2.1	2.9	2.2	3.0	2.1	3.0	2.0
39.0	1.9			1.7	2.3	1.9	2.6	2.0	2.8	2.1	2.9	2.2	2.9	2.1	3.0	2.0

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4 Capacity tables

4 - 2 Heating Capacity Tables

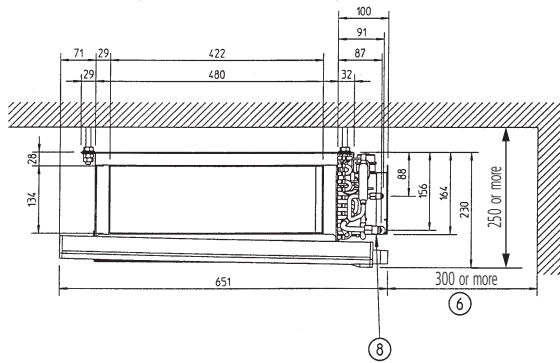
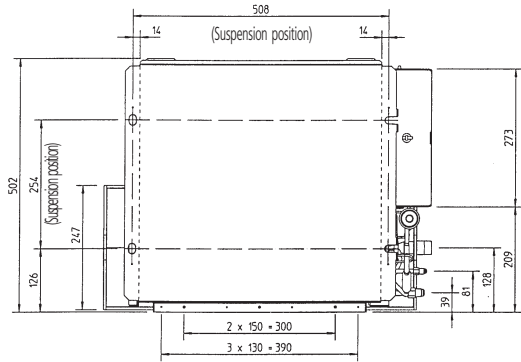
FXDQ-M9									
Unit Size	Nominal capacity	Outdoor air temperature		Indoor air temperature °CDB					
				16.0	18.0	20.0	21.0	22.0	24.0
		°CDB	°CWB	kW	kW	kW	kW	kW	kW
20	2.5	-19.8	-20.0	1.5	1.5	1.5	1.5	1.5	1.5
		-18.8	-19.0	1.5	1.5	1.5	1.5	1.5	1.5
		-16.7	-17.0	1.6	1.6	1.6	1.6	1.6	1.6
		-14.7	-15.0	1.7	1.7	1.7	1.7	1.7	1.7
		-12.6	-13.0	1.8	1.8	1.8	1.8	1.8	1.8
		-10.5	-11.0	1.9	1.9	1.9	1.9	1.9	1.9
		-9.5	-10.0	1.9	1.9	1.9	1.9	1.9	1.9
		-8.5	-9.1	2.0	2.0	1.9	1.9	1.9	1.9
		-7.0	-7.6	2.0	2.0	2.0	2.0	2.0	2.0
		-5.0	-5.6	2.1	2.1	2.1	2.1	2.1	2.1
		-3.0	-3.7	2.2	2.2	2.2	2.2	2.2	2.2
		0.0	-0.7	2.3	2.3	2.3	2.3	2.3	2.2
		3.0	2.2	2.5	2.5	2.4	2.4	2.3	2.2
		5.0	4.1	2.5	2.5	2.5	2.4	2.3	2.2
		7.0	6.0	2.6	2.6	2.5	2.4	2.3	2.2
		9.0	7.9	2.7	2.7	2.5	2.4	2.3	2.2
11.0	9.8	2.8	2.7	2.5	2.4	2.3	2.2		
13.0	11.8	2.8	2.7	2.5	2.4	2.3	2.2		
15.0	13.7	2.8	2.7	2.5	2.4	2.3	2.2		
25	3.2	-19.8	-20.0	1.9	1.9	1.9	1.9	1.9	1.9
		-18.8	-19.0	1.9	1.9	1.9	1.9	1.9	1.9
		-16.7	-17.0	2.1	2.1	2.0	2.0	2.0	2.0
		-14.7	-15.0	2.2	2.2	2.2	2.2	2.2	2.1
		-12.6	-13.0	2.3	2.3	2.3	2.3	2.3	2.3
		-10.5	-11.0	2.4	2.4	2.4	2.4	2.4	2.4
		-9.5	-10.0	2.5	2.4	2.4	2.4	2.4	2.4
		-8.5	-9.1	2.5	2.5	2.5	2.5	2.5	2.5
		-7.0	-7.6	2.6	2.6	2.6	2.6	2.6	2.6
		-5.0	-5.6	2.7	2.7	2.7	2.7	2.7	2.7
		-3.0	-3.7	2.8	2.8	2.8	2.8	2.8	2.8
		0.0	-0.7	3.0	3.0	3.0	3.0	3.0	2.8
		3.0	2.2	3.1	3.1	3.1	3.1	3.0	2.8
		5.0	4.1	3.3	3.2	3.2	3.1	3.0	2.8
		7.0	6.0	3.4	3.4	3.2	3.1	3.0	2.8
		9.0	7.9	3.5	3.4	3.2	3.1	3.0	2.8
11.0	9.8	3.6	3.4	3.2	3.1	3.0	2.8		
13.0	11.8	3.6	3.4	3.2	3.1	3.0	2.6		
15.0	13.7	3.6	3.4	3.2	3.1	3.0	2.8		

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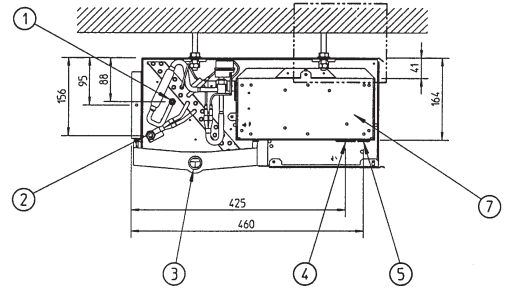
5 Dimensional drawings

5 - 1 Dimensional Drawings

FXDQ-M9



Nr	Part name
1	Liquid pipe connection (ø 6.35)
2	Gas pipe connection (ø 12.7)
3	Drain hole (o.d. ø 27.2 - i.d. ø 21.6)
4	Transmission wiring port
5	Power supply wiring port
6	Service space
7	Switch box
8	Nameplate

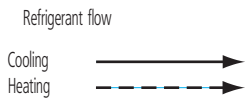
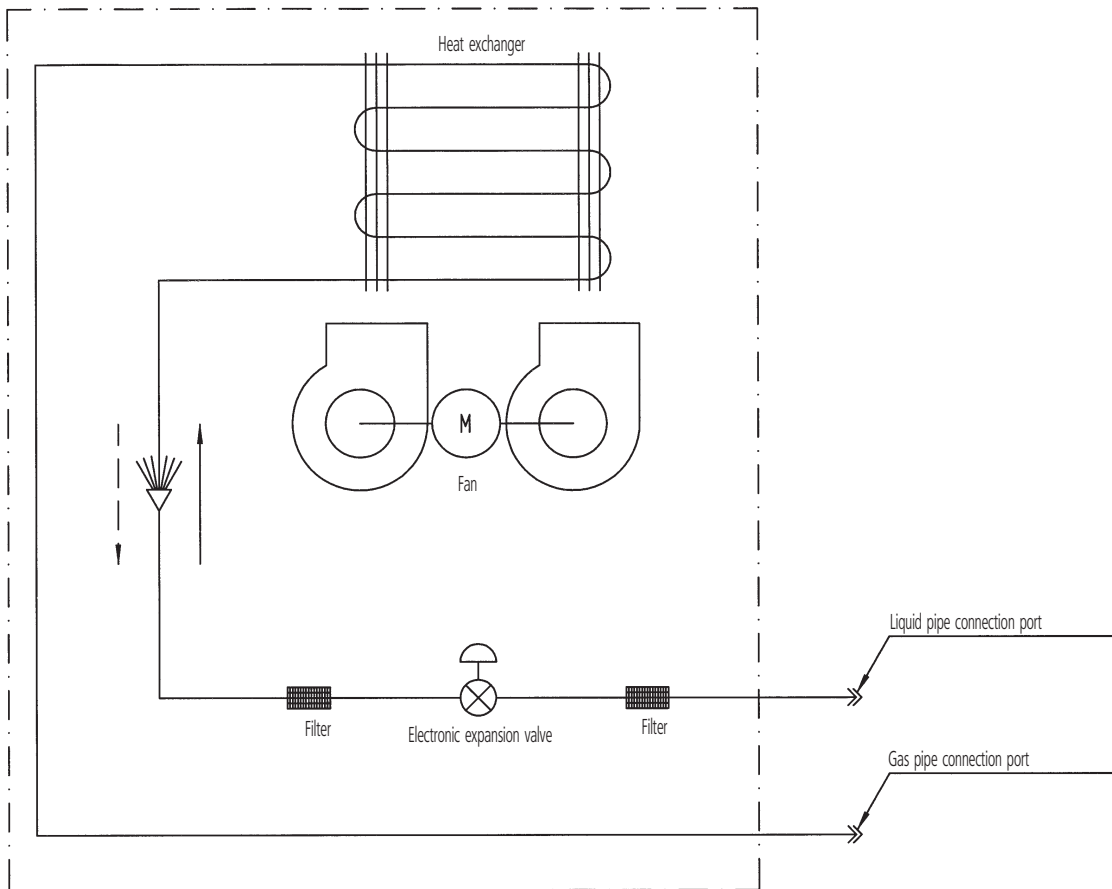


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6 Piping diagrams

6 - 1 Piping Diagrams

FXDQ-M9



Piping connection diameters

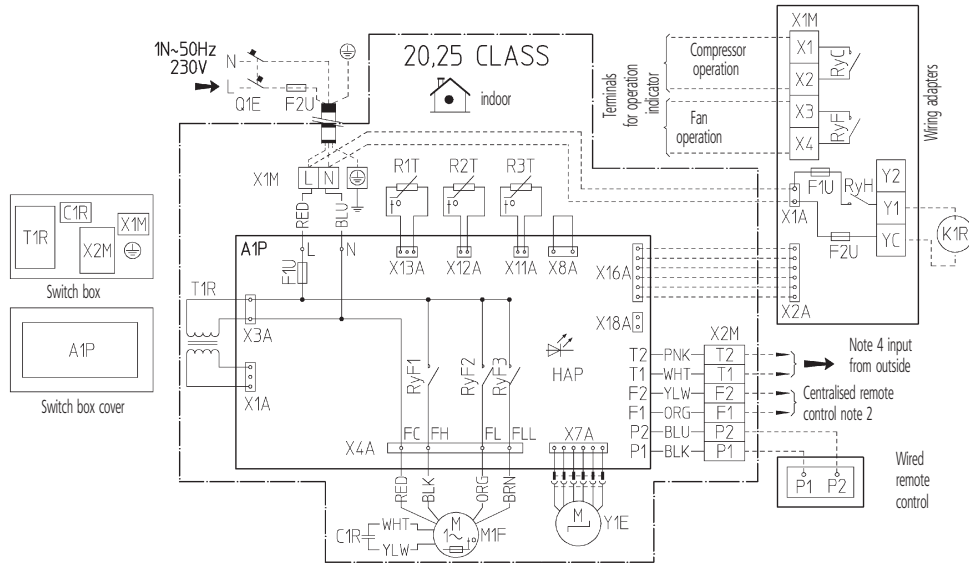
Model	Gas	Liquid
FXDQ20,25M9	ø12.7	ø6.4

3TW21175-1C

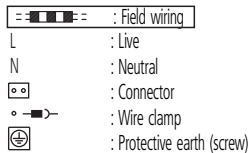
7 Wiring diagrams

7 - 1 Wiring Diagrams - Single Phase

FXDQ-M9



A1P	Printed circuit board	RyF1-3	Magnetic relay (Fan)	RyC, RyF	Magnetic relay
C1R	Capacitor (Fan)	T1R	Transformer (220-240V/22V)	RyH	Magnetic relay (J1EH)
F1U	Fuse (250V, 10A)	X1M	Terminal strip (Power)	F1U, F2U	Fuse (250V, 5A)
F2U	Field fuse	X2M	Terminal strip (Control)	X1A, X2A	Connector (Wiring adapter)
HAP	Light emitting diode (Service monitor-green)	Y1E	Electronic expansion valve	X1M	Terminal strip
M1F	Motor (Fan)	Optional parts		Connector for optional parts	
Q1E	Earth leak detector	J1EH	Electric heater	X16A	Connector (Wiring adapter)
R1T	Thermistor (Air)	K1R	Magnetic relay (J1EH)	X18A	Connector (Wiring adapter for electrical appendices)
R2T, R3T	Thermistor (Refrigerant)	Wiring adapter			



COLORS : BLK : Black PNK : Pink
 BLU : Blue RED : Red
 BRN : Brown WHT : White
 ORG : Orange YLW : Yellow

NOTES

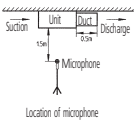
- 1 Use copper conductors only.
- 2 When using a centralised remote control, see manual for connection to the unit.
- 3 When installing the electric heater change the wiring for the heater circuit. The main power supply has to be supplied independently.
- 4 When connecting the input wires from the outdoor unit 'forced off' or 'on/off' operation can be selected by the remote control. For more details see installation manual.

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8 Sound data

8 - 1 Sound Level Data

FXDQ-M9

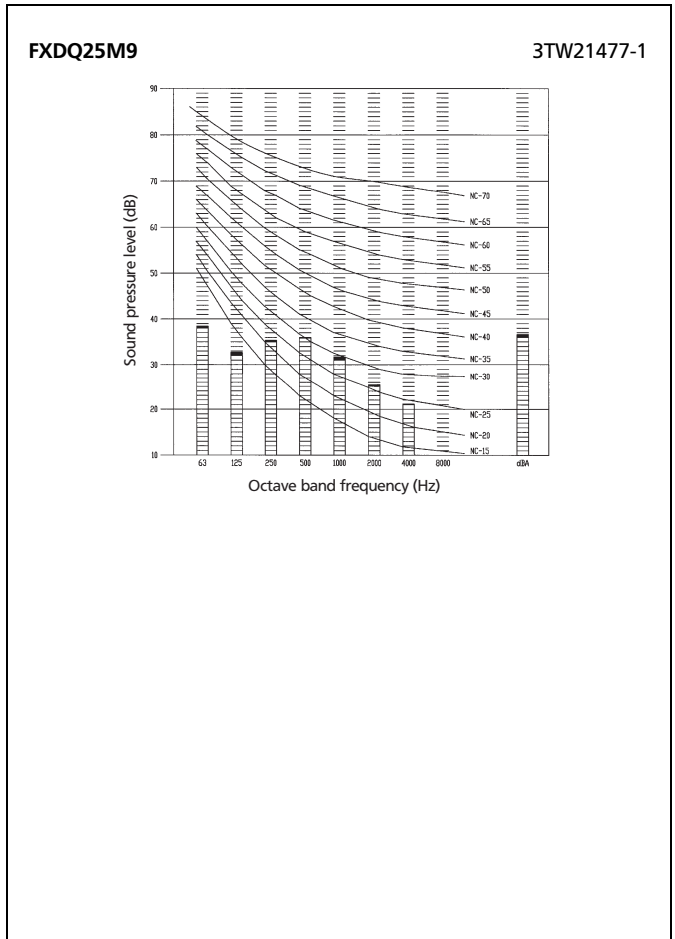
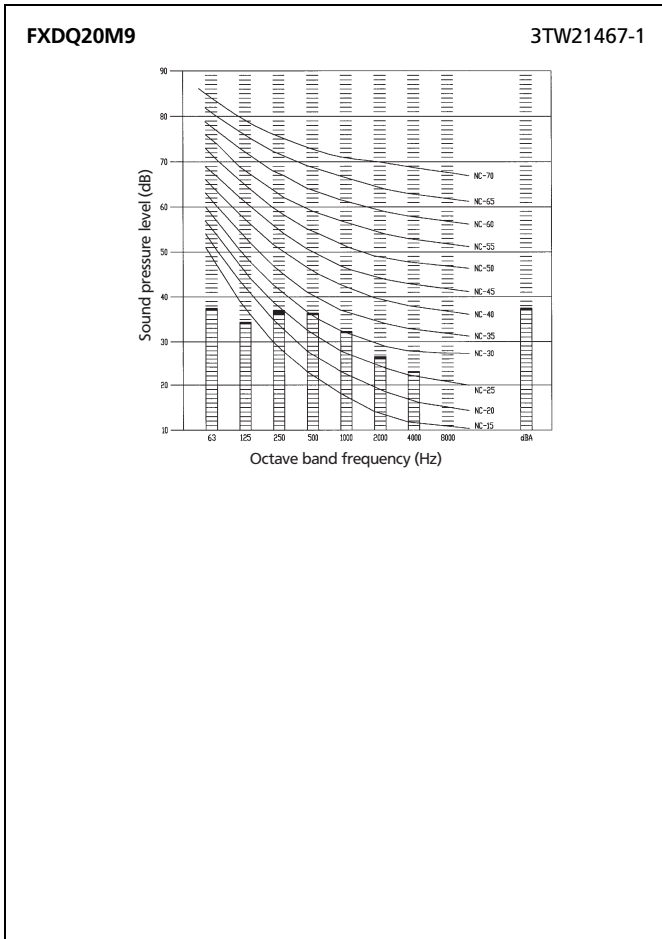
Model	Sound pressure level - 230V		Measuring location	Sound power level
	H	L		
FXDQ20M9	37	32		50
FXDQ25M9	37	32		50

NOTES

- 1 dBA = A-weighted sound pressure level (A-scale according to IEC).
- 2 Reference acoustic pressure 0 dB = 20 Pa.
- 3 These operating values were obtained using a power source of 230V/50Hz.
- 4 These operating values were obtained in a dead room (conversion values). Noise values will vary depending on a range of factors such as the construction of the particular room in which the equipment is installed.
- 5 Operating noise differs with operation and ambient conditions.

8 Sound data

8 - 2 Sound Pressure Spectrum



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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