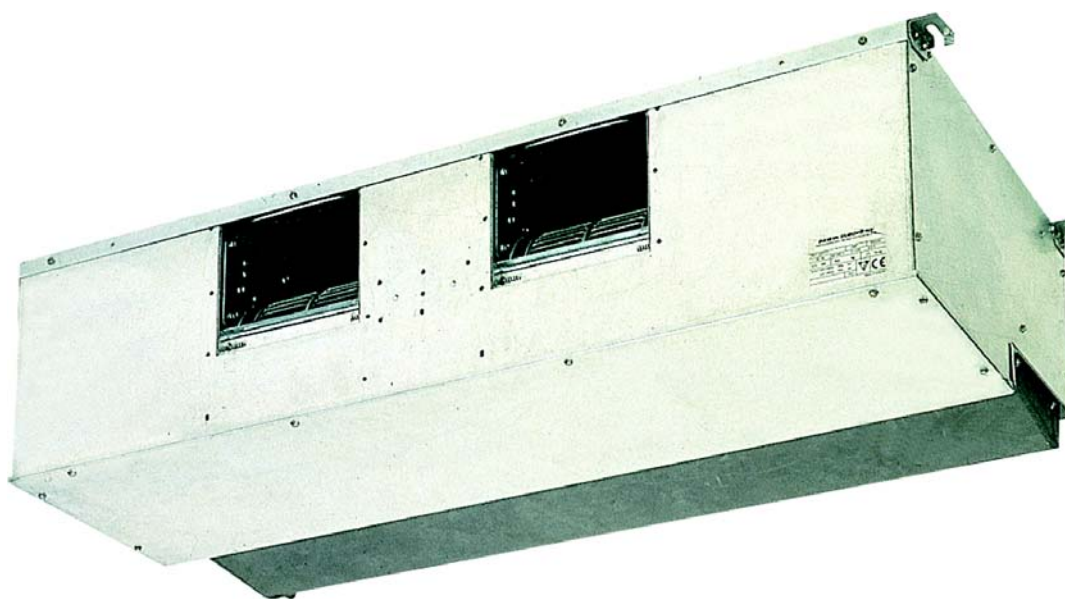




Air Conditioning Technical Data

Concealed ceiling unit with high ESP



EEEN15-100

FDQ-B

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FDQ-B

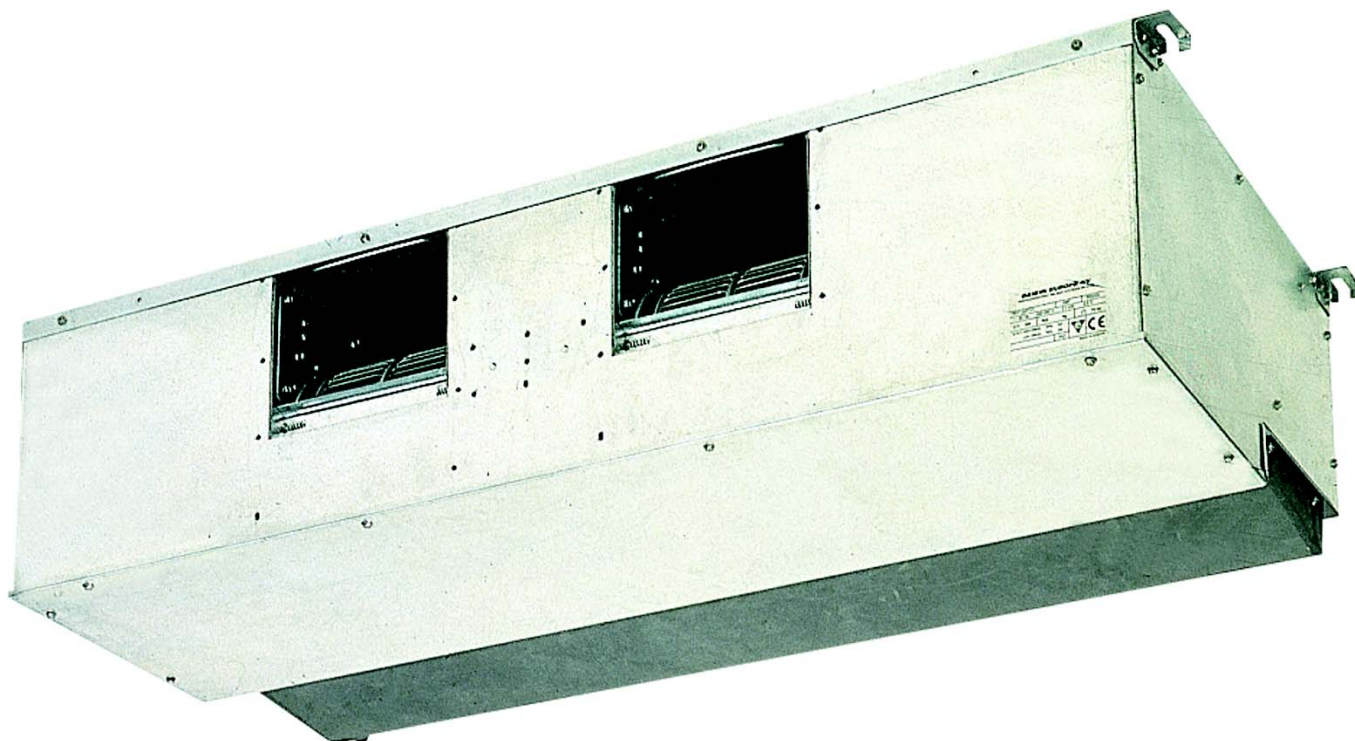
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1 Features

ESP up to 250, ideal for extra large sized spaces

- High external static pressure up to 250Pa facilitates using flexible ducts of varying lengths
- Discretely concealed in the ceiling: only the suction and discharge grilles are visible
- Up to 26.4kW in heating mode

1



Home leave operation



Fan only



Auto cooling-heating changeover



Fan speed steps



Dry programme



Air filter



Weekly timer



Wired remote control



Centralised control



Auto-restart



Self diagnosis

2 Specifications

2-1 Technical Specifications					FDQ200B		FDQ250B	
Power input - 50Hz	Cooling	Nom.	kW		1,340			
	Heating	Nom.	kW		1,340			
Casing	Colour				Unpainted			
	Material				Galvanised steel			
Dimensions	Unit	Height/Width/Depth	mm		450 (1)/1,400/900			
	Packed unit	Height/Width/Depth	mm		607/1,515/1,055			
Required ceiling void \>			mm		450			
Weight	Unit		kg		89.0		94.0	
	Packed unit		kg		108.0		113.0	
Heat exchanger	Length		mm		1,200			
	Rows	Quantity			3			
	Fin pitch		mm		2.00			
	Passes	Quantity			12			
	Face area		m²		0.634			
	Stages	Quantity			24			
	Empty tubeplate hole	Quantity			0			
	Tube type			ø8 Hi-XSS				
	Fin	Type			Non-symmetric fin			
		Treatment			Hydrophilic			
Air filter	Type				Resin net with mold resistance			
Fan	Type				Sirocco fan			
	Quantity				2			
	Air flow rate	Cooling	Nom.	m³/min	69.0		89.0	
		Heating	Nom.	m³/min	69.0		89.0	
	External static pressure	High		Pa	250			
		Nom.		Pa	250			
		Low		Pa	250			
Fan motor	Quantity				1			
	Model				DPC241-241NB			
	Drive				Direct drive			
	Speed	Steps			3		2	
	Output	High		W	650		1,000	
Sound power level	Cooling		dBA		81		82	
	Heating		dBA		-			
Sound pressure level	Cooling	High	dBA		45.0		47.0	
	Heating	Low	dBA		45.0		47.0	
Control systems	Wired remote control				BRC1D52 / BRC1E52A/B			
Refrigerant	Type				R-410A			
Piping connections	Liquid	Type/OD	mm		Flare connection/9.52		Flare connection/12.7	
	Gas	Type/OD	mm		Braze connection/22.2			
	Drain				25			
	Heat insulation				Both liquid and gas pipes			
Temperature control					Microprocessor thermostat for cooling and heating			
Air direction control					Up and downwards			
Safety devices	Item	01			Fan motor thermal fuse			

Standard Accessories : Installation and operation manual; Quantity : 1;

2-2 Electrical Specifications					FDQ200B	FDQ250B
Power supply	Name				V3	
	Phase				1~	
	Frequency			Hz	50	
	Voltage			V	230	

2 Specifications

2-2 Electrical Specifications			FDQ200B	FDQ250B
Voltage range	Min.	%	-10	
	Max.	%	10	
Current - 50Hz	Zmax	List	No requirements	
Power supply intake			Both indoor and outdoor unit	

2

Notes

(1) For more details, please refer to wiring diagram, name plate and installation manual.

Sound values are measured in a semi-anechoic room with corrections.

The sound pressure level is measured via a microphone at 1m distance of the unit.

Sound pressure level is a relative value, depending on the distance and acoustic environment. For more details, please refer to the sound level drawings.

The sound power level is an absolute value indicating the power which a sound source generates.

3 Options

3 - 1 Options

FDQ-B

Option	Option name	FDQ200B	FDQ250B
Wiring adapter for electrical appendices	KRP4A51	X	X
Adapter for wiring (interlock for fresh air intake)	KRP1B54	X	X
Interface adapter for Sky Air series	DTA102A52	-	-
	DTA112B51	X	X
Central remote controller	DCS302C51	X	X
Unified ON/OFF controller	DCS301B51	X	X
Schedule timer	DST301B51	X	X
Option PCB for external electrical heater, humidifier and/or hour meter	EKRP1B2	X	X
Wired remote controller	BRC1D52	X	X
Wired remote controller	BRC1E51A7 *1	X	X
Wired remote controller	BRC1E52A7 *2	X	X
Wired remote controller	BRC1E52B7 *3	X	X
Remote ON/OFF and FORCED OFF kit	EKRORO	X	X

NOTES

Connection with hour meter is possible by using the EKRP1B2.

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

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

*3 Included languages are: English, German, Albanian, Bulgarian, Croatian, Czech, Hungarian, Romanian, Serbian, Slovak and Slovenian.

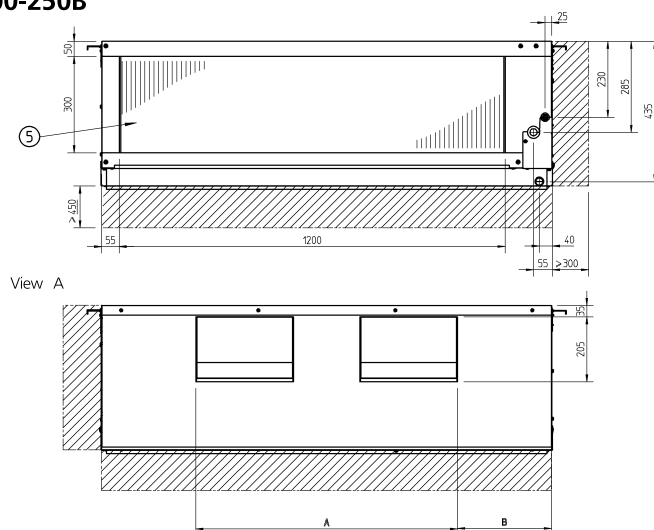
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4 Dimensional drawings

4 - 1 Dimensional Drawings

FDQ200-250B
FDYP200-250B

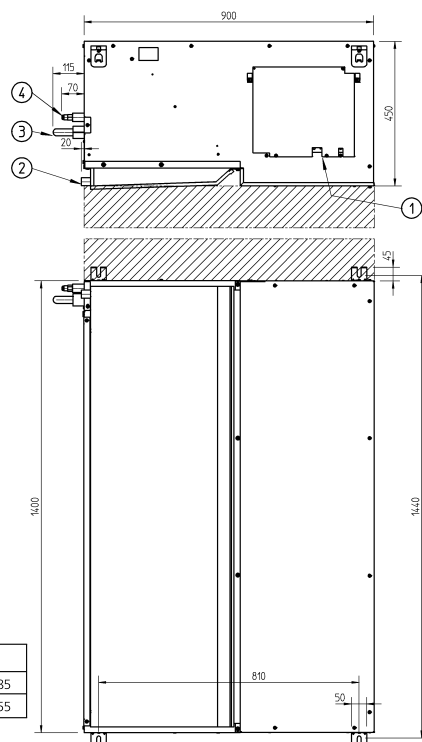
unit (mm)



- ① Power supply intake
- ② Drain connection ϕ 25 O.D.
- ③ Gas pipe connection
FDYP200B/250B : 1 1/8" O.D. or 28,6 mm
FDQ200/250 : 7/8" O.D. or 22,2 mm O.D.
- ④ Liquid pipe connection
FDYP200B : Single union joint 1/2" or 12,7mm
FDYP250B : Single union joint 5/8" or 15,9mm
FDQ200 : Single union joint 3/8" or 9,52 mm
FDQ250 : Single union joint 1/2" or 12,7mm
- ⑤ Filter

Notes:
 : Service space

Model	A	B
FDYP200B8V19/FDQ200B8V389	830	285
FDYP250B8V19/FDQ250B8V389	890	255

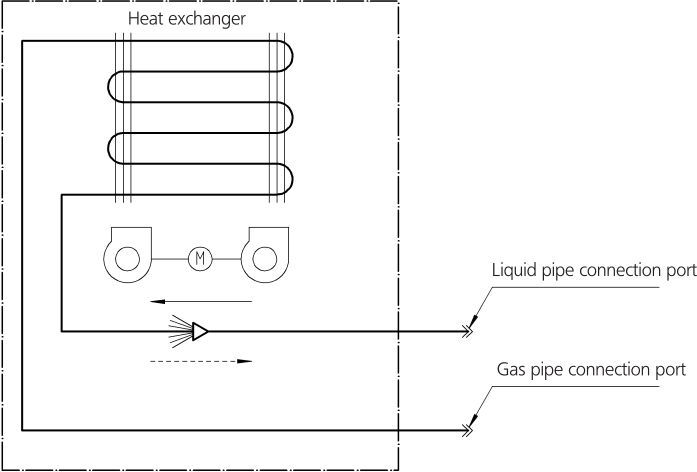


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5 Piping diagrams

5 - 1 Piping Diagrams

FDQ125-250B



Refrigerant flow

Cooling —————→
Heating - - - - -→

Refrigerant pipe connection port diameters

Model	Gas	Liquid
FDQ125	ϕ 15.90	ϕ 9.52
FDQ200	ϕ 22.2	
FDQ250		ϕ 12.7

Check valve Flare connection Screw connection Flange connection Pinched pipe Spinned pipe

3TW26055-1A

6 Wiring diagrams

6 - 1 Wiring Diagrams - Single Phase

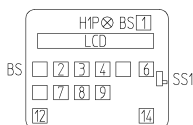
FDQ-B

Notes

- When using the central remote control, see manual for connection to the unit.
- Be sure that the power supply is switched off before opening the switch box.
* L-tap is not available for 250 class.

Field wiring Terminal
Connector Protective earth (screw)
Colours
BLK: Black / BLU: Blue
RED: Red / WHT: White / YLW: Yellow

Details of wired remote control



A1P	Printed circuit board	R1T	Thermistor (air)
T1R	Transformer(230V / 21.8V)	R2T	Thermistor (coil)
A3P	Printed circuit board	RyF1	Magnetic relay (fan)
C1R	Capacitor (fan)	SS1	Selector switch (emergency)
F1T	Thermal fuse (M1F embedded)	X1M	Terminal strip
HAP	Light emitting diode (service monitor green)	RC	Signal receiver circuit
K1F	Magnetic contactor (M1F)	TC	Signal transmission circuit
M1F	Motor (Fan)	F5U	Fuse
		Q1D	Earth leakage breaker

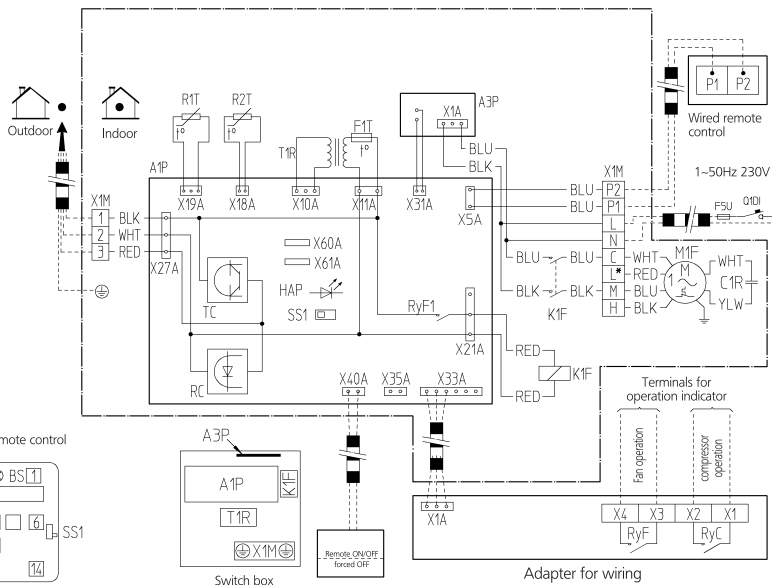
Wired remote control	
BS1	On/Off button
BS2	Timer mode start/stop button
BS3,BS8	Programming time button
BS4	Temperature setting button up
BS9	Temperature setting button down
BS6	Operation mode selector button
BS7	Timer on/off button
BS12	Inspection/test operation button

Switch box

BS14	Filter sign reset button
H1P	Light emitting diode (service monitor red)
LCD	Liquid crystal display
SS1	Selector switch (main/sub)

Adapter for wiring

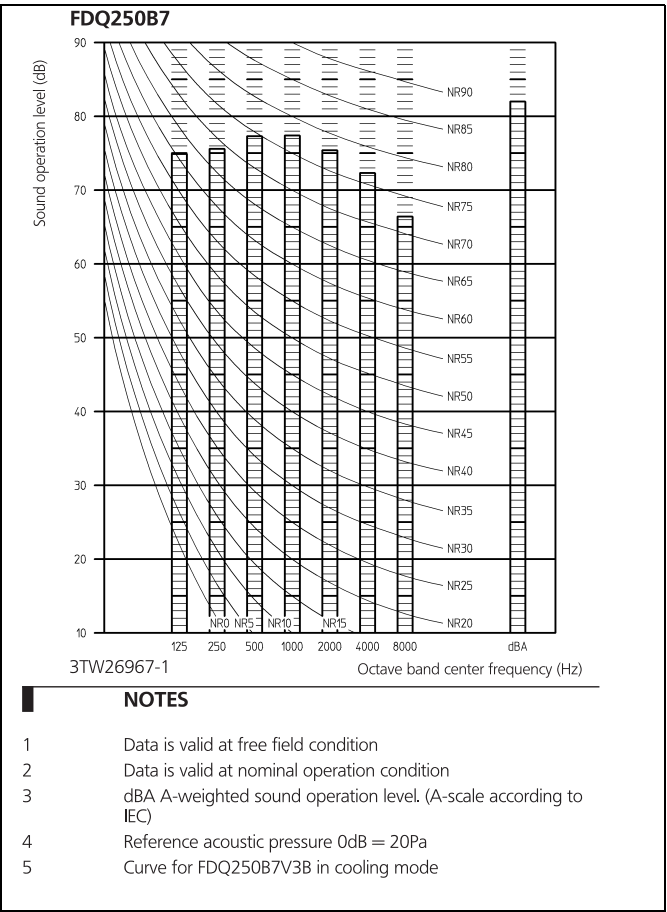
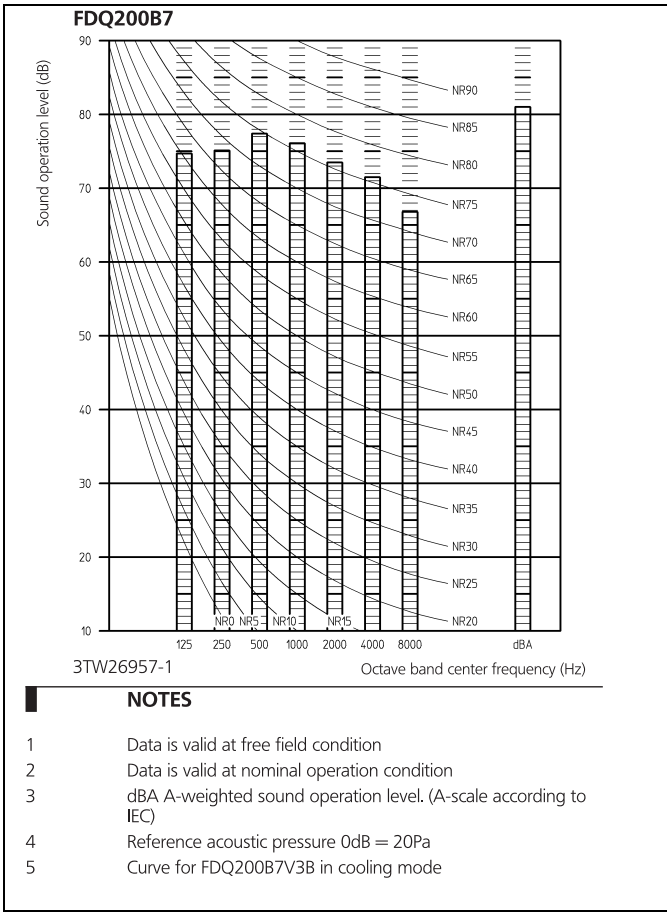
Adapter for wiring	
RyC,RyF	Magnetic relay
Connector for optional parts	
X60A	Connector (interface adapter for SKY AIR / US series)
X61A	Connector (adapter for wiring)
X33A	Connector (group control adapter)
X35A	Connector (Remote ON/OFF, forced OFF)
X40A	Connector (Remote ON/OFF, forced OFF)



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7 Sound data

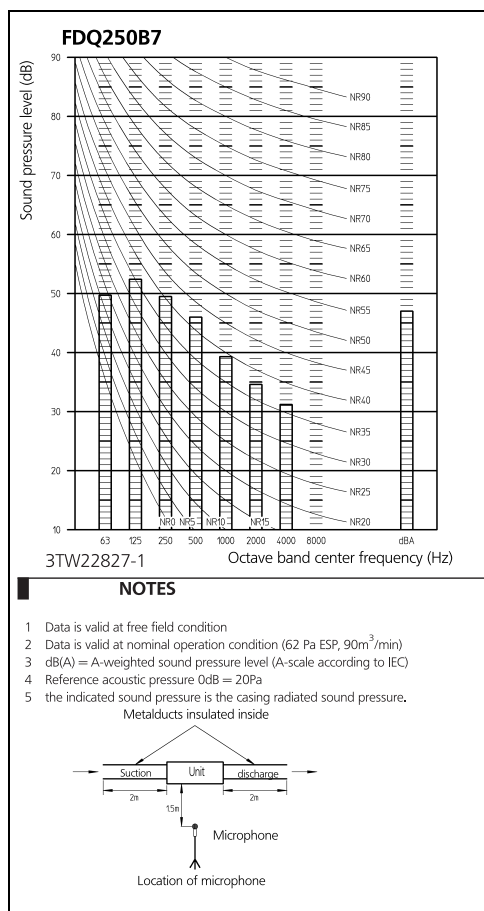
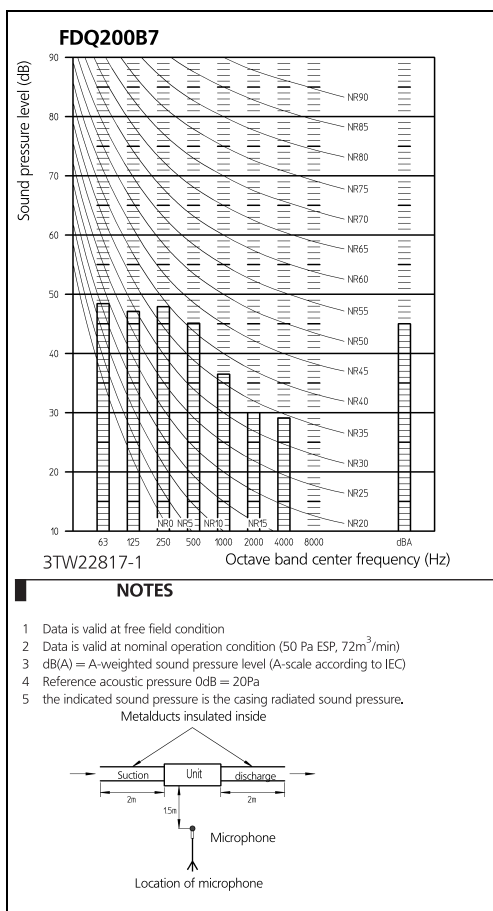
7 - 1 Sound Power Spectrum



7 Sound data

7 - 2 Sound Pressure Spectrum

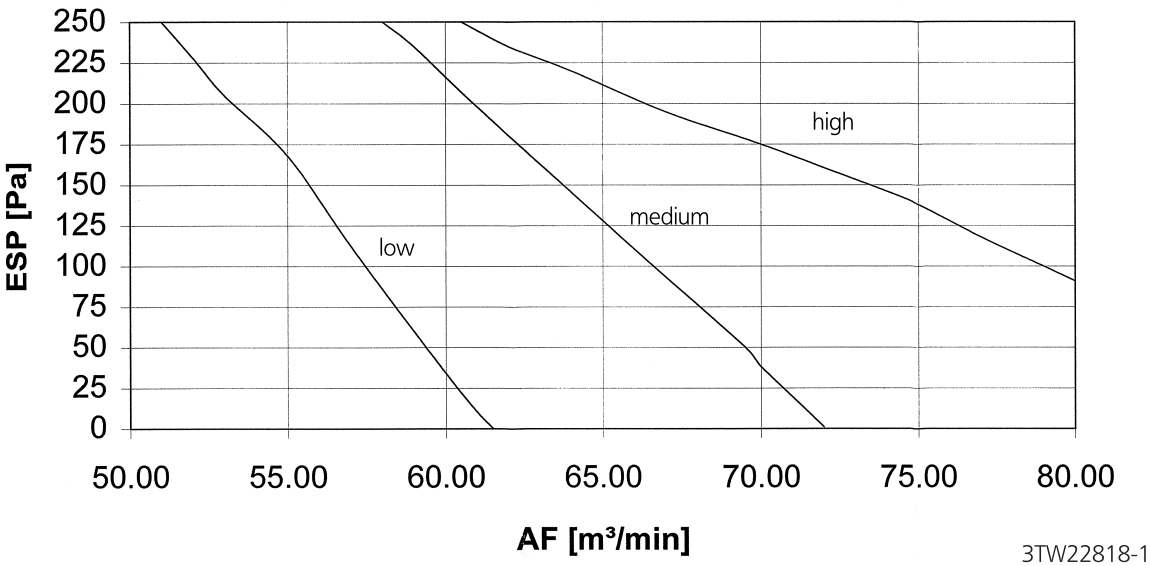
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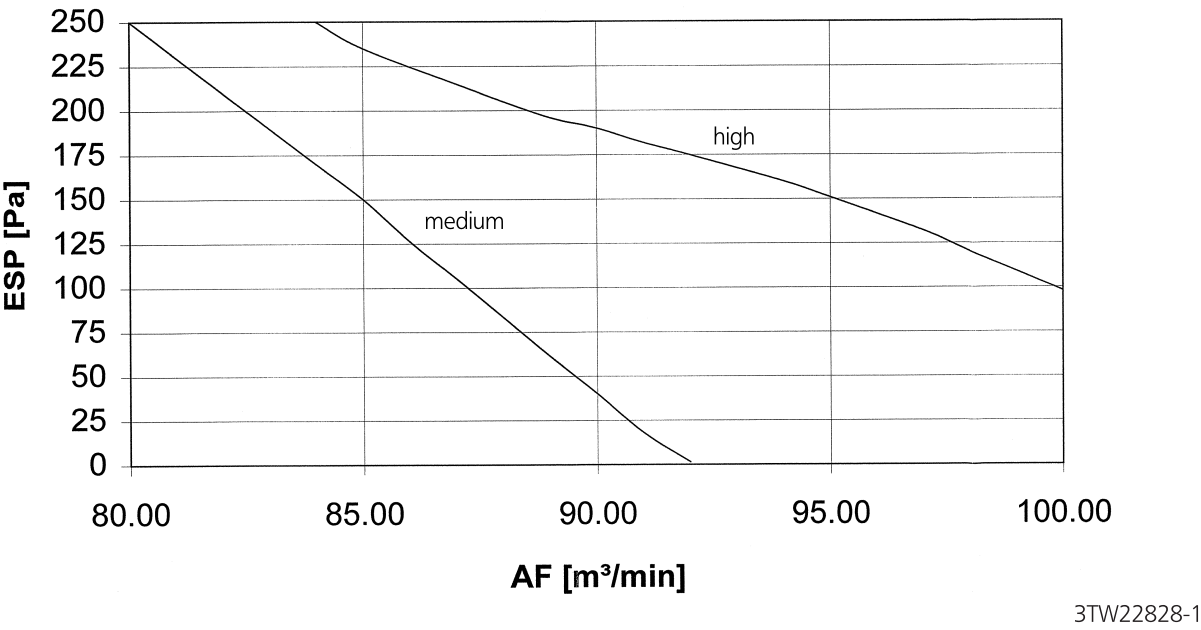
8 Fan characteristics

8 - 1 Fan Characteristics

Fan curve FDQ200B7



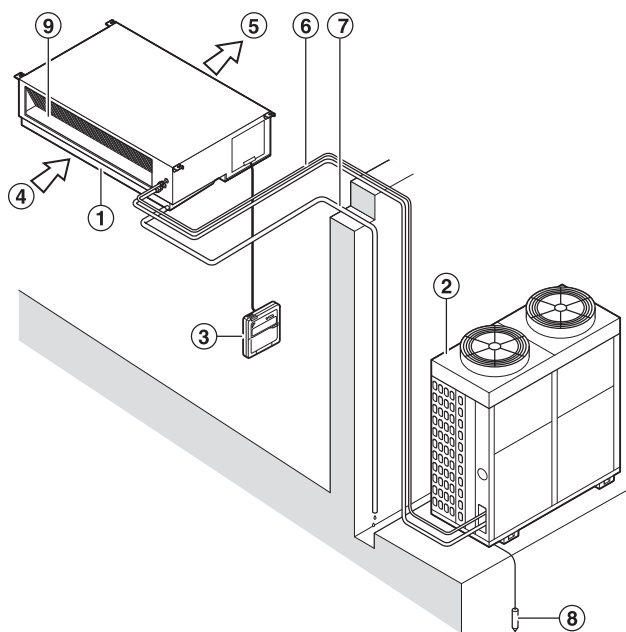
Fan curve FDQ250B7



9 Installation

9 - 1 Installation Method

9



Number	Description
1	Indoor unit
2	Outdoor unit
3	Remote control
4	Inlet air
5	Discharged air
6	Refrigerant piping, connection electric wire
7	Drain pipe
8	Ground wire Wire to ground from the outdoor unit to prevent electrical shocks.
9	Air filter



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