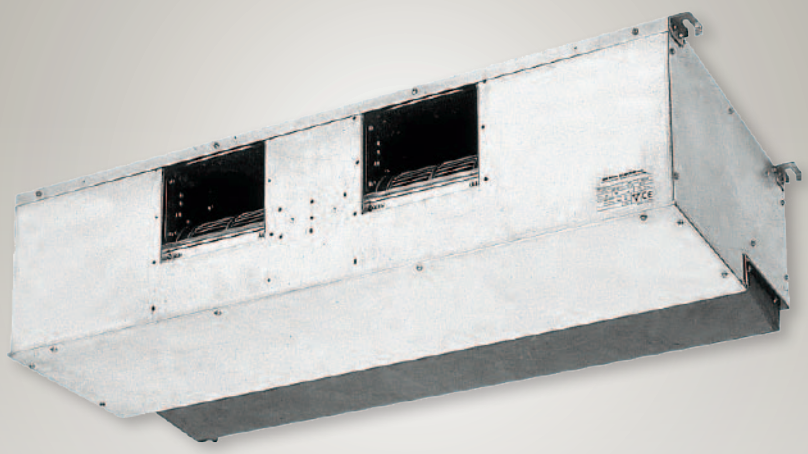
DAIKIN

Air Conditioners

Technical Data

SkyAir®

Concealed Ceiling Unit



EEDEN10-100

FDQ-B

DAIKIN

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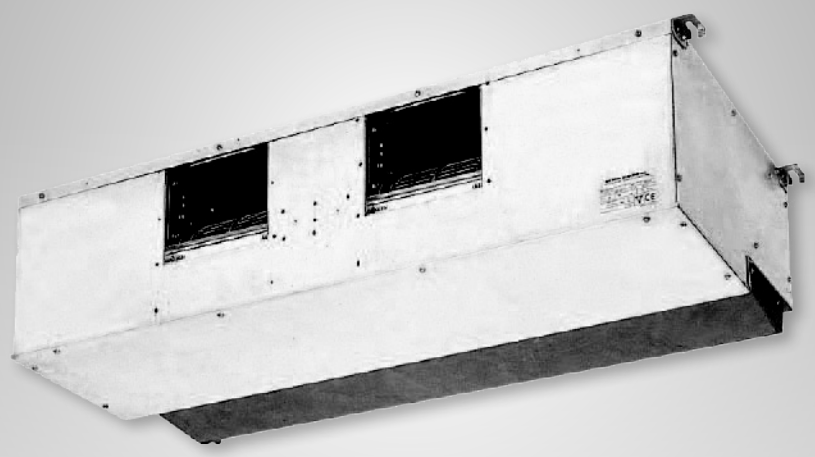


EEDEN10-100

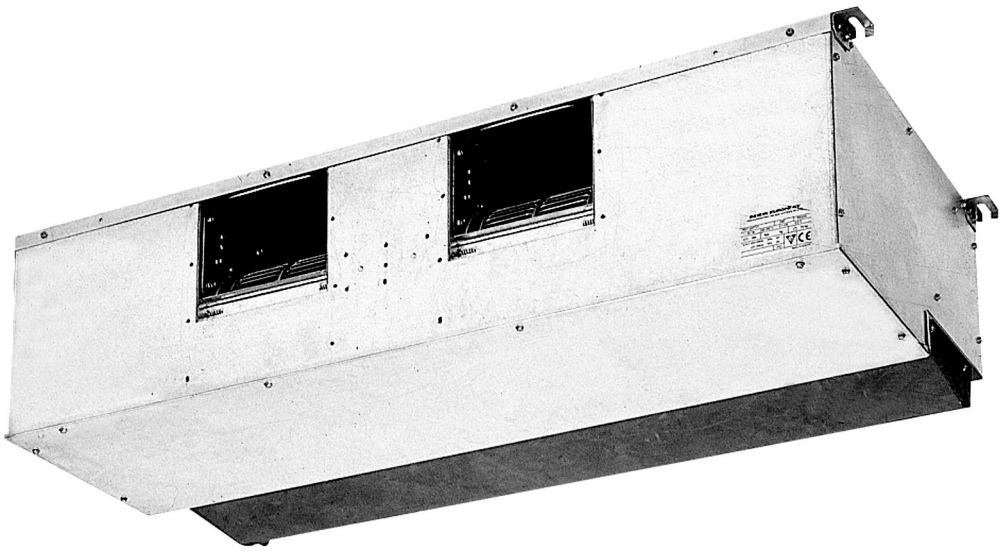
FDQ-B

TABLE OF CONTENTS

FDQ-B8V3B9

1 Features

- Slim design for flexible installation
- Ideal for use in larger areas
- Blends unobtrusively with any interior décor: only the suction and discharge grilles are visible
- Maximum external static pressure (ESP) ranges from 150 till 250Pa
- Optimum air distribution




heat pump

standard


optional





2 steps: FDQ250, 3 steps: FDQ125,200



optional

2 Specifications

2-1 FOR INDOOR UNITS ONLY			FDQ125B8V3B9	FDQ200B8V3B9	FDQ250B8V3B9
Nominal input (Indoor only)	Cooling	kW		1,340	1,340
	Heating	kW		1,340	1,340

2-2 TECHNICAL SPECIFICATIONS				FDQ125B8V3B9	FDQ200B8V3B9	FDQ250B8V3B9
Casing	Colour			Non painted		
	Material			Galvanised steel		
Dimensions	Packing	Height	mm	512	607	607
		Width	mm	1,515		
		Depth	mm	795	1,055	1,055
	Unit	Height	mm	350	450	450
		Width	mm	1,400		
		Depth	mm	662	900	900
Weight	Unit		kg	59.0	89.0	94.0
	Packed Unit		kg	74.0	108.0	113.0
Required Ceiling Void			mm	350	450	450
Heat Exchanger	Dimensions	Length	mm	1,150	1,200	1,200
		Nr of Rows		3	3	3
		Fin Pitch	mm	1.75	2.00	2.00
		Nr of Passes		10	12	12
		Face Area	m²	0.338	0.634	0.634
		Nr of Stages		14	24	24
	Tube type			Hi-XSS (7)	Hi-XSS (8)	
	Fin	Type		Rhombus	Non-symmetric fin	
		Treatment		Hydrophilic		
Fan	Type			Sirocco fan		
	Quantity			2	2	2
Air Flow Rate	Cooling	Medium	m³/min	43.0	69.0	89.0
	Heating	Medium	m³/min	43.0	69.0	89.0
Fan	Max	High	Pa	150	250	250
		Standard	Pa	150	250	250
		Low	Pa	150	250	250
	Motor	Quantity		1	1	1
		Model		DPA216-178NB	DPC241-241NB	DPC241-241NB
		Number of steps		3	3	2
		Output (high)	W	500	650	1,000
		Drive		Direct drive		
Cooling	Sound Power	Medium	dBA	75.0	81.0	82.0
	Sound Pressure	High	dBA	44.0	45.0	47.0
Heating	Sound Pressure	Low	dBA	44.0	45.0	47.0
Refrigerant	Type			R-410A		
Piping connections	Liquid (OD)	Type		Flare connection		
		Diameter (OD)	mm	9.52	9.52	12.7
	Gas	Type		Flare connection	Braze connection	
		Diameter (OD)	mm	15.9	22.2	22.2
	Drain	Diameter (OD)	mm		25	25
	Heat Insulation			Both liquid and gas pipes		
Air Filter				Resin net with mold resistance		
Air direction control				Up and downwards		
Temperature control				Microprocessor thermostat for cooling and heating		
Safety Devices				Fan motor thermal fuse		
Standard Accessories	Item			Installation and operation manual		
	Quantity			1	1	1

2 Specifications

2-2 TECHNICAL SPECIFICATIONS	FDQ125B8V3B9	FDQ200B8V3B9	FDQ250B8V3B9
Notes	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 sound level drawings of this chapter.		
	The sound power level is an absolute value indicating the power which a sound source generates.		

2-3 ELECTRICAL SPECIFICATIONS			FDQ125B8V3B9	FDQ200B8V3B9	FDQ250B8V3B9
Power Supply	Name		V3		
	Phase		1~		
	Frequency	Hz	50	50	50
	Voltage	V	230	230	230
Voltage range	Minimum		-10%		
	Maximum		+10%		
Power Supply Intake			Both indoor and outdoor unit		
Notes			FOR MORE DETAILS, REFER TO WIRING DIAGRAM, NAME PLATE AND INSTALLATION MANUAL		

3 Options

FDQ125,200,250B8V3B

Option	Option name	FDQ125B	FDQ200B	FDQ250B
Wiring adapter for electrical appendices	KRP4A51	X	X	X
Adapter for wiring (interlock for fresh air intake)	KRP1B54	X	X	X
Interface adapter for Sky Air series	DTA112B51	X	X	X
Central remote control	DCS302C51	X	X	X
Unified ON/OFF controller	DCS301B51	X	X	X
Schedule timer	DST301B51	X	X	X
Option PCB for external electric heater, humidifier and/or hour meter	EKRP1B2	X	X	X
Wired remote control	BRC1D52	X	X	X
Wired remote control	BRC1E51A7 *1	X	X	X
Remote “On/Off” and “Forced Off” kit	EKRORO	X	X	X

NOTES

1. Connection with hour meter is possible by using the EKRP1B2
2. *1 Included languages are: English, German, French, Dutch, Spanish, Italian, Greek, Portuguese, Russian and Turkish

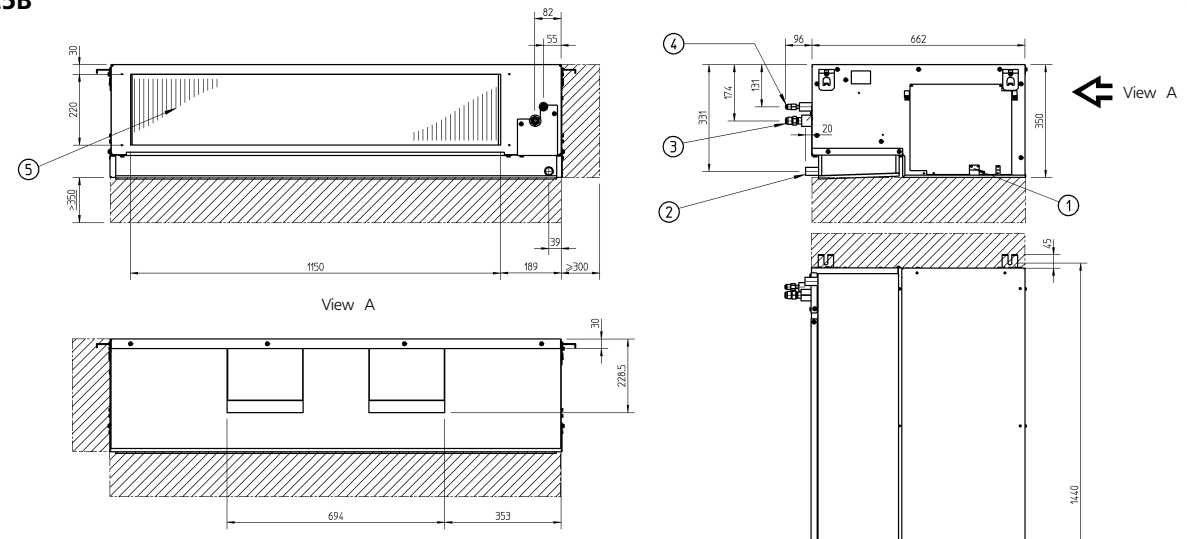
3TW22809-1G

4 Dimensional drawing & centre of gravity

4 - 1 Dimensional drawing

FDQ125B

unit (mm)



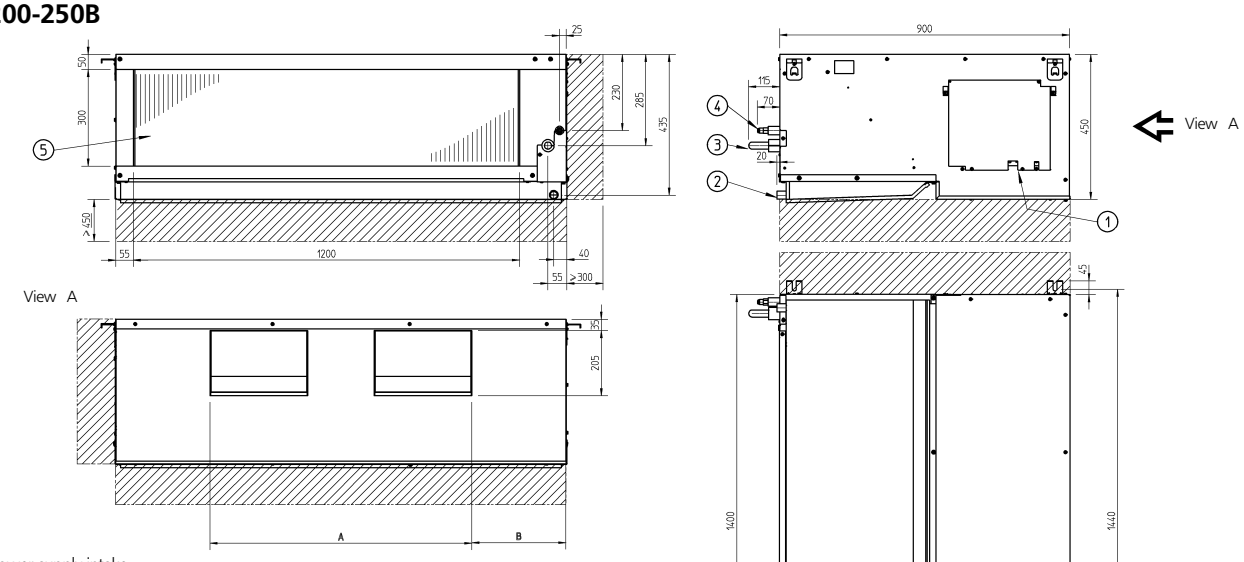
① Power supply intake
② Drain connection ϕ25 O.D.
③ Gas pipe connection single union joint 5/8" or 15,9 mm
④ Liquid pipe connection single union joint 3/8" or 9,52 mm
⑤ Filter

Notes:
▨ : Service space

3TW30824-1

FDQ200-250B
FDYP200-250B

unit (mm)



① Power supply intake
② Drain connection ϕ25 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

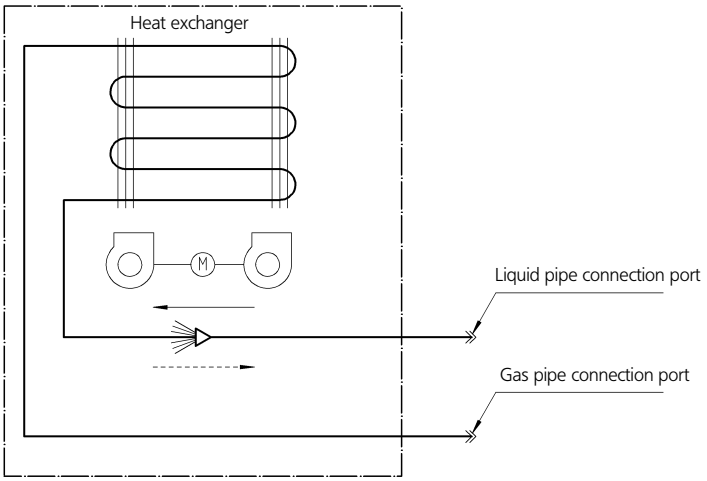
Notes:
▨ : Service space

Model	A	B
FDYP200B8V19/FDQ200B8V3B9	830	285
FDYP250B8V19/FDQ250B8V3B9	890	255

3TW30844-1

5 Piping diagram

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

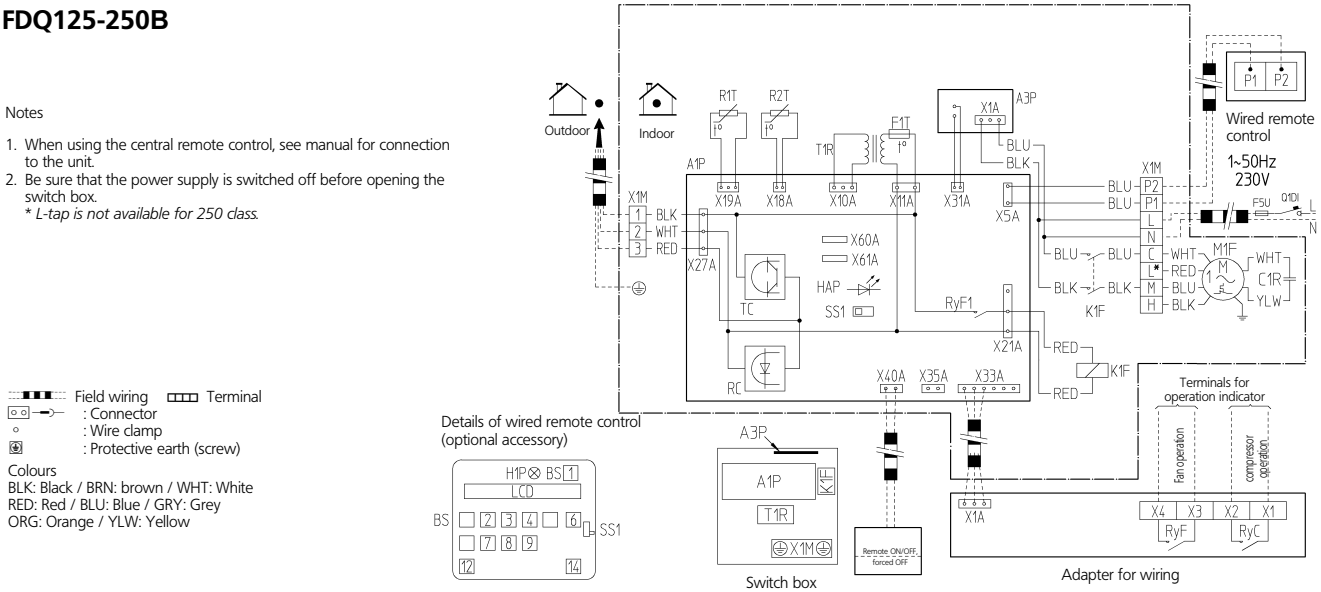
6 Wiring diagram

6 - 1 Wiring diagram

FDQ125-250B

Notes

1. When using the central remote control, see manual for connection to the unit.
2. 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
: Wire clamp
: Protective earth (screw)

Colours
BLK: Black / BRN: brown / WHT: White
RED: Red / BLU: Blue / GRY: Grey
ORG: Orange / YLW: Yellow

A1P	Printed circuit board
A3P	Printed circuit board
T1R	Transformer(230V / 218V)
C1R	Capacitor (fan)
F1T	Thermal fuse (M1F embedded)
HAP	Light emitting diode (service monitor green)
K1F	Magnetic contactor (M1F)
M1F	Motor (Fan)

R1T	Thermistor (air)
R2T	Thermistor (coil)
RyF1	Magnetic relay (fan)
SS1	Selector switch (emergency)
X1M	Terminal strip
RC	Signal receiver circuit
TC	Signal transmission circuit
F5U	Power setting fault
Q1DI	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

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

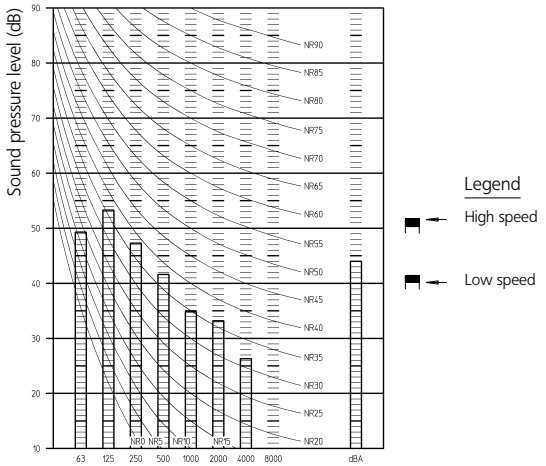
Adapter for wiring	
RyC,RyF	Magnetic relay
Connector for optional parts	
X60A	Connector (interface adapter for SKY AIR /
X61A	US series)
X33A	Connector (adapter for wiring)
X35A	Connector (group control adapter)
X40A	Connector (remote ON/OFF, forced off, only SKY-AIR Päseries)

2TW26036-1C

7 Sound data

7 - 1 Sound pressure spectrum

FDQ125B



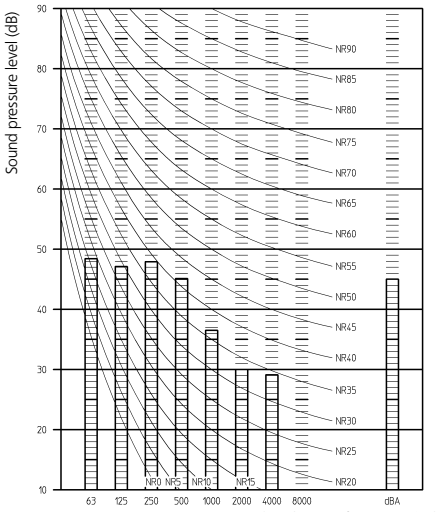
3TW22807-1

Octave band center frequency (Hz)

NOTES

1 Data is valid at free field condition
2 Data is valid at nominal operation condition (at 62 Pa ESP, 90m^3/min)
3 dB(A) = A-weighted sound pressure level (A-scale according to IEC)
4 Reference acoustic pressure 0dB = 20μPa
5 the indicated sound pressure is the casing radiated sound pressure.

FDQ200B



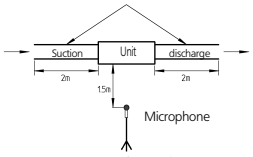
3TW22817-1

Octave band center frequency (Hz)

NOTES

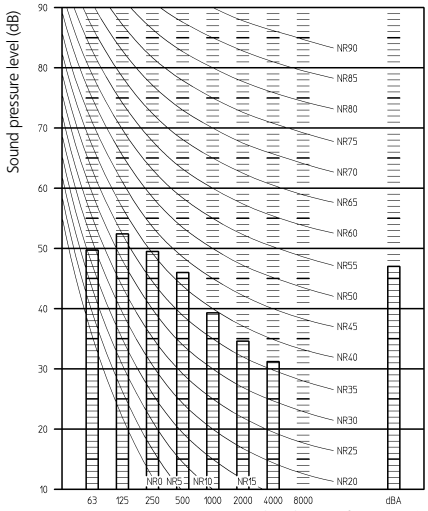
1 Data is valid at free field condition
2 Data is valid at nominal operation condition (50 Pa ESP, 72m^3/min)
3 dB(A) = A-weighted sound pressure level (A-scale according to IEC)
4 Reference acoustic pressure 0dB = 20Pa
5 the indicated sound pressure is the casing radiated sound pressure.

Metalducts insulated inside



Location of microphone

FDQ250B



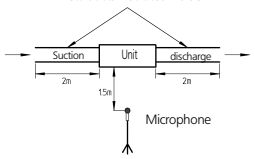
3TW22827-1

Octave band center frequency (Hz)

NOTES

1 Data is valid at free field condition
2 Data is valid at nominal operation condition (62 Pa ESP, 90m^3/min)
3 dB(A) = A-weighted sound pressure level (A-scale according to IEC)
4 Reference acoustic pressure 0dB = 20Pa
5 the indicated sound pressure is the casing radiated sound pressure.

Metalducts insulated inside

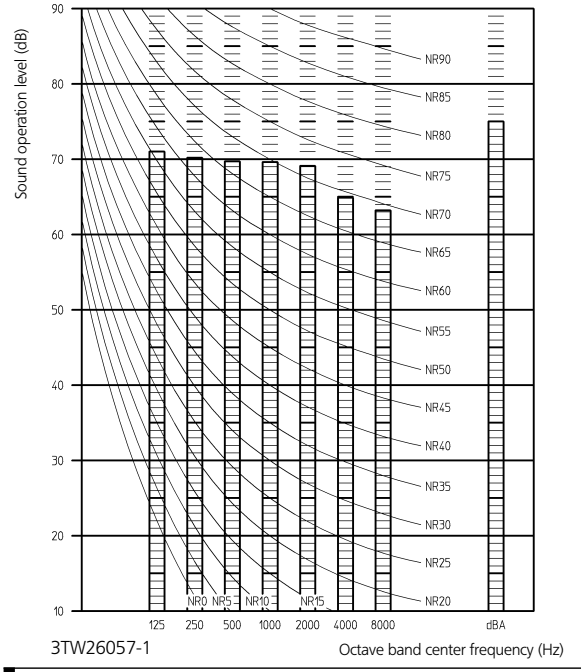


Location of microphone

7 Sound data

7 - 2 Sound power spectrum

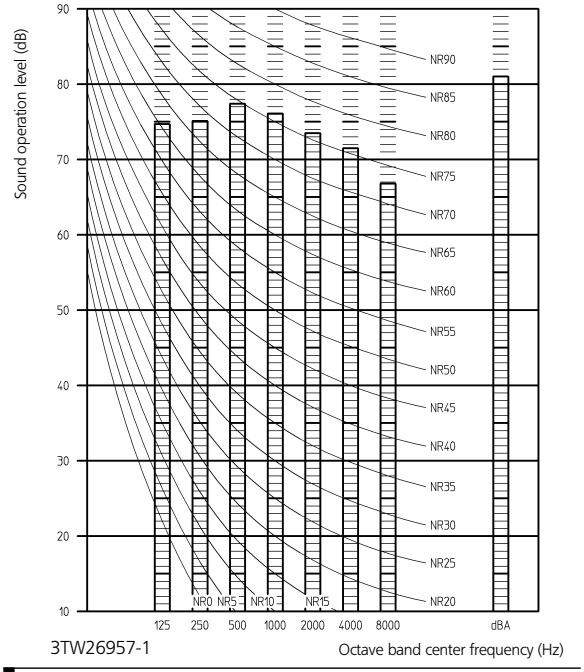
FDQ125B



NOTES

1. Data is valid at free field condition
2. Data is valid at nominal operation condition
3. dBA A-weighted sound operation level. (A-scale according to IEC)
4. Reference acoustic pressure 0dB = 20Pa
5. Curve for FDQ125B in cooling mode

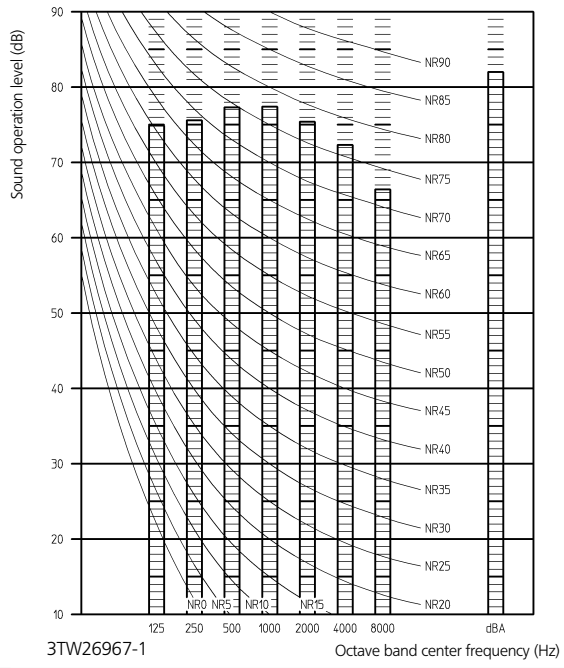
FDQ200B



NOTES

1. Data is valid at free field condition
2. Data is valid at nominal operation condition
3. dBA A-weighted sound operation level. (A-scale according to IEC)
4. Reference acoustic pressure 0dB = 20Pa
5. Curve for FDQ200B in cooling mode

FDQ250B

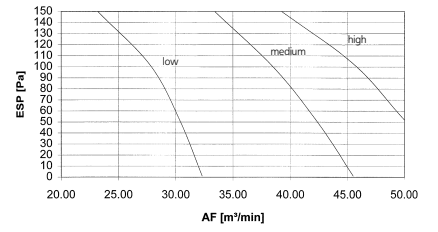


NOTES

1. Data is valid at free field condition
2. Data is valid at nominal operation condition
3. dBA A-weighted sound operation level. (A-scale according to IEC)
4. Reference acoustic pressure 0dB = 20Pa
5. Curve for FDQ250B in cooling mode

8 Fan characteristics

FDQ125B



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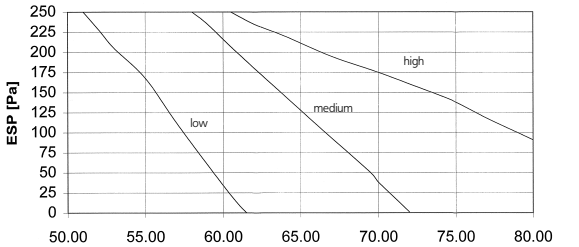
FDQ200B



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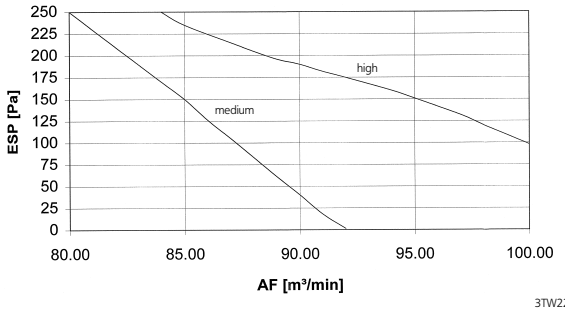
FDQ250B



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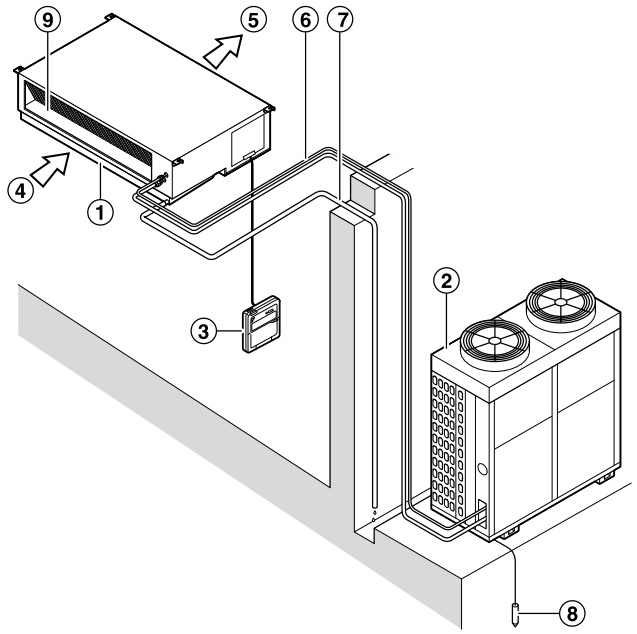
9 Installation

9 - 1 Installation method



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

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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