



technical data



FDQ-B7

Concealed Ceiling Unit

air conditioning systems

Split
Sky Air

Split - Sky Air



ISO14001 assures an effective environmental management system in order to help protect human health and the environment from the potential impact of our activities, products and services and to assist in maintaining and improving the quality of the environment



Daikin units comply with the European regulations that guarantee the safety of the product.



Daikin Europe N.V. is approved by LRQA for its Quality Management System in accordance with the ISO9001 standard. ISO9001 pertains to quality assurance regarding design, development, manufacturing as well as to services related to the product.



Daikin Europe N.V. participates in the Eurovent Certification Programme for Air Conditioners (AC), Liquid Chilling Packages (LCP) and Fan Coil Units (FC); the certified data of certified models are listed in the Eurovent Directory.

Specifications are subject to change without prior notice.

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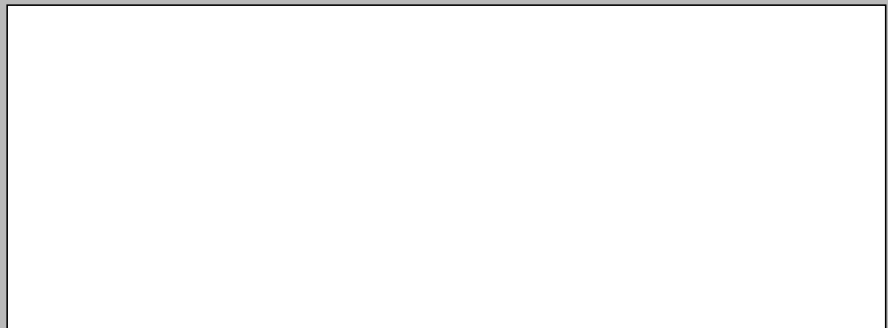




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FDQ125-250B7

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For capacity tables, please refer to part II: outdoor units



1 Features

1

- Leaves maximum floor and wall space for furniture, decoration and fittings
- Blends unobtrusively with any interior decor: only the suction and discharge grilles are visible
- Extremely quiet in operation.
- Easy to install
- High external static pressure facilitates unit use with flexible ducts of varying lengths
- Daikin remote controls give you easy control at your fingertips.
- The wired remote control provides you with a schedule timer, enabling to program the air conditioning daily or weekly.
- The optional remote ON/OFF enables you to start/stop the air conditioning from a mobile phone via a telephone remote control (field supply).
- The optional forced OFF enables you to switch off the unit automatically. E.g. when a window is opened, the unit switches off.
- The 'home leave' operation button prevents large temperature differences by continuously operating at a minimum (heating mode) or maximum (cooling mode) preset level while you're out or sleeping. It also allows the indoor temperature to return quickly to your favourite comfort level.



Optional



Optional



2 steps:
FDQ250,
3 steps:
FDQ125,200





2 Specifications

2

NOMINAL CAPACITY and NOMINAL INPUT				FDQ125B7V3B	FDQ200B7V3B	FDQ250B7V3B
				RZQ125B8V3B/B7W1B	RZQ200B7W1B	RZQ250B7W1B
NOMINAL CAPACITY	Cooling		kW	12.5	20	25
	Heating		kW	14.0	23	27
NOMINAL INPUT	Cooling		kW	4.15	6.43	8.31
	Heating		kW	3.69	7.54	8.85
EER				3.01	3.11	3.01
COP				3.79	3.05	3.05
ENERGY LABEL	Cooling			B	B	B
	Heating			A	D	D
ANNUAL ENERGY CONSUMPTION	Cooling		kWh	2,075	3,215	4,155

TECHNICAL SPECIFICATIONS						
				FDQ125B7V3B	FDQ200B7V3B	FDQ250B7V3B
DIMENSIONS	Unit	H	mm	350	450	450
		W	mm	1,400	1,400	1,400
		D	mm	662	900	900
WEIGHT	Machine weight		kg	59.0	93.0	93.0
REQUIRED CEILING VOID			mm	350	450	450
HEAT EXCHANGER	Specifications	Length	mm	1,150	1,255	1,255
		No. of rows		3	3	3
		Fin pitch	mm	1.75	2.00	2.00
		N° of passes		10	13	13
		Face area	m ²	0.338	0.634	0.634
		N° of stages		14	24	24
	Tube type			Hi-XSS (7)	Hi-XSS (8)	Hi-XSS (8)
Fin	Type		Rhombus	Non-symmetric fin		
	Treatment			Hydrophilic		
FAN	Type			Sirocco fan		
	Quantity			2	2	
	Air flow rate	Cooling	medium	m ³ /min	43.0	69.0
		Heating	medium	m ³ /min	43.0	69.0
	External static pressure (Max.)	High		Pa	150	250
		Standard		Pa	150	250
		Low		Pa	150	250
	Motor	Quantity			1	1
Model				DPA216-178NB	DPC241-241NB	
Number of steps				3	3	
Output (high)			W	500	650	
Drive				Direct drive		
SOUND LEVEL	Cooling	Sound power	medium	dB(A)	75.0	81.0
		Sound pressure	High	dB(A)	44.0	45.0
	Heating	Sound pressure	Low	dB(A)	44.0	45.0
REFRIGERANT	Type			R-410A		
PIPING CONNECTIONS	Liquid	Type		Flare connection		
		Φ (O.D.)	mm	9.52	9.52	
	Gas	Type		Flare connection		
		Φ (O.D.)	mm	15.9	22.2	
	Drain	Φ (O.D.)	mm		25	
Heat insulation				Both liquid and gas pipes		
AIR FILTER				As option (see notes)	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	



2 Specifications

2

ELECTRICAL SPECIFICATIONS		FDQ125B7V3B	FDQ200B7V3B	FDQ250B7V3B
POWER SUPPLY	Name	V3	V3	V3
	Phase	1~	1~	1~
	Frequency	50	50	50
	Voltage	230	230	230
VOLTAGE RANGE	Minimum	-10%	-10%	-10%
	Maximum	+10%	+10%	+10%
Power supply intake		Both indoor and outdoor unit		

NOTES

- 1 Nominal cooling capacities are based on: indoor temperature: 27°CDB/19°CWB * outdoor temperature: 35°CDB * equivalent refrigerant piping length: 7.5m * level difference: 0m
- 2 Nominal heating capacities are based on: indoor temperature: 20°CDB * outdoor temperature: 7°CDB/6°CWB * refrigerant piping length: 7.5m * level difference 0m.
- 3 Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.
- 4 Sound values are measured in an anechoic room.
- 5 The sound pressure level is measured via a microphone at 1m distance of the unit.
- 6 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.
- 7 The sound power level is an absolute value indicating the "power" which a sound source generates.
- 8 For more details, refer to wiring diagram, name plate and installation manual.



3 Dimensional drawings

3

FDQ125B7

Notes:

: Service space

- 1 Power supply intake
- 2 Drain connection ϕ 25 O.D.
- 3 Liquid pipe connection single union joint 3/8"
- 4 Filter

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FDQ200-250B

Notes:

: Service space

: Extra service space for optional drain pump

Model	A	B
FDQ200	830	285
FDQ250	890	255

- 1 Power supply intake
- 2 Drain connection ϕ 25 O.D.
- 3 Gas pipe connection FDQ200/250 : 7/8" O.D. or 22.2 mm O.D.
- 4 Liquid pipe connection FDQ200 : Single union joint 3/8" or 9.52mm
FDQ250 : Single union joint 1/2" or 12.7mm
- 5 Filter

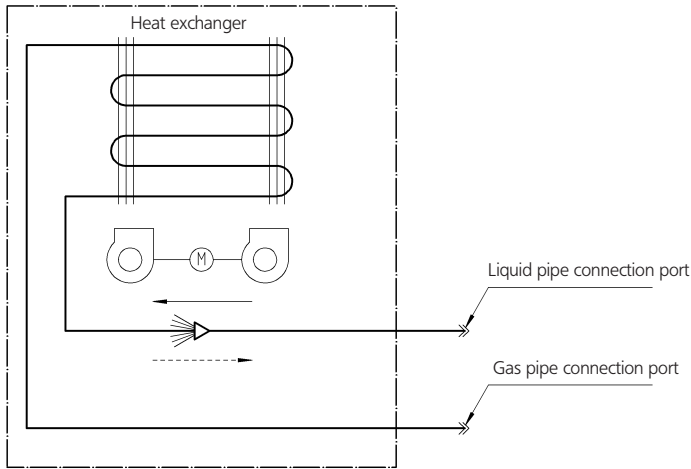
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4 Piping diagrams

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FDQ125-250B



Refrigerant flow

Cooling
 Heating

Refrigerant pipe connection port diameters

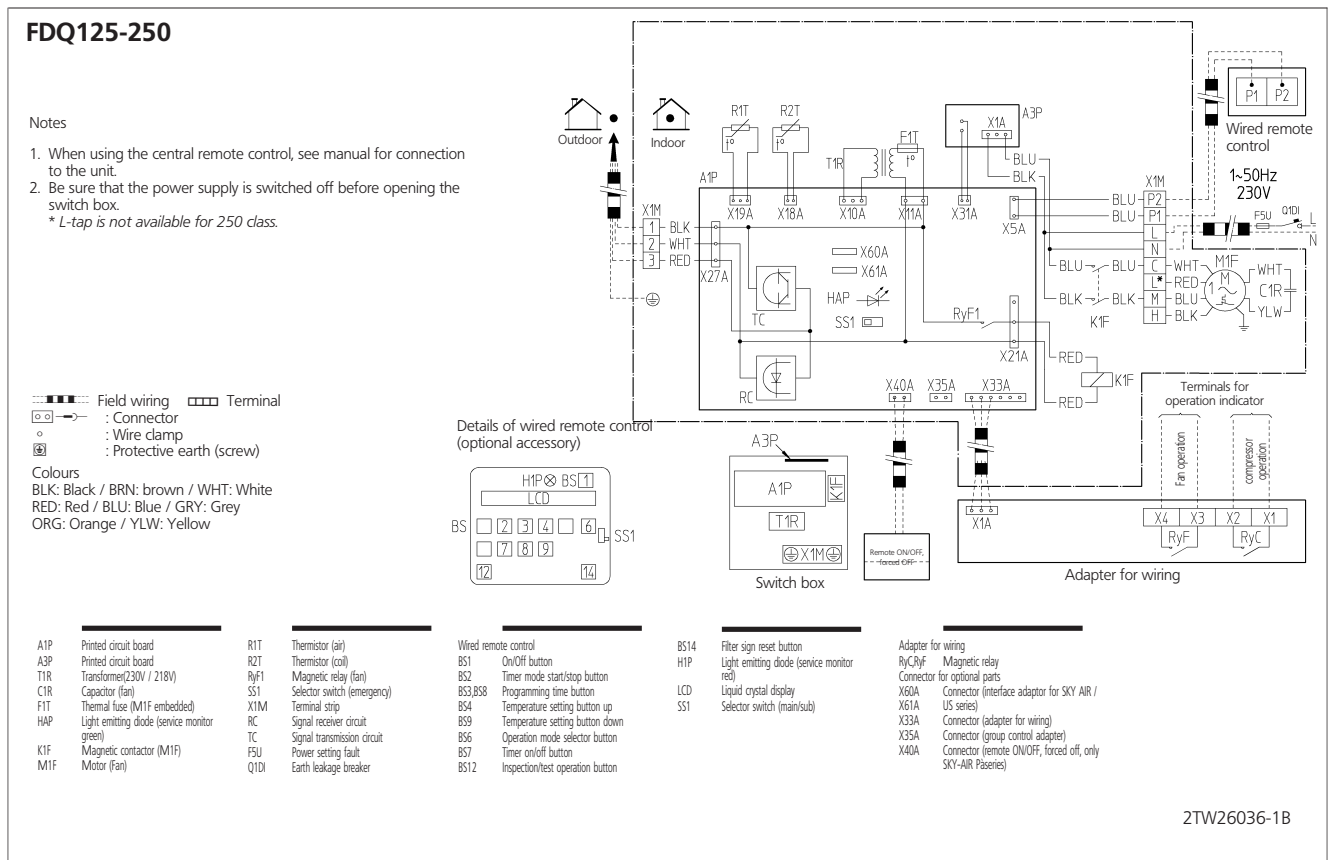
Model	Gas	Liquid
FDQ125	φ 15.90	φ 9.52
FDQ200	φ 22.2	φ 12.7
FDQ250		

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

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5 Wiring diagrams





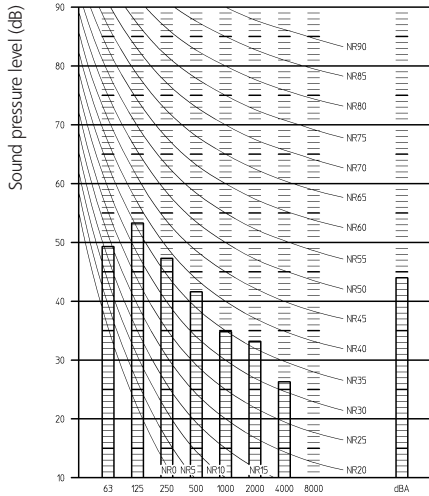
6 Sound level

6-1 Sound pressure spectrum

6

6-1

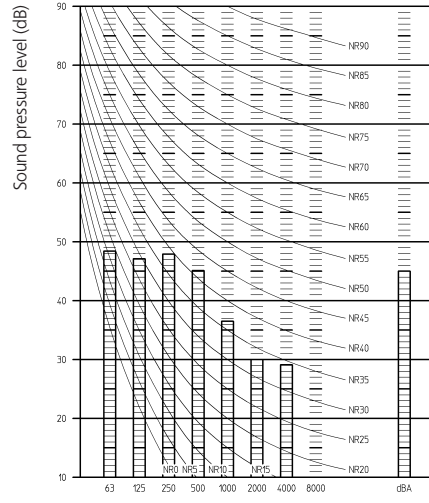
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Octave band center frequency (Hz)

FDQ200B7



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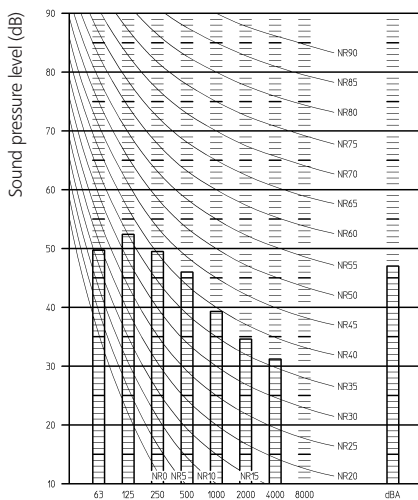
Octave band center frequency (Hz)

Legend

High speed

Low speed

FDQ250B7

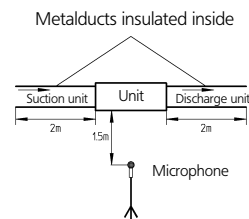


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Octave band center frequency (Hz)

NOTES

- 1 Data is valid at free field condition
- 2 Data is valid at nominal operation condition (at 62 Pa ESP, 90m³/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.



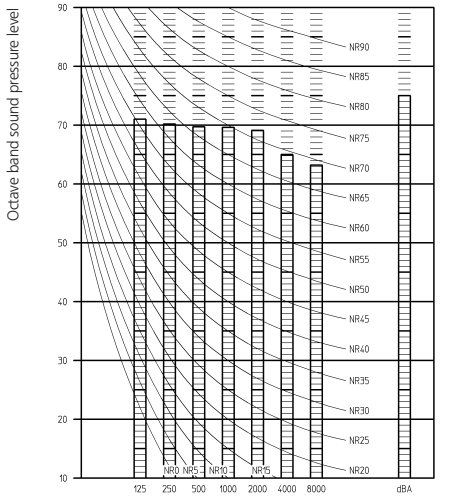


6 Sound level

6-2 Sound power spectrum

6
6-2

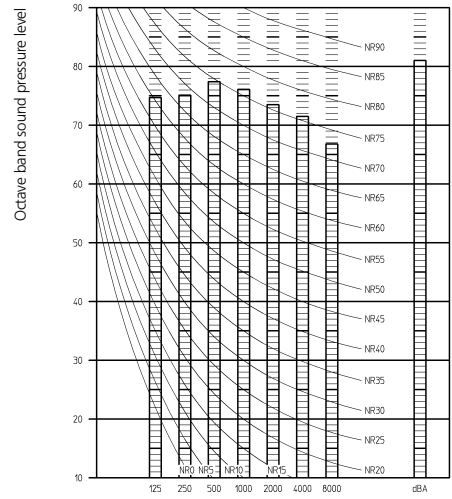
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3TW26057-1

Octave band center frequency (Hz)

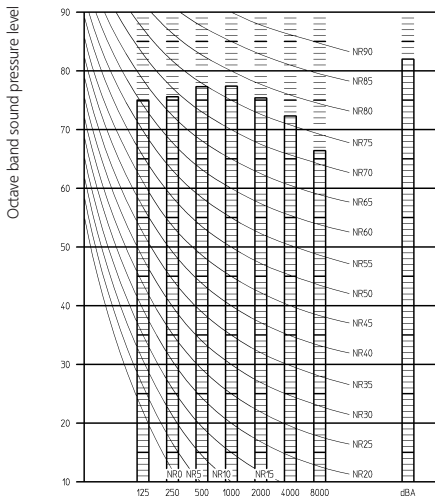
FDQ200B7



3TW26957-1

Octave band center frequency (Hz)

FDQ250B7



3TW26967-1

Octave band center frequency (Hz)

Legend

- High speed
- Low speed

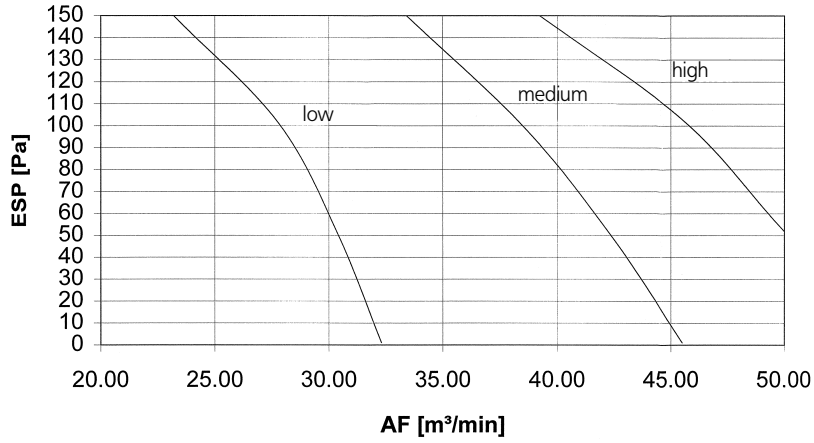
NOTES

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- 3 dB(A) = A-weighted sound pressure level (A-scale according to IEC)
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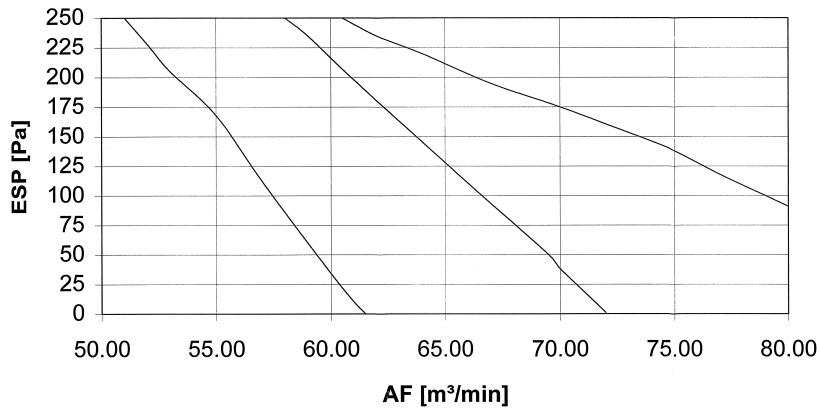
7 Fan characteristics

7 FDQ125B7



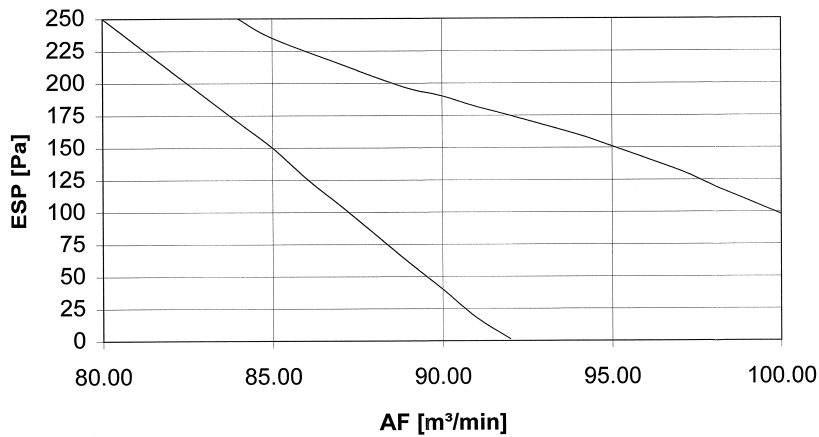
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FDQ200B7



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FDQ250B7



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8 Accessories

8-1 Standard accessories

Option	Option name	FDQ125B	FDQ200B	FDQ250B
Wiring adaptor for electrical appendices	KRP4A51	X	X	X
Adaptor for wiring (interlock for fresh air intake)	KRP1B54	X	X	X
Interface adaptor for Sky Air series	DTA112B51	X	X	X
Central remote control	DCS302B51	X	X	X
Unified ON/OFF control	DCS301B51	X	X	X
Schedule timer	DST301B51	X	X	X
Option PCB for external electrical heater, humidifier and/or hour meter	EKRP1B2	X	X	X
Drain pump	EKDU125A1	X	X	X
Wired remote control	BRC1D527	X	X	X
Remote "On/Off" and "Forced Off" kit	EKRORO	X	X	X

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8-1

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Note: Connection with hour meter is possible by using the EKRP1B2. (Only available for FDQ125,200,250B-types).