



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.



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Specifications are subject to change without prior notice.

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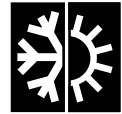


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FDQ125B7

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



1 Features



1

- Compact casing with a height of 350mm
 - Extremely quiet in operation both indoors and outdoors
 - Fits flush into each ceiling
 - High external static pressure, ranging from 150 to 250 Pa
- The wired remote control has following features:
 - A real time clock
 - A schedule timer:
 - Possibility to program a weekly schedule timer.
 - Possibility to program 5 actions for each day of the week.
 - Limit operation (min./max.): room temperature is controlled within adjustable upper and lower limits. This can be activated manually or by schedule timer.
 - Home leave (frost protection): during absence, the indoor temperature can be maintained at a certain level. This function can also switch the unit ON/OFF.



Optional



3 steps



2 Specifications


2

NOMINAL CAPACITY and NOMINAL INPUT			
For indoor units only:			
INDOOR UNITS			FDQ125B7V3B
NOMINAL INPUT	Cooling	kW	-
	Heating	kW	-

For combination indoor + outdoor units (air cooled):			
INDOOR UNITS			FDQ125B7V3B
OUTDOOR UNITS			RZQ125B7V3B
NOMINAL CAPACITY (3)	Cooling	min~nom~max kW	*
	Heating	min~nom~max kW	*
NOMINAL INPUT	Cooling	min~nom~max kW	*
	Heating	min~nom~max kW	*
EER			*
COP			*
ENERGY LABEL	Cooling		*
	Heating		*
ANNUAL ENERGY CONSUMPTION	Cooling	kWh	*

TECHNICAL SPECIFICATIONS				
For indoor units only:				
INDOOR UNITS				FDQ125B7V3B
DIMENSIONS	Unit	H	mm	350
		W	mm	1,400
		D	mm	662
WEIGHT	Unit		kg	59
MATERIAL	Unit			Galvanised steel plate
SOUND LEVEL	Sound pressure (cooling/heating) (3)	high	dB(A)	44/44
		low	dB(A)	44/44
	Sound power (cooling/heating) (4)		dB(A)	75/75
FAN	Air flow rate	high	m ³ /min	43/43
		low	m ³ /min	43/43
	Speed	steps		3 steps
	Type			Sirocco fan
	Qty x motor output		W	1 x 500
	Drive			Direct drive
HEAT EXCHANGER	External static pressure		Pa	150
	Type			Fin rhombus type, ϕ 7 HI-XSS tube
	Rows x stages x fin pitch		mm	3 x 14 x 1.75
	Face area		m ²	0.338
AIR FILTER				Resin net (with mold resistant)
TEMPERATURE CONTROL				Microprocessor thermostat for cooling and heating
PIPING CONNECTIONS		liquid	mm	ϕ 9.52 (flare)
		gas	mm	ϕ 15.9 (flare)
		liquid	mm	-
INSULATION MATERIAL	Heat insulation			Both liquid and gas pipes

For outdoor units	Pair application	See chapter RZQ-B
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* This information was not available at the time of publication.

2 Specifications



2

ELECTRICAL SPECIFICATIONS					
For indoor units only:				FDQ125B7V3B	
CURRENT	Nominal running current	cooling	A	See chapter RZQ-B	
		heating	A		
	Maximum running current	cooling	A		
		heating	A		
For combination indoor units + outdoor units:					FDQ125B7V3B
CURRENT	Nominal running current	cooling	A		See chapter RZQ-B
	Maximum running current	cooling	A		
	Starting current	cooling	A		
For indoor units only:				FDQ125B7V3B	
POWER SUPPLY				V3	
NOMINAL DISTRIBUTION SYSTEM VOLTAGE	Phase			1~	
	Frequency			50	
	Voltage			230	

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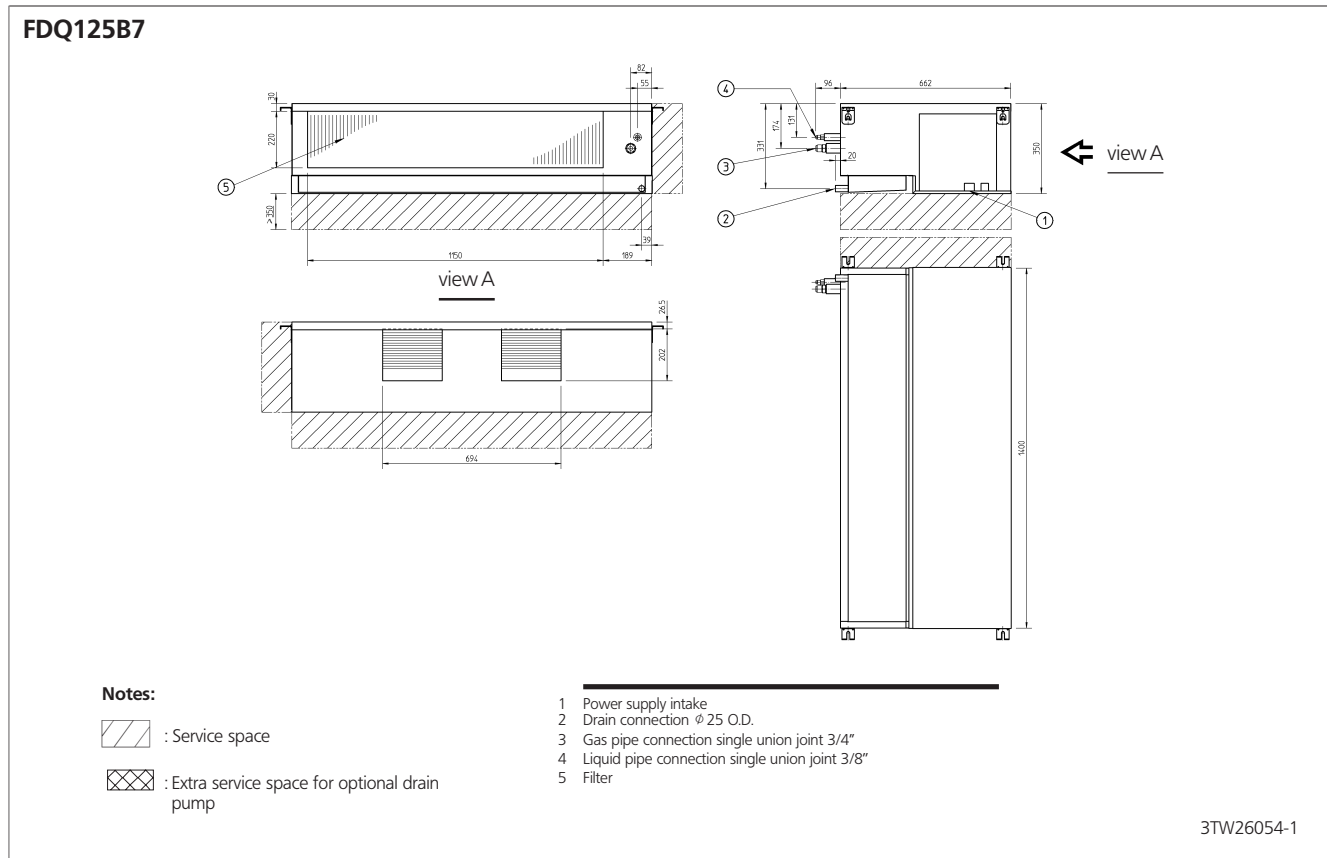
NOTES

- 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
- Nominal heating capacities are based on: indoor temperature: 20°CDB * outdoor temperature: 7°CDB/6°CWB * refrigerant piping length: 7.5m * level difference 0m.
- Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.
- The sound pressure level is measured in an anechoic room at 1m distance from the unit. It is a relative value, depending on the distance and acoustic environment. For measuring conditions: please refer to item 6 of this chapter.
- The sound power level is an absolute value indicating the "power" which a sound source generates.
- Energy label: scale from A (most efficient) to G (less efficient)..
- Annual energy consumption: based on average use of 500 running hours per year at full load (= nominal conditions)



3 Dimensional drawings

3



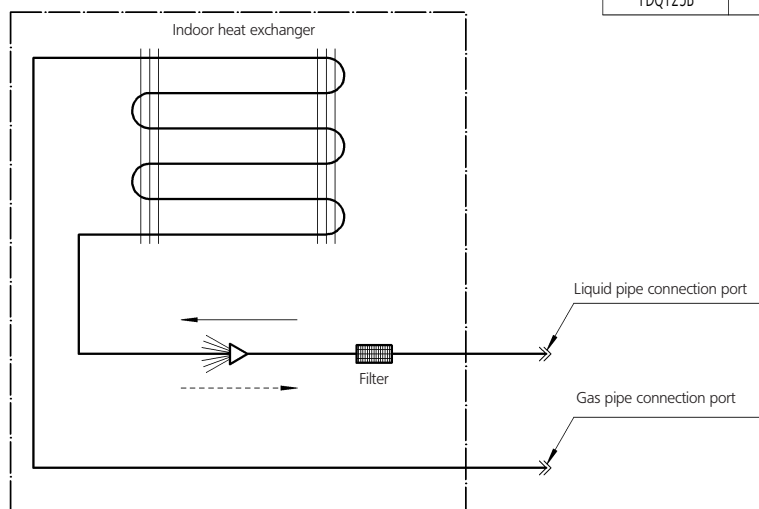


4 Piping diagrams

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FDQ125B7

Model	Gas	Liquid
FDQ125B	ϕ 15.90	ϕ 9.52



Refrigerant flow
 ——— Heating
 - - - Cooling

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

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5 Wiring diagrams

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FDQ125B7

Notes

1. When using the central remote control, see manual for connection to the unit.
2. Be sure that power supply is switched off before opening switch box.

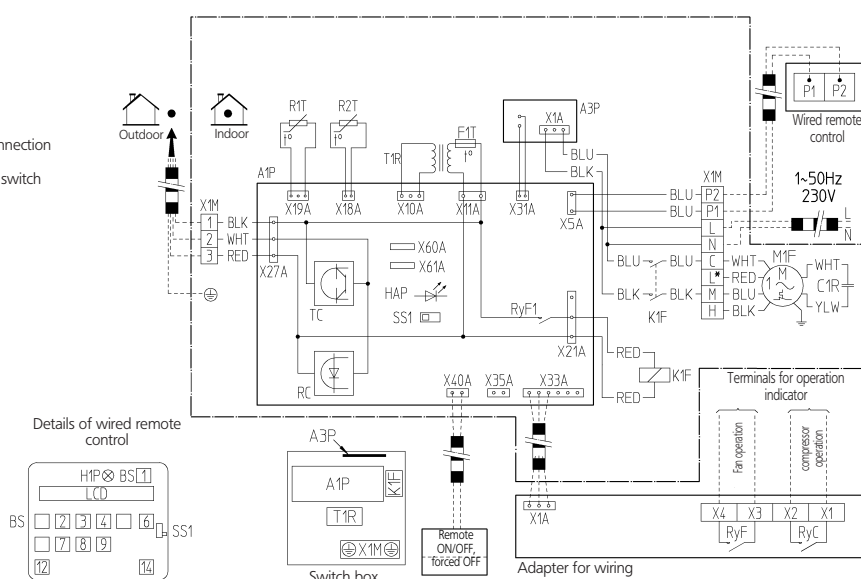
Field wiring Terminal

Field wiring
: Connector

 : Connector
 : Protective earth (screw)

Colours

BLK: Black / WHT: White / RED: Red / BLU: Blue /
YLW: Yellow



A1P	Printed circuit board
T1R	Transformer (230V/21.8V)
A3P	Printed circuit board
C1R	Capacitor (fan)
F1T	Thermal fuse (M1F embedded)
HAP,HBP	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
Adapter for wiring	
RyCRyF	Magnetic relay

Wired remote control	
BS1	On/Off button
BS2	Timer mode start/stop button
BS3,8	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
LED1	Light emitting diode (service monitor red)
LCD	Liquid crystal display (LCD)
SS1	Selector switch (main/sub)

Connector for optional parts	
X30A	Connector (interface adaptor for SKY AIR / US series)
X33A	Connector (adaptor for wiring)
X25A	Connector (group control adapter)
X40A	Connector (remote ON/OFF, forced off only SKY-AIR P series)

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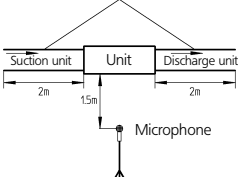


6 Sound level

6-1 Sound level data

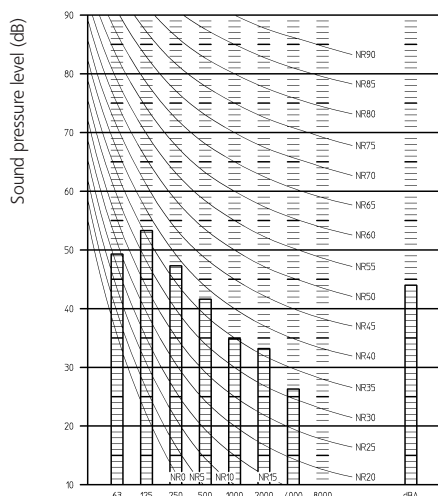
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6-1

Model	Sound pressure level		Measuring location	Sound power level	
	230V			Cooling (nom.)	Heating (nom.)
	50 Hz				
	Cooling (H/L)	Heating (H/L)			
FDQ125B7V3B	44/44	44/44	<p>Metalducts insulated inside</p> 	75	75

6-2 Sound pressure spectrum

FDQ125B7



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Octave band center frequency (Hz)

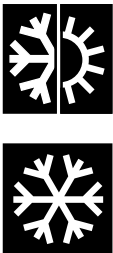
Legend

High speed

Low speed

NOTES

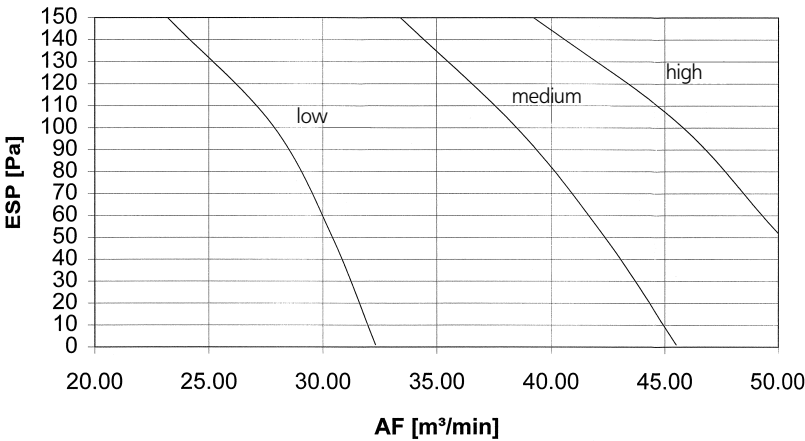
- 1 Data is valid at free field condition
- 2 Data is valid at nominal operation condition (at 62 Pa ESP, 90m³/min)
- 3 dB(A) = A-weighted sound pressure level (A-scale according to IEC)
- 4 Reference acoustic pressure 0dB = 20μPa
- 5 the indicated sound pressure is the casing radiated sound pressure.



7 Fan characteristics

FDQ125B7

7



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8 Accessories

8-1 Optional accessories

FDQ125B7V3B

Name of option		FDQ125B7
Wiring adaptor for electrical appendices		KRP4A51
Adapter for wiring (interlock for fresh air intake)		KRP1B54
Interface adapter for Sky Air series		DTA112B51
Central remote control		DCS302B51
unified ON/OFF control		DCS301B51
Schedule timer		DST301B51
Option PCB for electrical heater, humidifier and/or hour meter. *1		EKRP1B2
Remote control	Wired type	BRC1D527
Remote ON/OFF, forced OFF		EKRORO

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*1 Electrical heater, humidifier and hour meter are field supply. These parts should not be installed inside the equipment. (Refer to installation manual EKRP1B2).



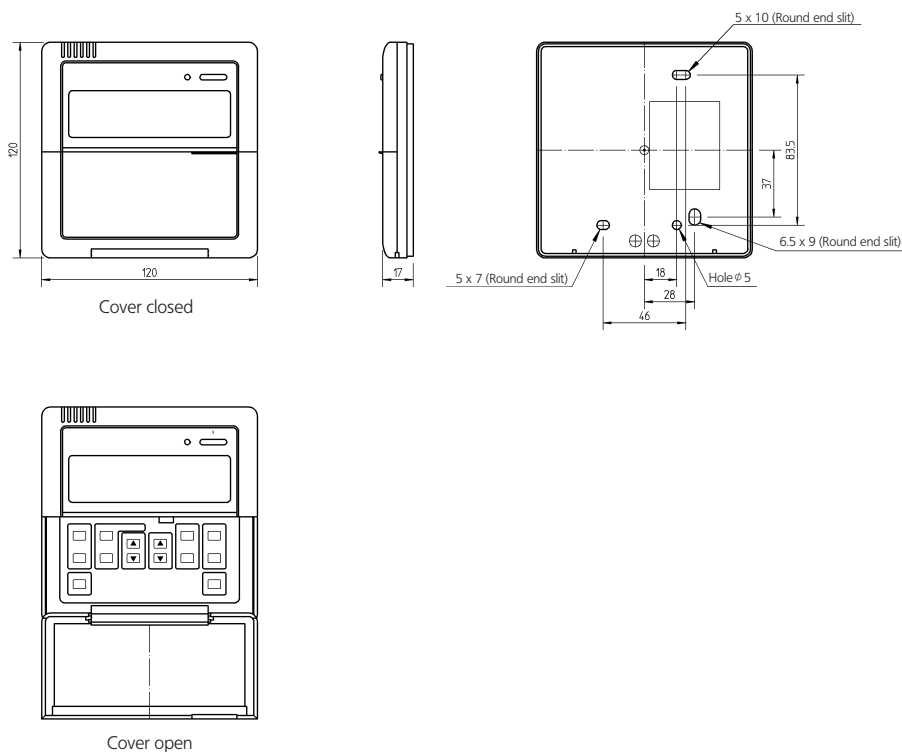
9 Control systems

9-1 Wired remote control

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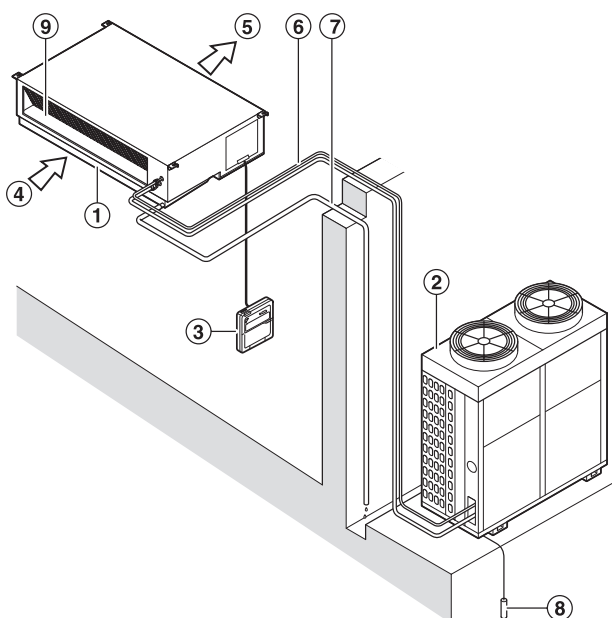
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BRC1D527



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10 Installation



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