DAIKIN

Air Conditioning

Technical Data

Concealed ceiling unit



EEDEN14-100

FDQ-C

TABLE OF CONTENTS

FDQ-C

1 Features 2

2 Specifications 3
Technical Specifications 3
Electrical Specifications 4

3 General Characteristics 5

4 Safety device settings 7

5 Options 8

6 Dimensional drawings 9

7 Centre of gravity 10

8 Piping diagrams 11

9 Wiring diagrams 12
Wiring Diagrams - Single Phase 12

10 Sound data 13
Sound Power Spectrum 13
Sound Pressure Spectrum - Cooling 14

11 Fan characteristics 15

12 Installation 17
Installation Method 17
Switch Box Connection 18

1 Features

- Blends unobtrusively with any interior décor: only the suction and discharge grilles are visible
- Easy installation thanks to automatic air flow adjustment towards nominal air flow rate
- Reduction in power consumption thanks to DC inverter fans
- Improved comfort thanks to 3-step air flow control
- Up to 200Pa external static pressure allows extensive ductwork runs and flexible application: ideal for use in large areas
- Less duct calculations are needed; moreover, the air flow can be adjusted during installation via the wired remote control (optional) instead of via channel adjustments
- No optional adapter needed for DIII-connection, link your unit into the wider building management system.
- The air suction direction can be altered from rear to bottom suction
- Standard drain pump with 625mm lift




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


Drain pump kit


Twin/triple/ double twin application

2 Specifications

2-1 Technical Specifications					FDQ125C
Cooling capacity	Nom.			kW	12.5
Heating capacity	Nom.			kW	14.0
Power input	Cooling	Nom.		kW	0.35
	Heating	Nom.		kW	0.35
Casing	Colour				Not painted (galvanised)
Dimensions	Unit	Height/Width/ Depth		mm	300/1,400/700
	Packed unit	Height/Width/ Depth		mm	355/1,620/900
Required ceiling void \>				mm	350
Weight	Unit			kg	45
	Packed unit			kg	53
Decoration panel	Model				BYBS125DJW1
	Colour				White (10Y9/0.5)
	Dimensions	Height/Width/ Depth		mm	55/1,500/500
	Weight			kg	6.5
Heat exchanger	Length			mm	1,140
	Rows	Quantity			3
	Fin pitch			mm	1.75
	Passes	Quantity			11
	Face area			m^2	0.383
	Stages	Quantity			16
	Empty tubeplate hole	Quantity			0
	Tube type				ø7 Hi-XSS
	Fin	Type			Symmetric waffle louvre
		Treatment			Hydrophilic
Fan	Type				Sirocco fan
	Quantity				3
	Air flow rate	Cooling	High	m^3/min	39
			Low	m^3/min	28
		Heating	High	m^3/min	39
			Low	m^3/min	28
	External static pressure	High		Pa	200
		Nom.		Pa	50
Fan motor	Quantity				1
	Model				Brushless DC motor
	Drive				Direct drive
	Speed	Steps			9
		Cooling	High/ Low	rpm	1,218/920
		Heating	High/ Low	rpm	1,218/920
	Output	High		W	350
Sound power level	Cooling	/		dBA	66
Sound pressure level	Cooling	High/Low		dBA	40/33
	Heating	Super high/High/ Low		dBA	-/40/33
Refrigerant	Type				R-410A
Piping connections	Liquid	Type/OD		mm	Flare connection/9.52
	Gas	Type/OD		mm	Flare connection/15.9
	Drain				VP25 (I.D. 25/O.D. 32)
	Heat insulation				Both liquid and gas pipes
Air filter	Type				Resin net with mold resistance
Drain-up height				mm	625
Safety devices	Item	01/02/03			PC board fuse/PC board fuse (fan driver)/Drain pump fuse

2 Specifications

2-2 Electrical Specifications			FDQ125C
Power supply	Name		VE
	Phase		1~
	Frequency	Hz	50/60
	Voltage	V	220-240/220

Notes

(1) Cooling: indoor temp. 27°CDB, 19.0°CWB; outdoor temp. 35°CDB; equivalent piping length: 7.5m; level difference: 0m

(2) Heating: indoor temp. 20°CDB; outdoor temp. 7°CDB, 6°CWB; equivalent refrigerant piping: 7.5m; level difference: 0m

(3) Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.

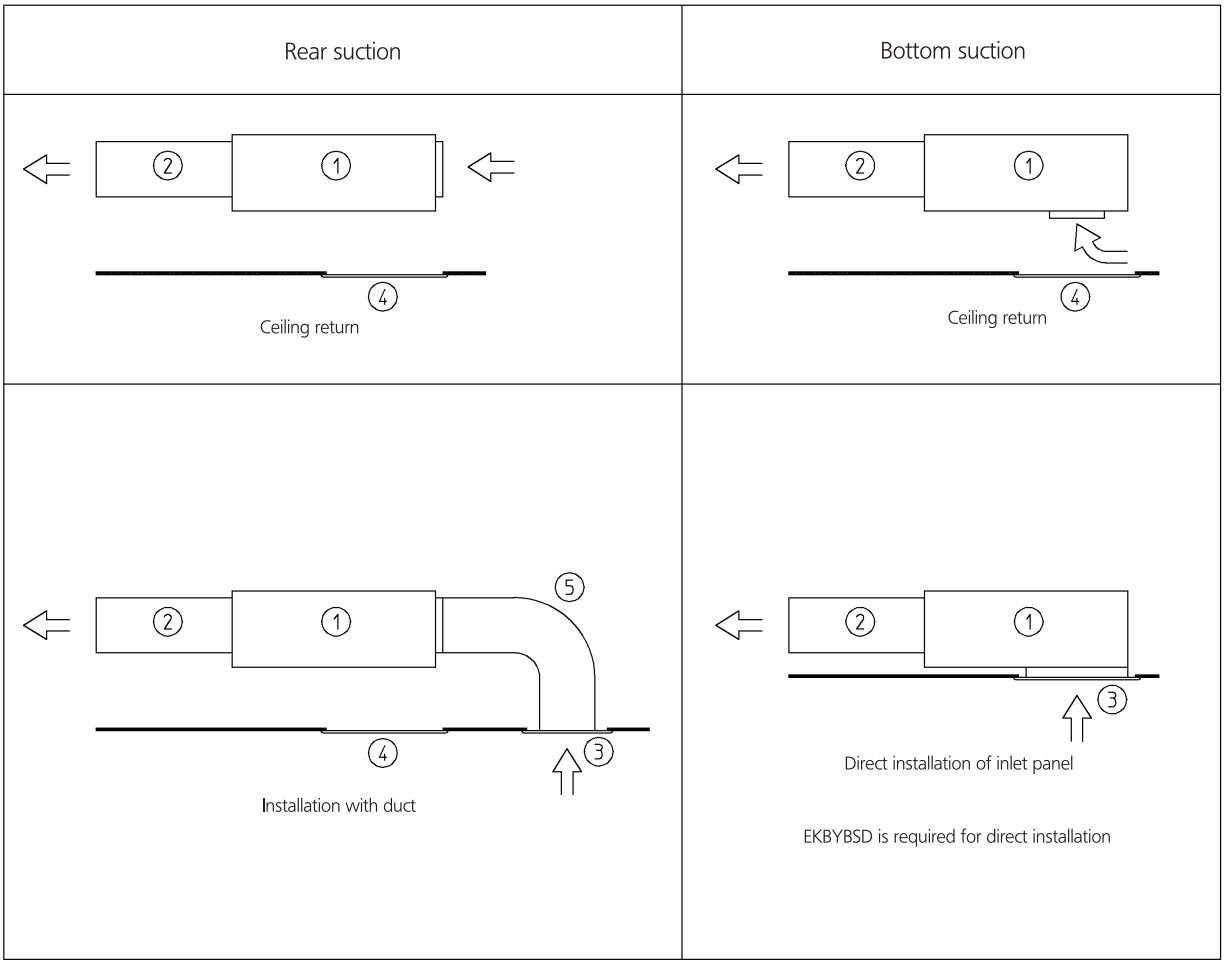
(4) The sound pressure values are mentioned for a unit installed with rear suction.

(5) PED unit category: excluded from scope of PED due to article 1, item 3.6 of 97/23/EC

3 General Characteristics

3 - 1 General characteristics

FDQ125C



Wide variety of installation methods

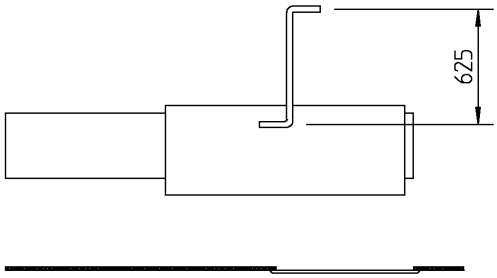
Number	Description	
1	Main body	
2	Air outlet duct	Field supply
3	Inlet panel	Optional accessory
4	Access panel	Optional accessory
5	Air inlet duct	Field supply

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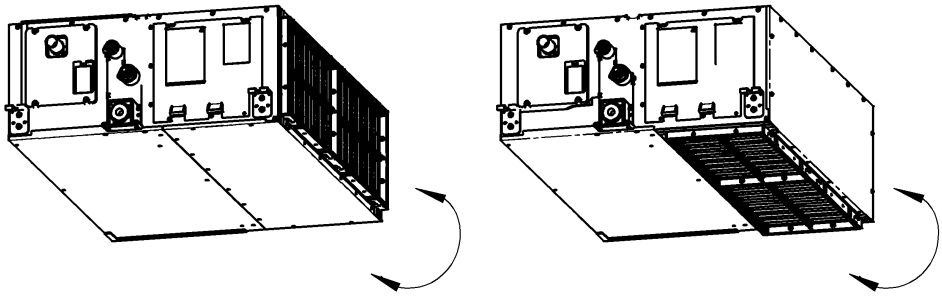
3 General Characteristics

3 - 1 General characteristics

FDQ125C



Drain pump up height



Easy modification from rear to bottom suction

3TW31183-1A

4 Safety device settings

4 - 1 Safety Device Settings

FDQ125C

Safety devices			FDQ125C
FDQ-C	PC board fuse		250V 3.15A
	PC board fuse (Fan driver)		250V 6.3A
	Fan motor thermal protector	°C	---
	Drain pump fuse	°C	145

3TW31279-2

5 Options

5 - 1 Options

FDQ125C

OPTIONS

Item		FDQ125
Panel related	Decoration panel (*4)	BYBS125D
Air inlet and air discharge outlet related	Air discharge adapter for round duct	KDAJ25K140A
Panel related	Decoration panel option	EKBYBSD

OPERATION CONTROL

Item			FDQ125
Remote controller	Wired type		BRC1D528 / BRC1E52A7 (*5) / BRC1E52B7 (*6)
	Infrared type	HP	BRC4C65
		CO	BRC4C66
Option PCB for external electrical heater, humidifier and/or hour meter (*1) (*3)			EKRP1B2A
Adapter for wiring (interlock for fresh air intake fan) (*3)			KRP1C64
Wiring adapter for electrical appendices (*3)			KRP4A51
Remote sensor			KRCS01-4B
Central remote controller			DCS302CA51
Unified ON/OFF controller			DCS301BA51
Schedule timer			DST301BA51
Remote ON/OFF and FORCED OFF kit			EKRORO3
Mounting plate for adapter PCB			KRP4A96

(*1) Electrical heater and humidifier are field supply. These parts should not be installed inside the equipment. (Refer to installation manual EKRP1B2A).
(*2) If installing an electrical heater, an option PCB for external electrical heater (EKRP1B2) for each indoor unit is required.
(*3) Mounting plate KRP4A96 is required for these options. Maximum 2 option PCB's can be mounted.
(*4) Decoration panel option EKBYBSD is required for direct mounting of the decoration panel on the unit.
(*5) Included languages are: English, German, French, Dutch, Spanish, Italian, Greek, Portuguese, Russian, Turkish and Polish.
(*6) Included languages are: English, German, Albanian, Bulgarian, Croatian, Czech, Hungarian, Romanian, Serbian, Slovak and Slovenian.

CONTENTS OF ACCESSORY BAG

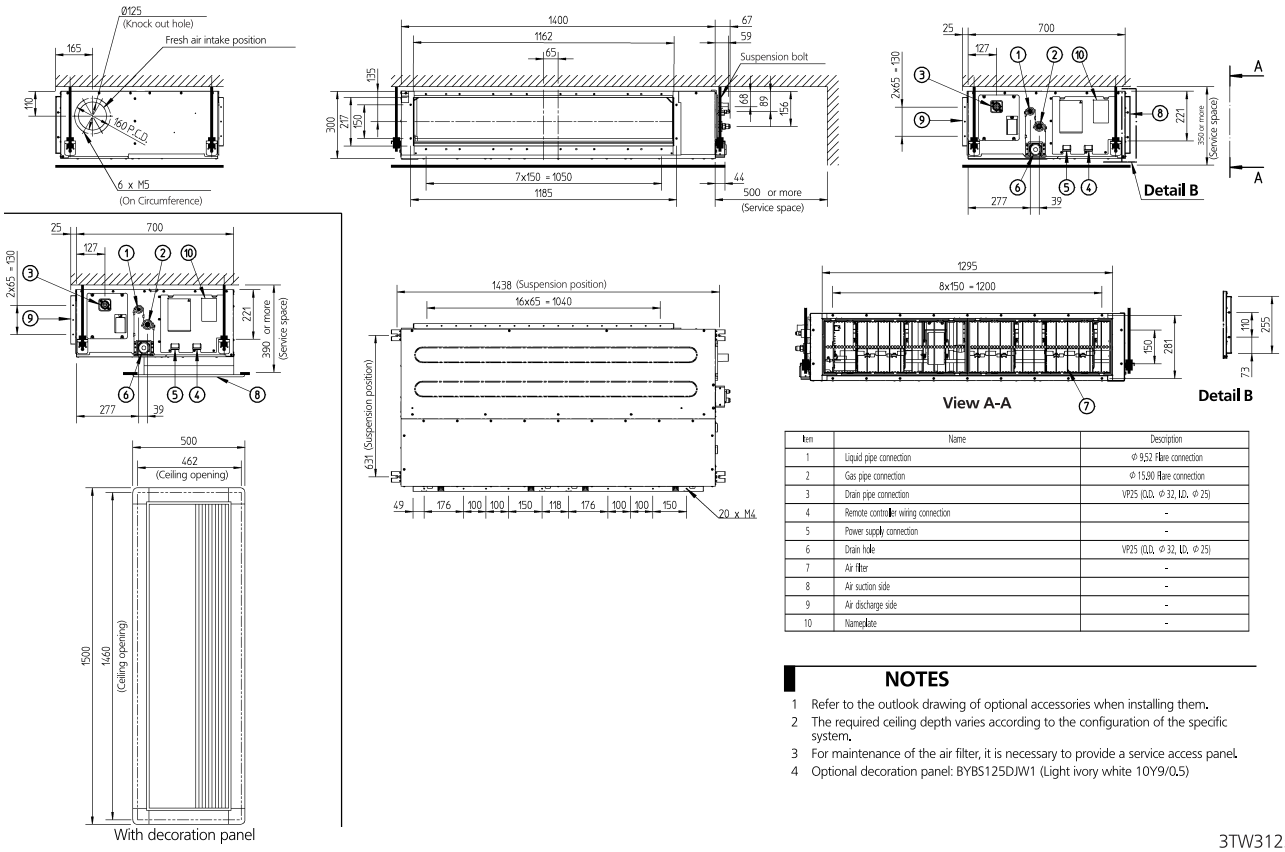
Description	Quantity
	FDQ125
Hexagon tapping screw (M5x16)	16
Round plain washer for wood	8
Installation and operation manual	1
Hose band	1
Insulation for joint (Gas)	1
Insulation for joint (Liquid)	1
Drain hose	1
Drain hose sealing material	1
Sealing material	2

3TW33989-2A

6 Dimensional drawings

6 - 1 Dimensional Drawings

FDQ125C



Item	Name	Description
1	Liquid pipe connection	Ø 9,52 flare connection
2	Gas pipe connection	Ø 15,90 flare connection
3	Drain pipe connection	VP25 (O.D. Ø 32, I.D. Ø 25)
4	Remote controller wiring connection	-
5	Power supply connection	-
6	Drain hole	VP25 (O.D. Ø 32, I.D. Ø 25)
7	Air filter	-
8	Air suction side	-
9	Air discharge side	-
10	Nameplate	-

NOTES

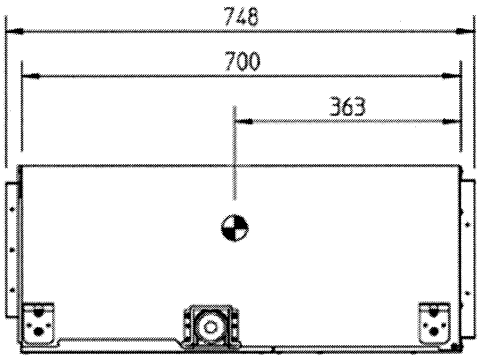
1 Refer to the outlook drawing of optional accessories when installing them.
2 The required ceiling depth varies according to the configuration of the specific system.
3 For maintenance of the air filter, it is necessary to provide a service access panel.
4 Optional decoration panel: BYBS125DJW1 (Light ivory white 10Y9/0,5)

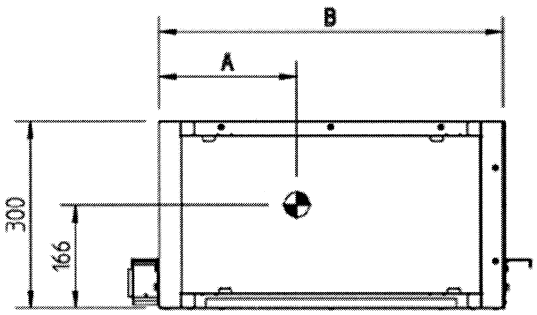
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7 Centre of gravity

7 - 1 Centre of Gravity

FDQ125C





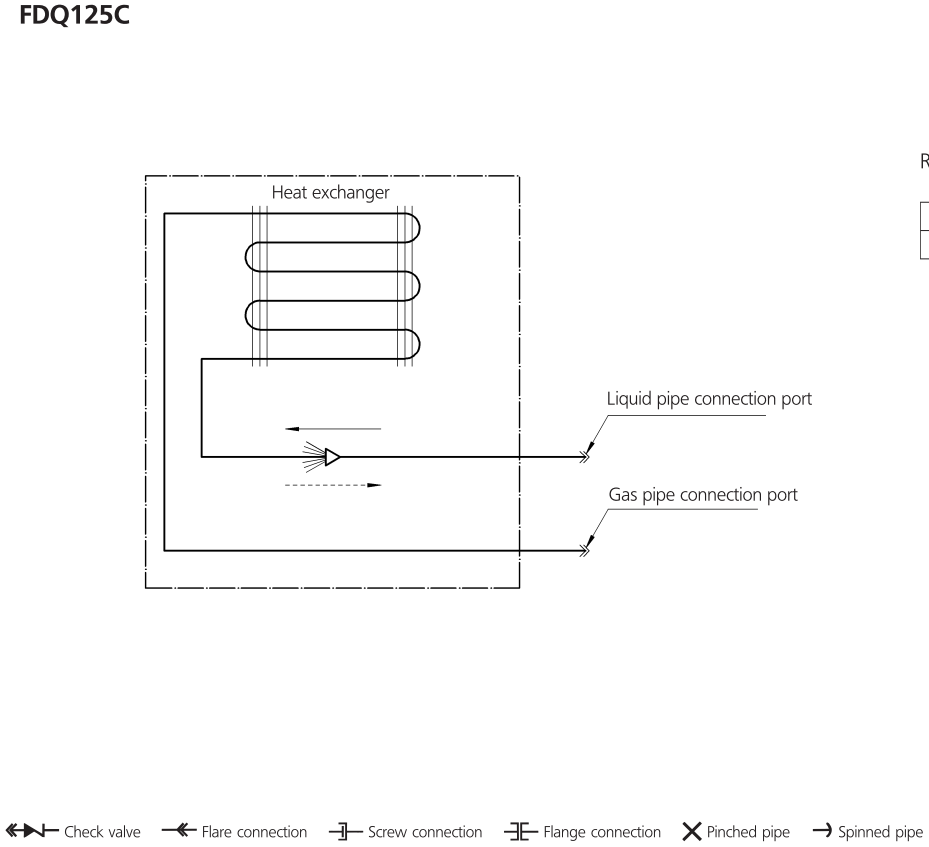
Model	A	B
FDQ125	619	1400

4TW33989-1

8 Piping diagrams

8 - 1 Piping Diagrams

FDQ125C



Refrigerant pipe connection port diameters

Model	Gas	Liquid
FDQ125C	15.90	9.52

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

3TW31275-1A

9 Wiring diagrams

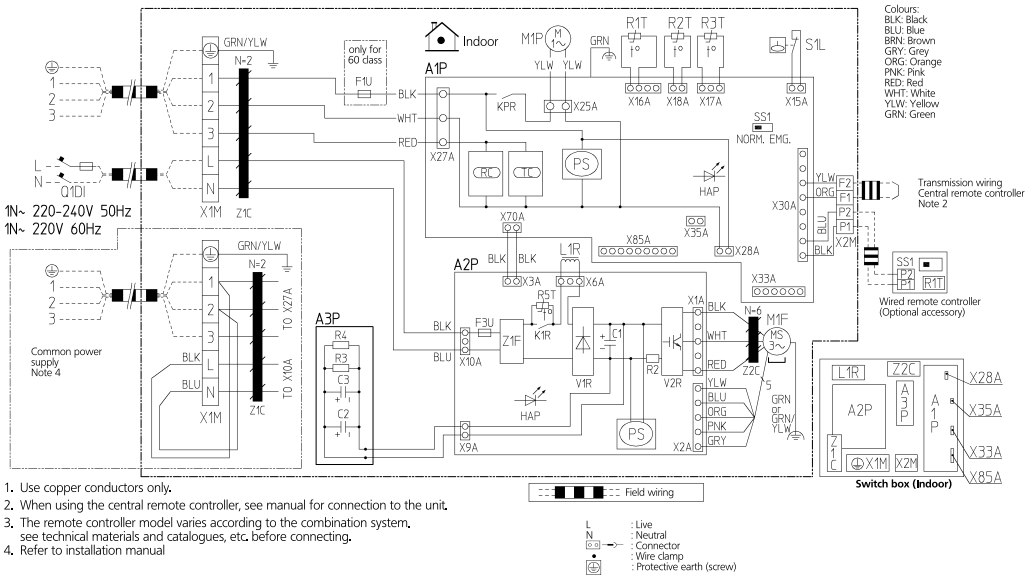
9 - 1 Wiring Diagrams - Single Phase

FDQ125C

Indoor unit
A1P : Printed circuit board
A2P : Printed circuit board (Fan)
A3P : Printed circuit board (Capacitor)
C1,C2,C3 : Capacitor
F1U : Fuse (T, 5A, 250V)
F3U : Fuse (T, 6.3A, 250V)
HAP : Light emitting diode (Service monitor-green)
KPR,K1R : Magnetic relay
L1R : Reactor
M1F : Motor (Fan)
M1P : Motor (Drain pump)
PS : Switching power supply
Q1DI : Earth leak detector
R2 : Current sensing device
R3,R4 : Resistor (Electric discharge)
R1T : Thermistor (Suction air)
R2T : Thermistor (Liquid)
R3T : Thermistor (Coil)
R5T : Thermistor NTC (current limiting)
SS1 : Selector switch (emergency)
S1L : Float switch
V1R : Diode bridge
V2R : Power module
X1M : Terminal strip (Power supply)
X2M : Terminal strip (Control)
Z1C,Z2C : Noise filter (Ferrite core)
Z1F : Noise filter
(IR) : Signal receiver circuit
(TR) : Signal transmission circuit

Connector optional accessory
X28A : Connector (Power supply for wiring)
X33A : Connector (for wiring)
X35A : Connector (Adapter)
X85A : Connector (For multi zoning)

Wired remote controller
R1T : Thermistor (air)
SS1 : Selector switch (main/sub)



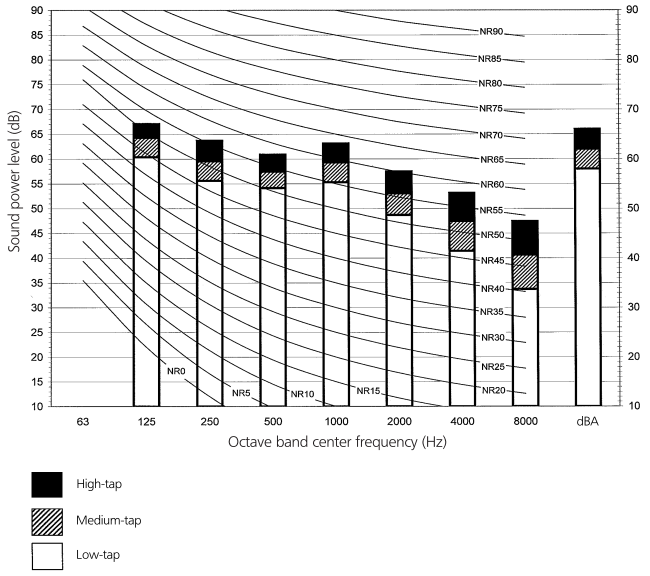
1. Use copper conductors only.
2. When using the central remote controller, see manual for connection to the unit.
3. The remote controller model varies according to the combination system. see technical materials and catalogues, etc. before connecting.
4. Refer to installation manual

2TW31296-3

10 Sound data

10 - 1 Sound Power Spectrum

FDQ125C



NOTES

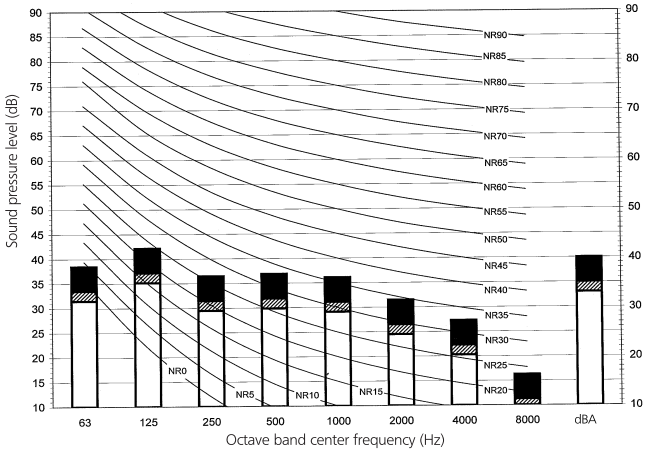
1 dBA = A-weighted sound power level (A-scale according to IEC)
2 Reference acoustic intensity 0dB = 10E-6μW/m²
3 Measured according to ISO 3744

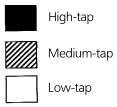
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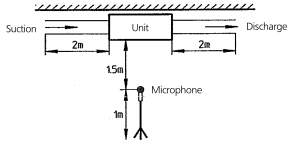
10 Sound data

10 - 2 Sound Pressure Spectrum - Cooling

FDQ125C







NOTES

1. Data is valid at free field condition
2. Data is valid at nominal operation condition
3. dBA = A-weighted sound pressure level (A-scale according to IEC)
4. Reference acoustic pressure 0dB = 20μPa

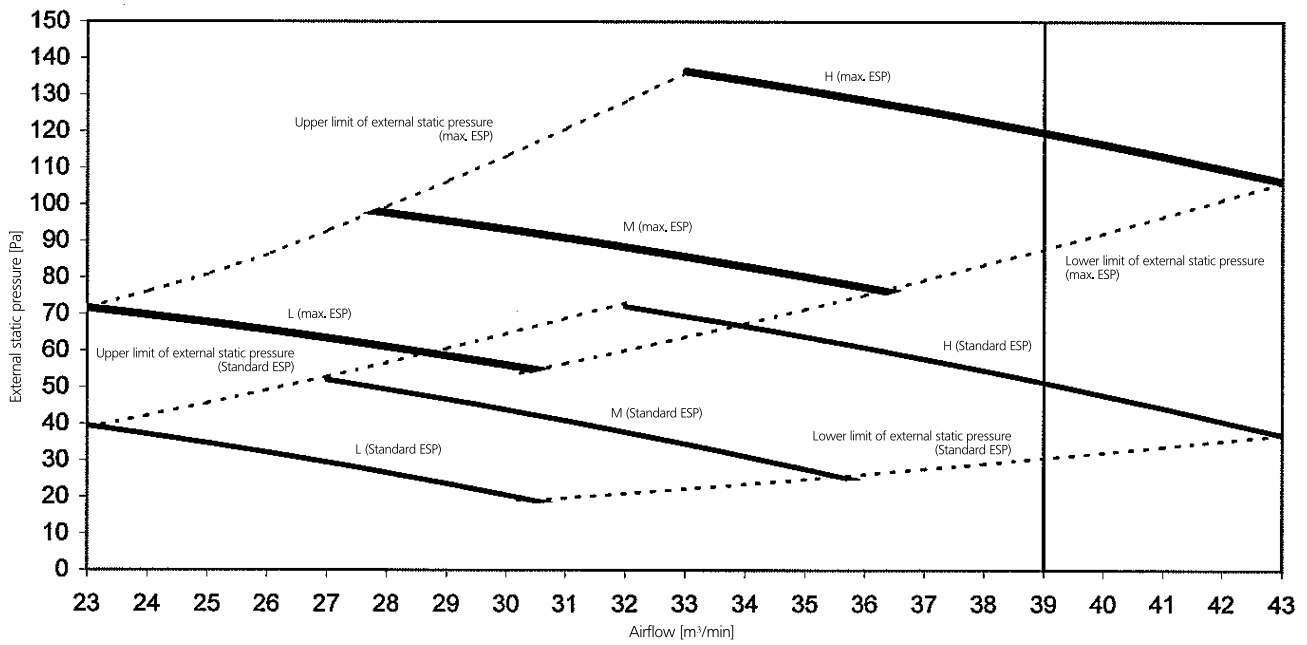
3TW31267-2

11 Fan characteristics

11 - 1 Fan Characteristics

FDQ125C

Fan characteristics (1)



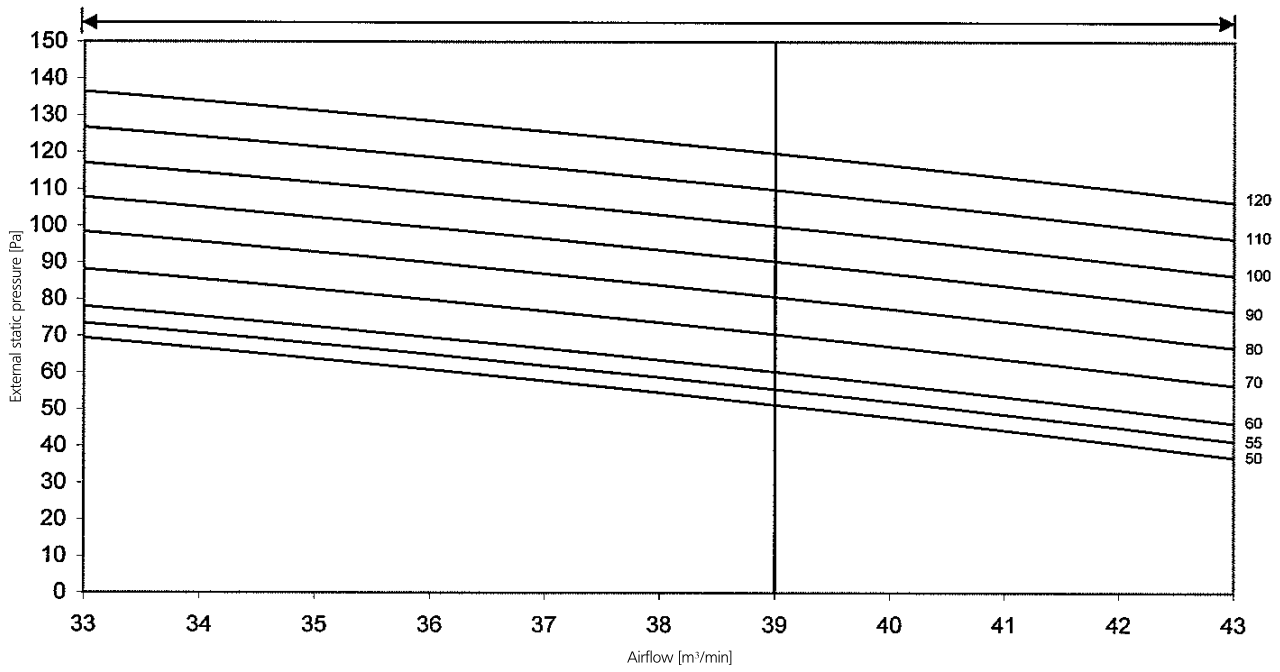
NOTES

1 Fan characteristics as shown are in 'fan only' mode
2 ESP: External static pressure

3TW31268-1

FDQ125C

Fan characteristics (2)
(Field setting with remote controller)



NOTES

1 Fan characteristics as shown are in 'fan only' mode
2 ESP: External static pressure

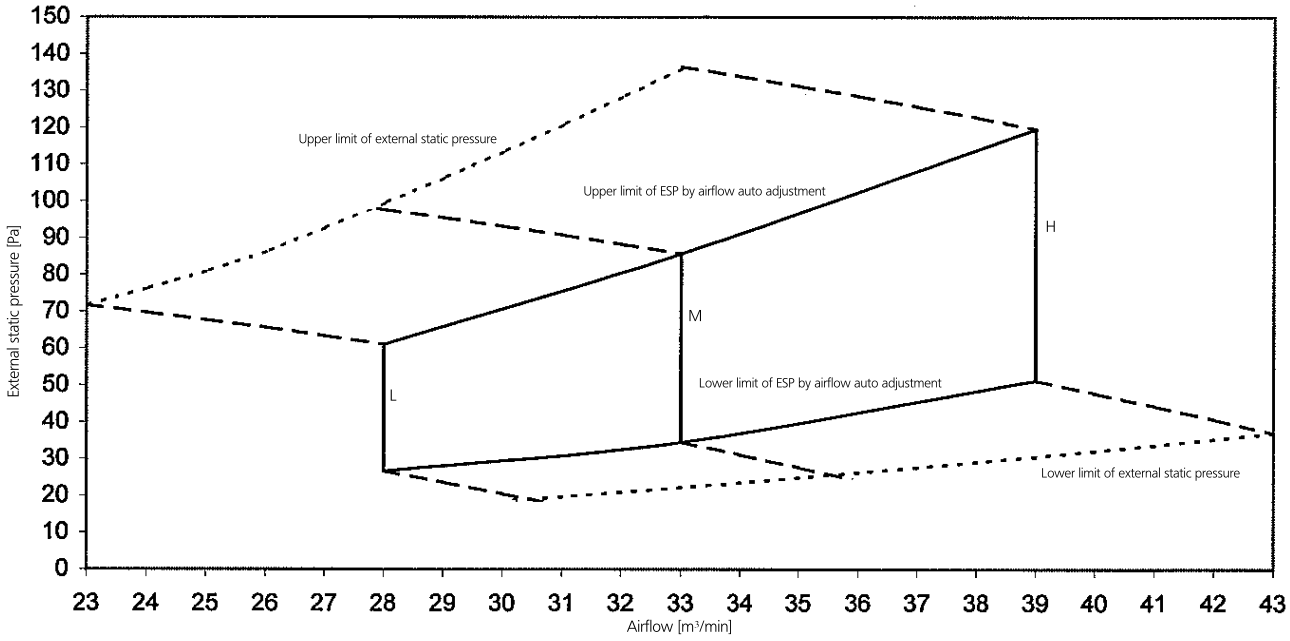
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11 Fan characteristics

11 - 1 Fan Characteristics

FDQ125C

Fan characteristics (3)
(airflow auto adjustment)



NOTES

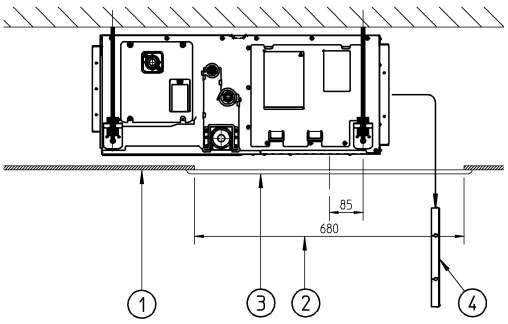
1 Fan characteristics as shown are in 'fan only' mode
2 ESP: External static pressure

3TW31268-1

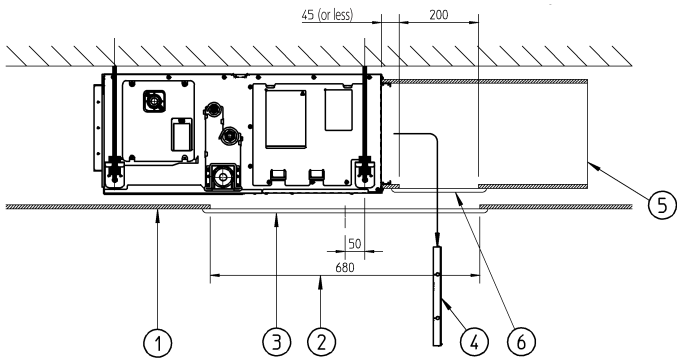
12 Installation

12 - 1 Installation Method

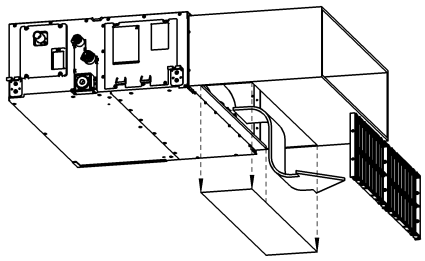
FDQ125C



Installation without air inlet duct



Installation with air inlet duct



Number	Description
1	Suspended ceiling
2	Ceiling opening
3	Service access panel (optional)
4	Air filter
5	Air inlet duct
6	Duct service opening

NOTES

1 When installing the unit with rear suction, a service opening is necessary for the maintenance of the air filters.

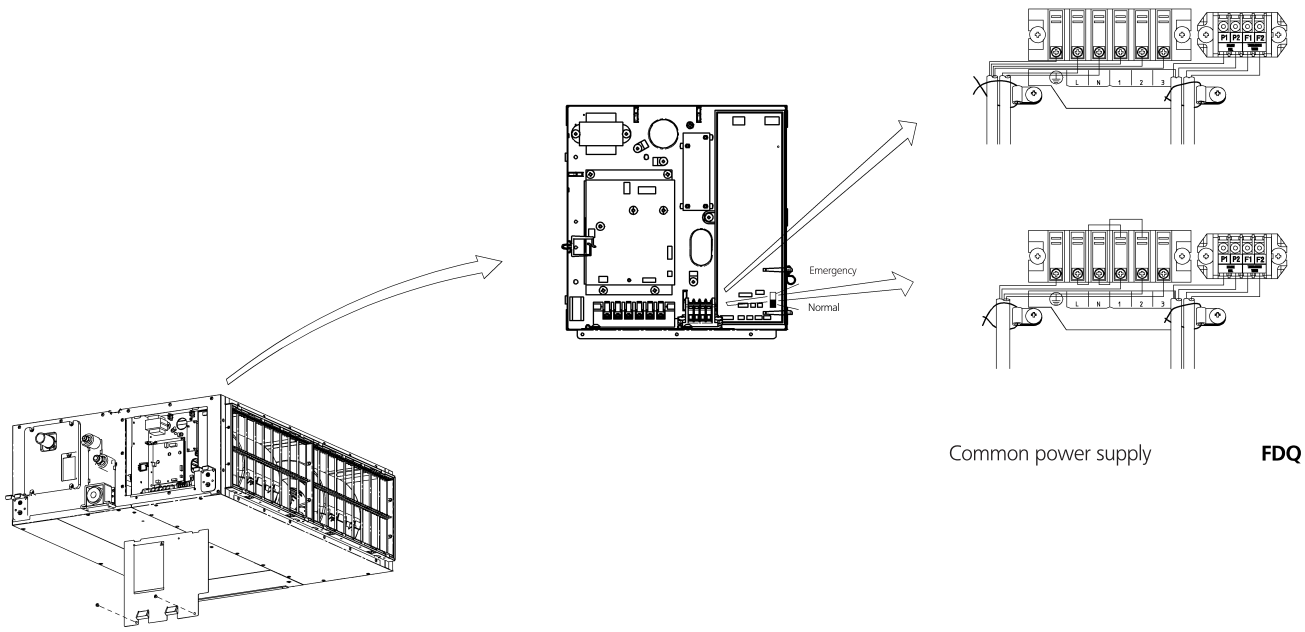
2 When installing the unit with a suction duct, a service opening must be provided in the duct.

3TW31184-4

12 Installation

12 - 2 Switch Box Connection

FDQ125C



Common power supply **FDQ**

3TW31184-5B

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