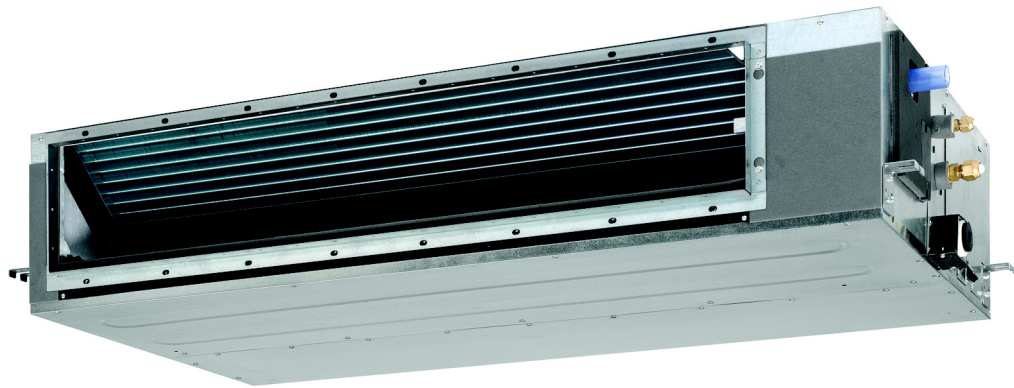




Air Conditioning Technical Data

Concealed ceiling unit



EEDEN13-100

FDQ-C

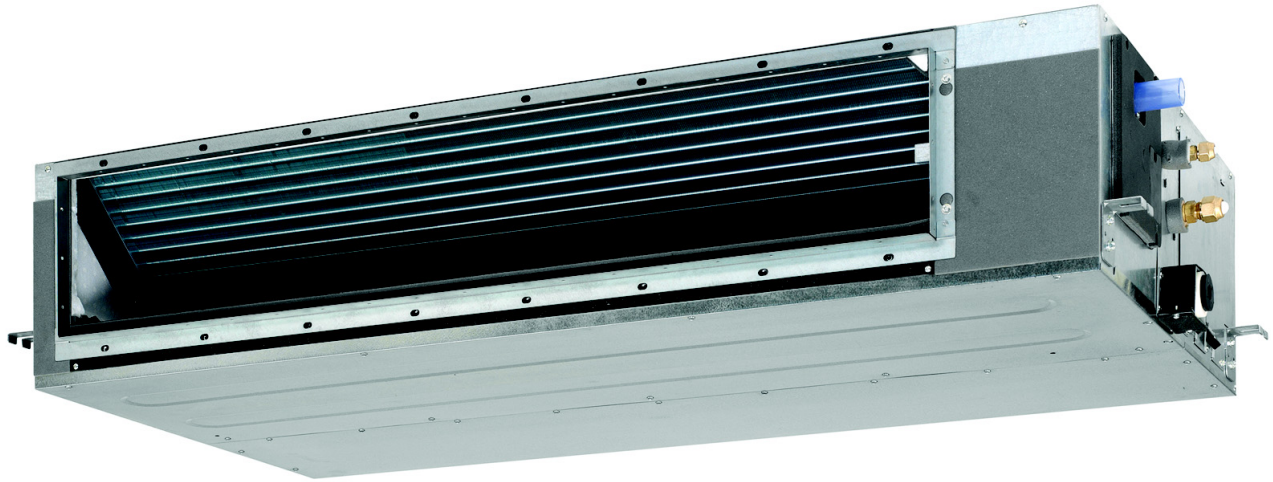
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FDQ-C

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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



3 steps



standard

2 Specifications

2-1 Technical Specifications				FDQ125C	
Cooling capacity	Nom.		kW	12.5 (1)	
Heating capacity	Nom.		kW	14.0 (2)	
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
	Output	High	W	350	
Sound power level	Cooling	Nom.	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
	Voltage	V
		50/60
		220-240/220

2

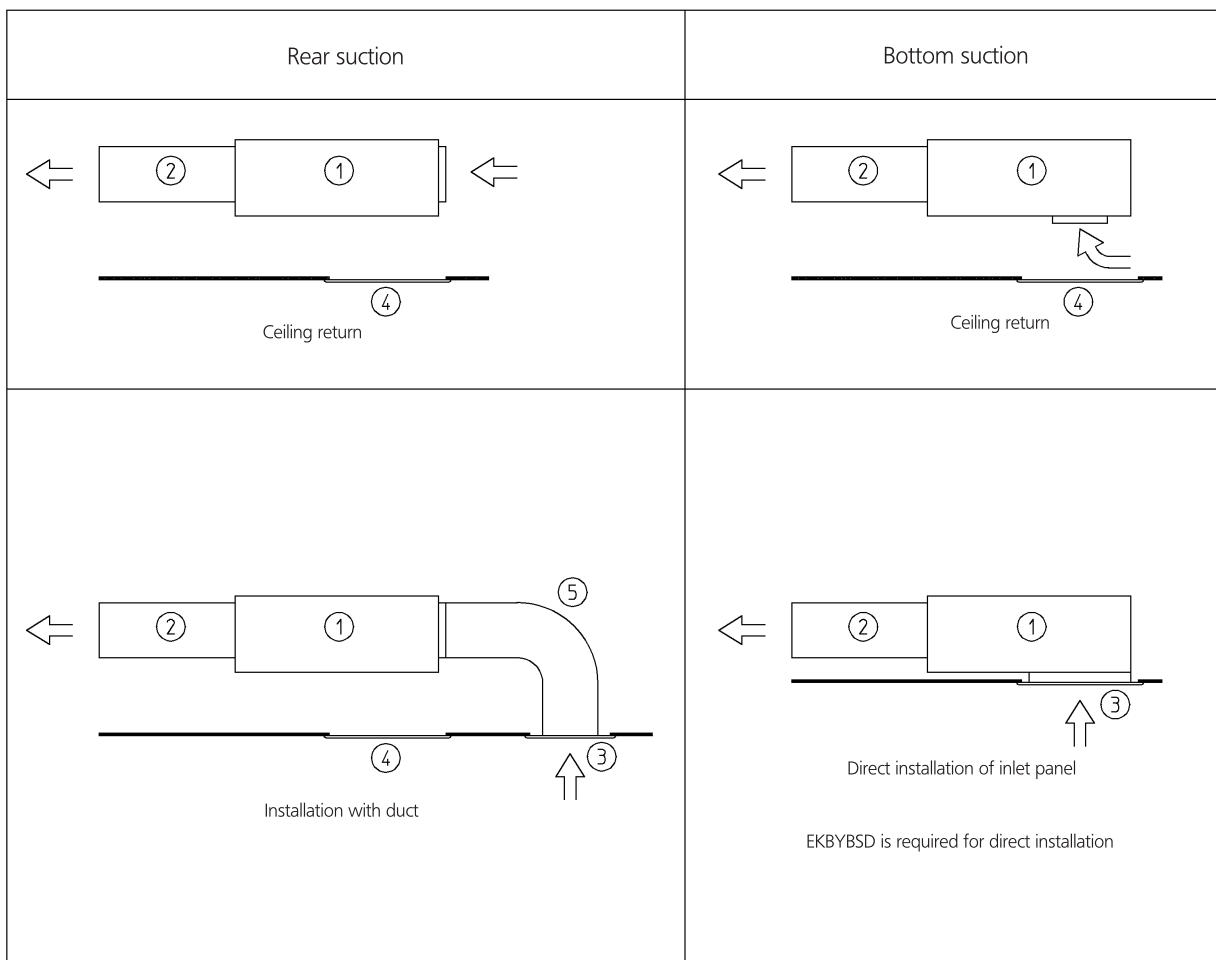
Notes

- (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

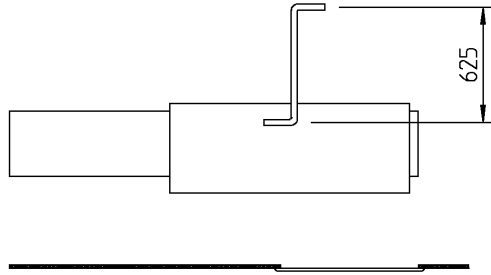
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3 General Characteristics

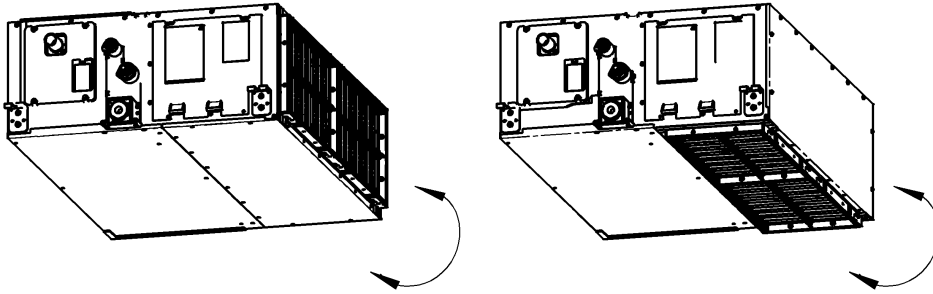
3 - 1 General characteristics

3

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

5

FDQ125C

OPTIONS

Item		FDQ125
Panel related	Decoration panel (*4)	BYBS1Z5D
Air inlet and air discharge outlet related	Air discharge adapter for round duct	KDAU25K140A
Panel related	Decoration panel option	EKBY8D

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			KRCS91-4B
Central remote controller			DCS302CA51
Unified ON/OFF controller			DCS301BA51
Schedule timer			DST301BA51
Remote ON/OFF and FORCED OFF kit			EKROR03
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 EKR1B2A).
 (*2) If installing an electrical heater, an option PCB for external electrical heater (EKR1B2) 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 EKBY8D 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.

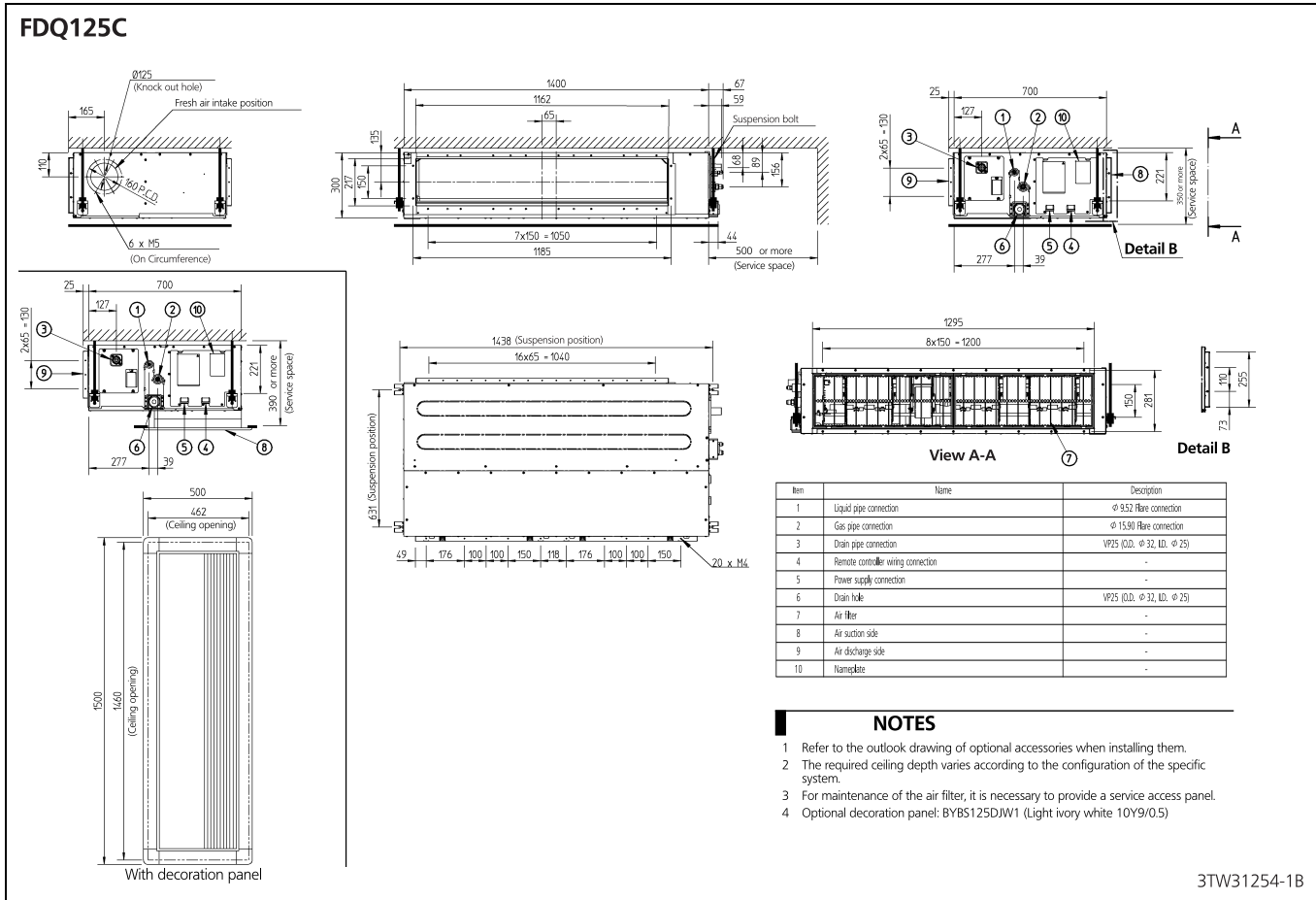
CONTENTS OF ACCESSORY BAG

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

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6 Dimensional drawings

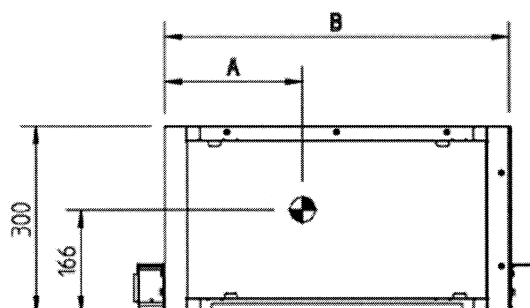
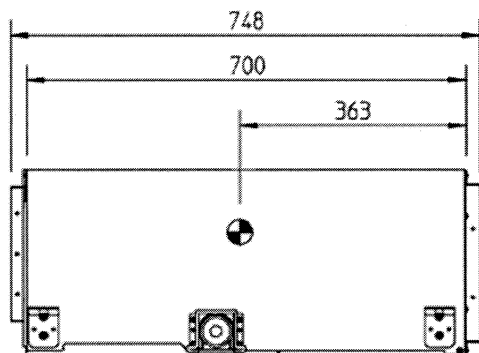
6 - 1 Dimensional Drawings



7 Centre of gravity

7 - 1 Centre of Gravity

FDQ125C

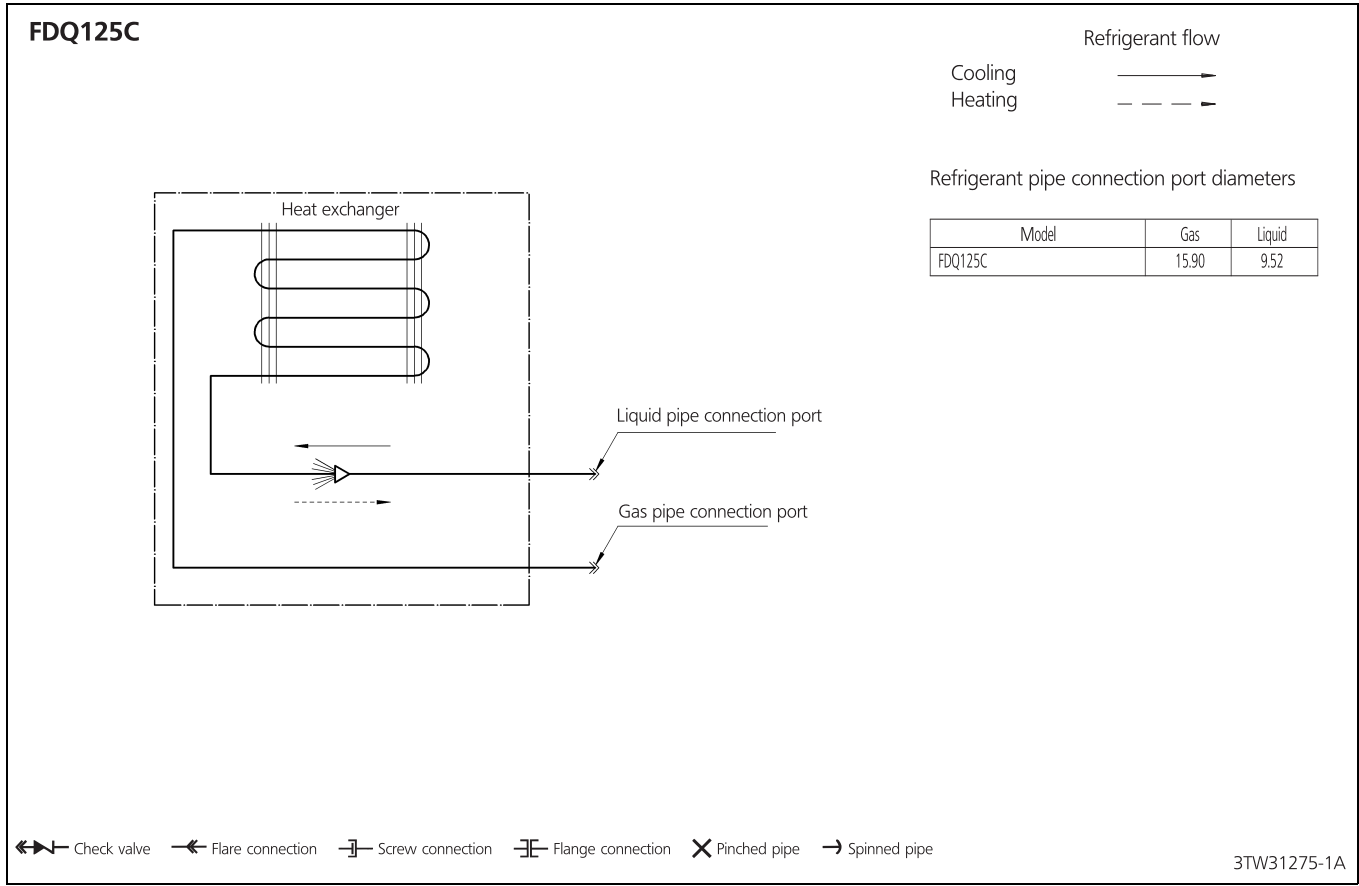


Model	A	B
FDQ125	619	1400

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8 Piping diagrams

8 - 1 Piping Diagrams



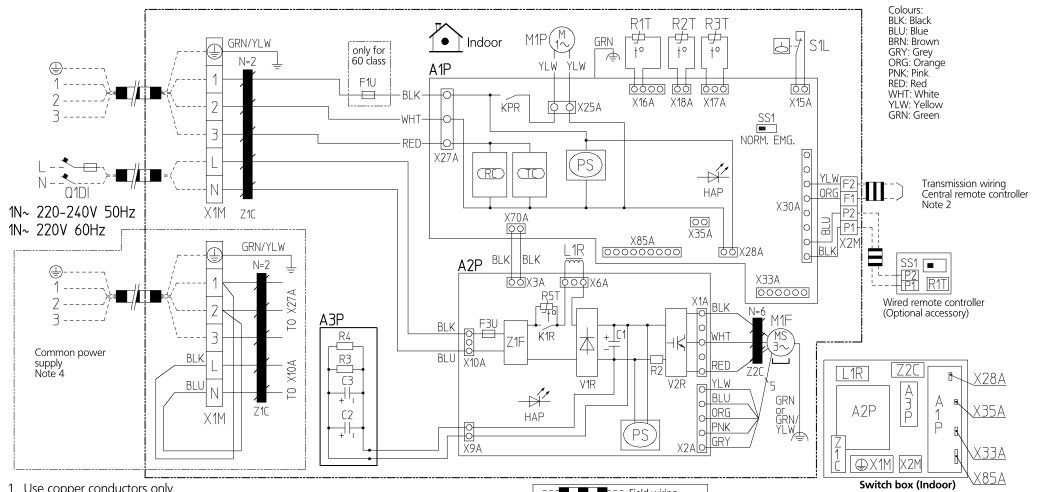
9 Wiring diagrams

9 - 1 Wiring Diagrams - Single Phase

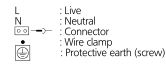
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FDQ125C

- Indoor unit
- A1P : Printed circuit board
 - A2P : Printed circuit board (Fan)
 - A3P : Printed circuit board (Capactor)
 - 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
 - X28A : Terminal strip (Power supply)
 - X33A : Terminal strip (Control)
 - X35A : Noise filter (Ferrote core)
 - X2M : Noise filter
 - Z1C,Z2C : Signal receiver circuit
 - Z1F : Signal transmission circuit
 - Z2F : 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)



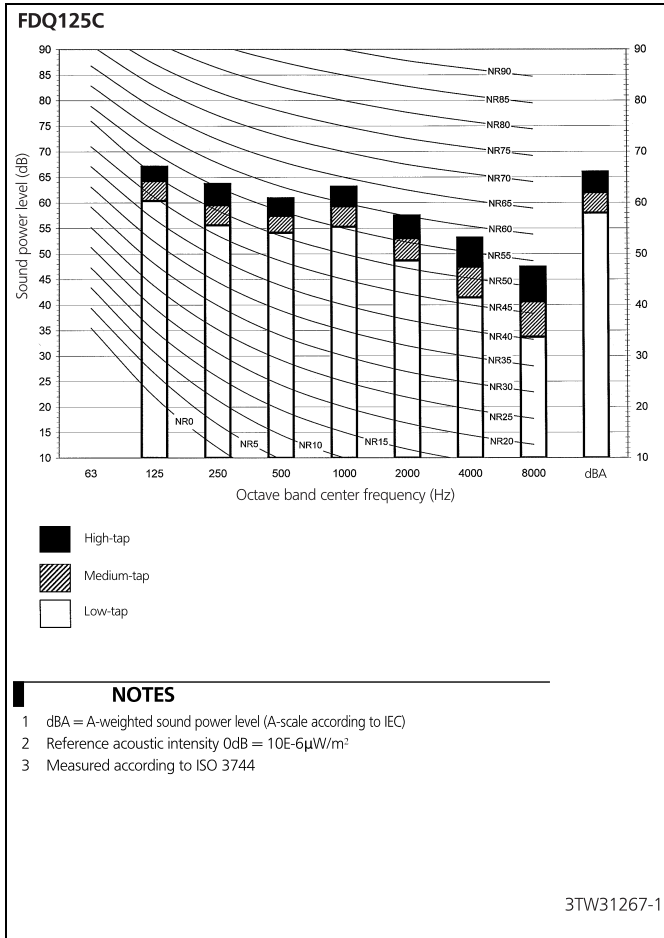
1. Use copper conductors only.
2. When using the central remote controller, see manual for connection to the unit.
3. The remote controller model varies according to the combination system. see technical materials and catalogues, etc. before connecting.
4. Refer to installation manual



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10 Sound data

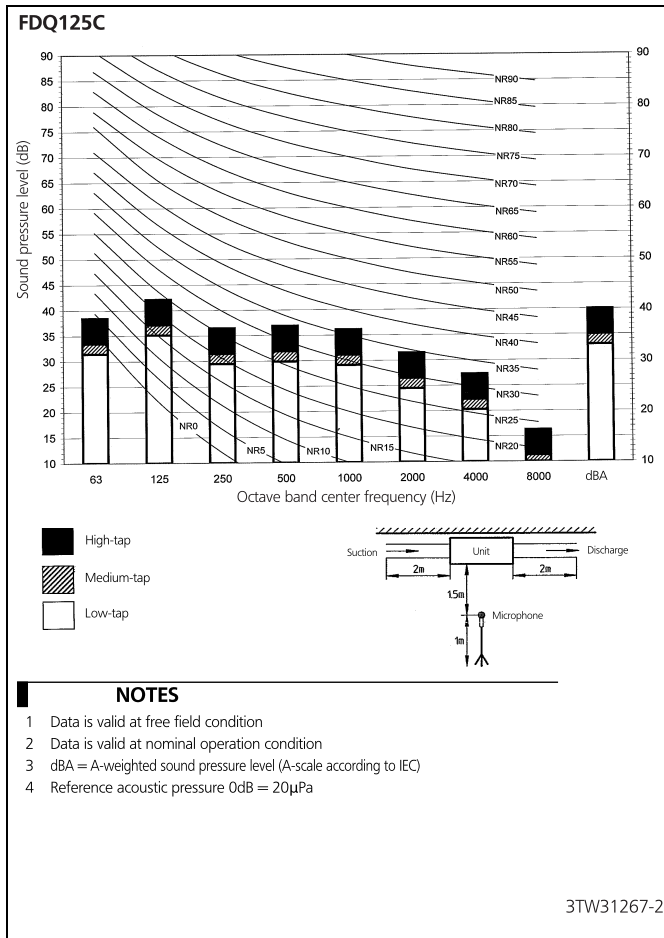
10 - 1 Sound Power Spectrum



10 Sound data

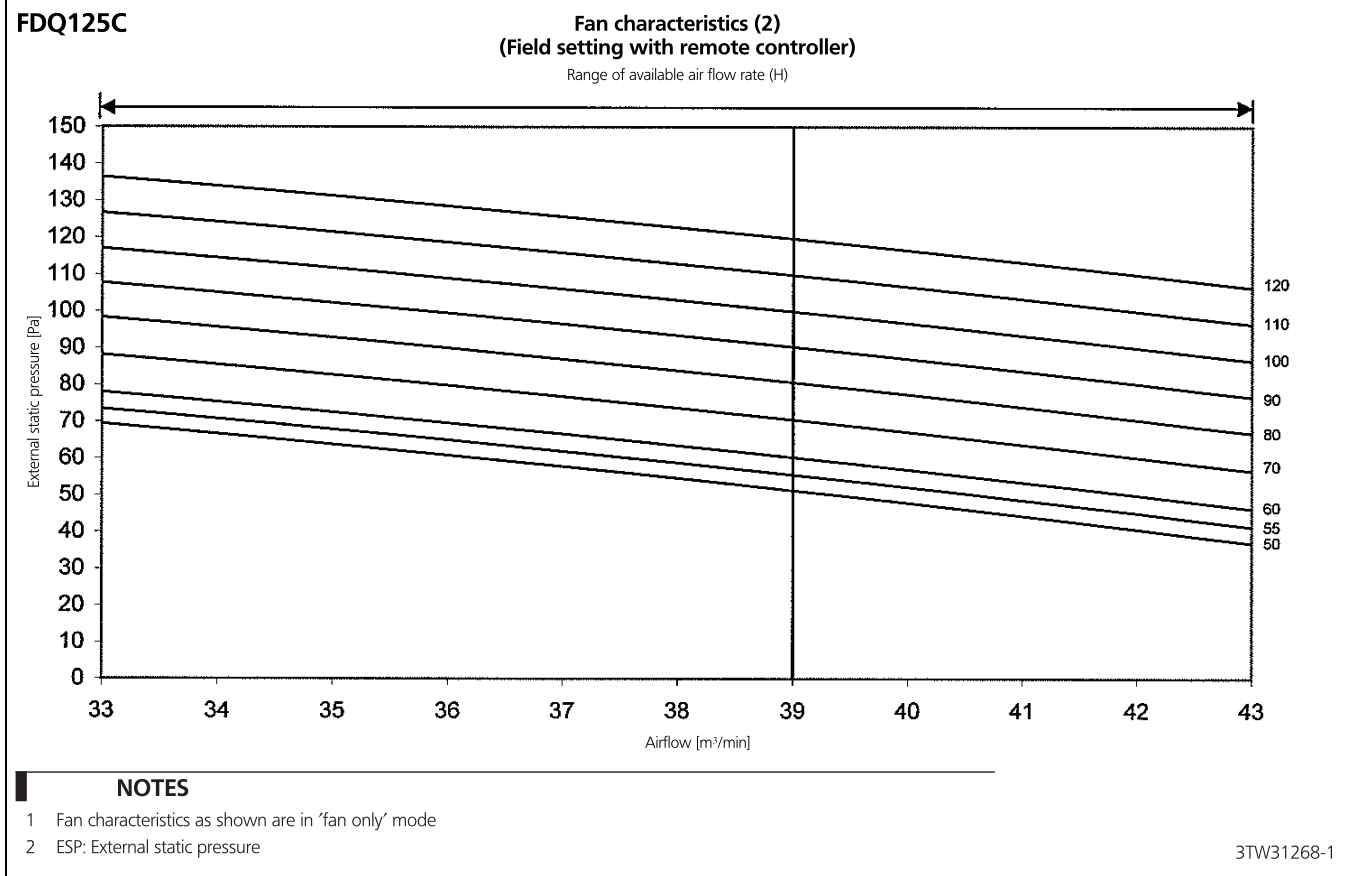
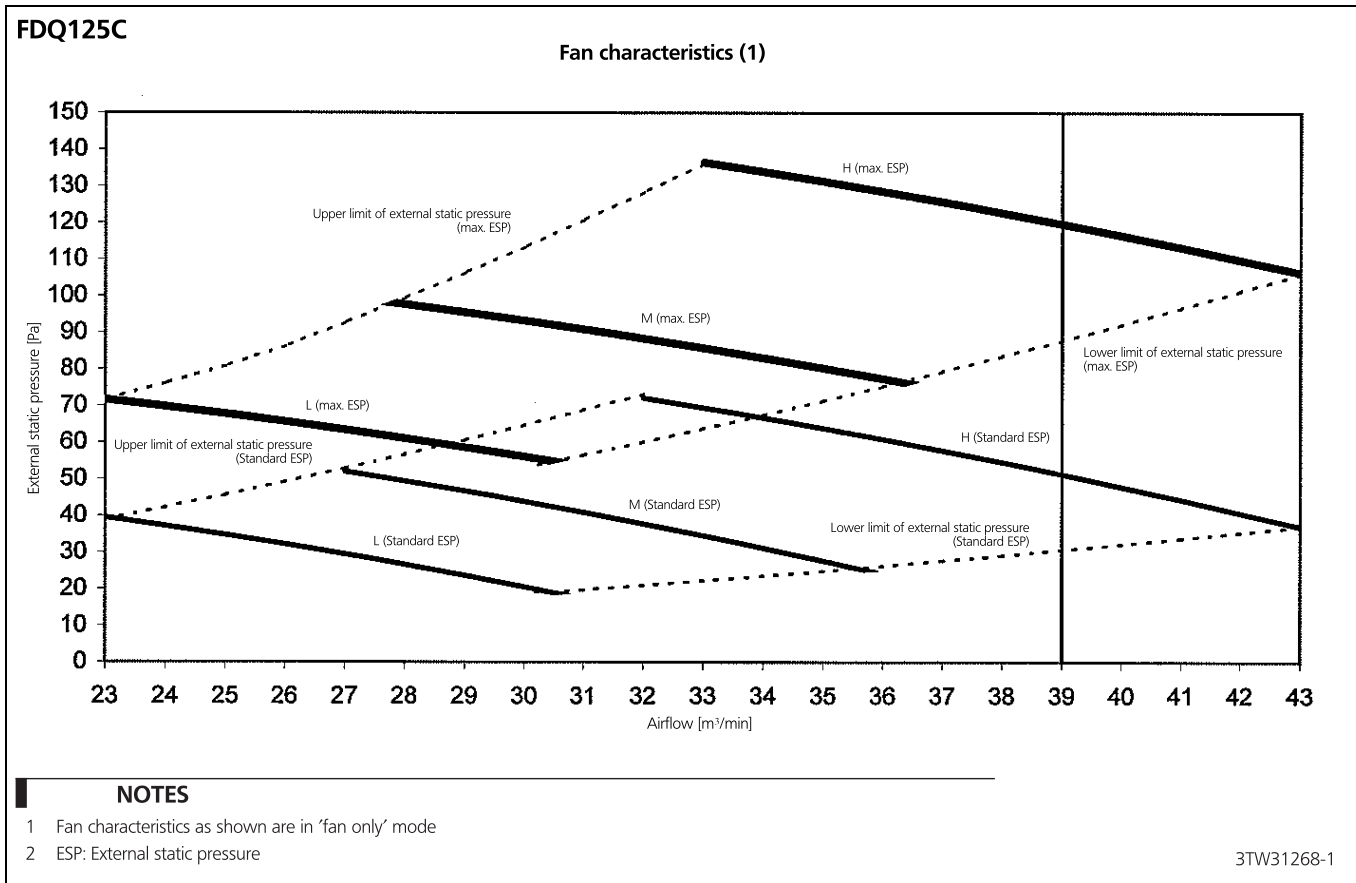
10 - 2 Sound Pressure Spectrum - Cooling

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11 Fan characteristics

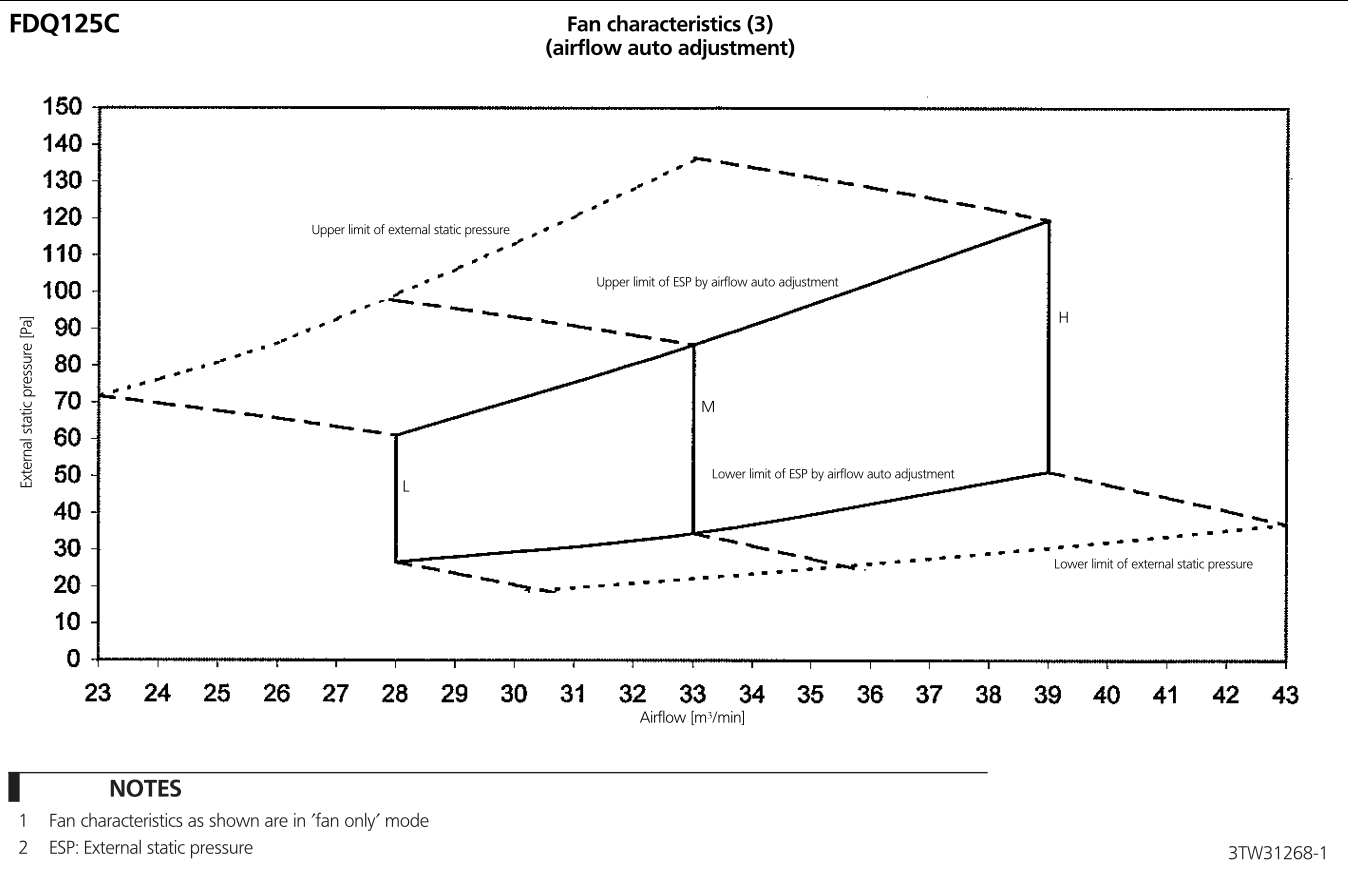
11 - 1 Fan Characteristics



11 Fan characteristics

11 - 1 Fan Characteristics

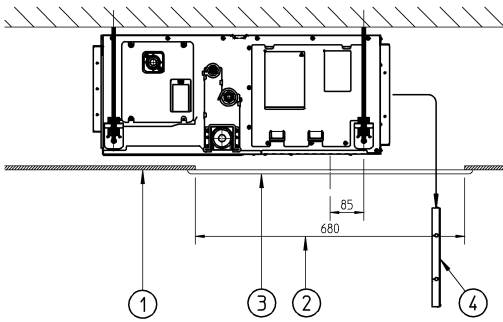
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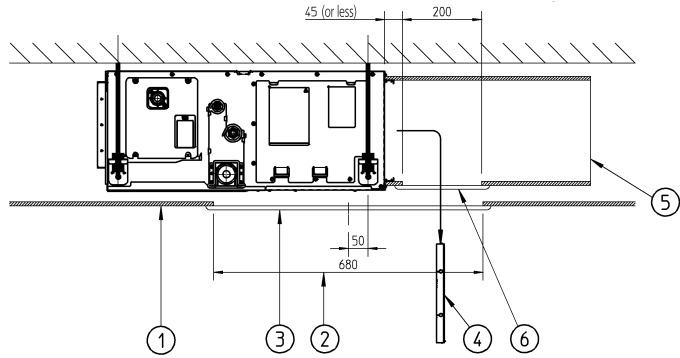
12 Installation

12 - 1 Installation Method

FDQ125C

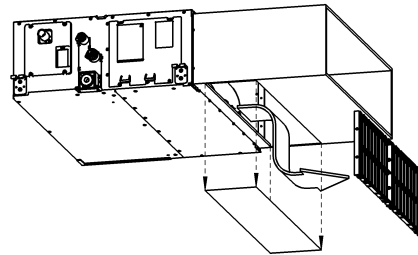


Installation without air inlet duct



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.

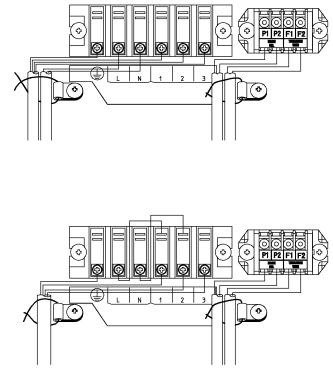
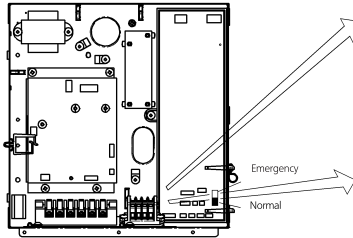
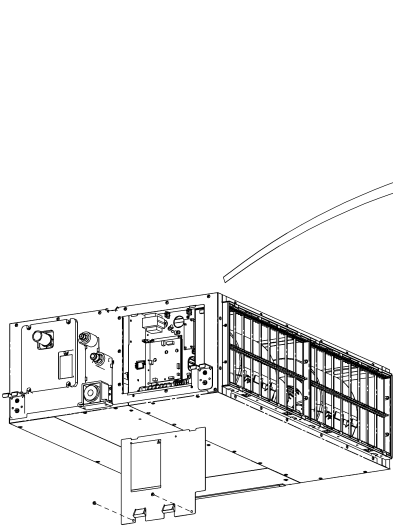
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12 Installation

12 - 2 Switch Box Connection

12

FDQ125C



Common power supply

FDQ

3TW31184-5B



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