

Concealed ceiling unit  
with high ESP  
Air Conditioning  
Technical Data  
FDA125A





# TABLE OF CONTENTS

## FDA125A

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1	Features	4
	FDA125A	4
2	Specifications	5
3	General Characteristics	7
4	Safety device settings	8
5	Options	9
6	Dimensional drawings	10
7	Centre of gravity	11
8	Piping diagrams	12
9	Wiring diagrams	13
	Wiring Diagrams - Three Phase	13
10	Sound data	14
	Sound Power Spectrum	14
	Sound Pressure Spectrum	15
11	Fan characteristics	16
12	Installation	18
	Filter Installation Method	18

# 1 Features

## 1 - 1 FDA125A

- › High external static pressure up to 250Pa facilitates extensive duct and grille network
- › Unified indoor unit range for R-32 and R-410A
- › Combining with R-32 Bluevolution technology, reduces environmental impact with 68% compared to R-410A, leads directly to lower energy consumption thanks to its high energy efficiency and has up to lower 16% refrigerant charge
- › Possibility to change ESP via wired remote control allows optimisation of the supply air volume
- › Discretely concealed in the ceiling: only the suction and discharge grilles are visible
- › Built-in drain pump (625mm) increases the flexibility and installation speed (standard for FDA125, optional for FDA200-250)
- › Standard supplied suction filter simplifies installation
- › Up to 26.4kW in heating mode



Home leave operation



Fan only



Auto cooling-heating changeover



Fan speed steps



Dry programme



Air filter



Weekly timer



Wired remote control



Centralised control



Infrastructure cooling



Auto-restart double twin application



Self diagnosis



Drain pump kit



Twin/triple/



Infrared remote control (optional)



Daikin Residential Controller (optional)

## 2 Specifications

### 1 - 1 FDA125A

Technical specifications					FDA125A
Cooling capacity	Sensible capacity	Nom.	kW		7.83
	Latent capacity	Nom.	kW		4.27
	Total capacity	Nom.	kW		12.10
Heating capacity	Total capacity	Nom.	kW		13.50
Power input - 50Hz	Cooling	Nom.	kW		0.35
	Heating	Nom.	kW		0.35
Power input - 60Hz	Cooling	Nom.	kW		0.35
	Heating	Nom.	kW		0.35
Casing	Colour				Unpainted
	Material				Galvanised steel
Dimensions	Unit	Height	mm		300
		Width	mm		1,400
		Depth	mm		700
	Packed unit	Height	mm		355
		Width	mm		1,620
		Depth	mm		900
Weight	Unit		kg		45
	Packed unit		kg		53
Required ceiling void >			mm		350
Heat exchanger	Inside length		mm		1,140
	Outside length		mm		1,140
	Rows	Quantity			3
	Fin pitch		mm		1.75
	Passes	Quantity			11
	Face area		m <sup>2</sup>		0.383
	Stages	Quantity			16
	Empty tubeplate hole	Quantity			0
	Tube type				ø7 Hi-XSS
	Fin	Type			Symmetric waffle louver
Fan	Type				Sirocco fan
	Quantity				3
	Air flow rate	Cooling	High	m <sup>3</sup> /min	39.0
			Low	m <sup>3</sup> /min	28.0
		Heating	High	m <sup>3</sup> /min	39.0
			Low	m <sup>3</sup> /min	28.0
	External static pressure	High	Pa		200
Fan	External static pressure	Nom.	Pa		50
Fan motor	Quantity				1
	Model				Brushless DC motor
	Drive				Direct drive
	Speed	Steps			9
		Cooling	High	rpm	1,218
			Low	rpm	920
		Heating	High	rpm	1,218
			Low	rpm	920
	Output	Max	W		350
Sound power level	Cooling		dBA		66
Sound pressure level	Cooling	High	dBA		40
		Low	dBA		33
	Heating	High	dBA		40
		Low	dBA		33
Refrigerant	Type				R-32 / R-410A
Piping connections	Liquid	Type			Flare connection
		OD	mm		9.52
	Gas	Type			Flare connection
		OD	mm		15.90
	Drain				VP25 (I.D. 25/O.D. 32)
Heat insulation					Both liquid and gas pipes
Drain-up height			mm		625

## 2 Specifications

### 1 - 1 FDA125A

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Technical specifications				FDA125A
Decoration panel	Model			BYBS125DJW1
	Colour			White (10Y9/0.5)
	Dimen- sions	Height	mm	55
		Width	mm	1,500
		Depth	mm	500
	Weight		kg	6.5
Air filter	Type			Resin net
Safety devices	Item	01		PC board fuse
		02		PC board fuse (fan driver)
		03		Drain pump fuse
Control systems	Infrared remote control			BRC4C65 / BRC4C66
	Wired remote control			BRC1H52W/S/K / BRC1E53A / BRC1E53B / BRC1E53C / BRC1D52

Standard accessories: Screws; Quantity: 16;

Standard accessories: Washer; Quantity: 8;

Standard accessories: Hose band; Quantity: 1;

Standard accessories: Drain hose; Quantity: 1;

Standard accessories: General safety precautions; Quantity: 1;

Standard accessories: Installation and operation manual; Quantity: 1;

Standard accessories: Wire for common power supply; Quantity: 2;

Standard accessories: Sealing material (drain hose); Quantity: 1;

Standard accessories: Sealing material; Quantity: 2;

Standard accessories: Thermal insulation tube (liquid); Quantity: 1;

Standard accessories: Thermal insulation tube (gas); Quantity: 1;

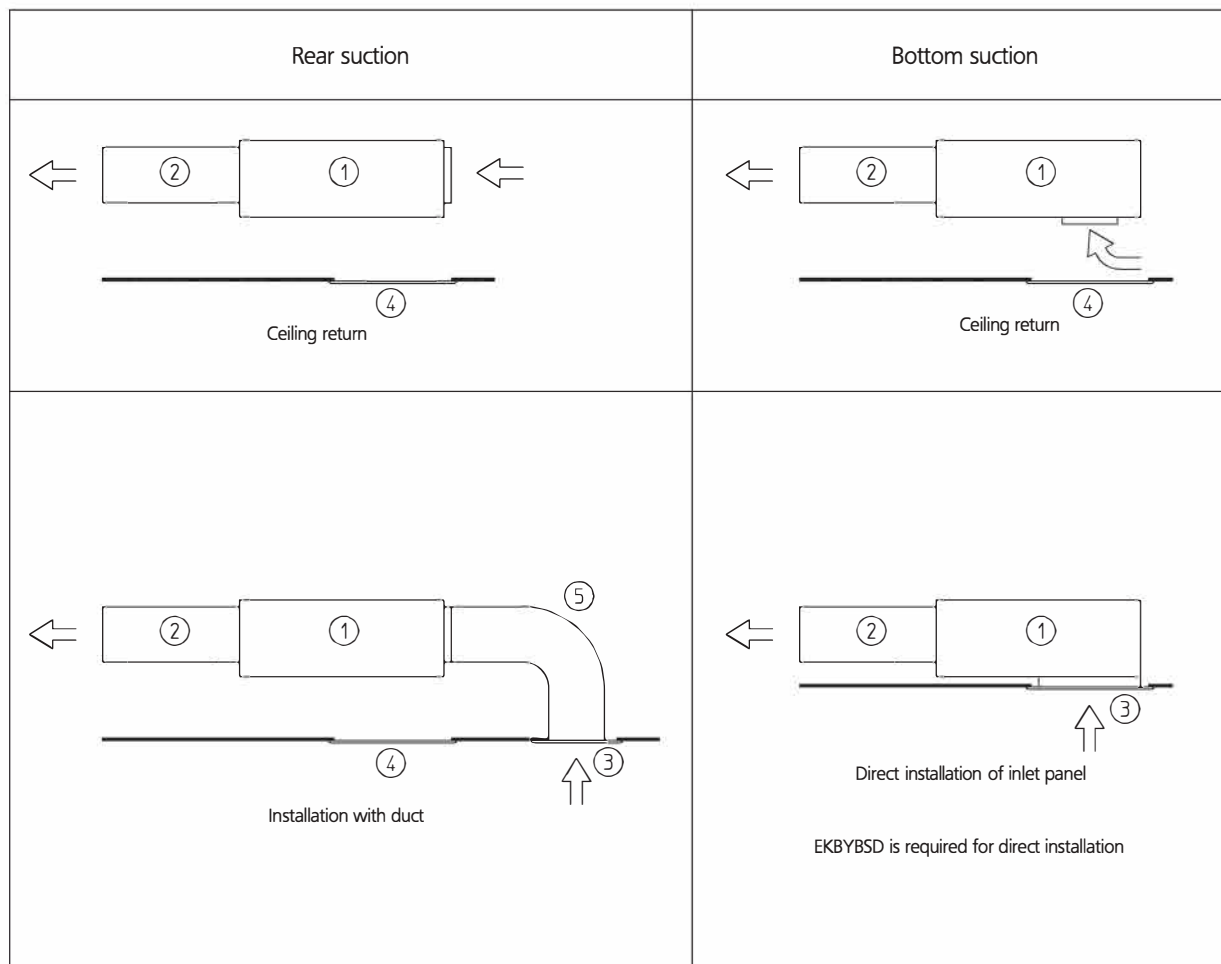
Electrical specifications				FDA125A
Power supply	Phase			1~
	Frequency		Hz	50/60
	Voltage		V	220-240/220

See separate drawing for electrical data

### 3 General Characteristics

#### 3 - 1 General characteristics

##### FDA125A



##### 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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## 4 Safety device settings

### 4 - 1 Safety Device Settings

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Safety devices		FDA125A5VEB
PCB fuse		---
PCB fuse (fan driver)		250V, 6.3A
Fan motor overcurrent protection	Nominal	---
Fan motor thermal protector	Maximum	---
Drain pump fuse		145°C

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# 5 Options

## 5 - 1 Options

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Option kit			FDA125A5VEB
Decoration panel			BYBS125D (4)
Air discharge adaptor for round ducts			KDAJ25K140A
Decoration panel option			EKBYBSD
Remote control	Wired		BRC1D528
			BRC1E53A7 (5)
			BRC1E53B7 (6)
			BRC1E53C7 (7) (10), BRC1H51(9)W/S/K, BRC1H81W/S
	Wireless	Heat pump	BRC4C65
		Cooling only	BRC4C66
Simplified remote control (with operation mode selector button)			BRC2E52C7 (9) (10)
Simplified remote control (without operation mode selector button)			BRC3E52C7 (9) (10)
Optional PCB for external electric heaters, humidifiers and/or hour meters			EKRP1B2A (1) (2) (3)
Adaptor for wiring (interlock for fresh air intake fan)			KRP1C64 (3)
Wiring adaptor for electrical appendices			KRP2A51 (3)
Remote sensor			KRC501-4B
Central remote control			DCS302CA51
Unified ON/OFF controller			DCS301BA51
Schedule timer			DST301BA51
Remote "ON/OFF" and "forced OFF" kit			EKRORO3
Mounting plate for adaptor PCB			KRP4A96
Digital input adaptor			BRP7A54 (3) (8)
Wi-Fi adaptor for smartphones			BRP069A81 (11)

#### Notes

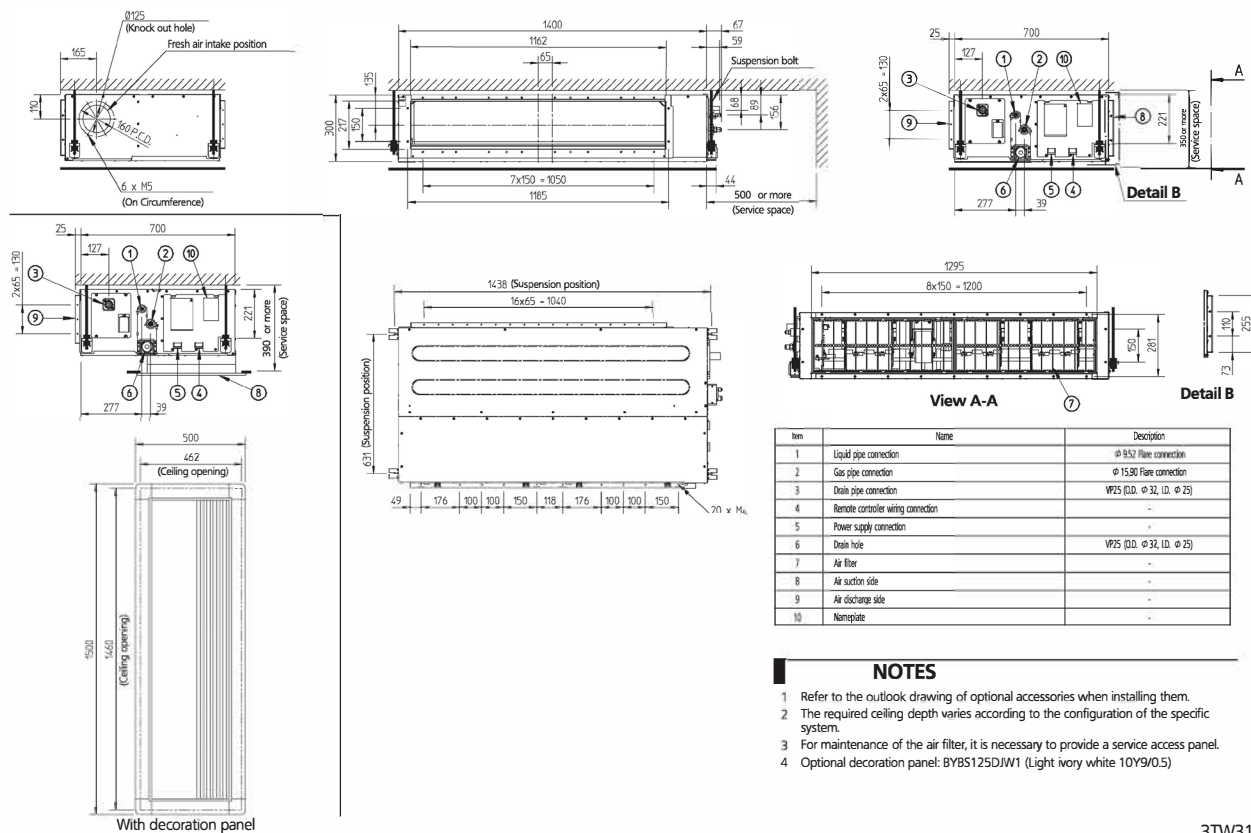
- ①: Electric heaters and humidifiers are field-supplied. Do not install them inside the equipment (refer to installation manual -EKRP1B2A- ).
- ②: When installing electric heaters, an optional PCB for external electric heaters (-EKRP1B2A-) is required for each indoor unit.
- ③: These options require mounting plate -KRP4A96-.  
Maximally -2- optional PCBs can be mounted.
- ④: For directly mounting the decoration panel on the unit, decoration panel option -EKBYBSD- is required.
- ⑤: Included languages are: English, German, French, Italian, Spanish, Portuguese, and Dutch.
- ⑥: Included languages are: English, Czech, Croatian, Hungarian, Slovenian, Romanian, and Bulgarian.
- ⑦: Included languages are: English, Russian, Greek, Turkish, Polish, Albanian, and Slovak.
- ⑧: Only possible in combination with -BRC2/3E52C7, BRC1E53A/B/C7, BRC1H51(9)W/S/K, BRC1H81W/S-.
- ⑨: Included languages are:  
Language pack -1-: English, German, French, Dutch, Spanish, Italian, and Portuguese.  
With PC cable -EKPCAB3- in combination with the Updater PC software, you can additionally change the language to:  
Language pack -3- of controller -BRC1E53C7- is different from that of controller -BRC2/3E52C7-.  
Language pack -3-: English, Greek, Polish, Russian, Serbian, Slovak, and Turkish.
- ⑩: Language pack -2-: English, Bulgarian, Croatian, Czech, Hungarian, Romanian, and Slovenian.
- ⑪: Only possible in combination with wired or wireless remote control (e.g. -BRC1E\*, BRC1H\*, BRC7FA\*-P)

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# 6 Dimensional drawings

## 6 - 1 Dimensional Drawings

### FDA125A

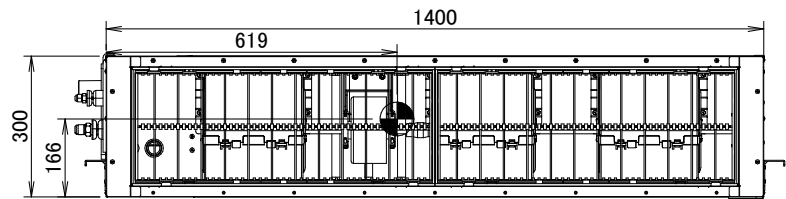
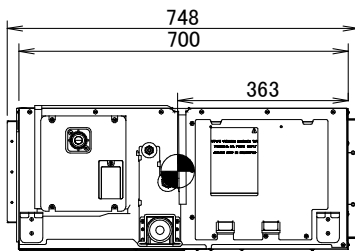


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## 7 Centre of gravity

7 - 1 Centre of Gravity

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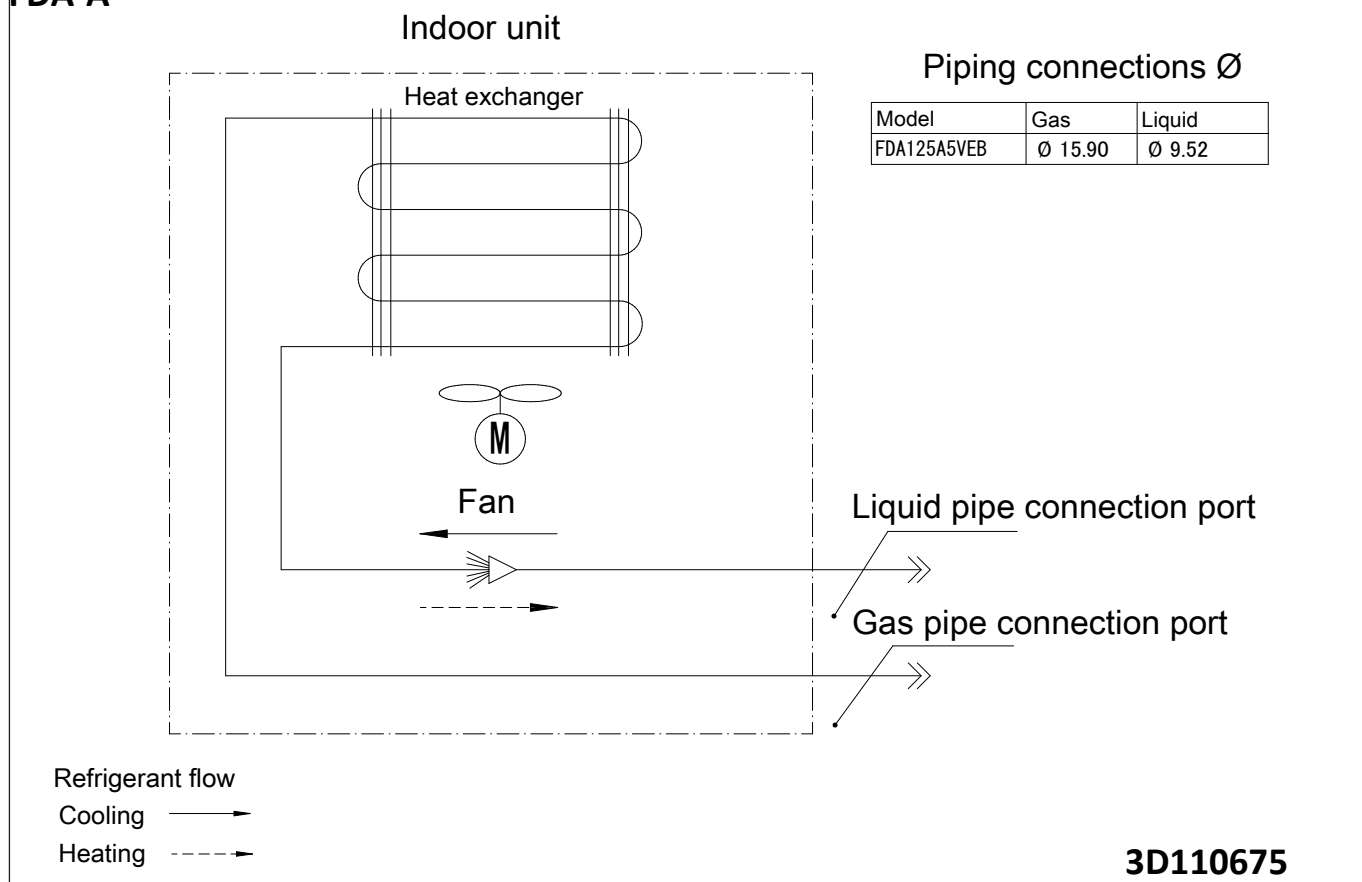
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# 8 Piping diagrams

## 8 - 1 Piping Diagrams

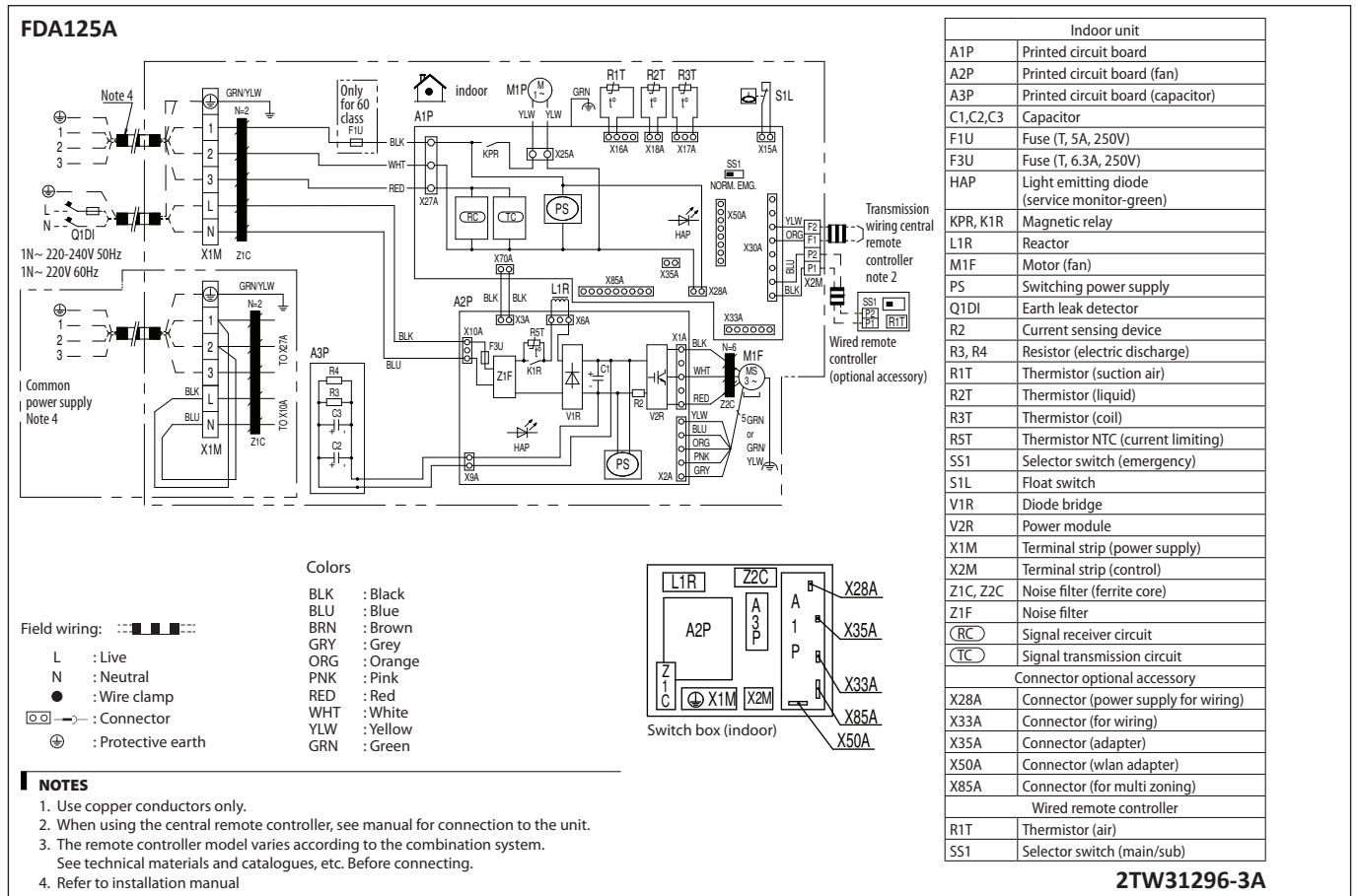
### FDA-A

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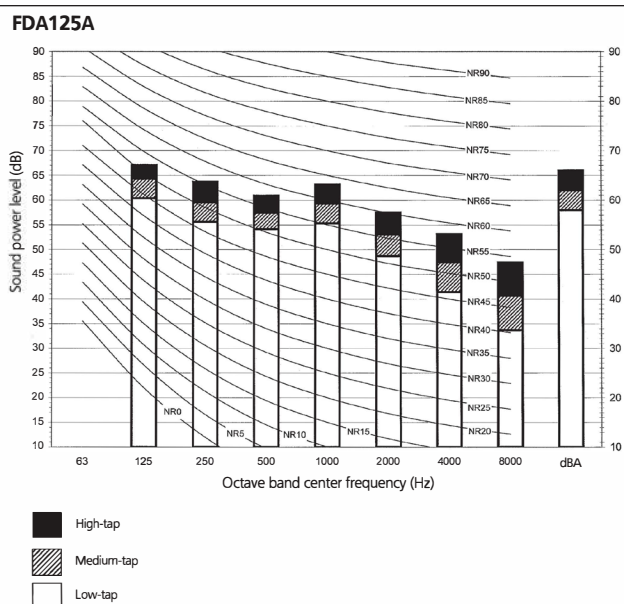
# 9 Wiring diagrams

## 9 - 1 Wiring Diagrams - Three Phase



# 10 Sound data

## 10 - 1 Sound Power Spectrum



### NOTES

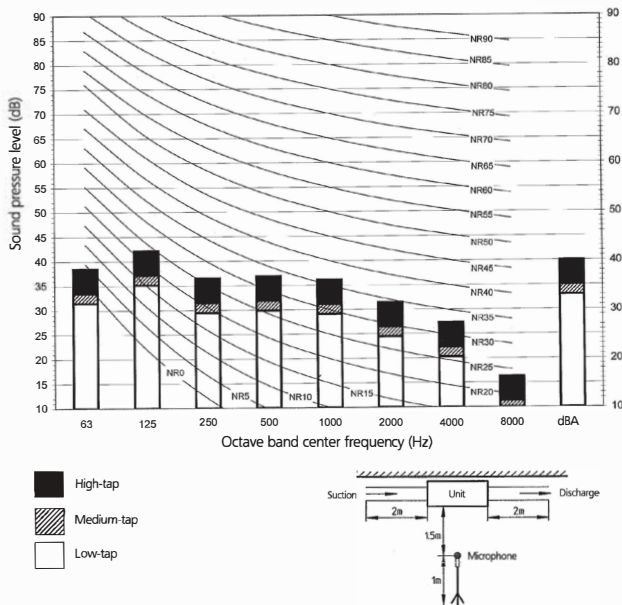
- 1 dBA = A-weighted sound power level (A-scale according to IEC)
- 2 Reference acoustic intensity  $0\text{ dB} = 10\text{E-}6\mu\text{W/m}^2$
- 3 Measured according to ISO 3744

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# 10 Sound data

## 10 - 2 Sound Pressure Spectrum

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### 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

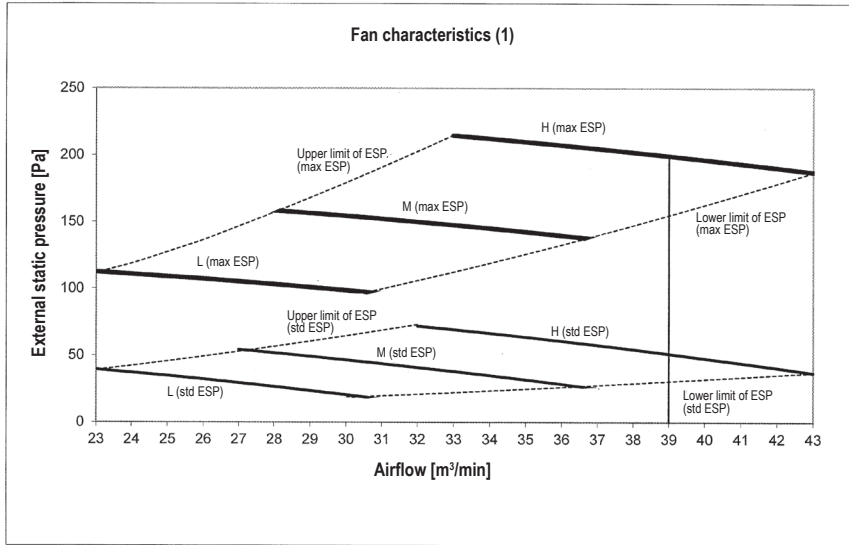
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# 11 Fan characteristics

## 11 - 1 Fan Characteristics

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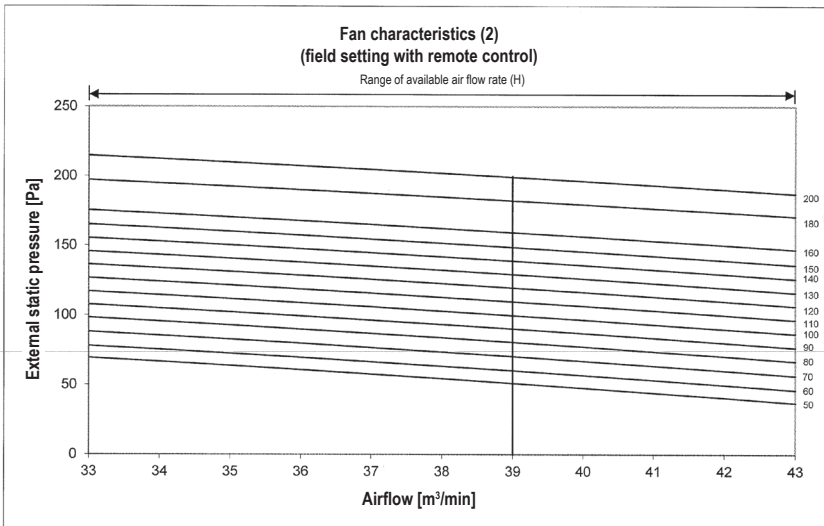


### NOTES

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

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### NOTES

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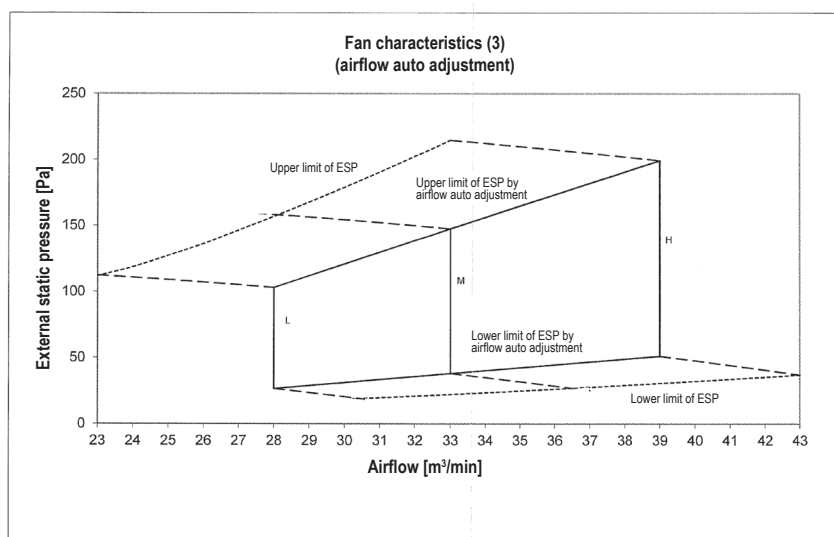
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# 11 Fan characteristics

## 11 - 1 Fan Characteristics

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### NOTES

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

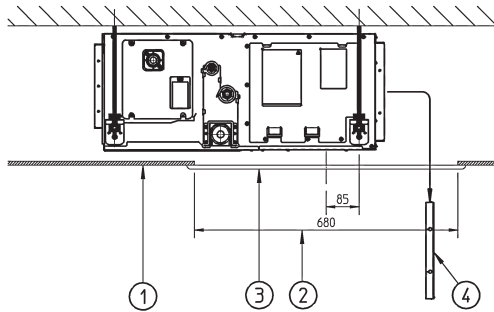
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# 12 Installation

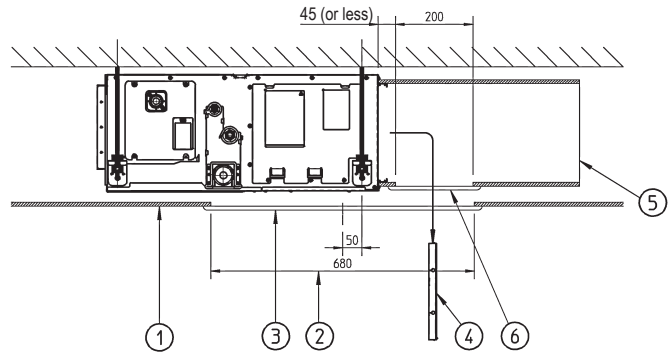
## 12 - 1 Filter Installation Method

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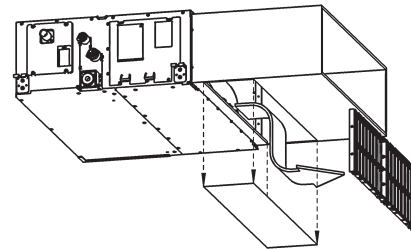


Installation without air inlet duct



Installation with air inlet duct

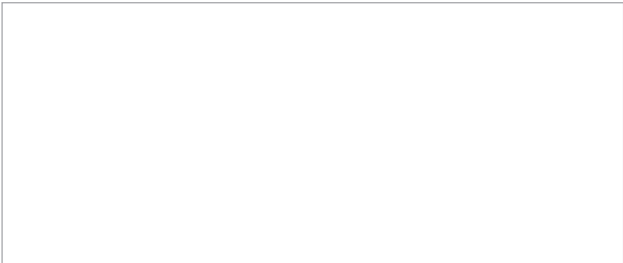
Number	Description
1	Suspended ceiling
2	Ceiling opening
3	Service access panel (optional)
4	Air filter
5	Air inlet duct
6	Duct service opening



### NOTES

- When installing the unit with rear suction, a service opening is necessary for the maintenance of the air filters.
- When installing the unit with a suction duct, a service opening must be provided in the duct.

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