

## HEAT RECOVERY AIR HANDLING UNITS

### Series VENTS VUE P3B EC



Air handling units with air capacity  
up to **400 m<sup>3</sup>/h**.  
Heat recovery efficiency  
up to **85 %**

#### ■ Application

The air handling units VUE P3B EC are the fully-featured ventilation units that ensure air filtration, fresh air supply and stale air extract. During the operation process the extract air heat is transferred to the supply air through the high-efficiency plate heat exchanger. Compatible with round Ø100 or 150 mm air ducts.

#### ■ Design

The casing is made of polymer-coated steel panels, internally filled with polyurethane foam layer 5 or 10 mm (depending on the modification) for heat- and sound-insulation.

This service panel is used to access the filters and the heat exchanger for maintenance operations.

The spigots are located at the sides of the unit and are equipped with rubber seals for airtight connection to the air ducts.

The casing is equipped with fixing brackets to suspend the unit to the ceiling.

#### ■ Fans

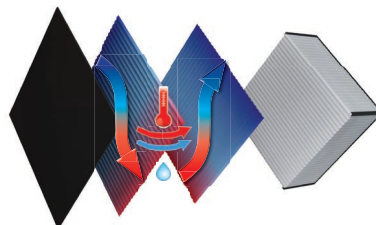
High-efficient electronically-commutated (EC) motors with an external motor. The VUE 100 P3B EC A14, VUE 150 P3B EC A14 and VUE 250 P3B

EC A14 are equipped with centrifugal impellers with forward curved blades. The VUE 350 P3B EC A14 are equipped with centrifugal impellers with backward curved blades. The VUE 350 P3B EC A14 are equipped with centrifugal impellers with backward curved blades.

These state-of-the-art motors are the most advanced solution in energy efficiency today. EC motors are characterised with high performance and optimum control across the entire speed range. In addition to that, the efficiency of the electronically commutated motor reaches very impressive levels of up to 90 %.

#### ■ Heat recovery

Plate enthalpy cross-flow heat exchanger made of polymerized cellulose with heat recovery efficiency up to 85 %. The applied heat exchanger enables not only heat but also humidity recovery, which helps maintaining a defined humidity level. In warm seasons the heat exchanger operates to cool down and dehumidify the supply air. In cold seasons the heat exchanger operates to warm up supply air and humidify it. Water vapour from the humid extract air is condensed and absorbed by the heat exchanger plates. The recovered humidity and heat are transferred to the supply air flow. The air streams are fully separated within the heat exchanger and the microbes and smells are isolated.

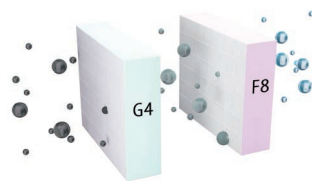


#### ■ Bypass

The units are equipped with a bypass for summer ventilation (air cooling by the cool air from outside).

#### ■ Air filtration

Two built-in panel filters with filtering class G4 and F8 provide efficient supply air filtration. Extract air is cleaned by the built-in G4 filter.



#### ■ Control and automation

The VENTS VUE P3B EC A14 units have an integrated automation system with a wall-mounted control panel A14 with a LED indication. The units are equipped with a USB connector (Type B) and can be connected to a PC for configuring the advanced settings in a special software.



The standard delivery set includes a 10 m cable for connection of the unit to the control panel.

#### A14 automation functions:

- ▶ Turning the unit on/off.
- ▶ Unit performance control (selection of Low, Medium or High speed).
- ▶ Bypass damper opening and closing for summer ventilation.
- ▶ Alarm indication.
- ▶ Filter replacement notification.

#### Additional functions of the A14 automation with installed software

- ▶ Fan speed adjustment from 0 to 100 %.
- ▶ Each speed is individually adjusted for the supply and the extract fans.
- ▶ Operation control on feedback from the HV-2 duct humidity sensor (to be ordered separately).
- ▶ Unit operation setting according to the external relay (to be ordered separately).
- ▶ Temperature setting for heat exchanger freeze protection system activation.
- ▶ Control and operation adjustment of the filter maintenance timer.
- ▶ Error code indication.
- ▶ Software version upgrading.
- ▶ External relay, bypass and humidity control.

#### ■ Installation

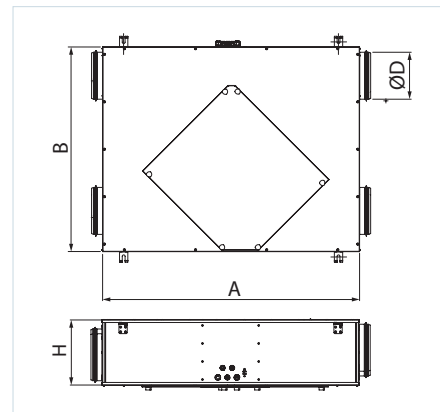
Due to a low casing height the air handling units are a perfect solution for space-restricted installation above suspended ceilings. The unit mounting position must provide access for service maintenance.










#### Designation key

Series	Rated air flow [m <sup>3</sup> /h]	Mounting type	Casing modification	Bypass	Motor type	Control panel
<b>VENTS VUE</b>	100; 150; 250; 350	<b>P:</b> suspended	<b>3:</b> low-profile unit	<b>B:</b> integrated bypass	<b>EC:</b> synchronous electronically commutated motor	<b>A14</b>

**Overall dimensions**

Model	Dimensions [mm]			
	Ø D	A	B	H
VUE 100 P3B EC A14	99	600	481	207
VUE 150 P3B EC A14	99	854	704	227
VUE 250 P3B EC A14	149	854	704	227
VUE 350 P3B EC A14	149	1024	754	277

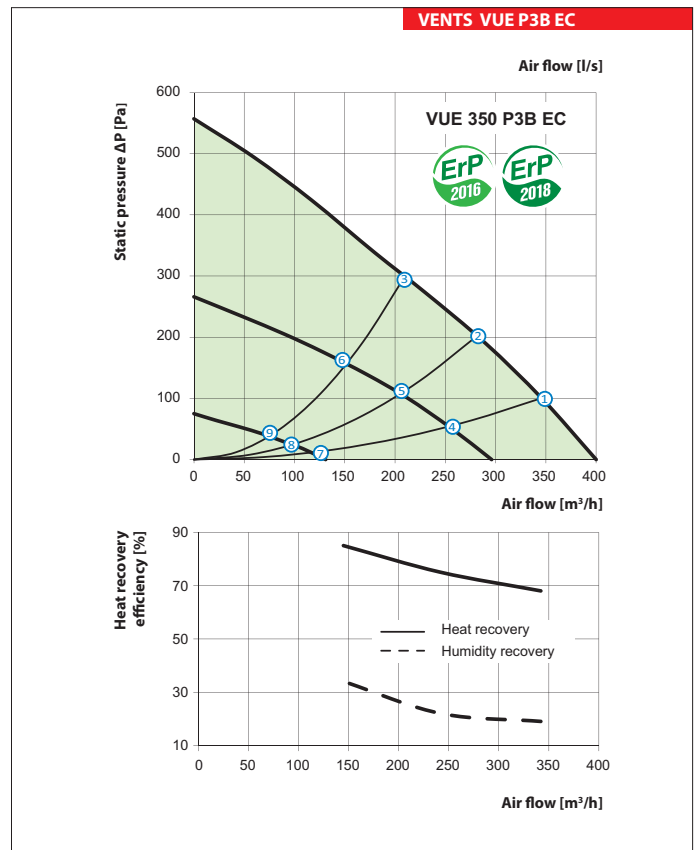
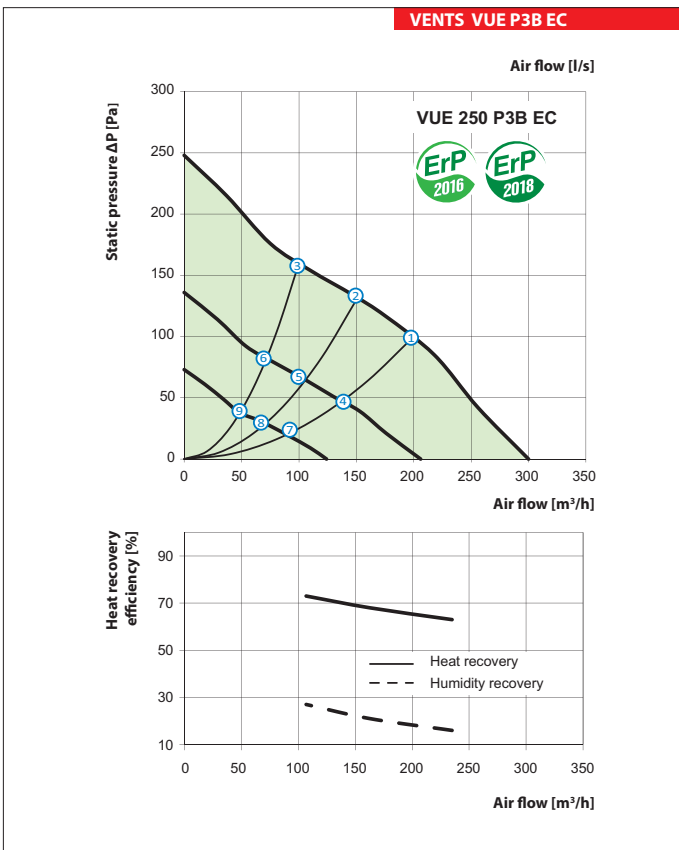
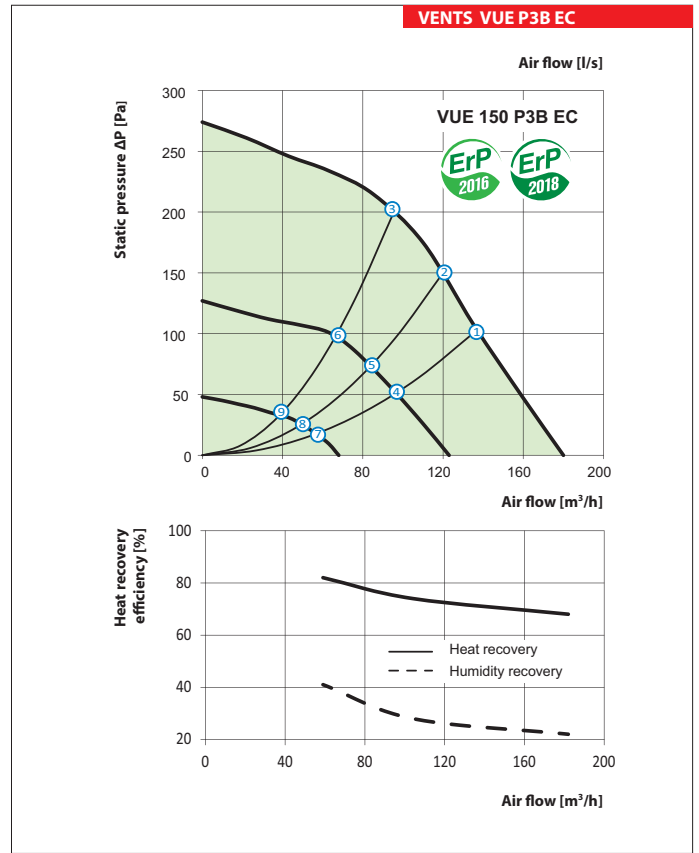
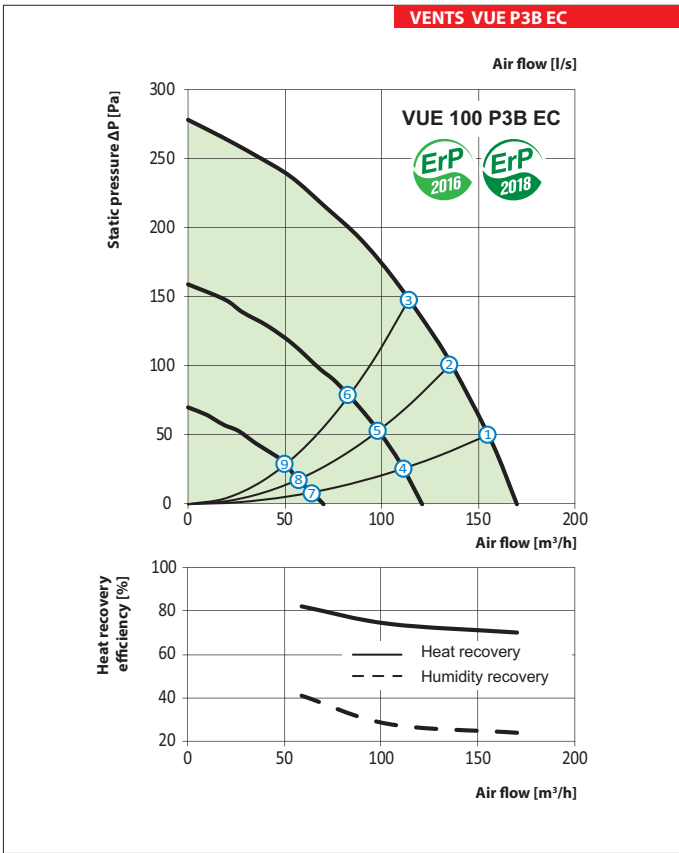

**Accessories for air handling units**

Model	G4 panel filter	F8 panel filter	Internal humidity sensor (0-10 V)	External CO <sub>2</sub> sensor	External CO <sub>2</sub> sensor with indication	External humidity sensor	Hydraulic kit	Air dampers	Electric actuator
VUE 100 P3B EC A14									
VUE 100 P3B EC A14	SF 200x191x20 G4	SF 200x191x20 F4						KRV 100	
VUE 150 P3B EC A14	SF 300x220x48 G4	SF 300x220x48 F8	HV-2	CO2-1	CO2-2	HR-S	SG-32		LF230
VUE 250 P3B EC A14									
VUE 350 P3B EC A14	SF 300x270x48 G4	SF 300x270x48 F8						KRV 150	

**Technical data**

	VUE 100 P3B EC A14	VUE 150 P3B EC A14	VUE 250 P3B EC A14	VUE 350 P3B EC A14
Unit voltage [V /50(60) Hz]	1~230			
Maximum unit power [W]	66	83	84	171
Maximum unit current [A]	0.5	0.7	0.7	1.3
Maximum flow rate [m <sup>3</sup> /h]	170	215	300	430
RPM [min <sup>-1</sup> ]	2800	2000	2000	3200
Sound pressure level at 3 m distance [dBA]	30	32	36	46
Transported air temperature [°C]	from -25 up to +40			
Casing material	painted steel			
Insulation	foamed polyurethane, 5 and 10 mm			
Extract filter	G4			
Supply filters	G4 and F8 (PM2.5 93 %)	G4 and F8 (PM2.5 93 %)	G4 and F8 (PM2.5 83 %)	G4 and F8 (PM2.5 87 %)
Connected air duct diameter [mm]	Ø 100	Ø 100	Ø 150	Ø 150
Heat recovery efficiency [%]	70 – 82	68 – 82	63 – 73	68 – 85
Humidity recovery efficiency [%]	24 – 41	22 – 41	16 – 27	19 – 34
Heat exchanger type	cross-flow			
Heat exchanger material	polymerized cellulose			
Weight [kg]	17	26	29	42
SEC class	A	A	B	A

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Point	Unit power [W]			
	VUE 100 P3B EC A14	VUE 150 P3B EC A14	VUE 250 P3B EC A14	VUE 350 P3B EC A14
1	62	75	80	147
2	55	70	67	145
3	48	53	59	144
4	30	37	43	75
5	27	33	34	73
6	25	28	28	70
7	13	14	23	21
8	13	13	22	21
9	12	12	19	20

### Application

