

Series
VENTS VUE P3B EC



Air handling units with air capacity up to **400 m³/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

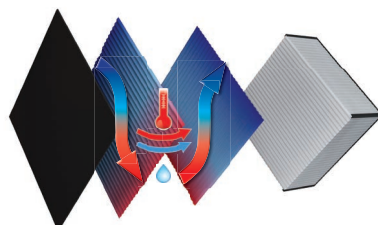
High-efficient electronically-commutated (EC) motors with an external motor. The VUE 100 P3B EC A14, VUE 150 P3B EC A14 and VUE 250 P3B

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.

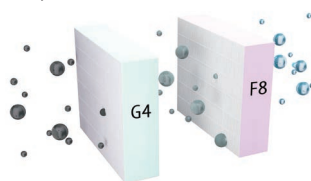


Bypass

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

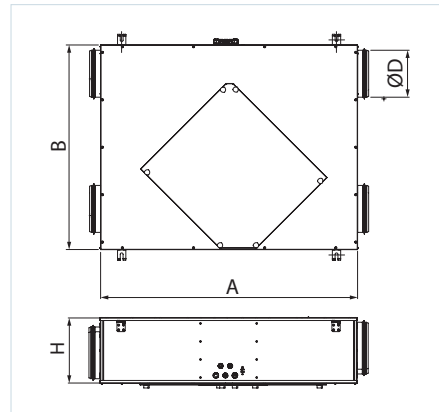
Due to a low casing height the air handling units are a perfect solution for space-restricted installation above suspended ceilings. The unit mounting position must provide access for service maintenance.

Designation key










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

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 |



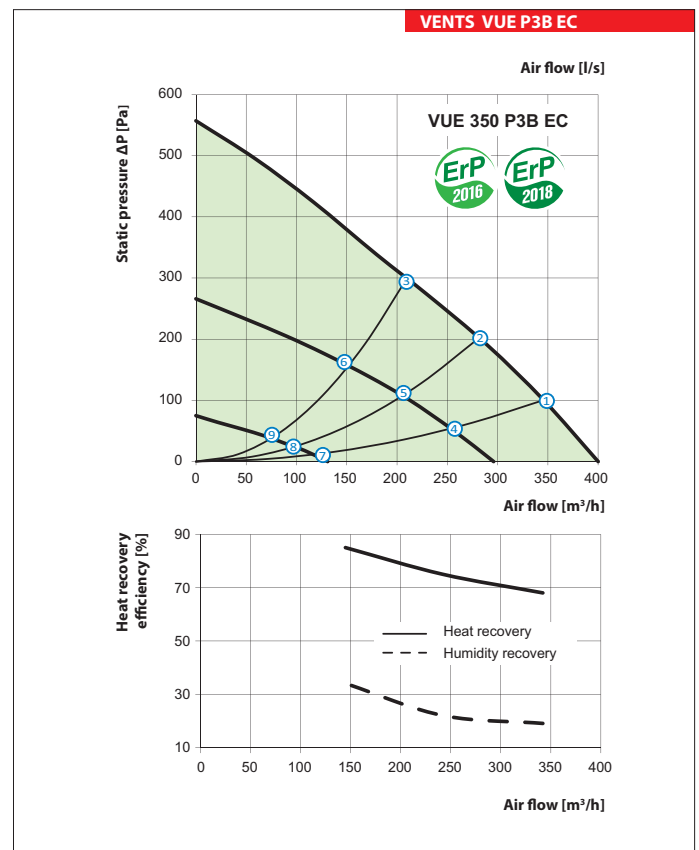
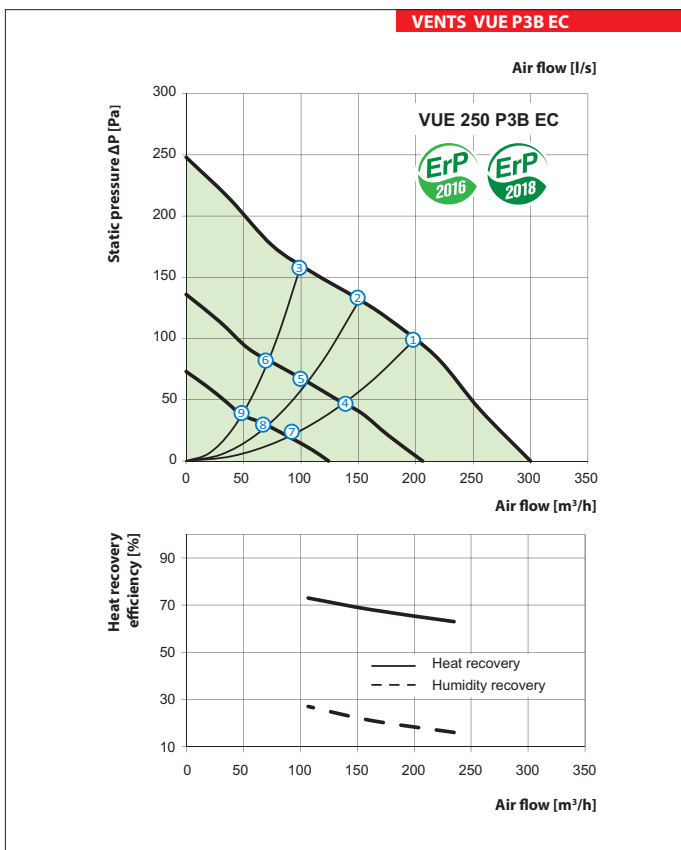
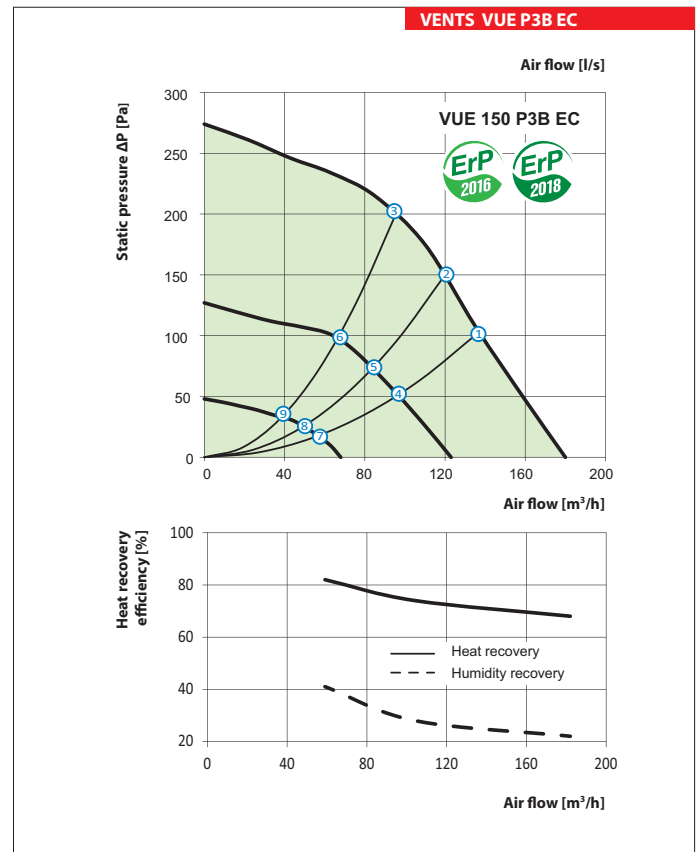
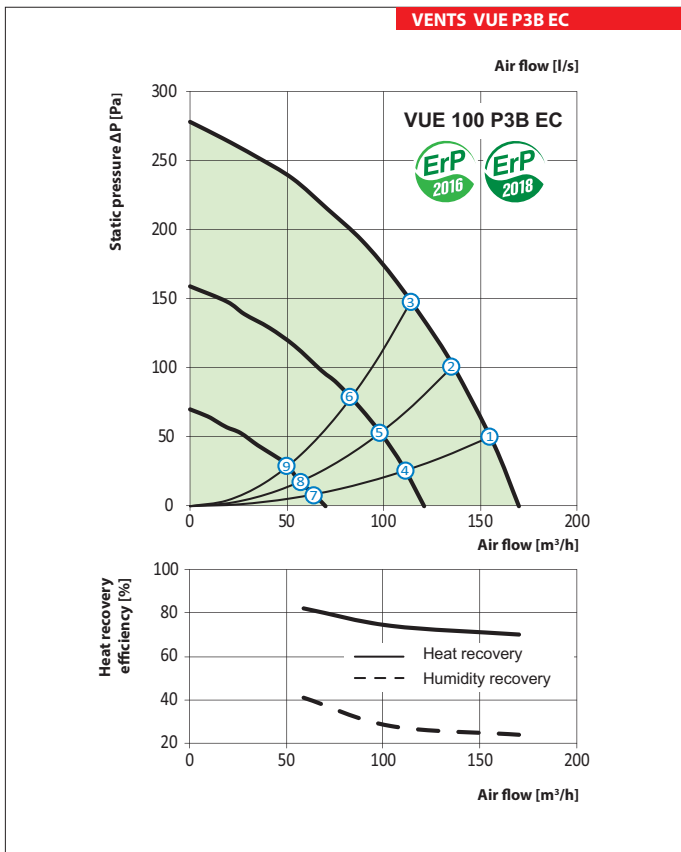
Accessories for air handling units

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

Technical data

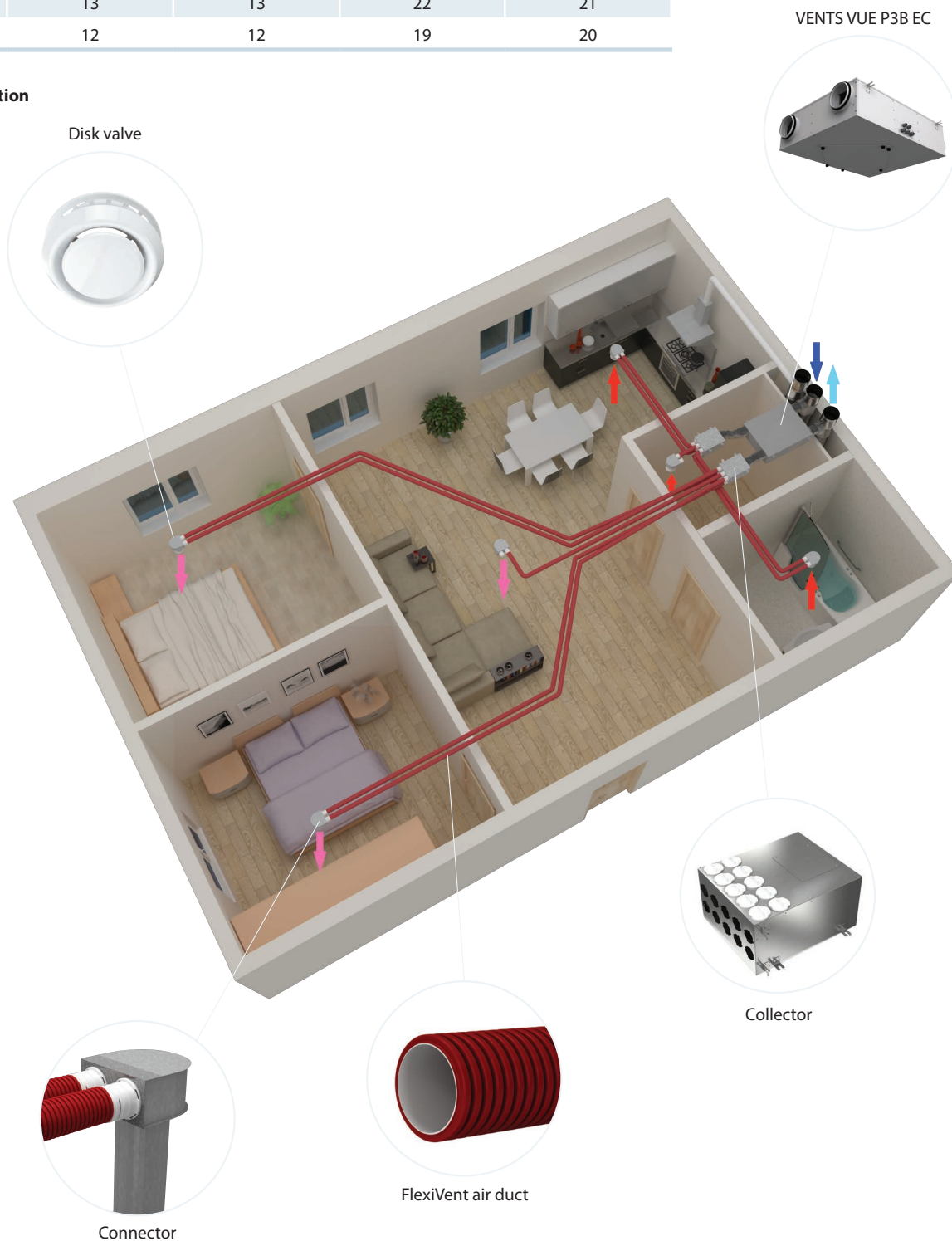
| | VUE 100 P3B EC A14 | VUE 150 P3B EC A14 | VUE 250 P3B EC A14 | VUE 350 P3B EC A14 |
|--|----------------------------------|------------------------|------------------------|------------------------|
| Unit voltage [V /50(60) Hz] | 1~230 | | | |
| Maximum unit power [W] | 66 | 83 | 84 | 171 |
| Maximum unit current [A] | 0.5 | 0.7 | 0.7 | 1.3 |
| Maximum flow rate [m ³ /h] | 170 | 215 | 300 | 430 |
| RPM [min ⁻¹] | 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 |

HEAT RECOVERY AIR HANDLING UNITS



| 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



Disk valve

VENTS VUE P3B EC

Collector

Connector

FlexiVent air duct