

Series  
**VENTS VUTR 281 V EC**  
**VENTS VUTR 401 V EC**



Air handling units in heat- and sound-insulated casing.  
Air flow up to **447 m<sup>3</sup>/h**.  
Heat recovery efficiency up to 89 %.

**Description**

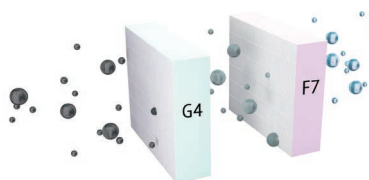
The **VUTR VE EC** air handling units are the fully-featured ventilation units that ensure air filtration, fresh air supply and stale air extraction. Used in ventilation that require an economical solution and a controlled ventilation system.

**Casing**

Made of polymer-coated steel, internally filled with a mineral wool heat- and sound-insulating layer.  
**VUTR 281 / 401 V ECL** – left-handed version.  
**VUTR 281 / 401 V ECR** – right-handed version.

**Filter**

Two built-in Coarse 90% (G4) filters provide efficient air filtration. ePM1 65% (F7) supply filter can be installed as an option.

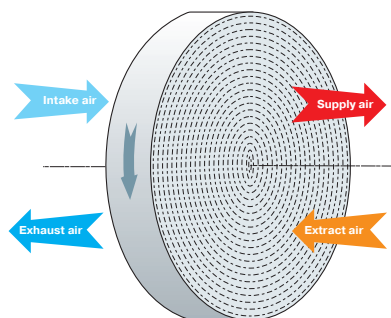


**Fans**

The units are equipped with high-efficiency EC motors with an external rotor and a centrifugal impeller.

**Rotary heat exchanger**

The units are equipped with a rotary heat exchanger. **VUTR V** units are equipped with condensing rotary heat exchanger. **VUER V** units are equipped with sorption rotary heat exchanger.



Rotary heat exchanger operation principle

**Heater**

The units **VUTR VE** are equipped with an electric heater.

**Automation**

The units are equipped with an integrated control system. The **A21** controller allows to integrate the unit into the **Smart Home system** or **BMS (Building Management System)**. To control the unit via Wi-Fi, download the **Vents Home** smartphone app.



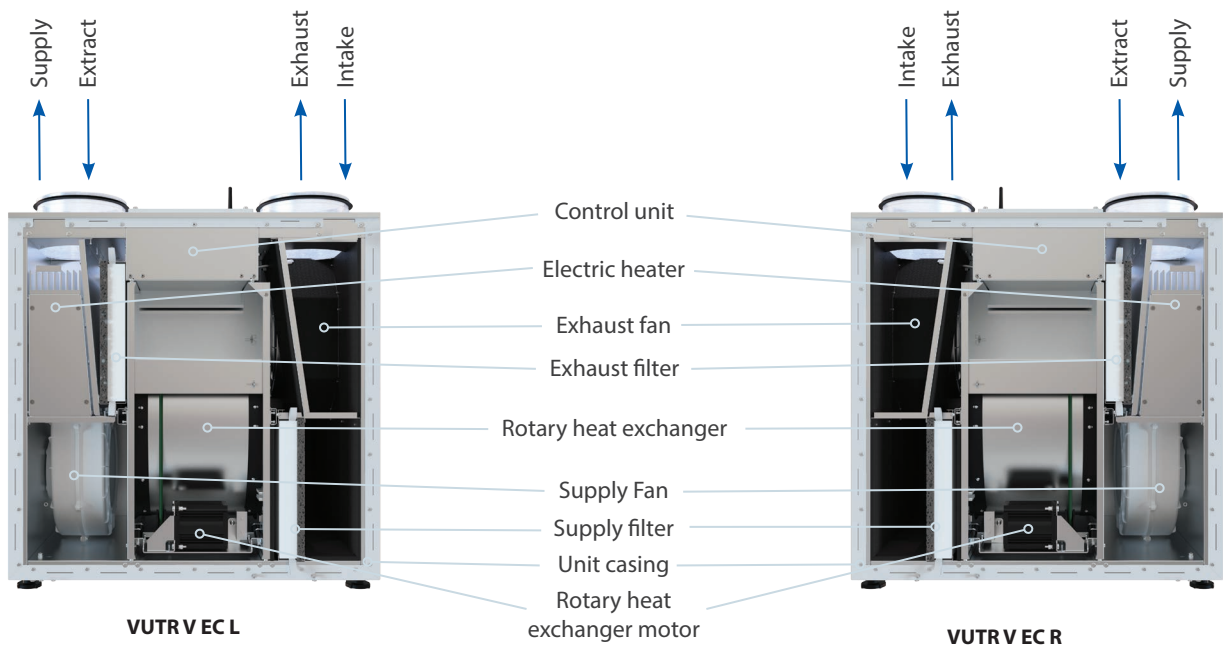
**Control and automation**

| Functions                                    | A21  |
|--|--|
|  | A22 (option)   |
| Wired remote control panel                   |  |
|  | A25 (option)   |
| Control via a wired remote LCD control panel |  |
|  | A22 Wi-Fi (option)                                     |
| Wireless remote control panel                |  |
| BMS  | ModBus RTU (RS-485)<br>ModBus TCP/IP (Wi-Fi, Ethernet) |
| Vents Cloud Server service                   | +  |
| Control via Wi-Fi using a smartphone app     | +  |
| Frost protection                             | +  |
| Bypass                                       | Auto, manual   |
| Week-scheduled operation                     | +  |
| Filter replacement indication                | Filter timer   |
| Alarm indication                             | +  |
| Speed selection                              | +  |
| Timer  | +  |
| RH% sensor                                   | Option   |
| CO <sub>2</sub> sensor                       | Option   |
| VOC sensor                                   | Option   |
| PM2.5 sensor                                 | Option   |
| Boost mode                                   | +  |
| Fireplace mode                               | +  |
| Cooler connection                            | +  |
| Fire alarm sensor connection                 | +  |
| Minimum supply air temperature control       | +  |

**Designation key**

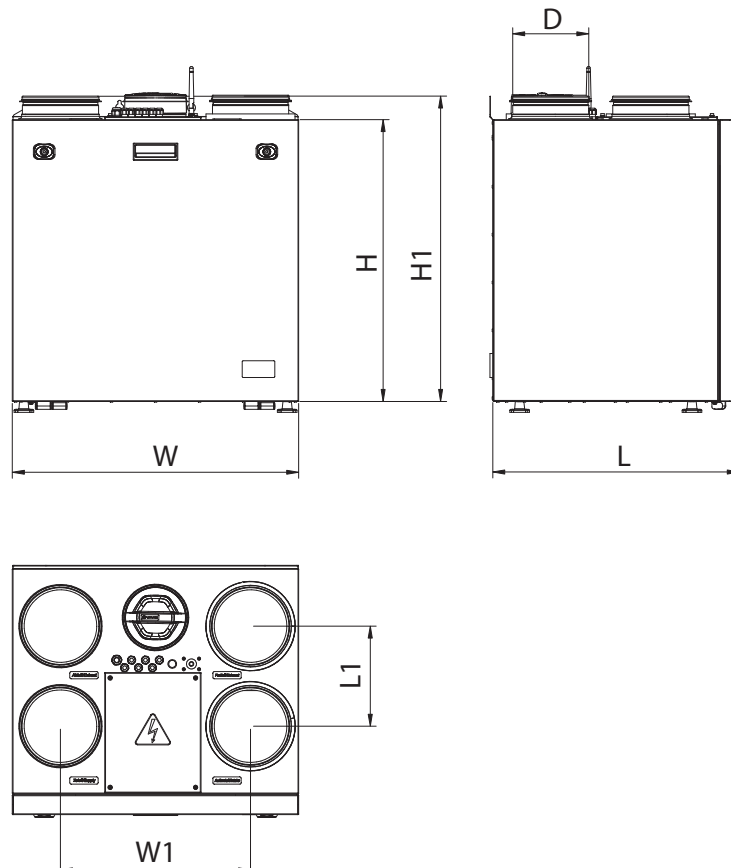
| TM           | Series   | Size [m <sup>3</sup> /h/10] | Modification | Mounting            | Heater   | Motor                | Service Side                        | Control panel |
|--------------|--|-----------------------------|--------------|---------------------|--|----------------------|-------------------------------------|---------------|
| <b>VENTS</b> | <b>VUTR</b> : unit with condensation rotary heat exchanger<br><b>VUER</b> : unit with sorption rotary heat exchanger | 28,40                       | 0, 1, 2...   | <b>V</b> : vertical | <b>_</b> : w/o heater<br><b>E</b> : electric re-heater | <b>EC</b> : EC-motor | <b>R</b> : right<br><b>L</b> : left | A21           |

**Unit design**



**Overall dimensions**

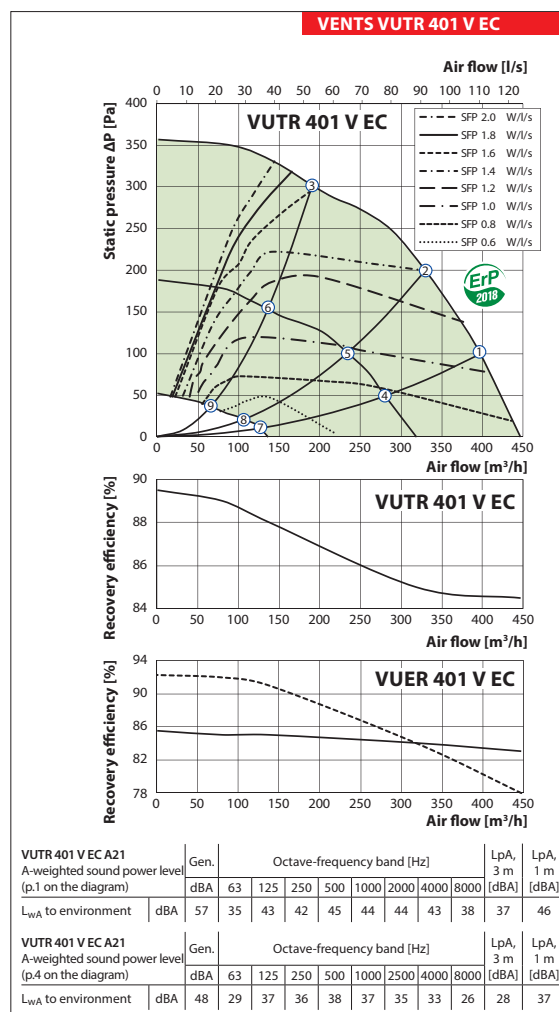
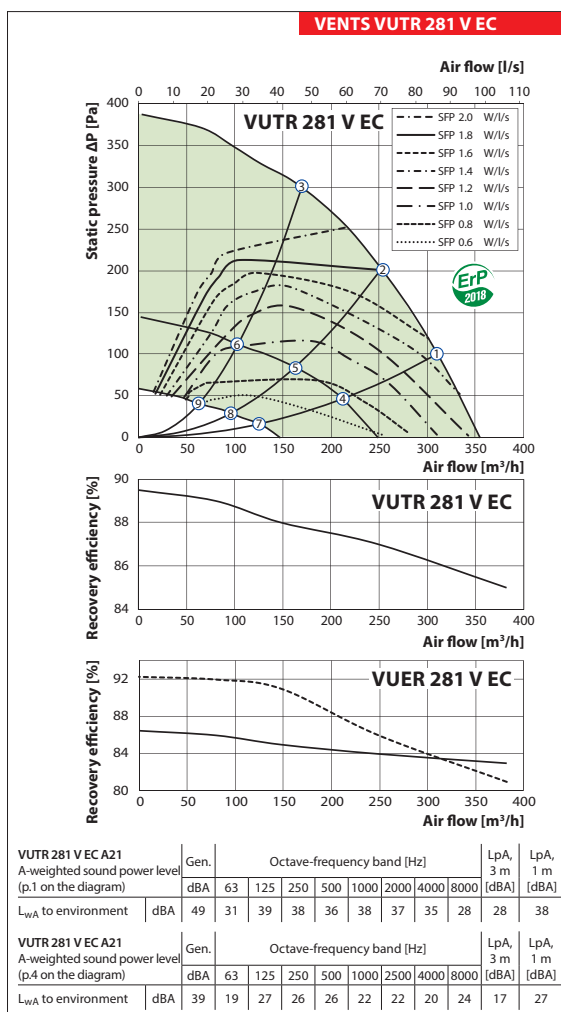
| Model          | Dimensions [mm] |     |     |     |     |     |     |
|----------------|-----------------|-----|-----|-----|-----|-----|-----|
|                | H               | W   | L   | H1  | W1  | L1  | D   |
| Vents VUTRVE C | 588             | 598 | 515 | 638 | 397 | 209 | 160 |



# AIR HANDLING UNITS WITH HEAT RECOVERY

## Technical data

| Model   | VUTR 281<br>V EC A21                     | VUER 281<br>V EC A21 | VUTR 281<br>VE EC A21 | VUER 281<br>VE EC A21 | VUTR 401<br>V EC A21 | VUER 401<br>V EC A21 | VUTR 401<br>VE EC A21 | VUER 401<br>VE EC A21 |
|---|--|----------------------|-----------------------|-----------------------|----------------------|----------------------|-----------------------|-----------------------|
| Voltage [V / 50-60 Hz]                        | 230                                      |                      |                       |                       |                      |                      |                       |                       |
| Max. unit power without electric heater [W]   | 176                                      |                      |                       |                       | 222                  |                      |                       |                       |
| Integrated electric heater power [W]          | -  |                      | 1200                  |                       | -                    |                      | 1200                  |                       |
| Max. unit power [W]                           | 176                                      |                      | 1376                  |                       | 222                  |                      | 1422                  |                       |
| Max. unit current without electric heater [A] | 1.34                                     |                      | 1.34                  |                       | 1.6                  |                      | 1.6                   |                       |
| Integrated electric heater current [A]        | -  |                      | 5.32                  |                       | -                    |                      | 5.32                  |                       |
| Max. unit current [A]                         | 1.34                                     |                      | 6.66                  |                       | 1.6                  |                      | 6.92                  |                       |
| Max air flow [m <sup>3</sup> /h]              | 382                                      |                      | 382                   |                       | 447                  |                      | 447                   |                       |
| Sound pressure level at 3 m distance [dBA]    | 28                                       |                      | 28                    |                       | 37                   |                      | 37                    |                       |
| Max. operating temperature [°C]               | - 25...+40                               |                      |                       |                       |                      |                      |                       |                       |
| Case material                                 | painted steel                            |                      |                       |                       |                      |                      |                       |                       |
| Insulation                                    | 40                                       |                      |                       |                       |                      |                      |                       |                       |
| Extract filter                                | G4 / Coarse > 60%                        |                      |                       |                       |                      |                      |                       |                       |
| Supply filters                                | G4 / Coarse > 60% (option F7 / ePM1 60%) |                      |                       |                       |                      |                      |                       |                       |
| Connected air duct diameter [mm]              | 160                                      |                      |                       |                       |                      |                      |                       |                       |
| Weight [kg]                                   | 67                                       | 68                   | 67                    | 68                    | 69                   | 70                   | 69                    | 70                    |
| Heat recovery efficiency [%]                  | 89                                       | 86                   | 89                    | 86                    | 89                   | 85                   | 89                    | 85                    |
| Heat exchanger type                           | conden-<br>sing                          | sorption             | conden-<br>sing       | sorption              | conden-<br>sing      | sorption             | conden-<br>sing       | sorption              |
| SEC class                                     | A+                                       | A+                   | A+                    | A+                    | A+                   | A                    | A+                    | A                     |



**Accessories for air handling units**

|                    | Filter G4                          | Supply filter F7                 | Control panel | Control panel | WiFi Control panel | Internal humidity sensor | Internal CO <sub>2</sub> sensor |
|--------------------|------------------------------------|----------------------------------|---------------|---------------|--------------------|--------------------------|---------------------------------|
|                    |                                    |                                  |               |               |                    |                          |                                 |
| VUTR 281 V EC A21  | SF 428 x 220 x 40<br>Coarse 90% G4 | SF 428 x 220 x 40<br>ePM1 60% F7 | A25           | A22           | A22 Wi-Fi          | HV2                      | CO2-3                           |
| VUTR 281 VE EC A21 |                                    |                                  |               |               |                    |                          |                                 |
| VUER 281 V EC A21  |                                    |                                  |               |               |                    |                          |                                 |
| VUER 281 VE EC A21 |                                    |                                  |               |               |                    |                          |                                 |
| VUTR 401 V EC A21  |                                    |                                  |               |               |                    |                          |                                 |
| VUTR 401 VE EC A21 |                                    |                                  |               |               |                    |                          |                                 |
| VUER 401 V EC A21  |                                    |                                  |               |               |                    |                          |                                 |
| VUER 401 VE EC A21 |                                    |                                  |               |               |                    |                          |                                 |

|                    | External CO <sub>2</sub> sensor with indication | External humidity sensor | Silencer | Air damper | Electric actuator |
|--------------------|---|--------------------------|----------|------------|-------------------|
|                    |   |                          |          |            |                   |
| VUTR 281 V EC A21  | CO2-1   | HR-S                     | SR 160   | KRV 160    | TF 230            |
| VUTR 281 VE EC A21 |   |                          |          |            |                   |
| VUER 281 V EC A21  |   |                          |          |            |                   |
| VUER 281 VE EC A21 |   |                          |          |            |                   |
| VUTR 401 V EC A21  |   |                          |          |            |                   |
| VUTR 401 VE EC A21 |   |                          |          |            |                   |
| VUER 401 V EC A21  |   |                          |          |            |                   |
| VUER 401 VE EC A21 |   |                          |          |            |                   |