Hoval HomeVent® ERT (250-450) Comfort ventilation unit

Hoval HomeVent® ERT (250-450) ventilation unit

- · Comfort ventilation unit with self-adjusting heat and humidity recovery.
- For use within or outside the insulated building shell.
- High-quality, heat and sound insulated inner casing made from EPP.
- External casing made of film-coated sheet steel (red).
- Unit can be equipped with adjustable feet or can be installed upright using the mounting set.
- Rotary enthalpy recovery unit with speed regulation
- Two backward-curved EC fans (continuously adjustable 15-100 %)
- High-quality filter
- supply air: ePM_{1.0} 55 % (F7)
 extract air: ePM₁₀ 60 % (G4)
- Integrated prefilter
- Filter monitoring (timer)
- ٠ Ready-to-connect electronics
- No need for preheating or a condensate • drain

Data

- · Colour: red
- Dimensions:
- L x W x H: 560 x 560 x 875 mm Weight: 35 kg
- Electrical connection: 230 V/50 Hz, IP 40

Required accessories:

- Standard operator terminal BG02 E or
- TopTronic[®] E room control module comfort plus

Options

- Air quality sensor VOC or CO₂
- Active cool recovery (Option CoolVent®)
- Mounting set, IsiCube •
- Supply air activated carbon filter

Delivery

- · Comfort ventilation unit pre-assembled and packed
 - 2 mains cables 3 m
 - 1 RJ45 cable 3 m

On site

- 8-pin CAT 5 patch cable (parallel, not crossed) between comfort ventilation unit and operator terminal
- RJ45 socket · 230 V socket

The HomeVent® comfort ventilation unit provides centralised supply and extract air handling for residential spaces.

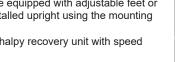
This can be a single family home or a resi-

dential unit in a multi-family house. Office rooms, conference rooms and cloak-

rooms are also ideal applications.

The comfort ventilation unit is part of the HomeVent® ventilation system for comfort

- ventilation, which performs the following tasks:
- Supplies residential and commercial space
- with outdoor air Extracts used air (CO₂, aerosols, excess dampness, odours, etc.)
- Saves energy through intelligent latent heat recoverv
- Cleans supply air using a fine dust filter







Tests

- TÜV SÜD according to DIN EN 13141-7
- TÜV SÜD according to DIBt
- TÜV SÜD according to EN 60335-1 •

Model range

| HomeVent [®] Ef | RT | Flow rate m³/h | Heat recovery efficiency % |
|--------------------------|-----------------------|-------------------|----------------------------|
| (250) | A ⁺ | 50-250 | 90-130 |
| (350) | A⁺ | 70-350 | 90-130 |
| (450) | А | 80-450 | 90-130 |

Use

Energy recovery

The built-in enthalpy recovery unit withdraws energy from the extract air and transfers it to the supply air. This enables the intelligent (temperature) and the latent (humidity) energy to be transferred. The transmission performance is regulated between 0 and 100 % depending on the outdoor temperature.

The advantages of the enthalpy recovery unit are:

- Temperature efficiency up to 90 %
- Degree of humidity recovery up to 95 %Steplessly controlled transmission perfor-
- manceNo preheating required (down to -20 °C)
- No preneating required (downNo condensation
- No bypass required

Air filtration

The outdoor air goes through two cleaning stages, reaches the highest standard. A finemeshed grate (washable) at the entry of the unit prevents insects, leaves, etc. from reaching the unit. When the outdoor air leaves the unit, it flows through a high-capacity fine pollen filter (ePM_{1.0} 55 % (F7)). The operator receives a message when it is time to change the filter. The activated carbon filter can be inserted in place of the standard supply air filter. This is a high-capacity filter (ePM_{2.5} 50 %) with high efficiency against particles (pollen, fine dust, etc.) and against gaseous pollutants and odours (agriculture, traffic, etc.).

Air delivery

Two backward-curved centrifugal fans with EC direct current motors deliver the air. The rotating wheel made of high-tech composite material is produced in one piece with optimised fluid mechanics, and ensures quiet operation of the unit. The electronics built into the engine enable the air volumes to be finely regulated between 15 and 100 %. The fans are arranged in such a way that no extract air can find its way to the supply air.

Suitability for winter

Due to the built-in enthalpy recovery unit, no condensate is formed in the unit. No preheating (electronic air heater) is necessary for outdoor temperatures down to -20 °C. The flow rate ratio between supply and extract air is not changed.

Summer operation

The energy recovery is automatically reduced to a minimum at high outdoor temperatures. This enables night cooling (free cooling) in the summer as well as when the seasons change. It is not necessary to arrange for a bypass via dampers and a drive. In addition, the CoolVent[®] option can recover cold in air-conditioned buildings. The hot outdoor air is cooled and dried with the air-conditioned extract air.

Installation

The HomeVent[®] comfort ventilation unit is characterised by a compact design. It is possible to access the unit from the front for servicing. No condensate forms in the unit. The unit can be equipped with adjustable feet or can be installed upright using the mounting set.

Standard operator terminal BG02 E

The operator terminal consists of a plastic casing for on-wall mounting. The target air volume and the target air humidity can be set with two rotary knobs. With the party button, the air volume can be increased for a limited period of time. The connection to the HomeVent[®] comfort ventilation unit is made via RJ45 plug connection. The unit can also be installed in a secondary room.

TopTronic[®] E

room control module comfort plus

The TopTronic[®] E room control module comfort plus is available either with a black or white design, operated by a colour touchscreen (4.3 inch). The connection to the HomeVent[®] comfort ventilation unit is made via RJ45 plug connection or plug terminals (max. 0.75 mm²). The unit can be installed on the wall with an on-wall mounted frame or with a wall-mounting plate and flush-mounted boxes. The unit can be installed in a secondary room.

Functional possibilities:

- Operation of all Hoval units connected to the bus.
- Authorisation management for operation.
- Efficient control of the ventilation system by working with day programmes
- Selection between different start screens possible during commissioning.
- Customer-specific configuration of the
- screen for displaying the following elements:
- Date and time
- Moon phases
- Current air volume in %Maximum target humidity in %
- Active day or week programme
- Display of current room air quality (optional VOC or CO_2 air quality sensor must be installed for this purpose)
- Display of the current weather or weather forecast (only possible in combination with HovalConnect)

Air quality

Optionally, a VOC or CO_2 air quality sensor can be installed in the unit during commissioning. In addition, an activated carbon filter can be installed on the supply air side as an option. The VOC air quality sensor continuously monitors the extract air for volatile organic components and regulates the supplied or discharged air volume via the speed of the fans. This results in optimal air quality in the building with minimal energy input.

 VOC air quality sensor on the extract air side: The extract air is continuously monitored for odours, cleansing agents, etc. If the concentration of the extract air exceeds a certain value, the air volume is increased correspondingly. The sensitivity can be chosen. On the TopTronic[®] E room control module comfort plus, the air quality is displayed by a bar, which will either be green (good air), orange (slightly contaminated air) or red (bad air).

Cooling

The fresh air can be precooled using the CoolVent® option. However, this requires an air-conditioning system to be present in order to provide the necessary cooling in the room. The enthalpy recovery system extracts heat and humidity from the warm outdoor air and feeds it to the cold extract air. The energy consumption of the air-conditioning system is thereby reduced. The efficiency for this process is 85 %. The CoolVent® function is activated during commissioning.

Function HomeVent® ERT (250-450)

The outside air fan draws in outdoor air via the main line. In the first stage, this air is cleaned via a fine-meshed grate. In the enthalpy recovery system, the supply air is heated, depending on the temperature, and humidified. The extent to which heat and humidity are recovered is dependent on the temperature and humidity differences between the exhaust air and the outdoor air as well as on the rotor speed. Then the pre-treated outdoor air is cleaned by means of a pollen fine dust filter. The exhaust air fan sucks in the used air via the coarse dust filter.

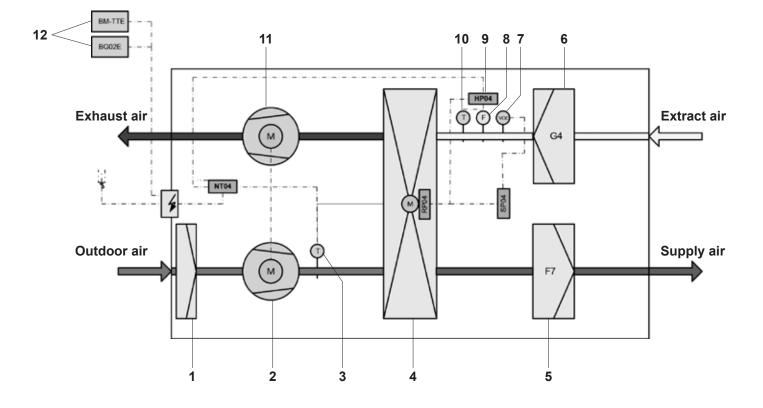
The enthalpy recovery system extracts heat and humidity from the air and passes these to the supply air.

The way the fans are positioned - with overpressure on the supply air side and underpressure on the extract air side - means that no extract air can find its way to the supply air. The electronic controls and the operator terminal feature the following additional functions:

Hoval

- The speed of the enthalpy recovery system is regulated by the outdoor temperature. In this way, the heat and humidity recovery is adjusted automatically.
- The humidity regulation changes the flow rate. Thus, if the humidity indoors is too high, for instance, more dry air is introduced from the outside.
- The functions of the unit are continuously monitored. In case of a malfunction, the device is switched to "fault" mode. The malfunction is displayed on the operator terminal.

- 1 Prefilter
- 2 Outside air fan
- 3 Outdoor sensor
- 4 Enthalpy recovery unit
- 5 Supply air filter
- 6 Extract air filter
- 7 VOC or CO, extract air sensor
- 8 Moisture sensor
- 9 Electronics
- 10 Extract air sensor
- 11 Exhaust air fan
- 12 Operator terminal BG02 E or TopTronic[®] E room control module comfort plus



Part No. **Comfort ventilation units** HomeVent® ERT (250-450) Comfort ventilation unit for ventilating a residential unit with high-efficiency heat and humidity recovery. HomeVent[®] Nominal flow Ext. ERT rate pressure m³/h Pa type 250 7019 029 (250)A⁺ 100 350 7019 030 (350)A⁺ 100 7019 031 (450) 450 100 HomeVent® ERT (450) Available starting June 2023 **Required accessories Operator terminal BG02 E** 2066 444 for HomeVent® ER and ERT Plastic housing for on-wall mounting. Knob for flow rate and room air humidity. Service and fault display. TopTronic[®] E room control module 6037 072 comfort plus white for HomeVent® ER and ERT Operation of all Hoval ventilation units, heating and hot water circuits connected to the bus system. Customer-specific configurable start screen. incl. fitting accessories TopTronic[®] E room control module 6042 543 comfort plus black for HomeVent® ER and ERT Operation of all Hoval ventilation units, heating and hot water circuits connected to the bus system. Customer-specific configurable start screen. incl. fitting accessories HovalConnect oam HovalConnect LAN 6049 496 HovalConnect WLAN 6049 498 TopTronic[®] E interface modules HovalConnect Modbus 6049 501 HovalConnect KNX 6049 593

Technical information see separate chapter.

1282

| Recommended accessories | | Part No. |
|---|---|----------|
| Hevel VOC Medal | VOC air quality sensor for HomeVent [®] ER and ERT Can be installed on extract air side Only in connection with the TopTronic [®] E room control module comfort plus. | 6058 206 |
| Howard Coto Mondul And Toto Jan Coto And Toto And Toto And Toto And Toto And Toto And Toto And Toto And Toto An | CO ₂ air quality sensor for HomeVent [®] ER and ERT Can be installed on extract air side Only in connection with the TopTronic [®] E room control module comfort plus. | 6058 211 |
| | Notice CO_2 -sensor cannot be combined with VOC sensor | |
| | Cool recovery unit CoolVent [®] for HomeVent [®] ER and ERT Active-controlled cool recovery for air-conditioned buildings. Activated by Hoval service technicians during commissioning. | 6035 255 |
| | Vertical wall mounting set for HomeVent [®] ER and ERT Steel bracket red coated with vibration-damping support | 6046 215 |
| | Acoustic insulating box ERT extract-supply air front for HomeVent® ERT Casing made from red foil-plated sheet steel connection nozzles 4 x DN 160. Extract air front left, supply air front right Exhaust air back left, fresh air back right All 4 air ducts are sound-insulated. Dimensions (L x W x H): 400 x 560 x 560 mm | 6046 018 |
| | Acoustic insulating box ERT extract air-supply air right for HomeVent® ERT Casing made from red foil-plated sheet steel Connection nozzles 4 x DN 160. Extract air front right, supply air rear right Exhaust air front left, fresh air rear left All 4 air ducts are sound-insulated. Dimensions (L x W x H): 400 x 560 x 560 mm | 6046 019 |

| | | Part No. |
|----------------------|--|----------|
| | | |
| | Acoustic insulating box ERT extract-supply air left for HomeVent® ERT Casing made from red foil-plated sheet steel connection nozzles 4 x DN 160. Extract air rear left, supply air front left Exhaust air back right, fresh air front right All 4 air ducts are sound-insulated. Dimensions (L x W x H): 400 x 560 x 560 mm | 6046 020 |
| | Distribution box VTB-180 18 x 75 for HomeVent® ERT Casing made from aluzinc sheet 2 connections DIN 180 18 connections DIN 75 Acoustic insulating body on supply and extract air sides, access panel, incl. throttle orifices Dimensions (L x W x H): 400 x 560 x 280 mm | 6045 932 |
| Filter HomeVent® ERT | | |
| | Supply air filter ERT for HomeVent [®] ERT Filter class ISO 16890: ePM _{1.0} 55 % (F7) | 5043 550 |
| | Activated carbon filter ERT | 5043 778 |



| Activated carbon filter ERT for HomeVent® ERT Protection against pollutants and odours Alternative to supply air filter ERT Filter class ISO 16890: ePM _{2.5} 50 % | 5043 778 |
|---|----------|
| Extract air filter ERT for HomeVent [®] ERT Filter class ISO 16890: ePM ₁₀ 60 % (G4) | 5043 611 |

HomeVent[®] comfort ERT (250-450)

| Туре | | (250) | (350) | (450) |
|---|--|------------|---|------------|
| Max. flow rate (at 100 Pa external pressure) | m ³ /h | 250 | 350 | 450 |
| Air flow rate control range | m³/h | 50-250 | 70-350 | 80-450 |
| Humidity setpoint setting | % | | 3065 | |
| Electrical connection • Voltage (AC) • Frequency • Max. current consumption | V Hz A | 0.82 | 230 50 1.26 | 2.34 |
| Type of protection | | 0.02 | IP 40 | 2.0. |
| Power consumption (at 70 % of the max. flow rate, 50 Pa external pressure) | W | 42 | 63 | 94 |
| Degree of heat processing (as per DIN 4719) | % | | 90-130 | |
| Temperature ratio (at 70 % of the max. flow rate) | % | 85 | 84 | 82 |
| Humidity ratio (at 70 % of the max. flow rate) | % | 86 | 86 | 81 |
| • Specific fan power SFP (at 70 % of the max. flow rate) | W/m ³ /h | 0.25 | 0.27 | 0.31 |
| Filter class (as per ISO-16890) • Supply air filter • Extract air filter | | | ePM _{1.0} 55 % ePM ₁₀ 60 % | |
| Sound power level | | see | table on following p | age |
| Leakage (as per EN 13141-7) • Internal • External | % % | 0.1 0.2 | 0.1 0.1 | 0.1 0.1 |
| Net weight | kg | | 35 | |
| Application limits for device setup, weather-protected (EN 60721-3-3), 3K5 as per EN 50090-2-2 • Ambient temperature • Ambient humidity • Dew point temp. in installation room Air conditions (moderate outdoor climate EN 60721-2-1) • Outside air intake temperature • Outside air intake temperature • Outside air intake humidity • Extract air temperature • Extract air temperature • Extract air humidity • Max. extract air humidity winter | °C g/kg °C °C % r.h. °C % r.h. g/kg | | -2045 max. 15 < 15 -2040 595 1835 580 12 | |

Sound power: HomeVent® ERT (250)

| Casing | | | | | | | | | |
|-----------------------------|-------------------|-----|-----|-----|---------------------|------|------|------|--------------------------------------|
| Flow rate | External pressure | | | | L _w [dB] | | | | Sound pressur _{e level LWA} |
| SUP/EXT [m ³ /h] | [Pa] | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | 125 Hz 8 kHz [dB(A) |
| 175 | 50 | 40 | 49 | 34 | 22 | 14 | 10 | 10 | 40 |
| 250 | 100 | 45 | 51 | 45 | 28 | 20 | 11 | 11 | 45 |
| Fresh air | | | | | | | | | |
| Flow rate | External pressure | | | | L _w [dB] | | | | Sound pressur _{e level LWA} |
| [m³/h] | [Pa] | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | 125 Hz 8 kHz [dB(A) |
| 175 | 50 | 48 | 54 | 49 | 40 | 37 | 31 | 23 | 49 |
| 250 | 100 | 55 | 56 | 56 | 47 | 44 | 39 | 33 | 55 |
| Supply air | | | | | | | | | |
| Flow rate | External pressure | | | | L _w [dB] | | | | Sound pressur _{e level LWA} |
| [m³/h] | [Pa] | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | 125 Hz 8 kHz [dB(A)] |
| 175 | 50 | 44 | 52 | 48 | 39 | 34 | 27 | 18 | 48 |
| 250 | 100 | 49 | 52 | 55 | 46 | 41 | 35 | 26 | 53 |
| Extract air | | | | | | | | | |
| Flow rate | External pressure | | | | L _w [dB] | | | | Sound pressur _{e level LWA} |
| [m³/h] | [Pa] | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | 125 Hz 8 kHz [dB(A)] |
| 175 | 50 | 47 | 54 | 42 | 33 | 32 | 23 | 18 | 46 |
| 250 | 100 | 51 | 54 | 50 | 34 | 38 | 32 | 26 | 50 |
| Exhaust air | | | | | | | | | |
| Flow rate | External pressure | | | | L _w [dB] | | | | Sound pressur _{e level LWA} |
| [m³/h] | [Pa] | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | 125 Hz 8 kHz [dB(A) |
| 175 | 50 | 45 | 51 | 43 | 43 | 39 | 34 | 17 | 48 |
| 250 | 100 | 51 | 55 | 57 | 48 | 46 | 43 | 29 | 56 |



Sound power: HomeVent® ERT (250) + acoustic insulating box ERT

| asing | | | | | | | | | |
|-----------------------------|-------------------|-----|-----|-----|---------------------|------|------|------|--------------------------------------|
| Flow rate | External pressure | | | | L _w [dB] | | | | Sound pressur _{e level LWA} |
| SUP/EXT [m ³ /h] | [Pa] | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | 125 Hz 8 kHz [dB(A) |
| 175 | 50 | 40 | 49 | 34 | 22 | 14 | 10 | 10 | 40 |
| 250 | 100 | 44 | 51 | 44 | 28 | 19 | 10 | 11 | 45 |
| resh air | | | | | | | | | |
| Flow rate | External pressure | | | | L _w [dB] | | | | Sound pressur _{e level LWA} |
| [m³/h] | [Pa] | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | 125 Hz 8 kHz [dB(A) |
| 175 | 50 | 34 | 38 | 29 | 15 | 14 | 15 | 16 | 31 |
| 250 | 100 | 38 | 39 | 31 | 20 | 18 | 17 | 17 | 63 |
| | | | | | | | | | |
| Supply air | | | | | | | | | |
| Flow rate | External pressure | | | | L _w [dB] | | | | Sound pressur _{e level LWA} |
| [m³/h] | [Pa] | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | 125 Hz 8 kHz [dB(A) |
| 175 | 50 | 33 | 39 | 28 | 15 | 14 | 15 | 16 | 32 |
| 250 | 100 | 38 | 40 | 37 | 21 | 17 | 16 | 16 | 36 |
| Extract air | | | | | | | | | |
| Flow rate | External pressure | | | | L _w [dB] | | | | Sound pressur _{e level LWA} |
| [m³/h] | [Pa] | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | 125 Hz 8 kHz [dB(A) |
| 175 | 50 | 33 | 37 | 26 | 15 | 15 | 15 | 16 | 30 |
| 250 | 100 | 39 | 41 | 36 | 22 | 19 | 16 | 16 | 36 |
| Exhaust air | | | | | | | | | |
| Flow rate | External pressure | | | | L _w [dB] | | | | Sound pressur _{e level LWA} |
| [m³/h] | [Pa] | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | 125 Hz 8 kHz [dB(A) |
| 175 | 50 | 34 | 38 | 28 | 17 | 15 | 15 | 11 | 31 |
| 250 | 100 | 40 | 41 | 36 | 23 | 21 | 18 | 12 | 36 |

Sound power: HomeVent® ERT (350)

| Casing | | | | | | | | | |
|-----------------------------|-------------------|-----|-----|-----|---------------------|------|------|------|--------------------------------------|
| Flow rate | External pressure | | | | L _w [dB] | | | | Sound pressure level L |
| SUP/EXT [m ³ /h] | [Pa] | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | 125 Hz 8 kHz [dB(A)] |
| 245 | 50 | 42 | 52 | 38 | 24 | 17 | 10 | 12 | 44 |
| 350 | 100 | 48 | 48 | 46 | 31 | 24 | 13 | 8 | 45 |
| Fresh air | | | | | | | | | |
| Flow rate | External pressure | | | | L _w [dB] | | | | Sound pressure level L _{wa} |
| [m³/h] | [Pa] | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | 125 Hz 8 kHz [dB(A)] |
| 245 | 50 | 50 | 54 | 52 | 43 | 41 | 37 | 29 | 52 |
| 350 | 100 | 58 | 55 | 62 | 50 | 49 | 45 | 39 | 60 |
| Supply air | | | | | | | | | |
| Flow rate | External pressure | | | | L _w [dB] | | | | Sound pressure level LwA |
| [m ³ /h] | [Pa] | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | 125 Hz 8 kHz [dB(A)] |
| 245 | 50 | 48 | 56 | 51 | 43 | 39 | 33 | 23 | 52 |
| 350 | 100 | 53 | 54 | 61 | 50 | 46 | 41 | 33 | 59 |
| Extract air | | | | | | | | | |
| Flow rate | External pressure | | | | L _w [dB] | | | | Sound pressure level L |
| [m ³ /h] | [Pa] | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | 125 Hz 8 kHz [dB(A)] |
| 245 | 50 | 48 | 53 | 46 | 38 | 36 | 30 | 22 | 48 |
| 350 | 100 | 53 | 53 | 52 | 43 | 42 | 37 | 31 | 52 |
| Exhaust air | | | | | | | | | |
| Flow rate | External pressure | | | | L _w [dB] | | | | Sound pressure level L _{wa} |
| [m³/h] | [Pa] | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | 125 Hz 8 kHz [dB(A)] |
| 245 | 50 | 48 | 54 | 48 | 47 | 44 | 41 | 24 | 53 |
| 350 | 100 | 54 | 53 | 61 | 53 | 51 | 48 | 36 | 60 |



Sound power: HomeVent® ERT (350) + acoustic insulating box ERT

| asing | | | | | | | | | |
|-----------------------------|-------------------|-----|-----|-----|---------------------|------|------|------|-------------------------------------|
| Flow rate | External pressure | | | | L _w [dB] | | | | Sound pressure level L |
| SUP/EXT [m ³ /h] | [Pa] | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | 125 Hz 8 kHz [dB(A) |
| 245 | 50 | 42 | 52 | 38 | 24 | 17 | 10 | 12 | 44 |
| 350 | 100 | 48 | 48 | 46 | 31 | 24 | 13 | 8 | 45 |
| resh air | | | | | | | | | |
| Flow rate | External pressure | | | | L _w [dB] | | | | Sound pressure level L _w |
| [m³/h] | [Pa] | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | 125 Hz 8 kHz [dB(A) |
| 245 | 50 | 36 | 39 | 32 | 17 | 16 | 16 | 16 | 33 |
| 350 | 100 | 41 | 38 | 41 | 24 | 21 | 20 | 20 | 38 |
| | | | | | | | | | |
| upply air | | | | | | | | | |
| Flow rate | External pressure | | | | L _w [dB] | | | | Sound pressure level L_w |
| [m³/h] | [Pa] | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | 125 Hz 8 kHz [dB(A) |
| 245 | 50 | 36 | 39 | 32 | 18 | 15 | 15 | 16 | 33 |
| 350 | 100 | 43 | 39 | 41 | 25 | 20 | 17 | 16 | 39 |
| Extract air | | | | | | | | | |
| Flow rate | External pressure | | | | L _w [dB] | | | | Sound pressure level L |
| [m ³ /h] | [Pa] | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | 125 Hz 8 kHz [dB(A) |
| 245 | 50 | 35 | 39 | 29 | 19 | 17 | 16 | 16 | 33 |
| 350 | 100 | 42 | 40 | 38 | 26 | 24 | 17 | 16 | 37 |
| Exhaust air | | | | | | | | | |
| Flow rate | External pressure | | | | L _w [dB] | | | | Sound pressure level L |
| [m ³ /h] | [Pa] | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | 125 Hz 8 kHz [dB(A) |
| 245 | 50 | 38 | 40 | 32 | 20 | 18 | 17 | 11 | 34 |
| 350 | 100 | 45 | 41 | 42 | 28 | 25 | 22 | 14 | 40 |

Sound power: HomeVent® ERT (450)

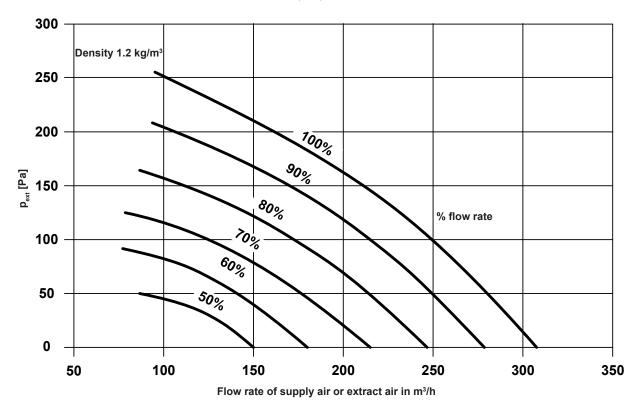
| Casing | | | | | | | | | |
|-----------------------------|-------------------|-----|-----|-----|---------------------|------|------|------|--------------------------------------|
| Flow rate | External pressure | | | | L _w [dB] | | | | Sound pressure level L |
| SUP/EXT [m ³ /h] | [Pa] | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | 125 Hz 8 kHz [dB(A)] |
| 315 | 50 | 46 | 48 | 44 | 29 | 21 | 10 | 11 | 44 |
| 450 | 100 | 49 | 51 | 49 | 33 | 28 | 16 | 8 | 49 |
| Fresh air | | | | | | | | | |
| Flow rate | External pressure | | | | L _w [dB] | | | | Sound pressure level L _{wa} |
| [m³/h] | [Pa] | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | 125 Hz 8 kHz [dB(A)] |
| 315 | 50 | 52 | 53 | 58 | 50 | 45 | 42 | 35 | 56 |
| 450 | 100 | 59 | 57 | 62 | 53 | 52 | 50 | 44 | 61 |
| Supply air | | | | | | | | | |
| Flow rate | External pressure | | | | L _w [dB] | | | | Sound pressure level L _{wa} |
| [m ³ /h] | [Pa] | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | 125 Hz 8 kHz [dB(A)] |
| 315 | 50 | 50 | 52 | 58 | 47 | 43 | 38 | 29 | 56 |
| 450 | 100 | 56 | 56 | 62 | 53 | 50 | 46 | 38 | 61 |
| Extract air | | | | | | | | | |
| Flow rate | External pressure | | | | L _w [dB] | | | | Sound pressure level L |
| [m ³ /h] | [Pa] | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | 125 Hz 8 kHz [dB(A)] |
| 315 | 50 | 50 | 52 | 50 | 41 | 39 | 34 | 27 | 50 |
| 450 | 100 | 55 | 55 | 53 | 45 | 45 | 41 | 36 | 54 |
| Exhaust air | | | | | | | | | |
| Flow rate | External pressure | | | | L _w [dB] | | | | Sound pressure level L |
| [m³/h] | [Pa] | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | 125 Hz 8 kHz [dB(A)] |
| 315 | 50 | 50 | 52 | 56 | 50 | 48 | 45 | 30 | 56 |
| 450 | 100 | 57 | 56 | 61 | 54 | 54 | 53 | 42 | 62 |

Sound power: HomeVent® ERT (450) + acoustic insulating box ERT

| Casing | | | | | | | | | |
|-----------------------------|-------------------|-----|-----|-----|---------------------|------|------|------|-------------------------------------|
| Flow rate | External pressure | | | | L _w [dB] | | | | Sound pressure level L _w |
| SUP/EXT [m ³ /h] | [Pa] | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | 125 Hz 8 kHz [dB(A) |
| 315 | 50 | 46 | 48 | 44 | 29 | 21 | 10 | 11 | 44 |
| 450 | 100 | 41 | 51 | 49 | 33 | 28 | 16 | 8 | 49 |
| Fresh air | | | | | | | | | |
| Flow rate | External pressure | | | | L _w [dB] | | | | Sound pressure level L _w |
| [m³/h] | [Pa] | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | 125 Hz 8 kHz [dB(A) |
| 315 | 50 | 39 | 36 | 39 | 22 | 18 | 18 | 18 | 36 |
| 450 | 100 | 46 | 41 | 43 | 27 | 25 | 24 | 25 | 41 |
| | | | | | | | | | |
| Supply air | | | | | | | | | |
| Flow rate | External pressure | | | | L _w [dB] | | | | Sound pressure level L_w |
| [m³/h] | [Pa] | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | 125 Hz 8 kHz [dB(A) |
| 315 | 50 | 40 | 37 | 39 | 22 | 17 | 16 | 16 | 36 |
| 450 | 100 | 47 | 42 | 43 | 28 | 24 | 20 | 18 | 41 |
| Extract air | | | | | | | | | |
| Flow rate | External pressure | | | | L _w [dB] | | | | Sound pressure level L _w |
| [m³/h] | [Pa] | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | 125 Hz 8 kHz [dB(A) |
| 315 | 50 | 38 | 38 | 35 | 22 | 19 | 16 | 16 | 34 |
| 450 | 100 | 45 | 42 | 39 | 29 | 27 | 19 | 17 | 39 |
| Exhaust air | | | | | | | | | |
| Flow rate | External pressure | | | | L _w [dB] | | | | Sound pressure level L |
| [m³/h] | [Pa] | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | 125 Hz 8 kHz [dB(A) |
| 315 | 50 | 42 | 39 | 38 | 25 | 21 | 19 | 12 | 37 |
| 450 | 100 | 49 | 45 | 43 | 32 | 29 | 26 | 18 | 43 |

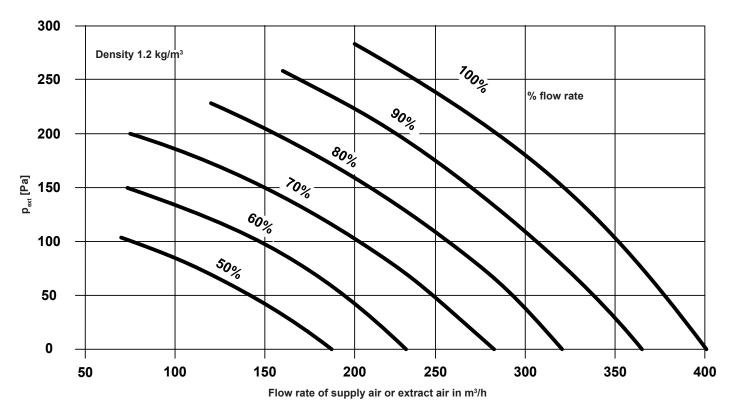
Performance chart for air flow rate, HomeVent® ERT (250)

p_{ext} Sum of external pressure drops



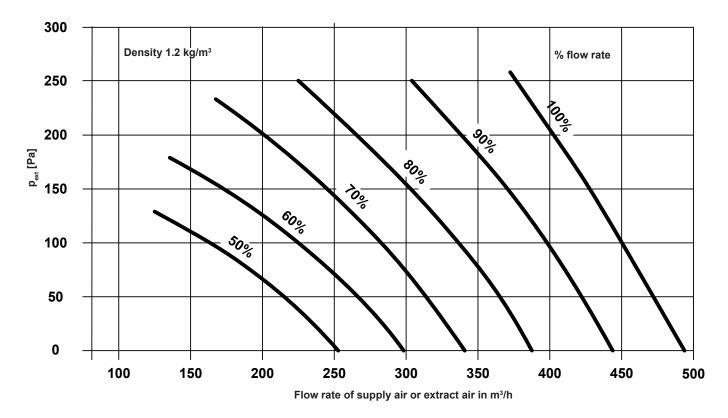
Performance chart for air flow rate, HomeVent® ERT (350)

p_{ext} Sum of external pressure drops

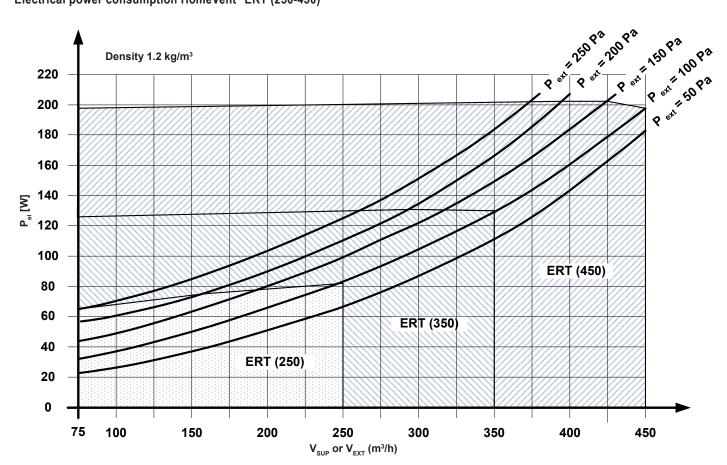


Performance chart for air flow rate HomeVent® ERT (450)

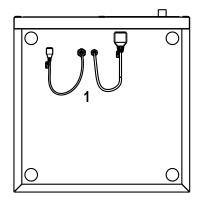


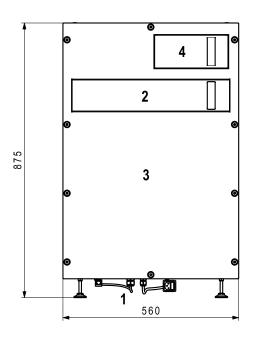


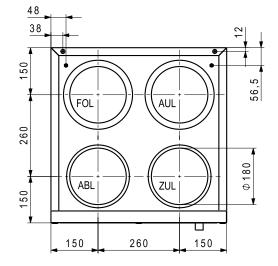
Electrical power consumption HomeVent® ERT (250-450)

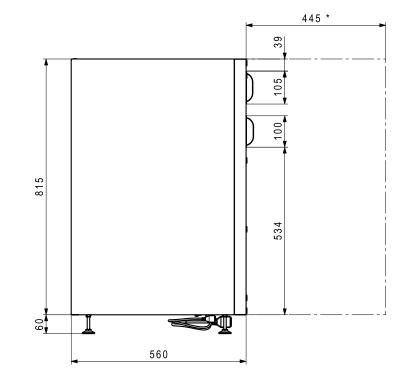


HomeVent[®] comfort ventilation unit









Electrical connection with microfuse 1

Space is required for changing the microfuse. Filter cover for supply air filter/extract air filter

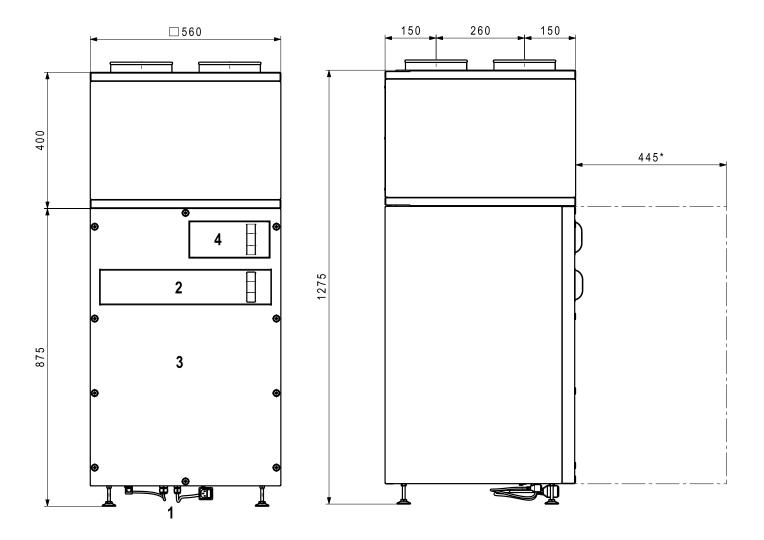
2

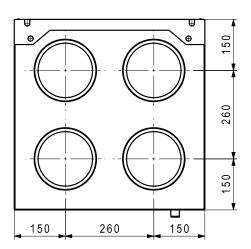
3 Access panel

4 Maintenance cover for prefilter

* Space requirements for filter change and service tasks

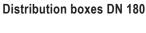
HomeVent® comfort ventilation unit with acoustic insulating box





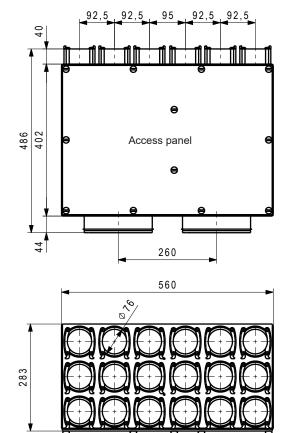
- Electrical connection with microfuse 1
- Space is required for changing the microfuse. Filter cover for supply air filter/extract air filter 2
- 3 Access panel
- Maintenance cover for prefilter 4
- * Space requirements for filter change and service tasks

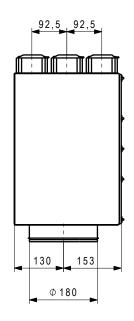


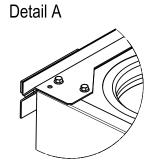


Distribution box VTB-180 18 x 75

for HomeVent® ERT (250) Casing made from aluzinc sheet with sound insulation element supply air and extract air side, access panel incl. throttle orifices. Additional silencer recommended. Connection nozzles: 2 x DN 180 SUP 9 x 75, EXT 9 x 75 Included accessories: end covers and throttle orifices

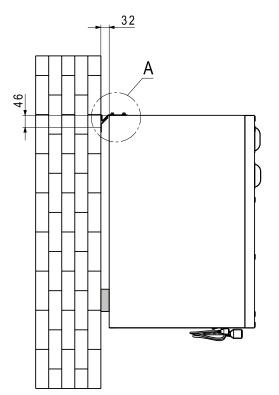






Space requirements

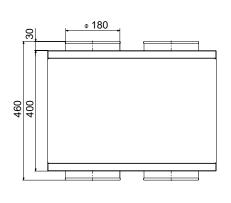
HomeVent[®] comfort ventilation unit Installation with installation set

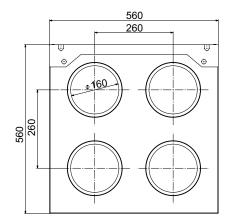




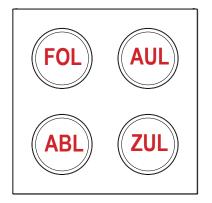
Acoustic insulating box ERT

Casing made from red insulated sheet steel. All 4 air ducts are sound-insulated. Connection nozzles: 4 x DN 160

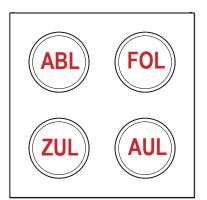




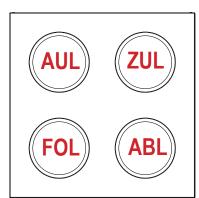
Acoustic insulating box ERT straight



Acoustic insulating box ERT left



Acoustic insulating box ERT right



| Pressure drop at 100 % ERT (250) 100 % | air flow rate: |
|---|----------------|
| Silencer, straight | |
| ZUL [Δp Pa] | 1 |
| AUL [Δp Pa] | 0 |
| FOL [Δp Pa] | 0 |
| ABL [Δp Pa] | 1 |
| ERT (250) 100 % | |
| Silencer, on the left/right | |
| ZUL [Δp Pa] | 14 |
| AUL [Δp Pa] | 8 |
| FOL [Δp Pa] | 11 |
| ABL [Δp Pa] | 10 |
| ERT (350) 100 % | |
| Silencer, straight | |
| ZUL [Δp Pa] | 7 |
| AUL [Δp Pa] | 1 |
| FOL [Δp Pa] | 2 |
| ABL [Δp Pa] | 6 |
| ERT (350) 100 % | |
| Silencer, on the left/right | |
| ZUL [Δp Pa] | 27 |
| AUL [Δp Pa] | 26 |
| FOL [Δp Pa] | 21 |
| ABL [Δp Pa] | 23 |
| ERT (450) 100 % | |
| Silencer, straight | |
| ZUL [Δp Pa] | 19 |
| AUL [Δp Pa] | 4 |
| FOL [Δp Pa] | 10 |
| ABL [Δp Pa] | 19 |
| ERT (450) 100 % | |
| Silencer, on the left/right | |
| ZUL [Δp Pa] | 41 |
| AUL [Δp Pa] | 35 |
| | |

31

37

FOL = Exhaust air AUL = Fresh air ABL = Extract air ZUL = Supply air

FOL [Δp Pa]

ABL [∆p Pa]