

## Hoval HomeVent® comfort FRT (251, 351, 451) Comfort 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.
- Coated outer casing made from aluzinc sheet (red).
- Unit can be installed using the mounting fixture (mounting kit) or in combination with the base.
- Rotary enthalpy recovery unit with speed regulation
- Two backward-curved EC fans (continuously adjustable 15 % - 100 %)
- High-quality Z filter
  - supply air: ePM<sub>10</sub> 50 % (F7)
  - extract air: ePM<sub>10</sub> 50 % (G4)
- Integrated prefilter
- Filter monitoring (timer)
- Ready-to-connect electronics
- No need for preheating or a condensate drain

### Data

- Colour: red
- Dimensions: 925/560/560 (L/W/D, mm)
- Weight: 39 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 CO<sub>2</sub>
- Active cool recovery (Option CoolVent®)
- Mounting kit, Base
- Supply air activated carbon filter

### Delivery

- Comfort ventilation unit pre-assembled and packed.

### On site

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

### Use

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

This can be a single family home or a residential 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 (CO<sub>2</sub>, aerosols, excess dampness, odours, etc.)
- Saves energy through intelligent latent heat recovery
- Cleans supply air using a fine dust filter



### Tests

- TÜV Munich in accordance with DIN EN 13141-7
- TÜV Munich in accordance with DIBt
- TÜV Munich in accordance with EN 60335-1

### Model range

HomeVent® comfort FRT Type		Volume flow m <sup>3</sup> /h	Heat recovery efficiency %
(251)	<b>A<sup>+</sup></b>	50 - 250	90 - 130
(351)	<b>A<sup>+</sup></b>	60 - 350	90 - 130
(451)	<b>A</b>	70 - 450	90 - 130

### 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 %
- Transmission performance can be adjusted continuously
- No preheating required (down to -20 °C)
- No condensation
- No bypass required

### Air filtration

The outdoor air goes through two cleaning stages, ensuring the highest standard. A fine-meshed 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<sub>10</sub> 50 % (F7)). The operator receives a message when it is time to change the filter. In addition, an activated carbon filter can be installed on the supply air side as an option. The activated carbon filter can be inserted in place of the standard supply air filter. This is a high-capacity filter (ePM<sub>10</sub> 52 %) 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 air volume ratio between the supply air 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. We recommend the corresponding mounting kits with vibration dampers.

### 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 mm<sup>2</sup>). 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 the current indoor and outdoor air quality (optional VOC air quality sensors must be installed)
  - Display of the current weather or weather forecast (only possible in combination with HovalConnect)

### Air quality

Optionally, one or two VOC air quality sensors can be installed in the unit during commissioning. The VOC air quality sensor(s) continuously monitor(s) the air for volatile organic components and regulate the air volume that is supplied or extracted 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, tobacco smoke, 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).
- VOC air quality sensor on the supply and extract air side:
  - The extract and supply air is continuously monitored for odours, tobacco smoke, cleansing agents, vehicle emissions, agricultural odours, etc. If the concentration of extract air exceeds a certain value, the air volume is increased correspondingly. If the concentration of supply air exceeds a certain value, the air volume is reduced correspondingly. The sensor registering the higher value takes priority. The sensitivity can be chosen. On the TopTronic® E room control module comfort plus, the air quality is displayed by a bar for the extract air and a bar for the supply air, which will either be green (good air), orange (slightly contaminated air) or red (bad air).
- The activated carbon filter can be inserted in place of the standard supply air filter. This is a high-capacity filter (F7) with high efficiency against particles (pollen, fine dust, etc.) and against gaseous pollutants and odours (agriculture, traffic, etc.).

### Cooling

The fresh air can be pre-cooled 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®  
comfort FRT (251, 351, 451)**

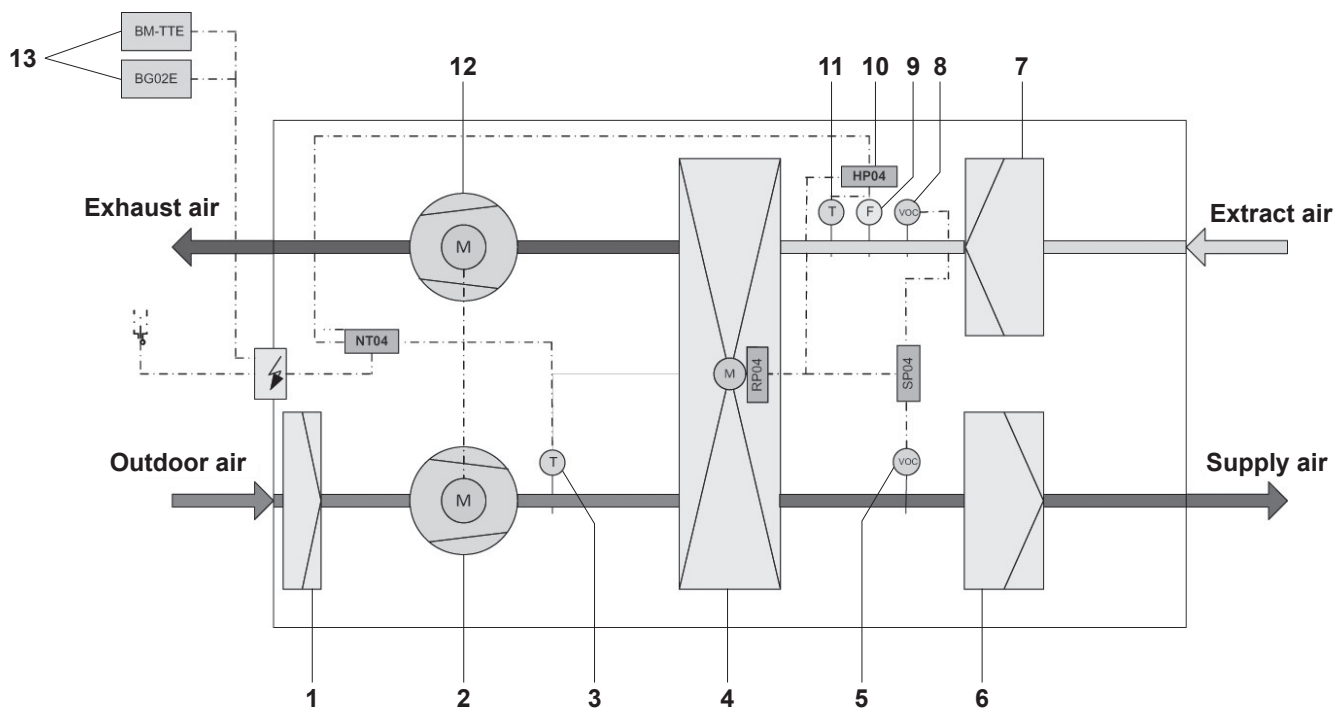
The outside air fan draws in outdoor air via the main line. In the first stage, this air is cleaned via a prefilter. In the enthalpy recovery system, the supply air is heated, depending on the temperature, and humidified. The extent to which heat and humidity are recovered is dependent on the temperature 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:

- 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 volume flow. 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              | 8 VOC extract air sensor   |
| 2 Outside air fan        | 9 Humidity sensor  |
| 3 Outdoor sensor         | 10 Electronics   |
| 4 Enthalpy recovery unit | 11 Extract air sensor  |
| 5 VOC outdoor air sensor | 12 Exhaust air fan   |
| 6 Supply air filter      | 13 Operator terminal BG02 E or TopTronic® E room control module comfort plus |
| 7 Extract air filter     |  |



Comfort ventilation units



**HomeVent® comfort FRT (251, 351, 451)**

With high-efficiency heat and humidity recovery. Including washable prefilter, mains cable and connection cable (3 m) for operator terminal.

HomeVent® comfort FRT Type		Nominal volume flow m³/h	Ext. pressure Pa
(251)	<b>A+</b>	250	100
(351)	<b>A+</b>	350	100
(451)	<b>A</b>	450	100

In order to operate a Hoval HomeVent® comfort ventilation unit, it is **essential** to have an operator terminal or a TopTronic® E room control module comfort plus.

Part No.

7016 713  
7016 714  
7016 715

Required accessories

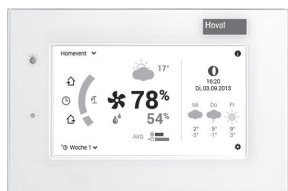


**Operator terminal BG02 E**

for HomeVent® comfort FR (201, 251, 301), FRT (251, 351, 451)

Plastic housing for on-wall mounting. Knob for flow rate and room humidity  
Service and fault display.  
Connection to the Hoval bus system via RJ45 plug connection.

2066 444



**TopTronic® E room control module comfort plus**

for HomeVent® comfort FR (201, 251, 351), FRT (251, 351, 451)

Operation of all Hoval air units, heating and hot water circuits connected to the bus system. Customer-specific configuration of the start screen. Displays the current air quality inside and outside the building (only possible with installed VOC sensors), displays the current weather or weather forecast (only possible in combination with HovalConnect). Connection to the Hoval bus system via RJ45 plug connection or plug terminals (max. 0.75 mm²), 4.3-inch colour touchscreen.

Consisting of:

TopTronic® E room control module comfort plus on-wall mounted frame, designer frame, wall-mounting adapter and fitting accessories

white  
black

6037 072  
6042 543

**Technical information**

see separate chapter.

Recommended accessories

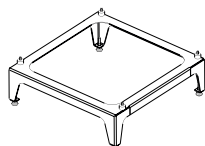


**Air quality sensor VOC**  
 for HomeVent® comfort FR (201, 251, 301),  
 FRT (251, 351, 451)  
 Installation of 2 pieces possible  
 (supply air and extract air). Only in  
 connection with the TopTronic® E  
 control module comfort plus.

**Air quality sensor CO<sub>2</sub>**  
 for HomeVent® comfort  
 FR (201, 251, 301), FRT (251, 351, 451)  
 Can be installed on flue side  
 Only in connection with the  
 TopTronic® E comfort plus  
 control module

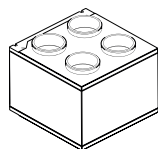
**Notice:**  
 Cannot be combined with VOC sensor

**Cool recovery unit CoolVent®**  
 for HomeVent® comfort FR (201, 251, 301),  
 FRT (251, 351, 451)  
 Active-controlled cool recovery for  
 air-conditioned buildings.  
 Activated by Hoval service technicians  
 during commissioning.

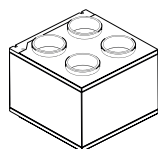


**Unit base GS (251-451)**  
 for HomeVent® comfort FRT (251,351,451)  
 Red painted steel, 4 vibration dampers,  
 height-adjustable feet.  
 Height: 185 - 205 mm

**Vertical wall mounting kit**  
 for HomeVent® comfort  
 FR (201,251,301), FRT (251,351,451)  
 Red-coated steel bracket  
 with sound-insulating support



**Acoustic insulating box FRT  
 extract-supply air front**  
 for HomeVent® comfort FRT (251,351,451)  
 Housing made of aluzinc sheet with  
 connection nozzles 4 x DN 160.  
 Extract air front left,  
 supply air front right  
 Exhaust air back left,  
 fresh air back right  
 Internal acoustic insulating unit  
 All 4 air ducts are sound-insulated.  
 Dimensions: LxWxH 400 x 560 x 560 mm



**Acoustic insulating box**  
 FRT extract air-supply air right  
 for HomeVent® comfort FRT (251,351,451)  
 Housing made of aluzinc sheet with  
 connection nozzles 4 x DN 160.  
 Extract air front right,  
 supply air rear right  
 Exhaust air front left,  
 fresh air rear left  
 Internal acoustic insulating unit  
 All 4 air ducts are sound-insulated.  
 Dimensions: LxWxH 400 x 560 x 560 mm

Part No.

2067 648

2069 954

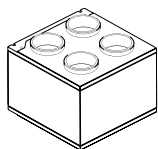
6035 255

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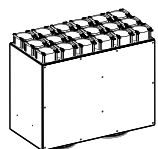
6046 019



**Acoustic insulating box FRT extract-supply air left**  
 for HomeVent® comfort FRT (251,351,451)  
 Housing made of aluzinc sheet with connection nozzles 4 x DN 160.  
 Extract air rear left,  
 supply air front left  
 Exhaust air back right,  
 fresh air front right  
 Internal acoustic insulating unit  
 All 4 air ducts are sound-insulated.  
 Dimensions: LxWxH 400 x 560 x 560 mm

**Part No.**

6046 020



**Distribution box VTB-180 18x75**  
 for HomeVent® comfort FRT (251)  
 Housing made of aluzinc sheet with connection nozzles 2 x DN 180  
 Connection nozzles 18 x DN 75  
 Acoustic insulating unit inside supply and extract air side, access panel  
 Insertable throttle orifices per connection  
 Dimensions: LxWxH: 400 x 560 x 374 mm

6045 932

Additional accessories see separate chapter Components.

**Filter HomeVent® comfort FRT (251, 351, 451)**



**Supply air filter for FRT (251,351,451)**  
 for HomeVent® comfort FRT (251,351,451)  
 Large fine dust pollen filter  
 Z construction, filter class ePM<sub>1,0</sub> 50 % (F7)

5043 550



**Supply air active carbon filter for FRT (251, 351, 451)**  
 for HomeVent® comfort FRT (251, 351, 451)  
 Large fine dust active carbon filter against particles (pollen, fine dust, etc.), gaseous pollutants and odours  
 Z construction, filter class ePM<sub>10</sub> 52 %

5043 778



**Extract air filter FRT (251,351,451)**  
 for HomeVent® comfort FRT (251,351,451)  
 Large coarse dust filter  
 Z construction, filter class ePM<sub>10</sub> 50 % (G4)

5043 611

**HomeVent® comfort FRT (251, 351, 451) ventilation unit**

Type		(251)	(351)	(451)
Max. volume flow (at 100 Pa external pressure*)	m³/h	250	350	450
Air flow rate control range	m³/h	50-250	60-350	70-450
Humidity setpoint setting	%		30 ... 65	
Electrical connection				
• Voltage (AC)	V		230	
• Frequency	Hz		50	
• Max. current consumption	A	0.76	1.04	1.23
• cos ϕ (mean value)		0.44	0.44	0.48
Type of protection			IP 40	
Power consumption (at 70 % of the max. volume flow, 50 Pa external pressure)	W	36	61	97
Degree of heat processing (as per DIN 4719)	%		90-130	
Temperature ratio (at 70 % of the max. volume flow)	%	85	84	82
Humidity ratio (at 70 % of the max. volume flow)	%	90	84	81
Specific fan power SFP (at 70% of the max. volume flow)	W/m³/h	0.21	0.25	0.31
Filter class (as per ISO-16890)				
• Supply air filter			ePM <sub>1.0</sub> 50 %	
• Extract air filter			ePM <sub>1.0</sub> 50 %	
Sound power level			see table on following page	
Leakage (as per EN 13141-7)				
• Internal	%		< 1	
• External	%	1.4	1.0	0.8
Net weight	kg		39	
Application limits for device setup, weather-protected (EN 60721-3-3), 3K5 as per EN 50090-2-2				
• Ambient temperature	°C		-20...45	
• Ambient humidity	g/kg		max. 15	
• Dew point temp. in installation room	°C		< 15	
Air conditions (moderate outdoor climate EN 60721-2-1)				
• Outside air intake temperature	°C		-20...40	
• Outside air intake humidity	% r.h.		5...95	
• Extract air temperature	°C		5...35	
• Extract air humidity	% r.h.		5...80	
• Max. extract air humidity	g/kg		12	

**Sound power levels for HomeVent® comfort FRT (251)**
**Casing**

Volume flow SUP/EXT [m³/h]	External pressure [Pa]	L <sub>w</sub> [dB]							Sound pressure level L <sub>WA</sub> 63 Hz ... 8 kHz [dB(A)]
		125	250	500	1k	2k	4k	8k	
175	50	41	44	39	33	26	11	10	40
250	100	47	51	45	40	34	21	12	47

**Fresh air**

Volume flow [m³/h]	External pressure [Pa]	L <sub>w</sub> [dB]							Sound pressure level L <sub>WA</sub> 63 Hz ... 8 kHz [dB(A)]
		125	250	500	1k	2k	4k	8k	
175	50	30	39	41	32	28	16	8	40
250	100	35	47	47	39	36	25	18	47

**Supply air**

Volume flow [m³/h]	External pressure [Pa]	L <sub>w</sub> [dB]							Sound pressure level L <sub>WA</sub> 63 Hz ... 8 kHz [dB(A)]
		125	250	500	1k	2k	4k	8k	
175	50	42	44	40	33	25	14	4	40
250	100	44	51	46	39	32	23	14	47

**Extract air**

Volume flow [m³/h]	External pressure [Pa]	L <sub>w</sub> [dB]							Sound pressure level L <sub>WA</sub> 63 Hz ... 8 kHz [dB(A)]
		125	250	500	1k	2k	4k	8k	
175	50	44	36	34	26	20	8	0	34
250	100	35	43	39	34	27	17	7	40

**Exhaust air**

Volume flow [m³/h]	External pressure [Pa]	L <sub>w</sub> [dB]							Sound pressure level L <sub>WA</sub> 63 Hz ... 8 kHz [dB(A)]
		125	250	500	1k	2k	4k	8k	
175	50	43	49	47	45	39	26	16	49
250	100	49	52	53	51	46	35	27	55



**Sound power: HomeVent® comfort FRT (251) + acoustic insulating box FRT**
**Casing**

Volume flow SUP/EXT [m³/h]	External pressure [Pa]	L <sub>w</sub> [dB]							Sound pressure level L <sub>WA</sub> 63 Hz ... 8 kHz [dB(A)]
		125	250	500	1k	2k	4k	8k	
175	50	42	43	36	27	23	17	15	37
250	100	46	47	41	35	30	16	9	43

**Fresh air**

Volume flow [m³/h]	External pressure [Pa]	L <sub>w</sub> [dB]							Sound pressure level L <sub>WA</sub> 63 Hz ... 8 kHz [dB(A)]
		125	250	500	1k	2k	4k	8k	
175	50	30	31	26	17	15	14	15	27
250	100	34	36	32	23	20	6	0	33

**Supply air**

Volume flow [m³/h]	External pressure [Pa]	L <sub>w</sub> [dB]							Sound pressure level L <sub>WA</sub> 63 Hz ... 8 kHz [dB(A)]
		125	250	500	1k	2k	4k	8k	
175	50	30	29	22	10	4	0	0	24
250	100	31	34	27	16	11	0	0	26

**Extract air**

Volume flow [m³/h]	External pressure [Pa]	L <sub>w</sub> [dB]							Sound pressure level L <sub>WA</sub> 63 Hz ... 8 kHz [dB(A)]
		125	250	500	1k	2k	4k	8k	
175	50	28	30	21	11	4	0	0	24
250	100	31	36	26	17	10	0	0	30

**Exhaust air**

Volume flow [m³/h]	External pressure [Pa]	L <sub>w</sub> [dB]							Sound pressure level L <sub>WA</sub> 63 Hz ... 8 kHz [dB(A)]
		125	250	500	1k	2k	4k	8k	
175	50	44	33	26	21	21	19	20	30
250	100	41	36	33	29	29	22	21	36

For external pressure loss, the sound insulation box is not taken into account.

**Sound power levels for HomeVent® comfort FRT (351)**
**Casing**

Volume flow SUP/EXT [m³/h]	External pressure [Pa]	L <sub>w</sub> [dB]							Sound pressure level L <sub>WA</sub> 63 Hz ... 8 kHz [dB(A)]
		125	250	500	1k	2k	4k	8k	
245	50	42	49	44	35	31	16	10	44
350	100	49	56	54	45	40	28	17	54

**Fresh air**

Volume flow [m³/h]	External pressure [Pa]	L <sub>w</sub> [dB]							Sound pressure level L <sub>WA</sub> 63 Hz ... 8 kHz [dB(A)]
		125	250	500	1k	2k	4k	8k	
245	50	31	45	46	37	34	23	15	45
350	100	40	53	55	44	42	32	25	53

**Supply air**

Volume flow [m³/h]	External pressure [Pa]	L <sub>w</sub> [dB]							Sound pressure level L <sub>WA</sub> 63 Hz ... 8 kHz [dB(A)]
		125	250	500	1k	2k	4k	8k	
245	50	42	56	44	37	31	21	11	49
350	100	55	56	57	44	39	30	23	55

**Extract air**

Volume flow [m³/h]	External pressure [Pa]	L <sub>w</sub> [dB]							Sound pressure level L <sub>WA</sub> 63 Hz ... 8 kHz [dB(A)]
		125	250	500	1k	2k	4k	8k	
245	50	35	46	37	32	25	15	6	40
350	100	45	48	45	39	33	24	15	46

**Exhaust air**

Volume flow [m³/h]	External pressure [Pa]	L <sub>w</sub> [dB]							Sound pressure level L <sub>WA</sub> 63 Hz ... 8 kHz [dB(A)]
		125	250	500	1k	2k	4k	8k	
245	50	44	50	51	49	44	33	24	53
350	100	56	64	60	56	52	43	35	62

**Sound power: HomeVent® comfort FRT (351) + acoustic insulating box FRT**
**Casing**

Volume flow SUP/EXT [m³/h]	External pressure [Pa]	L <sub>w</sub> [dB]							Sound pressure level L <sub>WA</sub> 63 Hz ... 8 kHz [dB(A)]
		125	250	500	1k	2k	4k	8k	
245	50	43	45	39	32	28	12	12	41
350	100	49	51	49	39	36	23	13	48

**Fresh air**

Volume flow [m³/h]	External pressure [Pa]	L <sub>w</sub> [dB]							Sound pressure level L <sub>WA</sub> 63 Hz ... 8 kHz [dB(A)]
		125	250	500	1k	2k	4k	8k	
245	50	31	34	30	21	18	3	0	30
350	100	34	42	38	28	26	12	5	38

**Supply air**

Volume flow [m³/h]	External pressure [Pa]	L <sub>w</sub> [dB]							Sound pressure level L <sub>WA</sub> 63 Hz ... 8 kHz [dB(A)]
		125	250	500	1k	2k	4k	8k	
245	50	30	33	25	14	9	0	0	27
350	100	33	36	35	21	17	4	0	33 *

**Extract air**

Volume flow [m³/h]	External pressure [Pa]	L <sub>w</sub> [dB]							Sound pressure level L <sub>WA</sub> 63 Hz ... 8 kHz [dB(A)]
		125	250	500	1k	2k	4k	8k	
245	50	29	32	23	16	14	16	21	27
350	100	34	39	38	23	16	5	0	36 *

**Exhaust air**

Volume flow [m³/h]	External pressure [Pa]	L <sub>w</sub> [dB]							Sound pressure level L <sub>WA</sub> 63 Hz ... 8 kHz [dB(A)]
		125	250	500	1k	2k	4k	8k	
245	50	38	34	30	25	25	14	7	32
350	100	49	42	39	33	32	27	17	41

\* Additional sound insulation measures are necessary for noise-sensitive rooms.

For external pressure loss, the sound insulation box is not taken into account.

**Sound power levels for HomeVent® comfort FRT (451)**
**Casing**

Volume flow SUP/EXT [m³/h]	External pressure [Pa]	L <sub>w</sub> [dB]							Sound pressure level L <sub>WA</sub> 63 Hz ... 8 kHz [dB(A)]
		125	250	500	1k	2k	4k	8k	
315	50	45	55	47	40	35	22	11	50
450	100	53	53	60	48	43	31	18	57

**Fresh air**

Volume flow [m³/h]	External pressure [Pa]	L <sub>w</sub> [dB]							Sound pressure level L <sub>WA</sub> 63 Hz ... 8 kHz [dB(A)]
		125	250	500	1k	2k	4k	8k	
315	50	35	53	49	41	39	29	22	50
450	100	44	49	58	49	46	38	32	57

**Supply air**

Volume flow [m³/h]	External pressure [Pa]	L <sub>w</sub> [dB]							Sound pressure level L <sub>WA</sub> 63 Hz ... 8 kHz [dB(A)]
		125	250	500	1k	2k	4k	8k	
315	50	50	56	48	41	37	28	20	52 *
450	100	62	56	60	50	44	37	30	57 *

**Extract air**

Volume flow [m³/h]	External pressure [Pa]	L <sub>w</sub> [dB]							Sound pressure level L <sub>WA</sub> 63 Hz ... 8 kHz [dB(A)]
		125	250	500	1k	2k	4k	8k	
315	50	41	47	41	35	30	21	10	43 *
450	100	49	47	48	44	37	29	20	48 *

**Exhaust air**

Volume flow [m³/h]	External pressure [Pa]	L <sub>w</sub> [dB]							Sound pressure level L <sub>WA</sub> 63 Hz ... 8 kHz [dB(A)]
		125	250	500	1k	2k	4k	8k	
315	50	49	58	55	53	49	39	30	58
450	100	59	57	75	61	56	48	42	71

\* Additional sound insulation measures are necessary for noise-sensitive rooms.

**Sound power: HomeVent® comfortFRT (451) + acoustic insulating box FRT**
**Casing**

Volume flow SUP/EXT [m³/h]	External pressure [Pa]	L <sub>w</sub> [dB]							Sound pressure level L <sub>wA</sub> 63 Hz ... 8 kHz [dB(A)]
		125	250	500	1k	2k	4k	8k	
315	50	46	52	43	37	33	19	8	47
450	100	53	51	56	44	40	28	9	53

**Fresh air**

Volume flow [m³/h]	External pressure [Pa]	L <sub>w</sub> [dB]							Sound pressure level L <sub>wA</sub> 63 Hz ... 8 kHz [dB(A)]
		125	250	500	1k	2k	4k	8k	
315	50	34	42	33	25	23	9	2	37
450	100	39	38	48	32	29	20	15	44

**Supply air**

Volume flow [m³/h]	External pressure [Pa]	L <sub>w</sub> [dB]							Sound pressure level L <sub>wA</sub> 63 Hz ... 8 kHz [dB(A)]
		125	250	500	1k	2k	4k	8k	
315	50	33	39	28	17	13	11	16	33 *
450	100	48	37	41	26	23	12	5	38 *

**Extract air**

Volume flow [m³/h]	External pressure [Pa]	L <sub>w</sub> [dB]							Sound pressure level L <sub>wA</sub> 63 Hz ... 8 kHz [dB(A)]
		125	250	500	1k	2k	4k	8k	
315	50	32	40	27	19	13	1	0	34 *
450	100	39	37	42	28	22	17	16	39 *

**Exhaust air**

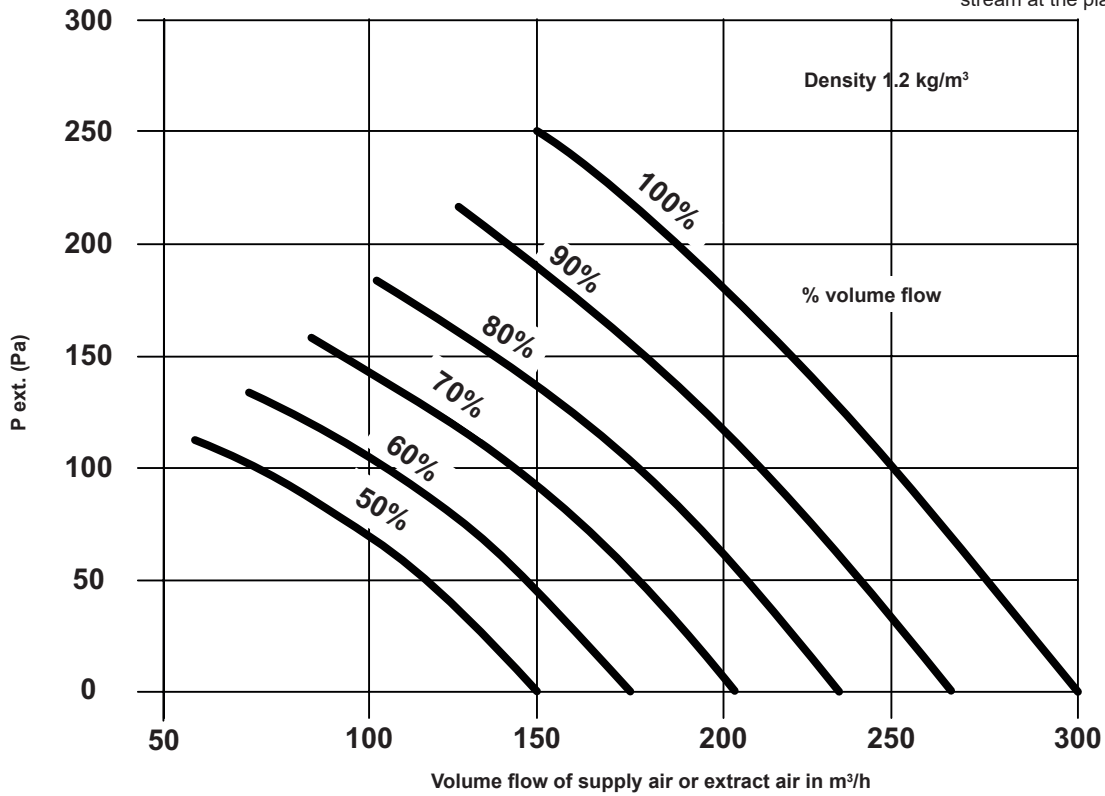
Volume flow [m³/h]	External pressure [Pa]	L <sub>w</sub> [dB]							Sound pressure level L <sub>wA</sub> 63 Hz ... 8 kHz [dB(A)]
		125	250	500	1k	2k	4k	8k	
315	50	51	43	35	51	30	21	17	40
450	100	58	46	49	38	38	29	25	48

\* Additional sound insulation measures are necessary for noise-sensitive rooms.

For external pressure loss, the sound insulation box is not taken into account.

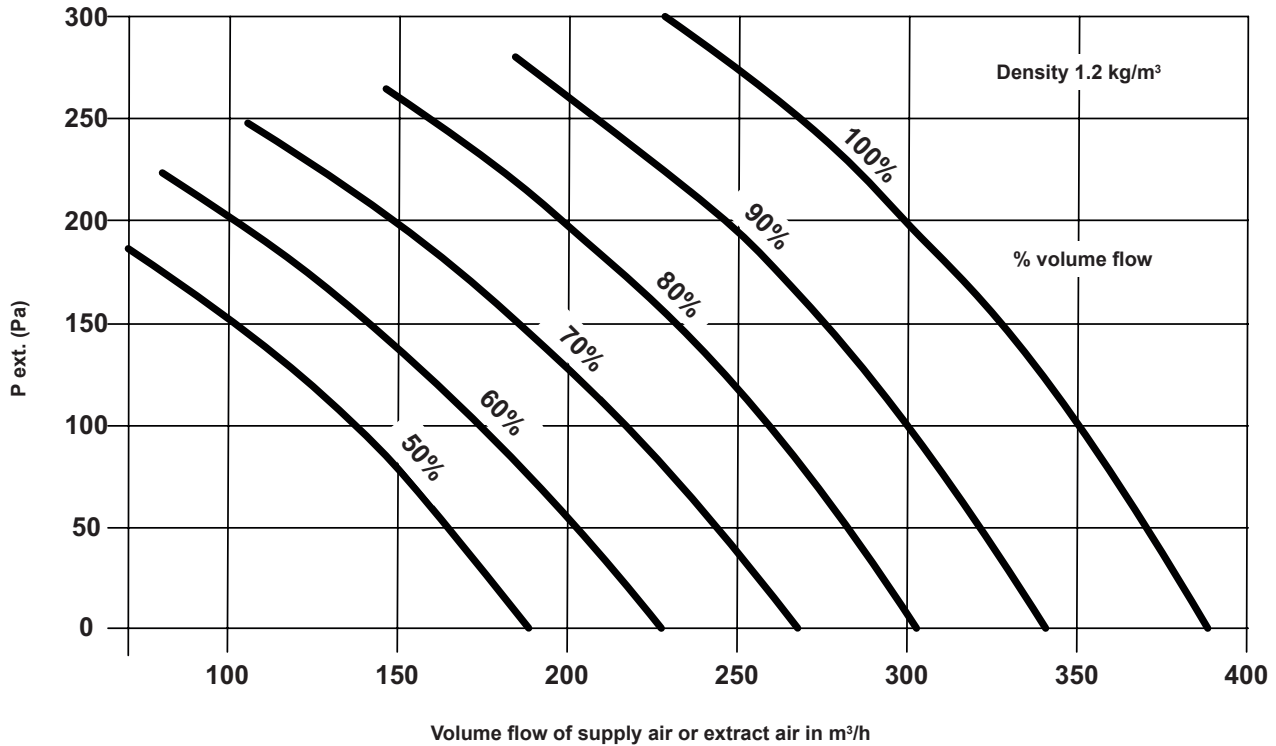
Performance chart for air flow rate, HomeVent® comfort FRT (251)

$p_{ext}$  Sum of external pressure drops incl. acoustic insulating box for each air stream at the planned air flow rate.



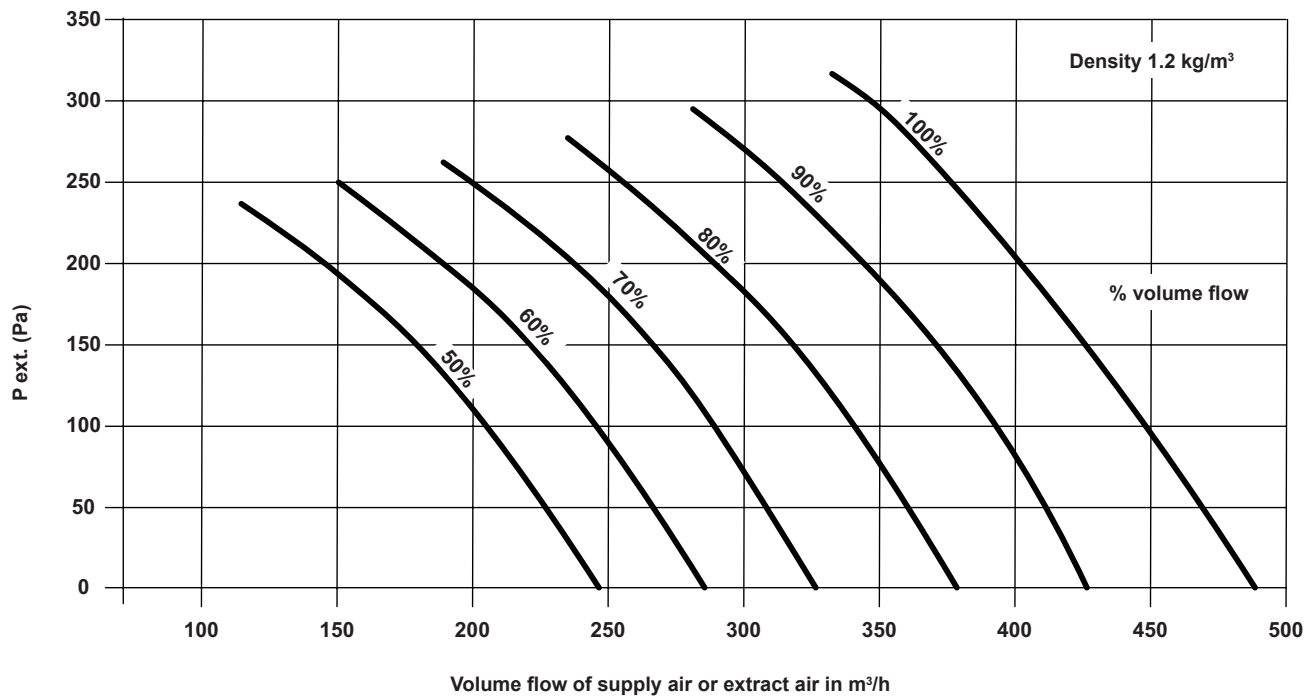
Performance chart for air flow rate, HomeVent® comfort FRT (351)

$p_{ext}$  Sum of external pressure drops incl. acoustic insulating box for each air stream at the planned air flow rate.

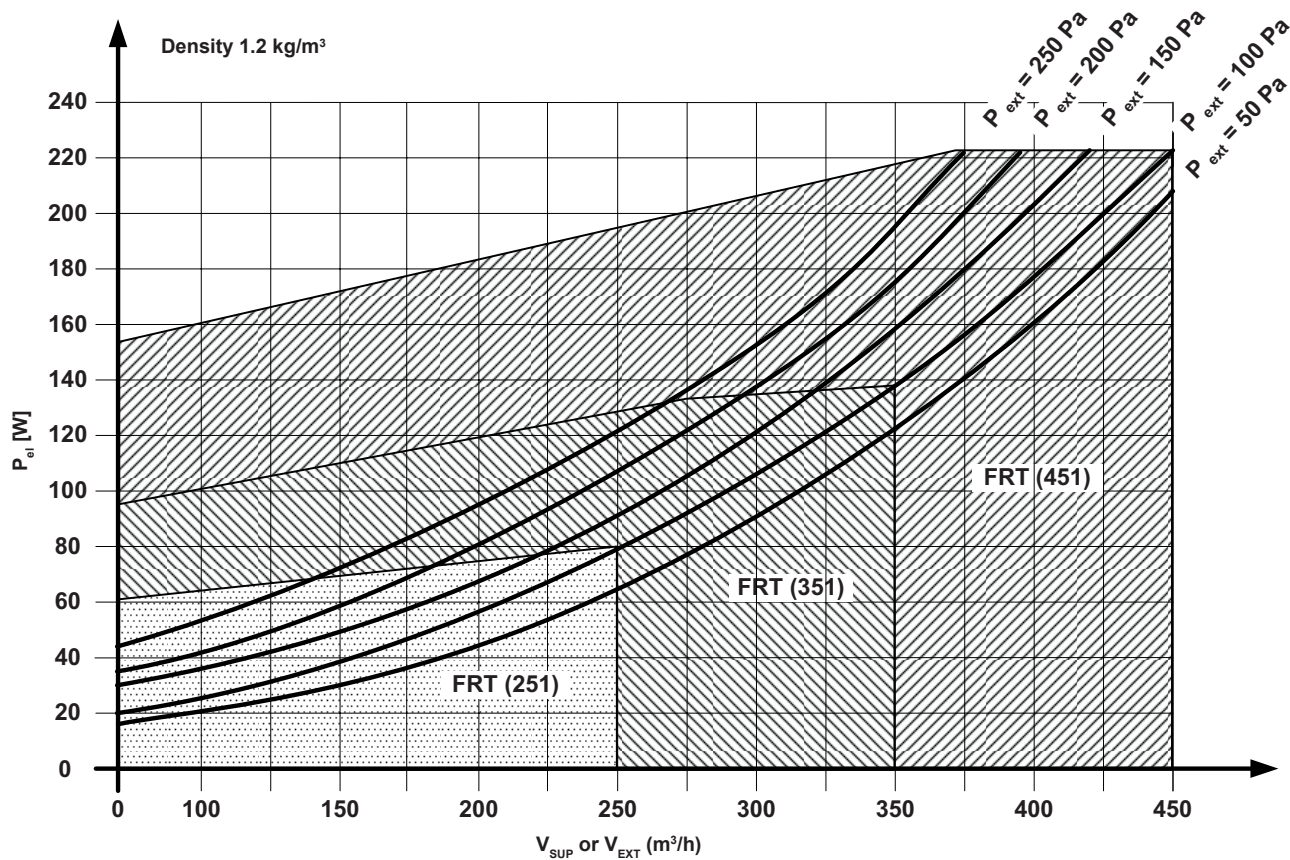


Performance chart for air flow rate, HomeVent® comfort FRT (451)

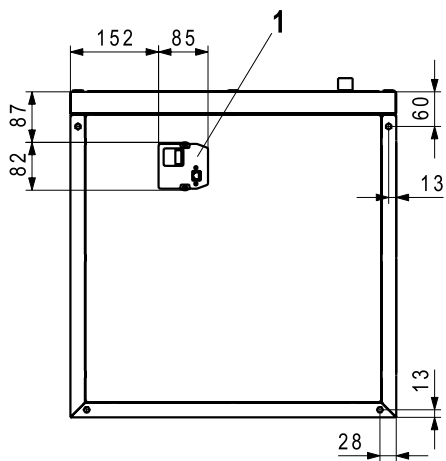
$p_{ext}$  Sum of external pressure drops incl. acoustic insulating box for each air stream at the planned air flow rate.



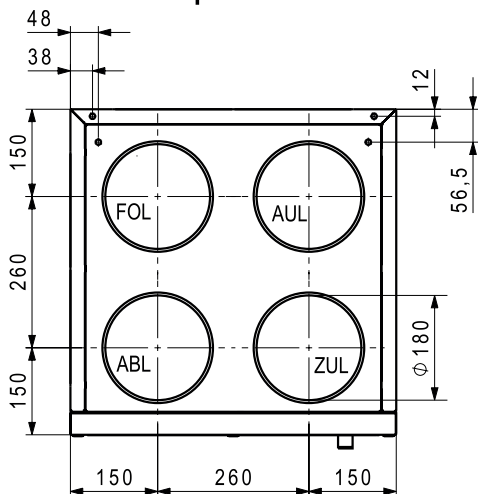
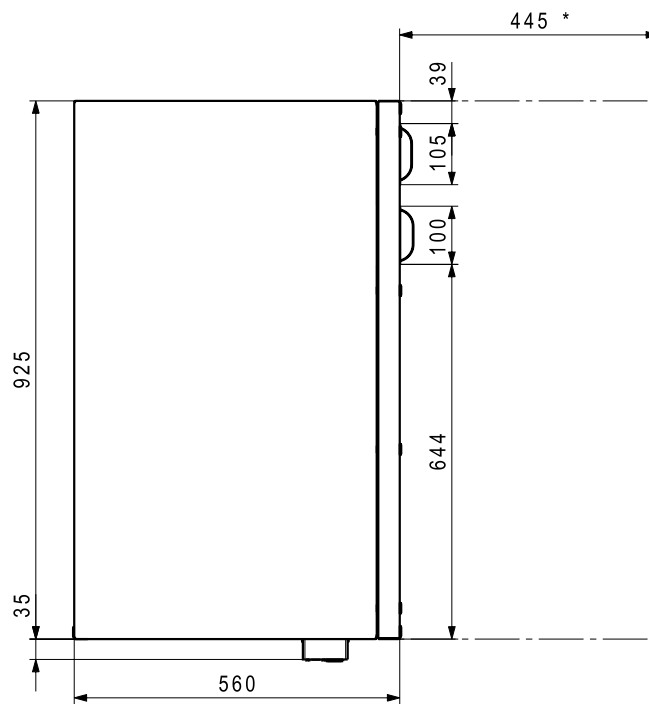
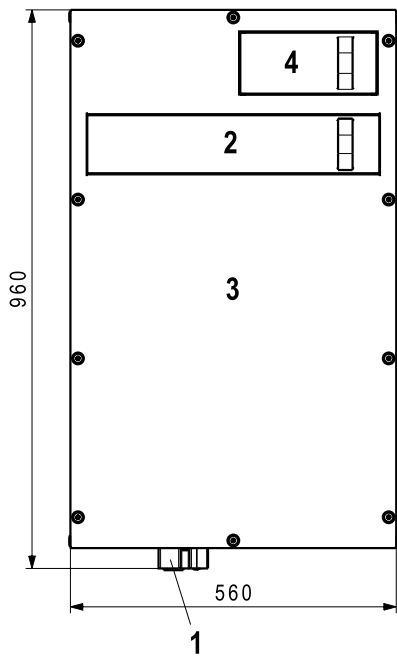
Electrical power consumption HomeVent® comfort FRT (251, 351, 451)



HomeVent® comfort ventilation unit



ZUL = supply air  
 ABL = extract air  
 FOL = exhaust air  
 AUL = fresh air

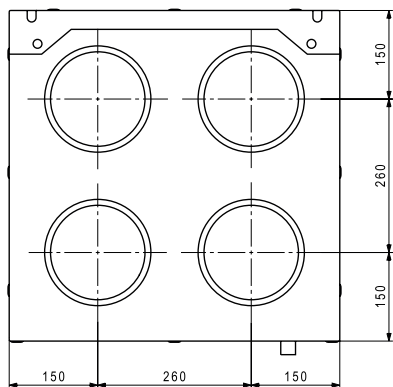
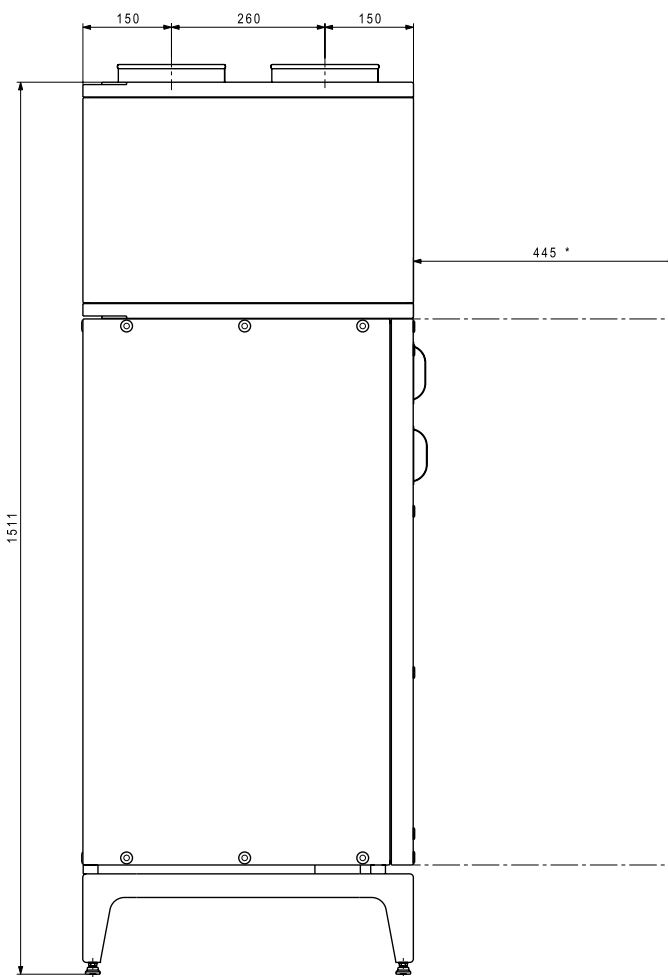
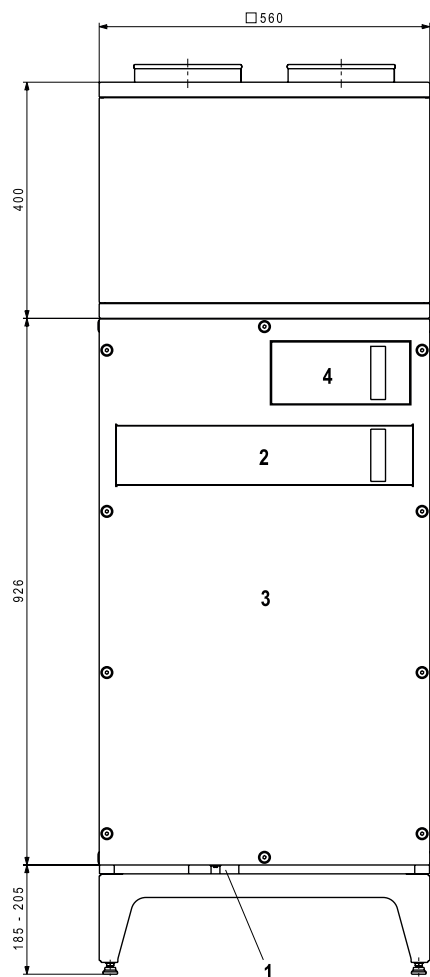


- 1 Electrical connection with microfuse  
Space is required for changing the microfuse.
- 2 Filter cover for supply air filter/extract air filter
- 3 Access panel
- 4 Maintenance cover for prefilter

\* Space requirements for filter change and service tasks



HomeVent® comfort ventilation unit with acoustic insulating box and base



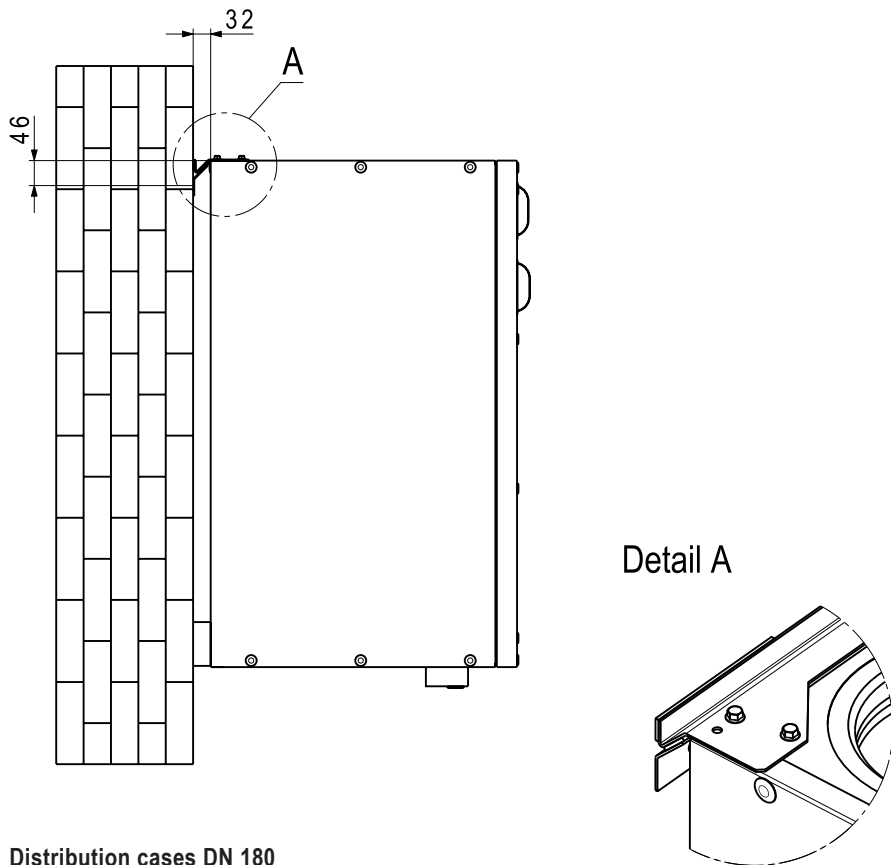
- 1 Electrical connection with microfuse  
Space is required for changing the microfuse.
- 2 Filter cover for supply air filter/extract air filter
- 3 Access panel
- 4 Maintenance cover for prefilter

\* Space requirements for filter change and service tasks

**Space requirements**

**HomeVent® comfort ventilation unit**

Installation with installation set



**Distribution cases DN 180**

**Distribution box VTB-180 18x75**

for HomeVent® comfort FRT (251)  
 Housing made of aluzinc sheet with  
 connection nozzles 2 x DN 180  
 Connection nozzles 18 x DN 75  
 Acoustic insulating unit inside supply  
 and extract air side, access panel  
 Insertable throttle orifices  
 per connection  
 Dimensions: LxWxH: 400 x 560 x 374 mm

