

## Datasheet

For part no. and prices: see pricelist



### **VITOVENT 300-F**

Mechanical ventilation system with heat recovery for demand-dependent mechanical ventilation with purified and heated outdoor air.

For detached houses or apartments.

**Vitovent 300-F to 280 m<sup>3</sup>/h** with integral bypass circuit.

Operation via the Vitotronic 200, type WO1C of the adjacent heat pump, via remote control (heat pump accessories) or Vitotrol app.

## Product description

Mechanical ventilation system for detached houses or apartments with up to 180 m<sup>2</sup> of living space



- (A) Outdoor air
- (B) Vitovent 300-F
- (C) Vitocal 242-S, internal unit
- (D) Vitocal 242-S, external unit
- (E) Extract air valve

- (F) Floor outlet, supply air
- (G) Supply air valve
- (H) Air distribution box, supply air
- (K) Air distribution box, extract air

Fresh outdoor air is drawn in via a wall duct and the outdoor air duct. When it enters the ventilation unit, it is first routed via fine filter F7, purified and then preheated by the countercurrent heat exchanger. The preheated outdoor air is then routed through the pipework to the supply air areas.

The extract air is drawn out of rooms where moisture and odours are created (kitchen, bathroom, WC) through pipes and transported to the ventilation unit. Filters in the extract air valves (accessories) and the extract air filter in the ventilation unit protect the pipework and the heat exchanger against contamination. At the heat exchanger, the extract air preheats the cooler outdoor air according to the countercurrent principle before it is routed out of the building via the exhaust air duct.

## Product description (cont.)

Subject to the temperatures inside and outside the building, heat recovery can be switched off automatically by closing the bypass damper. This enables the inside of the building, e.g. on cooler summer nights, to be cooled by the outdoor air.

Constant flow rate control ensures a defined, constant flow rate on the supply air and extract air side, irrespective of the static pipework pressure.

To dispel any humidity in the home and avoid moisture damage, the ventilation unit must remain permanently on.

To heat supply air, a hydraulic reheater coil (accessories) can be installed in the Vitovent 300-F. This is supplied as direct heating circuit A1/HC1 by the heat pump. A supply air temperature of up to 52 °C is possible.

For heating systems without a heating water buffer cylinder, the heating water buffer cylinder (25 l, accessories) must be installed in the Vitovent 300-F to increase the heating water volume when using the hydraulic reheater coil.

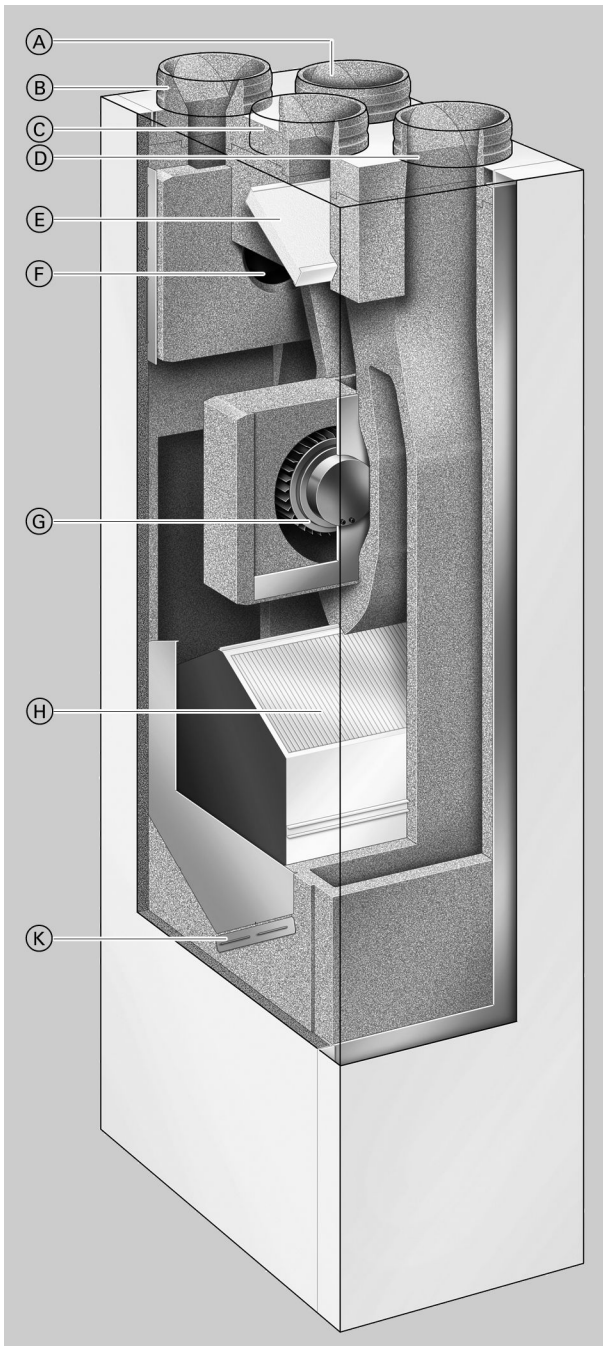
Vitovent 300-F is controlled entirely by the heat pump with heat pump control unit Vitotronic 200, type WO1C. In addition to the operating and time programs, the control parameters for the ventilation unit are also set there. Suitable remote control units are available as accessories for the heat pump.

Vitovent 300-F has active monitoring of the installed supply air and extract air filters. When a filter needs to be changed, this is signalled at the heat pump control unit.

### Passive house use

Vitovent 300-F meets the requirements for passive house use, both for pure ventilation and for supply air heating in conjunction with the heat pump.

## Benefits



- Ⓐ Supply air
- Ⓑ Exhaust air
- Ⓒ Extract air
- Ⓓ Outdoor air
- Ⓔ Extract air filter
- Ⓕ Radial DC fan – exhaust air
- Ⓖ Radial DC fan – supply air
- Ⓗ Countercurrent heat exchanger
- Ⓚ Outdoor air filter

- Ensures comfortable and healthy ambient conditions.
- Reduces unwanted odours.
- Balanced humidity management prevents building damage.
- Closed windows – improved security against burglary and protection against noise.
- Outdoor air filtered with fine filter F7 as standard — important for allergy sufferers.
- Economical DC motors with a constant flow rate and balance control maintain a constant air flow, independent of the static pressure.
- Extremely high heat recovery level of up to 98 % minimises the ventilation heat loss and lowers heating bills.
- Convenient operation via the heat source control unit, remote control optional.
- Time programs for automatic control of ventilation stages.
- With optional hydraulic reheater coil supply air tempering up to 52 °C.
- Suitable for passive houses.
- Active filter monitoring enables the filter to be changed when required and reduces operating costs.

## Specification

### Specification

<b>Max. air flow rate</b>	<b>m<sup>3</sup>/h</b>	<b>280</b>
<b>Max. external pressure drop</b> at max. air flow rate	Pa	170
<b>Factory setting, air flow rate</b>		
Background ventilation (←1→)	m <sup>3</sup> /h	85
Reduced ventilation (←2→)	m <sup>3</sup> /h	120
Nominal ventilation (←3→)	m <sup>3</sup> /h	170
Intensive ventilation (←4→)	m <sup>3</sup> /h	215
<b>Setting ranges for air flow rate</b>		
Background ventilation (←1→)	m <sup>3</sup> /h	85
Reduced ventilation (←2→)	m <sup>3</sup> /h	95 to ←3→ minus 10
Nominal ventilation (←3→)	m <sup>3</sup> /h	105 to 270
Intensive ventilation (←4→)	m <sup>3</sup> /h	←3→ plus 10 to 280
<b>Air intake temperature</b>		
Min.	°C	-20
Max.	°C	35
<b>Casing</b>		
Material		Sheet steel
Colour		Vitosilver/white
Material of moulded parts for noise attenuation and thermal insulation		EPP
<b>Dimensions</b> excluding connectors		
Total length (depth)	mm	680
Total width	mm	400
Total height	mm	1486
<b>Total weight</b>	kg	80
<b>Number of EC radial fans</b>		
With constant flow rate control, inlet on one side only, with forward curved impeller vanes		2
<b>Filter category</b> to DIN EN 779		
Outdoor air filter		F7
Extract air filter		G4
<b>Countercurrent heat exchanger</b>		
Heat recovery level to DiBt	%	up to 98
Heat recovery level to PHI* <sup>1</sup>	%	86
Material		PS plastic
<b>Rated voltage</b>		
		1/N/PE 230 V/50 Hz
<b>Max. power consumption</b>	W	175

## Specification (cont.)

### Sound power level

#### Note

Measuring the sound power level:

- Inside the installation room to EN 13141-7:2011-01 and EN ISO 3741:2009-11 (test rig).
- Inside the pipework to EN 13141-7:2011-01 and EN ISO 5136:2003-10 (test rig).

#### Sound power level, Vitovent 300-F

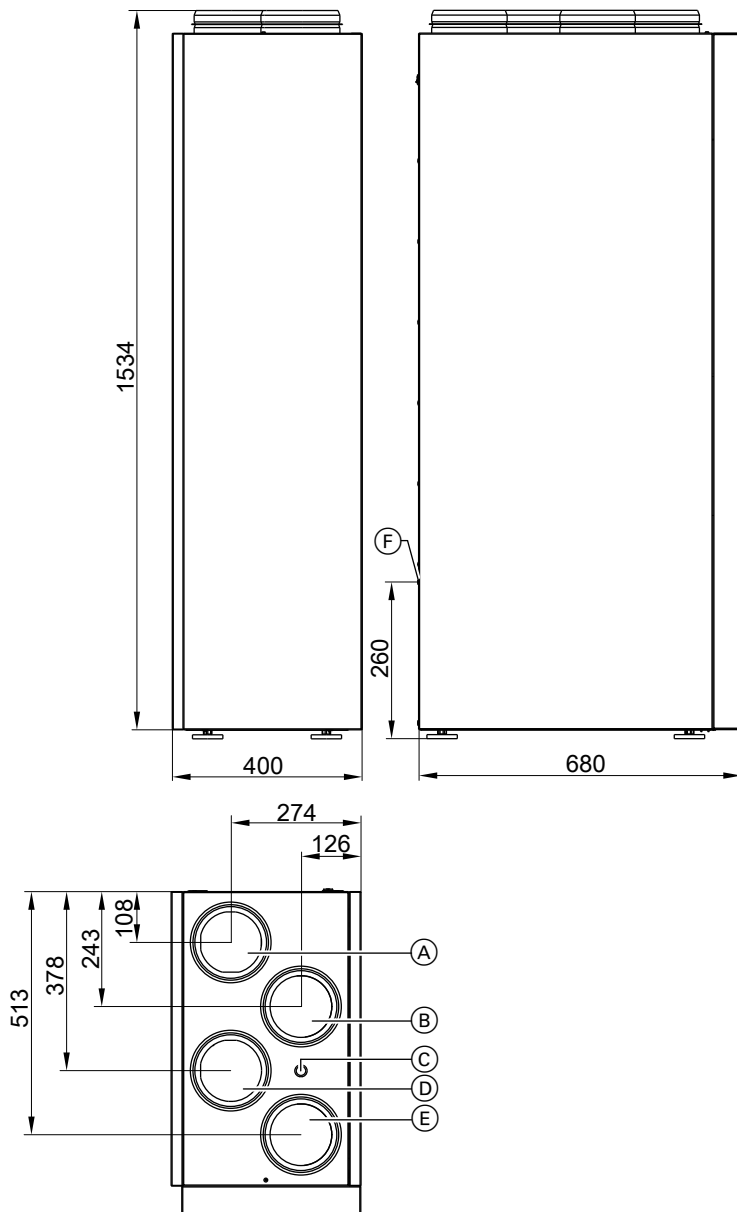
	Ventilation stage	Flow rate in m <sup>3</sup> /h	Pressure drop in pipe-work in Pa	Sound power level in dB at octave centre frequency in Hz								Total
				63	125	250	500	1000	2000	4000	8000	
<b>Vitovent 300-F</b> (measured inside the installation room)	Standard mode (nominal ventilation)	170	100	37.0	39.7	41.1	42.9	41.7	41.1	31.4	22.6	48.5
	Intensive operation	215	169	39.4	43.6	44.6	46.3	46.4	44.8	36.2	26.4	52.4
<b>Outdoor air connector</b>	Standard mode (nominal ventilation)	170	100	36.0	39.6	38.8	37.1	36.7	25.6	15.9	10.9	44.9
	Intensive operation	215	169	50.1	53.7	52.6	50.9	50.5	43.4	32.8	24.0	58.9
<b>Supply air connector</b>	Standard mode (nominal ventilation)	170	100	51.7	52.2	50.4	53.6	56.5	47.3	43.7	38.3	60.8
	Intensive operation	215	169	59.8	66.7	66.3	66.8	68.1	64.8	60.4	57.3	74.2
<b>Extract air connector</b>	Standard mode (nominal ventilation)	170	100	44.5	40.5	38.8	37.0	32.3	23.7	18.3	11.5	47.3
	Intensive operation	215	169	53.0	58.7	54.6	52.2	47.4	44.0	39.5	34.4	61.7
<b>Exhaust air connector</b>	Standard mode (nominal ventilation)	170	100	45.3	45.9	45.2	49.2	51.4	44.2	38.0	30.8	55.6
	Intensive operation	215	169	55.3	61.9	64.4	67.6	71.3	68.1	63.0	60.1	75.2

#### Note

Deviating operating conditions, e.g. a higher pressure drop in the pipe-work or other ventilation stages may lead to higher sound power levels.

## Specification (cont.)

### Dimensions



(A) Exhaust air (DN 160)

(B) Supply air (DN 160)

(C) Cable entry for electric preheater coil (accessories)

(D) Extract air (DN 160)

(E) Outdoor air (DN 160)

(F) Aperture for condensate pipe  
(internal condensate drain elbow, hose connection internal Ø 12 mm)

#### Note

Observe the minimum side clearance when positioning (see Vitovent technical guide).

Subject to technical modifications.

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