

Datasheet

For part no. and prices: see pricelist



VITOVENT 300-C

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

- Wall or ceiling mounting
- Operation via programming unit (remote control)
- Air flow rate up to **150 m³/h**
- Integral automatic bypass and electric preheating coil

Product description

Mechanical ventilation system for apartments with up to 90 m² of living space

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

The extract air is drawn out of rooms where moisture and odours are created (kitchen, bathroom, WC) and then transported to the ventilation unit via the ductwork. There, the extract air is purified by means of a filter to protect the countercurrent heat exchanger. At the heat exchanger, the extract air preheats the cooler outdoor air according to the countercurrent principle and is then routed out of the building via the exhaust air duct.

Heat recovery can be switched off automatically in line with the temperatures inside and outside the building. This is achieved by closing the bypass damper. This enables the inside of the building to be cooled by the outdoor air, e.g. on cooler summer nights.

The constant flow rate control ensures a defined, constant air flow rate on the supply and extract air side, irrespective of the static pressure of the ductwork. The built-in preheating coil ensures balanced operation even at outside temperatures down to about -10 °C and so ensures a consistently high heat recovery level. For operation below this temperature, an additional electric preheating coil (accessories) can be built into the outdoor air duct.

The ventilation unit must always remain switched on to expel any moisture.

Shutting down the system creates a risk of condensation forming inside the ventilation unit and on the building structure (moisture damage).

The ventilation unit features active monitoring of the installed outdoor air and extract air filters. Required filter changes are indicated and will therefore be carried out as necessary.

Operation

All the comfort and energy saving functions of the ventilation unit can be used efficiently with the ventilation programming unit, type LB1 (accessory), e.g. time programs. Additionally, extensive diagnostic functions are available.

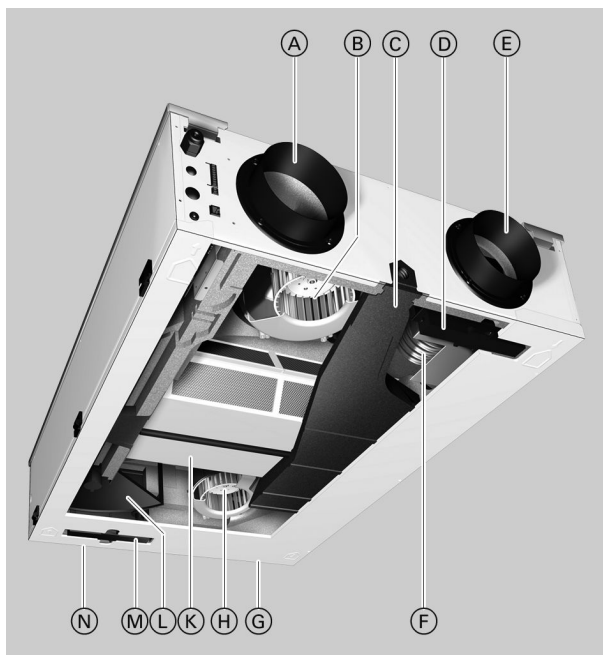
This ventilation unit can be controlled in an integrated system via the control units of the various Viessmann heat generators. The functionality is almost identical to the ventilation programming unit, type LB1. You can also use common control unit accessories.

The Vitotronic 200 heat pump control unit, type WO1C, can be connected via the Vitocal/Vitovent connecting cable (accessories).

Passive house use

Vitovent 300-C meets the requirements for passive house use.

Benefits



- (A) Exhaust air
- (B) Radial DC fan – extract air
- (C) Condensate pan
- (D) Outdoor air filter
- (E) Outdoor air
- (F) Electric preheating coil (fitted at the factory)
- (G) Supply air
- (H) Radial DC fan – supply air
- (K) Countercurrent heat exchanger
- (L) Bypass
- (M) Extract air filter
- (N) Extract air

- Low installed height for installation in recesses or under suspended ceilings
- Ensures thermal comfort and a healthy indoor environment.
- Convenient operation with the Vitotronic 200 control unit of the Vitocal and use of common accessories
- Alternatively, operation via a separate programming unit (accessory)
- Reduced odour nuisance
- Full parameter setting via digital programming unit
- Balanced humidity management prevents building damage.
- More protection against burglary and noise due to closed windows

- Filtering of the outdoor air — 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.
- A very high heat recovery level minimises ventilation heat losses and lowers heating bills.
- Low power consumption during frost protection due to detection of the degree of icing
- Suitable for passive houses
- Wall or ceiling mounting

Benefits (cont.)

Delivered condition

Compact ventilation unit, type H32S B150 with air flow rate up to 150 m³/h: **Part no. Z014591**

- Outdoor air filter and extract air filter G4/G4 to EN 779 (ISO Coarse 65 %/ISO Coarse 65 % to ISO 16890)
- Casing made from white powder coated sheet steel, with sound and thermal insulation
- 2 DC fans with constant flow rate and balance control, commissioning and parameter setting with self-regulating air flow rate
- 4 DN 125 connectors with protection from thermal bridging, for outdoor air, supply air, extract air and exhaust air
- Countercurrent heat exchanger, made from PETG plastic for heat recovery





- Power cable with standard plug
- Accessories for ceiling and wall mounting
- Balance control
- Constant flow rate control
- Automatic summer bypass (100 %), temperature controlled
- Integral electric preheating coil (demand-controlled up to max. 375 W)

Note

A programming unit must be ordered separately to operate the ventilation unit.

Specification

Specification

Max. air flow rate	m³/h	150
Max. external pressure drop at max. air flow rate	Pa	150
Factory setting of air flow rates		
Background ventilation	m ³ /h	30
Reduced ventilation	m ³ /h	75
Nominal ventilation	m ³ /h	100
Intensive ventilation	m ³ /h	125
Setting ranges for air flow rates		
Background ventilation	m ³ /h	0 or 30
Reduced ventilation	m ³ /h	30 to 150
Nominal ventilation	m ³ /h	30 to 150
Intensive ventilation	m ³ /h	30 to 150
Air intake temperature		
Min.	°C	-20
Max.	°C	35
Casing		
Material		Sheet steel
Colour		White
Material of profiles for noise attenuation and thermal insulation		EPS plastic
Dimensions excluding connectors		
Total length (depth)	mm	1000
Total width	mm	660
Total height	mm	198
Total weight	kg	24.5
Number of radial DC fans		
With constant flow rate control, inlet on one side only, with backward curved impeller vanes		2
Filter class to EN 779 (ISO 16890)		
Outdoor air filter (delivered condition/accessories)		G4 (ISO Coarse 65 %)/ F7 (ISO ePM1 70 %)
Extract air filter (delivered condition/accessories)		G4/G4 (ISO Coarse 65 %)
Heat recovery		
Heat recovery level to DIBt	%	87 (up to 89)
Heat recovery level to PHI	%	84
Material of countercurrent heat exchanger		PETG plastic
Rated voltage		
		1/N/PE 230 V/50 Hz
Specific power consumption to DIBt	W/(m³/h)	0.39
Max. power consumption		
Operation without preheating coil	W	72
Operation with integral electric preheating coil	W	447
Energy efficiency class to EU Regulation no. 1254/2014		
– Manual control		—
– Time control		A
– Central demand control		A
– Control according to local demand		A

Specification (cont.)

Sound power in the installation room

Note

Measured inside the installation room in accordance with EN ISO 3741:2010.

Different values may result in the installation areas (due to specific room conditions). Consequently, this measurement cannot replace the correct engineering of the overall system.

Filter (outdoor air/extract air)	Air flow rate in m ³ /h	Pressure drop in duct-work in Pa	Sound power level								Total in dB(A) up to
			in dB at octave centre frequency in Hz								
			63	125	250	500	1000	2000	4000	8000	
G4/G4	45	10	43.6	36.2	27.3	24.3	19.9	12.1	15.0	19.0	27.0
G4/G4	75	25	45.2	43.8	36	27.8	27.3	16.1	15.2	19.0	33.0
G4/G4	45	50	44.3	45.8	36.4	28.3	27.8	16.9	15.3	19.0	33.0
G4/G4	75	50	47.2	46.8	39.0	30.2	29.6	17.7	15.5	19.1	35.0
G4/G4	105	50	46.6	48.7	43.0	33.7	32.9	21.3	16.5	19.1	38.0
G4/G4	150	50	49.5	54.3	49.7	40.7	36.6	27.8	19.8	19.3	44.0
G4/G4	45	100	47.9	53.2	42.0	34.4	33.5	23.1	17.1	19.1	39.0
G4/G4	75	100	48.5	51.0	44.4	36.0	32.6	22.0	16.8	19.1	40.0
G4/G4	105	100	48.7	52.1	45.4	37.0	34.6	24.5	18.0	19.1	41.0
G4/G4	150	100	52.4	56.2	50.2	41.5	37.5	29.8	21.1	19.4	45.0
F7/G4	100	50	50.6	55.6	46.0	38.3	34.9	26.2	19.5	19.3	42.0
F7/G4	100	100	52.7	56.9	47.7	38.7	35.8	35.8	27.0	19.7	44.0

Filter types to ISO 16890

G4 = ISO Coarse 65 %

F7 = ISO ePM1 70 %

M5 = ISO ePM10 50 %

Sound power at the connectors

Note

Sound power measured in accordance with EN ISO 3741:2010

Supply air connector

Filter (outdoor air/extract air)	Air flow rate in m ³ /h	Pressure drop in duct-work in Pa	Sound power level								Total in dB(A) up to
			in dB at octave centre frequency in Hz								
			63	125	250	500	1000	2000	4000	8000	
G4/G4	45	10	48.2	40.8	38.0	38.0	38.2	29.0	20.8	19.3	41.0
G4/G4	75	25	54.1	48.5	47.1	44.6	48.3	40.6	33.3	24.0	50.0
G4/G4	45	50	56.5	48.5	47.5	44.5	46.5	40.7	33.9	24.9	49.0
G4/G4	75	50	57.1	51.7	49.5	47.2	51.5	43.2	37.1	27.8	53.0
G4/G4	105	50	59.5	53.8	53.4	50.7	55.4	47.4	42.3	34.2	57.0
G4/G4	150	50	62.3	59.6	60.5	56.7	59.3	53.6	49.4	43.2	62.0
G4/G4	45	100	63.7	57.1	54.0	50.8	55.4	51.1	45.7	39.1	58.0
G4/G4	75	100	61.3	57.1	54.6	51.6	55.2	47.7	42.7	35.0	57.0
G4/G4	105	100	62.2	57.9	56.1	53.6	57.9	51.3	46.7	39.9	60.0
G4/G4	150	100	64.9	61.2	62.2	59.6	60.5	56.9	52.4	46.9	64.0
F7/G4	105	50	65.4	59.1	58.1	55.7	58.8	53.6	49.0	43.0	62.0
F7/G4	100	100	66.4	61.5	60.0	57.2	59.4	55.3	50.6	45.1	63.0

Filter types to ISO 16890

G4 = ISO Coarse 65 %

F7 = ISO ePM1 70 %

M5 = ISO ePM10 50 %

Specification (cont.)

Extract air connector

Filter (outdoor air/extract air)	Air flow rate in m ³ /h	Pressure drop in duct-work in Pa	Sound power level								Total in dB(A) up to
			in dB at octave centre frequency in Hz								
			63	125	250	500	1000	2000	4000	8000	
G4/G4	45	10	42.3	34.0	27.9	23.7	18.7	11.9	15.1	19.1	27.0
G4/G4	75	25	43.5	42.8	36.9	31.0	28.3	16.5	15.4	19.1	34.0
G4/G4	45	50	42.5	42.5	39.8	32.5	30.5	17.2	15.6	19.1	36.0
G4/G4	75	50	41.2	44.3	40.6	33.5	30.4	18.2	15.9	19.1	37.0
G4/G4	105	50	41.2	46.0	43.6	37.1	34.4	22.3	17.5	19.2	40.0
G4/G4	150	50	44.7	50.5	51.0	44.0	38.8	28.7	21.6	19.7	46.0
G4/G4	45	100	44.9	48.3	45.8	38.0	36.3	24.5	18.5	19.2	42.0
G4/G4	75	100	43.5	47.2	47.8	39.5	34.7	22.3	17.5	20.5	42.0
G4/G4	105	100	43.7	48.5	48.1	40.4	36.7	25.6	19.4	19.3	43.0
G4/G4	150	100	43.1	51.9	52.0	45.3	39.8	30.9	23.3	20.1	47.0
F7/G4	105	50	42.6	48.9	45.1	39.2	35.1	25.7	20.1	19.5	42.0
F7/G4	100	100	43.5	51.0	48.4	41.7	36.8	28.0	21.5	19.9	44.0

Filter types to ISO 16890

G4 = ISO Coarse 65 %

F7 = ISO ePM1 70 %

M5 = ISO ePM10 50 %

Outdoor air connector

Filter (outdoor air/extract air)	Air flow rate in m ³ /h	Pressure drop in duct-work in Pa	Sound power level								Total in dB(A) up to
			in dB at octave centre frequency in Hz								
			63	125	250	500	1000	2000	4000	8000	
G4/G4	105	50	42.5	49.8	49.1	42.4	35.0	29.0	21.9	19.4	44.0
G4/G4	101	100	44.8	51.7	51.4	44.2	36.5	29.7	22.6	19.5	46.0

Filter types to ISO 16890

G4 = ISO Coarse 65 %

F7 = ISO ePM1 70 %

M5 = ISO ePM10 50 %

Exhaust air connector

Filter (outdoor air/extract air)	Air flow rate in m ³ /h	Pressure drop in duct-work in Pa	Sound power level								Total in dB(A) up to
			in dB at octave centre frequency in Hz								
			63	125	250	500	1000	2000	4000	8000	
G4/G4	105	50	57.1	53.6	53.3	50.6	55.0	46.4	41.4	31.5	57.0
G4/G4	101	100	61.4	56.3	55.4	52.5	57.2	50.4	45.5	37.6	59.0

Filter types to ISO 16890

G4 = ISO Coarse 65 %

F7 = ISO ePM1 70 %

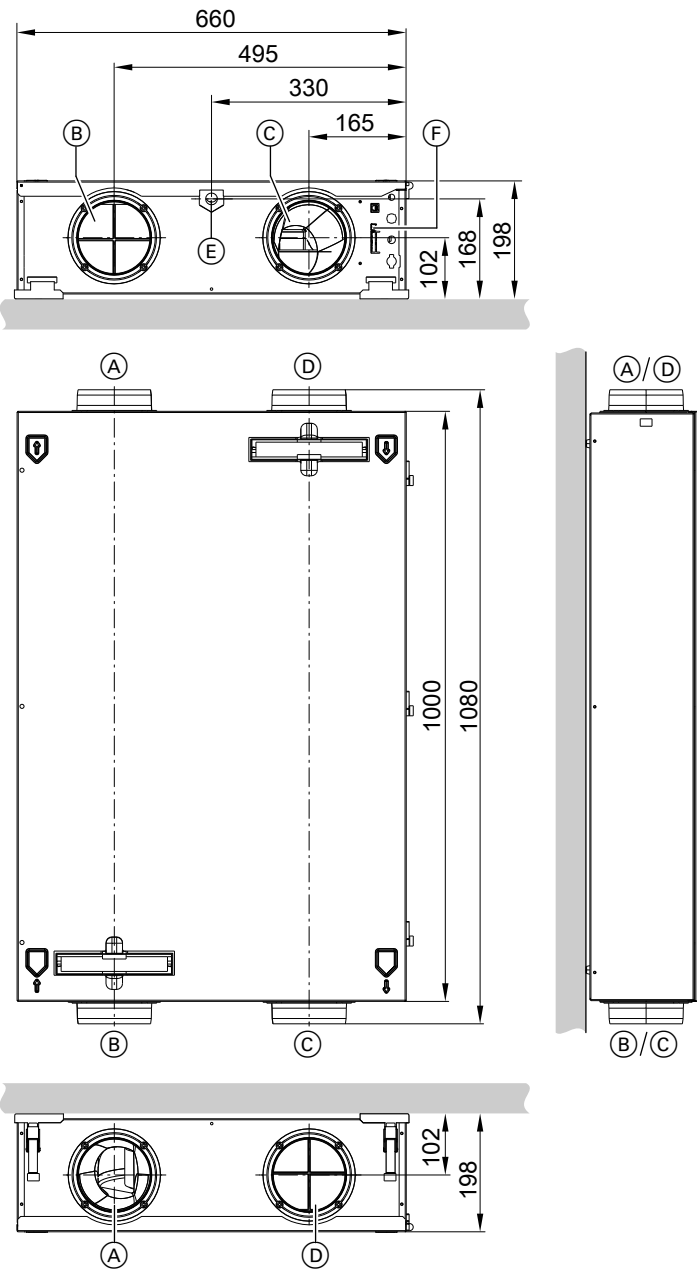
M5 = ISO ePM10 50 %

Note

Other operating conditions, e.g. a higher pressure drop in the duct-work or a higher air flow rate may lead to different sound power levels.

Specification (cont.)

Dimensions



Connection			Symbol
(A)	Supply air	DN 125	
(B)	Outdoor air	DN 125	
(C)	Exhaust air	DN 125	
(D)	Extract air	DN 125	
(E)	Condensate drain (connection piece for on-site condensate pipe supplied)	Female ¾	—
(F)	Electrical terminal area		—

Subject to technical modifications.

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