

VITOVENT 300-C Central mechanical ventilation system with heat recovery

# 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 m<sup>3</sup>/h
- Integral automatic bypass and electric preheating coil

# Product description

# Mechanical ventilation system for apartments with up to 90 m<sup>2</sup> 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.

**Benefits** 



- 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 (acces-
- sory)
- 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

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.

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

- 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

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# Benefits (cont.)

# **Delivered condition**

Compact ventilation unit, type H32S B150 with air flow rate up to 150 m<sup>3</sup>/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. external pressure drop at max. air flow rate     Pa     150       Factory setting of air flow rates     30       Background ventilation     m <sup>3</sup> /h     30       Reduced ventilation     m <sup>3</sup> /h     125       Setting ranges for air flow rates     50       Background ventilation     m <sup>3</sup> /h     125       Background ventilation     m <sup>3</sup> /h     0 or so       Reduced ventilation     m <sup>3</sup> /h     0 or so       Reduced ventilation     m <sup>3</sup> /h     30 to 150       Nonnial ventilation     m <sup>3</sup> /h     30 to 150       Ar intake temperature	Max. air flow rate	m³/h	150
Factory setting of air flow rates       m <sup>3</sup> /h         Background ventilation       m <sup>3</sup> /h         Nominal ventilation       m <sup>3</sup> /h         Intensive ventilation       m <sup>3</sup> /h         Intensive ventilation       m <sup>3</sup> /h         Background ventilation       m <sup>3</sup> /h         Background ventilation       m <sup>3</sup> /h         Nominal ventilation       m <sup>3</sup> /h         Nominal ventilation       m <sup>3</sup> /h         Nominal ventilation       m <sup>3</sup> /h         Stoting ranges for air flow rates       main ventilation         Background ventilation       m <sup>3</sup> /h         Nominal ventilation       m <sup>3</sup> /h         Stoting ranges for air flow rates       main ventilation         Material       Stoting ranges         Casing       C       -20         Material       Stheet steel         Colour       White       White         Dimensions excluding connectors       mm         Total weight       mm       1000         Total weight       kg       24.5         Vultor or radial DC fans       g       44 (ISO Coarse 65 %)         Fitter class to EN 779 (ISO 16809)       C4 (ISO Coarse 65 %)       F7 (ISO ePM1 70 %)         Outdoor air fitter (delivered condition/accessories)	Max. external pressure drop at max. air flow rate	Ра	150
Background verifilation m <sup>3</sup> /h 30 Reduced verifilation m <sup>3</sup> /h 75 Nominal verifilation m <sup>3</sup> /h 125 Setting ranges for air flow rates Background verifilation m <sup>3</sup> /h 00 or 30 Reduced verifilation m <sup>3</sup> /h 00 or 30 Nominal verifilation m <sup>3</sup> /h 30 to 150 Nominal verifilation m <sup>3</sup> /h 30 to 150 Air intake temperature Min. °C 335 Casing Material of profiles for noise attenuation and thermal insulation Casing White Dimensione sectualing connectors Total ength (depth) mm 660 Total width mm 660 Total width more tor casing sectualing connectors Total ength (depth) mm 660 Total width mm 660 Total width mm 198 Total width mm 660 Total width mm 198 Total width mm 660 Total width mo 770 Total wi	Factory setting of air flow rates		
Reduced ventilation m <sup>3</sup> /h 75 Nominal ventilation m <sup>3</sup> /h 100 Intensive ventilation m <sup>3</sup> /h 125 Setting ranges for air flow rates Background ventilation m <sup>3</sup> /h 0 or 33 Reduced ventilation m <sup>3</sup> /h 30 to 150 Nominal ventilation m <sup>3</sup> /h 30 to 150 Intensive ventilation m <sup>3</sup> /h 30 to 150 Air intake temperature Min. °C 4-20 Max. °C 35 Casing Material Sheet steel Colour Max, °C 35 Casing Material of profiles for noise attenuation and thermal insulation EPS plastic Dimensions excluding connectors Total weight Now rate control, inlet on one side only, with backward curved impel- ler vanes Filter class to EN 779 (ISO 16890) Outdoor air filter (delivered condition/accessories) Extract air filter (delivered condition/accessories) Extract air filter (delivered condition/accessories) Extract air filter (delivered condition/accessories) Cutdoor air filter (delivered condition/accessories) Filter class to EN 779 (ISO 16890) Outdoor air filter (delivered condition/accessories) Filter class to EN 779 (ISO 16890) Outdoor air filter (delivered condition/accessories) Filter class to EN 779 (ISO 16890) Outdoor air filter (delivered condition/accessories) Filter class to EN 779 (ISO 16890) Outdoor air filter (delivered condition/accessories) Filter class to EN 779 (ISO 16890) Outdoor air filter (delivered condition/accessories) Filter class to EN 779 (ISO 16890) Outdoor air filter (delivered condition/accessories) Filter class to EN 779 (ISO 16890) Outdoor air filter (delivered condition/accessories) Filter class to EN 779 (ISO 16890) Outdoor air filter (delivered condition/accessories) Filter class to EN 779 (ISO 16890) Outdoor air filter (delivered condition/accessories) Filter class to EN 779 (ISO 16890) Outdoor air filter (delivered condition/accessories) Filter class to EN 779 (ISO 16890) Outdoor air filter (delivered condition/accessories) Filter class to EN 779 (ISO 16890) Outdoor air filter (delivered condition/accessories) Filter class to EN 779 (ISO 16890) Control according to locat demant on 1254/2014 - Manual control Control a	Background ventilation	m³/h	30
Nominal ventilation m <sup>3</sup> /h 100 Intensive ventilation m <sup>3</sup> /h 125 Setting ranges for air flow rates Background ventilation m <sup>3</sup> /h 0 or 30 Reduced ventilation m <sup>3</sup> /h 30 to 150 Nominal ventilation m <sup>3</sup> /h 30 to 150 Air intake temperature Min. °C20 Max. °C20 Max. °C20 Max. °C20 Material for forlies for noise attenuation and thermal insulation Dimensions excluding connectors Total length (depth) mm 1000 Total width mm 1000 Total width mm 1000 Total width mm 1000 Total width mm 1000 Total wight Now rate control, linet on one side only, with backward curved impel- ter vanes Filter class to EN 779 (ISO 16800) Outdoor air filter (delivered condition/accessories) Extract air filter (delivered condition/accessories) Cated vidtage Total width W Totage Total width Conter consumption Control acconsumption to DIBt W/(m <sup>3</sup> /h) 0.0.39 Max. power consumption to DIBt W/(M <sup>3</sup> /h) 0.	Reduced ventilation	m³/h	75
Intensive ventilation m <sup>2</sup> /h 125 Setting ranges for air flow rates Background ventilation m <sup>3</sup> /h 0 or 30 Reduced ventilation m <sup>3</sup> /h 30 to 150 Intensive ventilation m <sup>3</sup> /h 30 to 150 Air intake temperature Min. °C	Nominal ventilation	m³/h	100
Setting ranges for all flow rates       m³/h       0 or 30         Background ventiliation       m³/h       0 or 30         Nominal ventiliation       m³/h       30 to 150         Intensive ventiliation       m²/h       30 to 150         Air intake temperature       °C	Intensive ventilation	m³/h	125
Background ventilation m <sup>3</sup> /h 0 or 30 Reduced ventilation m <sup>3</sup> /h 30 to 150 Intensive ventilation m <sup>3</sup> /h 30 to 150 Air intake temperature Min. °C -20 Max. Spectra temperature Colour White Material of profiles for noise attenuation and thermal insulation EPS plastic Dimensions excluding connectors Total length (depth) mm 1000 Total widh mm 660 Total height (depth) mm 198 Filter class to EN 779 (ISO 16890) Outdoor air filter (delivered condition/accessories) Extract air filter (delivered condition/accessories) Extract air filter (delivered condition/accessories) Heat recovery level to DIBt % 87 (up to 89) Heat recovery level to DIBt % 87 (up to 89) Heat recovery level to DIBt % 87 (up to 89) Material of countercurrent heat exchanger PETG plastic Rated voltage 1/V/PE Specific power consumption to DIBt W/(m <sup>3</sup> /h) 0.0.39 Max, power consumption to DIBt W/(m <sup>3</sup> /h) 0.0.39 Max, power consumption co.1254/2014 - - Manual control . Control accessories to EU R772 (EU Regulation no. 1254/2014 - - Manual control . Control accessories to EU R772 (Conserver) Control accessories to EU R772 (Conserver) Control accessories to EU R772 (Conserver) Material of consumption to DIBt W/(m <sup>3</sup> /h) 0.0.39 Max, power consumption to DIBt W/(m <sup>3</sup> /h) 0.0.39 Max (Control Control Co	Setting ranges for air flow rates		
Reduced ventilation       m³/h       30 to 150         Nominal ventilation       m³/h       30 to 150         Air intake temperature       m²/h       30 to 150         Min.       °C       -20         Max.       °C       -20         Max.       °C       -35         Casing       Material       Sheet steel         Color       White       EPS plastic         Dimensions excluding connectors       mm       1000         Total length (depth)       mm       1000         Total length (depth)       mm       1000         Total width       mm       188         Total width       mm       188         Total weight       kg       24.5         Number of radial DC fans       2       2         Filter class to EN 779 (ISO 16890)       G4 (ISO Coarse 65 %)/       F7 (ISO ePM1 70 %)         Cutdoor air filter (delivered condition/accessories)       G4 (ISO Coarse 65 %)/       F7 (ISO ePM1 70 %)         Extract air filter (delivered condition/accessories)       G4 (ISO Coarse 65 %)/       F7 (ISO ePM1 70 %)         Leat recovery level to DIBt       %       87 (up to 89)       84         Heat recovery level to DIBt       %       87 (up to 89)       87	Background ventilation	m³/h	0 or 30
Nominal ventilation m <sup>3</sup> /h 30 to 150 Intensive ventilation m <sup>3</sup> /h 30 to 150 Air intake temperature Min. °C20 Max. °C30 Material Colour °C30 Material Or profiles for noise attenuation and thermal insulation EPS plastic Dimensions excluding connectors Total length (depth) mm 1000 Total width mm 1000 Total width mm 660 Total weight K kg 244.5 Number of radial DC fans %g 244.5 Number of radial CF fans %g 244.5 Number of radial DC fans %G 64 (ISO Coarse 65 %)/ Friter class to EN 779 (ISO 16890) Outdoor air filter (delivered condition/accessories) %G 44 (ISO Coarse 65 %)/ Fztract air filter (delivered condition/accessories) %G 87 (up to 89) Heat recovery level to DIBt % 87 (up to 89) Heat recovery level to DIBt % 87 (up to 89) Heat recovery level to DIBt % 87 (up to 89) Material of countercurrent heat exchanger %G 87 (up to 89) Material of countercurent heat exchanger %G 72 Operation with utprateleticr preheating coil W 72 Operation with integral electric preheating coil	Reduced ventilation	m³/h	30 to 150
Intensive ventilation m³/h 30 to 150 Air intake temperature Min. °C	Nominal ventilation	m³/h	30 to 150
Air intake temperature       "C       -20         Min.       "C       -20         Max.       "C       35         Casing       Sheet steel         Material       Sheet steel         Colour       White         Material of profiles for noise attenuation and thermal insulation       EPS plastic         Dimensions excluding connectors       mm         Total leight (depth)       mm       1000         Total width       mm       660         Total weight       kg       24.5         Number of radial DC fans       2       2         With constant flow rate control, inlet on one side only, with backward curved impeller vanes       2         Filter class to EN 779 (ISO 16890)       G4 (ISO Coarse 65 %)/         Cutdoor air filter (delivered condition/accessories)       G4 (ISO Coarse 65 %)/         Extract air filter (delivered condition/accessories)       G4 (ISO Coarse 65 %)/         Heat recovery       Wel to DIBt       %       84         Material of countercurrent heat exchanger       PETG plastic         Rated voltage       1/N/PE       230 V/50 Hz         Specific power consumption to DIBt       W       72         Operation with integral electric preheating coil       W       72	Intensive ventilation	m³/h	30 to 150
Min. °C (35) Max. °C 35) Material °C (35) Material of profiles for noise attenuation and thermal insulation EPS plastic Dimensions excluding connectors Total length (depth) mm 1000 Total width mm 660 Total weight %g 244.5 Number of radial DC fans 2 With constant flow rate control, inlet on one side only, with backward curved impel- ler vanes Filter class to EN 779 (ISO 16890) Outdoor air filter (delivered condition/accessories) G4 (ISO Coarse 65 %)/ F7 (ISO ePM1 170 %) Extract air filter (delivered condition/accessories) G4 (ISO Coarse 65 %)/ Heat recovery level to DIBt % 87 (up to 89) Heat recovery level to DIBt % 87 (up to 89) Heat recovery level to DIBt % 87 (up to 89) Material of countercurrent heat exchanger PETG plastic Rated voltage 11/N/PE Specific power consumption to DIBt W/(m³/h) 0.39 Max. power consumption to DIBt M/(m³/h) 0.39 Max. power consumption to DIBt M/(m³/h) 0.447 Energy efficiency class to EU Regulation no. 1254/2014 M/(m³/h) 0.447 Energy efficiency class to EU Regulation no. 1254/2014 M/(m³/h) A/(m3/h) A/(m3/	Air intake temperature		
Max.       °C       35         Casing       Sheet steel         Material       Sheet steel         Colour       Mine         Material of profiles for noise attenuation and thermal insulation       EPS plastic         Dimensions excluding connectors       mm         Total length (depth)       mm       1000         Total width       mm       660         Total weight       kg       24.5         Number of radial DC fans       2         With constant flow rate control, inlet on one side only, with backward curved impeller vanes       2         Filter class to EN 779 (ISO 16890)       G4 (ISO Coarse 65 %)/         Outdoor air filter (delivered condition/accessories)       G4 (ISO Coarse 65 %)/         Extract air filter (delivered condition/accessories)       G4 (ISO Coarse 65 %)/         Leat recovery       G4 (ISO Coarse 65 %)/         Heat recovery level to DIBt       %       87 (up to 89)         Heat recovery level to DIBt       %       84         Rated voltage       1/N/PE       230 V/IS0 Hz         Zerovery level to DIBt       %       230 V/IS0 Hz         Specific power consumption to DIBt       W/(m³/h)       0.39         Max. power consumption to DIBt       W       72	Min.	°C	-20
Casing Material Colour       Sheet steel White Material of profiles for noise attenuation and thermal insulation       Sheet steel White EPS plastic         Dimensions excluding connectors Total length (depth)       mm       1000         Total length (depth)       mm       198         Total length (depth)       mm       198         Total width       mm       198         Total weight       kg       24.5         Number of radial DC fans       kg       24.5         With constant flow rate control, inlet on one side only, with backward curved impel- ler vanes       2         Filter class to EN 779 (ISO 16890)       G4 (ISO Coarse 65 %)/ F7 (ISO ePM1 70 %) G4/G4       G4 (ISO Coarse 65 %)/ F7 (ISO ePM1 70 %) G4/G4         Extract air filter (delivered condition/accessories)       %       87 (up to 89)         Heat recovery level to DIBt       %       87 (up to 89)         Heat recovery level to DIBt       %       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 o       W       447         Coperation with integral electric preheating coil       W       447         Energy efficiency class to EU Regu	Max.	°C	35
Material d profiles for noise attenuation and thermal insulation Dimensions excluding connectors Total length (depth) Total width Total weight Total so that rate control, inlet on one side only, with backward curved impel- ler vanes Filter class to EN 779 (ISO 16890) Outdoor air filter (delivered condition/accessories) Extract air filter (delivered condition/accessories)  Extract air filter clevery Heat recovery level to DIBt Heat recovery level to DIBt Rated voltage Total voltage Total weight Specific power consumption to DIBt W/(m <sup>3</sup> /h) Cogration with utpraheating coil Cogration with integral electric preheating coil Cogration with integral electric preheating coil Cogration with integral electric preheating coil Cogration Cogration with integral electric preheating coil Cogration Cogration with outpraheating coil Cogration Cogration with integral electric preheating coil Cogration Cogration with integral electric preheating coil Cogration Cogration with integral electric preheating coil Cogration Cograti Cogration Cogration Cograt	Casing		
Colour     White       Material of profiles for noise attenuation and thermal insulation     EPS plastic       Dimensions excluding connectors     mm       Total length (depth)     mm       Total length (depth)     mm       Total length     mm       State (depth)     mm       Total length     mm       Total length     mm       Total weight     kg       Total veight     kg       Total veight     24.5       Number of radial DC fans     2       With constant flow rate control, inlet on one side only, with backward curved impeller vanes     2       Filter class to EN 779 (ISO 16890)     G4 (ISO Coarse 65 %)/       Outdoor air filter (delivered condition/accessories)     G4 (ISO Coarse 65 %)       Extract air filter (delivered condition/accessories)     G4 (ISO Coarse 65 %)       For (ISO ePM1 70 %)     G4/G4       (ISO coarse 65 %)     F7 (ISO ePM1 70 %)       Heat recovery     87 (up to 89)       Heat recovery level to DIBt     %       Material of countercurrent heat exchanger     PETG plastic       Rated voltage     1/N/PE       Specific power consumption to DIBt     W/(m³/h)       Operation with integral electric preheating coil     W       Operation with integral electric preheating coil     W       Oper	Material		Sheet steel
Material of profiles for noise attenuation and thermal insulation       EPS plastic         Dimensions excluding connectors       mm         Total length (depth)       mm         Total length (depth)       mm         Total width       mm         Total weight       kg         Number of radial DC fans       2         With constant flow rate control, inlet on one side only, with backward curved impeller vanes       2         Filter class to EN 779 (ISO 16890)       G4 (ISO Coarse 65 %)/         Outdoor air filter (delivered condition/accessories)       G4 (ISO Coarse 65 %)/         Extract air filter (delivered condition/accessories)       G4/G4         Heat recovery       (ISO Coarse 65 %)         Heat recovery level to DIBt       %         Material of countercurrent heat exchanger       PETG plastic         Rated voltage       1/N/PE         Specific power consumption       V((m³/h)         Operation without preheating coil       W         Operation with out preheating coil       W         Operation with integral electric preheating coil       W         - Manual control       Image: Control Control         - Centrol according to local demand       TC	Colour		White
Dimensions excluding connectors       mm       1000         Total length (depth)       mm       1000         Total weight       mm       198         Total weight       kg       24.5         Number of radial DC fans       2         With constant flow rate control, inlet on one side only, with backward curved impeller vanes       2         Filter class to EN 779 (ISO 16890)       G4 (ISO Coarse 65 %)/         Outdoor air filter (delivered condition/accessories)       G4 (ISO Coarse 65 %)/         Extract air filter (delivered condition/accessories)       G4 (ISO Coarse 65 %)/         Heat recovery       (ISO Coarse 65 %)         Heat recovery level to DIBt       %         Material of countercurrent heat exchanger       PETG plastic         Rated voltage       1/N/PE         230 V/S0 Hz       230 V/S0 Hz         Deparation with integral electric preheating coil       W         Operation with integral electric preheating coil       W         Manual control       ©         - Time control       A         - Central demand control       ©         - Control according to local demand       (ST)	Material of profiles for noise attenuation and thermal insulation		EPS plastic
Total length (depth)       mm       1000         Total width       mm       660         Total weight       mm       198         Total weight       kg       24.5         Number of radial DC fans       2         With constant flow rate control, inlet on one side only, with backward curved impeller vanes       2         Filter class to EN 779 (ISO 16890)       G4 (ISO Coarse 65 %)/         Outdoor air filter (delivered condition/accessories)       G4 (ISO Coarse 65 %)/         Extract air filter (delivered condition/accessories)       G4/G4         Heat recovery       (ISO Coarse 65 %)         Heat recovery level to DIBt       %       87 (up to 89)         Heat recovery level to DIBt       %       84 (INV to 89)         Heat recovery level to PHI       %       84 (INV to 89)         Bacterial of countercurrent heat exchanger       PETG plastic         Rated voltage       1/N/PE       230 V/S0 Hz         Specific power consumption       W       33         Operation with integral electric preheating coil       W       447         — Manual control       @       —         — Time control       @       —         — Centrol according to local demand       @       —	Dimensions excluding connectors		
Total width     mm     660       Total height     mm     198       Total weight     kg     24.5       Number of radial DC fans     2       With constant flow rate control, inlet on one side only, with backward curved impeller vanes     2       Filter class to EN 779 (ISO 16890)     G4 (ISO Coarse 65 %)/       Outdoor air filter (delivered condition/accessories)     G4 (ISO Coarse 65 %)/       Extract air filter (delivered condition/accessories)     G4/G4       (ISO Coarse 65 %)     F7 (ISO ePM1 70 %)       Extract air filter (delivered condition/accessories)     G4/G4       Heat recovery     (ISO Coarse 65 %)       Heat recovery level to DIBt     %       Heat recovery level to PHI     %       Material of countercurrent heat exchanger     PETG plastic       Rated voltage     1/N/PE       Specific power consumption to DIBt     W/(m³/h)       Operation with integral electric preheating coil     W       Operation with integral electric preheating coil     W       — Nanual control     @       — Time control     @       — Central demand control     @       — Control according to local demand     ???	Total length (depth)	mm	1000
Total weight       mm       198         Total weight       kg       24.5         Number of radial DC fans       2         With constant flow rate control, inlet on one side only, with backward curved impeller vanes       2         Filter class to EN 779 (ISO 16890)       G4 (ISO Coarse 65 %)/         Outdoor air filter (delivered condition/accessories)       G4 (ISO Coarse 65 %)/         Extract air filter (delivered condition/accessories)       G4/G4         Heat recovery       (ISO Coarse 65 %)         Heat recovery level to DIBt       %         Heat recovery level to DBt       %         Heat recovery level to PHI       %         Rated voltage       1/N/PE         Zolv/S0 HZ       230 V/S0 HZ         Specific power consumption to DIBt       W/(m³/h)       0.39         Max. power consumption       W       72         Operation with integral electric preheating coil       W       447         – Manual control       ©       –         – Time control       ©       –         – Central demand control       ©       –         – Control according to local demand       G?       A	Total width	mm	660
Total weight       kg       24.5         Number of radial DC fans       2         With constant flow rate control, inlet on one side only, with backward curved impeller vanes       2         Filter class to EN 779 (ISO 16890)       G4 (ISO Coarse 65 %)/ F7 (ISO ePM1 70 %)         Outdoor air filter (delivered condition/accessories)       G4 (ISO Coarse 65 %)/ F7 (ISO ePM1 70 %)         Extract air filter (delivered condition/accessories)       G4/G4         Heat recovery       (ISO Coarse 65 %)/ Heat recovery level to DIBt         Heat recovery level to DIBt       %         Heat recovery level to PHI       %         Rated voltage       1/N/PE         Specific power consumption to DIBt       W/(m³/h)       0.39         Max. power consumption       72         Operation with integral electric preheating coil       W       447         — Manual control       @       —         — Time control       @       —         — Central demand control       ?       —         — Control according to local demand       ??       A	Total height	mm	198
Number of radial DC fans       2         With constant flow rate control, inlet on one side only, with backward curved impeller vanes       2         Filter class to EN 779 (ISO 16890)       G4 (ISO Coarse 65 %)/         Outdoor air filter (delivered condition/accessories)       G4 (ISO Coarse 65 %)/         Extract air filter (delivered condition/accessories)       G4 (ISO Coarse 65 %)/         Heat recovery       (ISO Coarse 65 %)/         Heat recovery level to DIBt       %         Material of countercurrent heat exchanger       PETG plastic         Rated voltage       1/N/PE         Specific power consumption to DIBt       W/(m³/h)       0.39         Max. power consumption       0         Operation with integral electric preheating coil       W       447         Energy efficiency class to EU Regulation no. 1254/2014       ©       —         - Time control       ©       A         - Central demand control       ©       A         - Control according to local demand       T       A	Total weight	kg	24.5
With constant flow rate control, inlet on one side only, with backward curved impel- ler vanes Filter vanes Filter class to EN 779 (ISO 16890) Outdoor air filter (delivered condition/accessories) Extract air filter (delivered condition/accessories) Extract air filter (delivered condition/accessories)  Fr (ISO ePM1 70 %) G4 (ISO Coarse 65 %) F7 (ISO ePM1 70 %) G4/G4 (ISO Coarse 65 %) Heat recovery Heat recovery Heat recovery level to DIBt Katerial of countercurrent heat exchanger Rated voltage  Specific power consumption to DIBt V/(m³/h) Operation without preheating coil V Coperation with integral electric preheating coil Coperation with integral electric preheating coil Coperation with integral electric preheating coil Coperation (Coperation) Coperation Coperati	Number of radial DC fans		2
ler vanes         Filter class to EN 779 (ISO 16890)         Outdoor air filter (delivered condition/accessories)         Extract air filter (delivered condition/accessories)         Extract air filter (delivered condition/accessories)         G4/G4         (ISO Coarse 65 %)         Heat recovery         Heat recovery level to DIBt         Heat recovery level to PHI         %         Atterial of countercurrent heat exchanger         Rated voltage         230 V/50 Hz         Specific power consumption to DIBt         Max. power consumption         Operation without preheating coil         W         Operation with integral electric preheating coil         W         Time control         - Central demand control         - Control according to local demand	With constant flow rate control, inlet on one side only, with backward curved impel-		
Filter class to EN 779 (ISO 16890)       G4 (ISO Coarse 65 %)/         Outdoor air filter (delivered condition/accessories)       G4 (ISO Coarse 65 %)/         Extract air filter (delivered condition/accessories)       G4/G4         (ISO Coarse 65 %)       G4/G4         Heat recovery       (ISO Coarse 65 %)         Heat recovery level to DIBt       %         Heat recovery level to PHI       %         Material of countercurrent heat exchanger       PETG plastic         Rated voltage       1/N/PE         Specific power consumption to DIBt       W/(m³/h)       0.39         Max. power consumption       W       72         Operation without preheating coil       W       447         Energy efficiency class to EU Regulation no. 1254/2014       ®       —         - Manual control       ®       —       —         - Central demand control       ©       A       A	ler vanes		
Outdoor air filter (delivered condition/accessories)       G4 (ISO Coarse 65 %)/         Extract air filter (delivered condition/accessories)       G4 (ISO Coarse 65 %)/         Extract air filter (delivered condition/accessories)       G4 (ISO Coarse 65 %)/         Heat recovery       (ISO Coarse 65 %)/         Heat recovery       %         Heat recovery level to DIBt       %         Material of countercurrent heat exchanger       PETG plastic         Rated voltage       1/N/PE         230 V/50 Hz       230 V/50 Hz         Specific power consumption to DIBt       W/(m³/h)       0.39         Max. power consumption       W       72         Operation without preheating coil       W       447         Energy efficiency class to EU Regulation no. 1254/2014       —       —         - Manual control       ©       —       —         - Central demand control       ©       —       A         - Control according to local demand       (T)       —       A	Filter class to EN 779 (ISO 16890)		
Extract air filter (delivered condition/accessories) Extract air filter (delivered condition/accessories)  Heat recovery Heat recovery Heat recovery level to DIBt % Heat recovery level to PHI % 87 (up to 89) Heat recovery level to PHI % 87 (up to 89) Heat recovery level to PHI % 87 (up to 89) 84 Material of countercurrent heat exchanger PETG plastic Rated voltage  Specific power consumption to DIBt W/(m³/h) 0.39 Max. power consumption Operation with integral electric preheating coil W 447 Energy efficiency class to EU Regulation no. 1254/2014 - Manual control - Central demand control Control according to local demand	Outdoor air filter (delivered condition/accessories)		G4 (ISO Coarse 65 %)/
Extract all hitler (delivered condition/accessiones)       (ISO Coarse 65 %)         Heat recovery       (ISO Coarse 65 %)         Heat recovery level to DIBt       %         Heat recovery level to PHI       %         Material of countercurrent heat exchanger       PETG plastic         Rated voltage       1/N/PE         230 V/50 Hz       230 V/50 Hz         Specific power consumption to DIBt       W/(m³/h)         Operation without preheating coil       W         Operation with integral electric preheating coil       W         - Manual control       (ISO Coarse 65 %)         - Time control       (ISO Coarse 65 %)         - Central demand control       (ISO Coarse 65 %)         - Control according to local demand       (ISO Coarse 65 %)	Extract air filter (delivered condition/cooperation)		F7 (ISO ePM1 70 %)
Heat recovery       (150 Coalse 05 %)         Heat recovery level to DIBt       %         Heat recovery level to PHI       %         Material of countercurrent heat exchanger       %         Rated voltage       PETG plastic         Specific power consumption to DIBt       W/(m³/h)       0.39         Max. power consumption       0         Operation without preheating coil       W       72         Operation with integral electric preheating coil       W       447         Energy efficiency class to EU Regulation no. 1254/2014       —       —         - Time control       Image: Control according to local demand       Image: Control according to local demand       A	Extract all filter (delivered condition/accessories)		
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 230 V/50 Hz 200 Hz	Heatrecovery		(130 Coarse 03 %)
Heat recovery level to PHI     %     84       Material of countercurrent heat exchanger     PETG plastic       Rated voltage     1/N/PE       Specific power consumption to DIBt     W/(m³/h)       Max. power consumption     0.39       Operation without preheating coil     W       Operation with integral electric preheating coil     W       Energy efficiency class to EU Regulation no. 1254/2014     —       - Time control     ©     —       - Central demand control     ⑦     A       - Control according to local demand     ⑦     A	Heat recovery level to DIBt	%	87 (up to 89)
Material of countercurrent heat exchanger       PETG plastic         Rated voltage       1/N/PE         Specific power consumption to DIBt       W/(m³/h)         Max. power consumption       0.39         Max. power consumption       0.39         Operation without preheating coil       W         Operation with integral electric preheating coil       W         Energy efficiency class to EU Regulation no. 1254/2014       —         – Manual control       Image: Control According to local demand       A         Control according to local demand       Image: Control According to local demand       Image: Control According to local demand	Heat recovery level to PHI	%	84 (up to 00)
Rated voltage       1/N/PE         230 V/50 Hz       230 V/50 Hz         Specific power consumption to DIBt       W/(m³/h)       0.39         Max. power consumption       0         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       Image: Control According to local demand       Image: Control According to local demand       Image: Control According to local demand	Material of countercurrent heat exchanger	,0	PETG plastic
Specific power consumption to DIBt       W/(m³/h)       230 V/50 Hz         Specific power consumption       0.39         Max. power consumption       0.39         Operation without preheating coil       W         Operation with integral electric preheating coil       W         Energy efficiency class to EU Regulation no. 1254/2014       —         – Manual control       Image: Control demand control       Image: Control demand control         – Control according to local demand       Image: Control demand control demand       Image: Control demand control demand	Rated voltage		1/N/PF
Specific power consumption to DIBt       W/(m³/h)       0.39         Max. power consumption       0         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       Image: Control demand control       -       -         - Central demand control       Image: Control according to local demand       Image: Control according to local demand       -			230 V/50 Hz
Max. power consumption       V       72         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       Image: Control demand control       Image: Control demand control       -         - Central demand control       Image: Control demand       Image: Control demand       -         - Control according to local demand       Image: Control demand       -       -	Specific power consumption to DIBt	W/(m <sup>3</sup> /h)	0.39
Operation without preheating coil       W       72         Operation with integral electric preheating coil       W       447         Energy efficiency class to EU Regulation no. 1254/2014       Image: Control control       Image: Control control control         – Manual control       Image: Control contr	Max. power consumption		
Operation with integral electric preheating coil     W     447       Energy efficiency class to EU Regulation no. 1254/2014     Image: Control control control     Image: Control contro control control control control control control control co	Operation without preheating coil	W	72
Energy efficiency class to EU Regulation no. 1254/2014     Manual control     Time control     Central demand control     Control according to local demand     Central demand	Operation with integral electric preheating coil	W	447
<ul> <li>Manual control</li> <li>Time control</li> <li>Central demand control</li> <li>Control according to local demand</li> <li>A</li> </ul>	Energy efficiency class to EU Regulation no. 1254/2014		
- Time control <ul> <li>Central demand control</li> <li>Control according to local demand</li> <li>Centrol according to local demand</li> <li>Centrol according to local demand</li> </ul> A     A	- Manual control	( )	_
- Central demand control Control according to local demand A	- Time control	č I	А
- Control according to local demand	- Central demand control	ě l	А
	<ul> <li>Control according to local demand</li> </ul>		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 flow rate	Pressure	Sound power level									
air/extract air)	in m³/h	drop in duct-	in dB at octave centre frequency in Hz									
		work in Pa	63	125	250	500	1000	2000	4000	8000	dB(A)	
											up to	
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 flow rate	Pressure				Sou	nd power	level			
air/extract air)	in m³/h	drop in duct-	in dB at octave centre frequency in Hz								
		work in Pa	63	125	250	500	1000	2000	4000	8000	dB(A)
											up to
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 %

## Extract air connector

Filter (outdoor	Air flow rate	Pressure				Sour	nd power	level			
air/extract air)	in m³/h	drop in duct-	in dB at octave centre frequency in Hz								
		work in Pa	63	125	250	500	1000	2000	4000	8000	dB(A)
											up to
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 <sup>3</sup> /h	Pressure drop in duct-	Sound power level ct- in dB at octave centre frequency in Hz								Total in
		work in Pa	63	125	250	500	1000	2000	4000	8000	dB(A) up to
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 flow rate	Pressure	Sound power level								
air/extract air)	in m <sup>3</sup> /h	drop in duct-	in dB at octave centre frequency in Hz							Total in	
		work in Pa	63	125	250	500	1000	2000	4000	8000	dB(A) up to
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 ductwork or a higher air flow rate may lead to different sound power levels.

# Specification (cont.)

# Dimensions







Conn	Symbol		
A	Supply air	DN 125	(I)
B	Outdoor air	DN 125	+
C	Exhaust air	DN 125	t A
D	Extract air	DN 125	Î
E	Condensate drain (connection piece for on-site condensate pipe supplied)	Female <sup>3</sup> / <sub>4</sub>	_
F	Electrical terminal area		—

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VITOVENT 300-C