Ventilation unit

FOCUS 200

Application

The FOCUS 200 comfort ventilation unit was specially developed for use in demanding residential and commercial buildings. It guarantees comfort ventilation paired with user-friendly operation and the highest energy efficiency. The various installation options and different models allow it to be flexibly incorporated into building services. The comfort ventilation unit moves a maximum of 200 m³/h at an external pressure of 150 Pa.

FOCUS 200

Level of efficiency

The comfort ventilation units in the FOCUS 200 series are equipped with a high-efficiency cross-counterflow heat exchanger and achieve a passive house–certified heat output of 91%.
Units in the FOCUS 200 Enthalpie series are equipped with a cross-counterflow enthalpy exchanger.
For user comfort this means: no unpleasant draft effects, because the supply air is heated almost to room temperature even at temperatures around freezing.

Fans

The quiet, particularly energy-efficient EC radial fans with integrated controllers can be adjusted to the required air flow in 1% increments and are also regulated to a constant volume. The air volumes of the selectable speeds for the FOCUS 200 are between 45 and 200 m³/h at an external pressure of 150 Pa.

Filter

The FOCUS 200 series comfort ventilation unit is equipped with a Class G4 filter. An optional F7 pollen filter is available for outside air.

Installation

The FOCUS 200 comfort ventilation unit is characterised by its compact design. All air connections are located on the top of the unit. The comfort ventilation unit can be mounted horizontally on a mounting plate (optional) or hanging on the wall using a mounting rail. Both left-hand and right-hand supply versions are available to optimise the routing of the ventilation tubes to the comfort ventilation unit.

Control panel TFT

Operation

The comfort ventilation unit is controlled using a control unit commonly located in living areas. The standard model of the FOCUS 200 comfort ventilation unit is controlled by the high-quality TFT RD with touchscreen. The text- and icon-based menu navigation on the colour display facilitates user-friendly operation. The optional customised LED RD control panel allows the FOCUS 200 to be operated using seven preset fan speeds and modes for "supply air only" and "extract air only".

Control panel LED

Maintenance

Maintenance on the FOCUS 200 is limited to regular replacement of the filter integrated in the front of the unit. The heat exchanger should be inspected for dust and dirt every two years and cleaned as necessary. This can be done by simply removing the front panel, pulling the heat exchanger out of the unit, and cleaning it with lukewarm, soapy water. Please refer to the user manual for additional maintenance tips and tasks.

Frost protection

The FOCUS 200 comfort ventilation unit is equipped with automatic frost protection, which prevents the heat exchanger from freezing should the outside air temperature drop to a very low level. The frost protection setting switches off the fans if the temperature falls below the temperature limit specified for frost protection mode and the unit type. In order to ensure reliable operation even at extreme outside temperatures, an optional, external, electric pre-heater is available.

Summer ventilation

The heat exchanger in the ventilation unit can be replaced with a "summer box" (optional) for summer ventilation. The airstreams are passed by each other without heat or humidity exchange in the two separate air ducts in the summer box so that, for instance, cooler outside air can be directed into the living areas by means of "free cooling".

Options

- **Humidity recovery with the enthalpy exchanger in the FOCUS 200 series**
  Because of its physical characteristics, the enthalpy exchanger can transfer not only heat but also up to 75% of the ambient humidity and provides a hygienically ideal solution to overly dry winter air. Supply and extract air are kept completely separate: no transfer of odours or germs occurs.

- **Electric pre-heater**
  An electric pre-heater also guarantees safe, continuous, frost-free operation even at temperatures below freezing.
- **Pollen filter**
  A Class F7 pollen filter protects the room air from pollen and reduces the particulate-matter, spores and germ load.
- **Mounting base**
  With inappropriate walls, it is recommended that the height-adjustable mounting plate be used to mount the unit on the floor in order to prevent as much as possible any structure-borne noise transfer.

Benefits

- Comfort ventilation up to 200 m³/h
- Passive house–certified heat output of 91%. Excellent energy efficiency of 0.31 Wh/m³ thanks to EC radial fans
- Fans with constant volume flow control and balancing
- Frost protection function: Efficient even at low temperatures
- Filter replacement indicator
- EPP interior lining with excellent thermal- and acoustic-insulation properties

- Universal installation options
- Fast, safe installation and maintenance
- Intelligent, user-friendly control unit
- Time- or sensor-controlled automatic functions
- Interface for analogue and digital I/O signals
- Electrical and hot water reheater integration possible

Article numbers

L/R = left-hand/right-hand supply air
F = humidity/heat exchanger (enthalpy exchanger)

Description	Article no.
Focus 200 L	527 002 060
Focus 200 R	527 002 070
Focus 200 L Enthalpie	527 002 080
Focus 200 R Enthalpie	527 002 090

All models exclusive of control panel.

Accessories	
LED RD control panel	521 014 130
TFT RD control panel	521 014 140
Summer box (module for replacing the heat exchanger for summer ventilation)	527 002 940
Mounting base	527 002 280
Dry siphon 5/4"	990 201 330

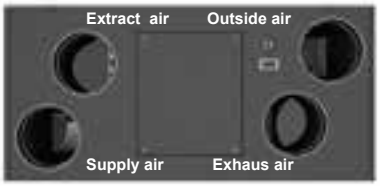
Filter	
Filter set for Focus 200 G4 (content 2 pieces)	527 004 260
Filter set for Focus 200 G4 / F7 (content 2 pieces)	527 003 430

Ventilation unit

FOCUS 200

Tender specifications

FOCUS 200 comfort ventilation unit
with maximum air volume of 200 m³/h at 150 Pa; H x B x T (mm): 542 x 752 x 355; housing made of galvanised, powder-coated sheet steel, RAL 7016 anthracite; interior lining made of high-quality EPP; FOCUS 200 with cross-counterflow enthalpy exchanger, passive house–certified heat output of up to 91%; FOCUS F 450 with cross-counterflow enthalpy exchanger with humidity recovery; EC radial fans with integrated controller regulated to a constant volume, adjustable in 1% increments; summer box (optional) for summer ventilation; Class G4 outside and extract air filters, optional F7 pollen filter; left- and right-hand models; horizontal wall installation or on optional mounting plate; communication interface for analogue and digital I/O signals, reheater and ground source heat exchanger flap with additional module.



Design: supply air- left (L)

Air directions

The figures on the right show the air directions (top view).

Design: supply air- right (R)

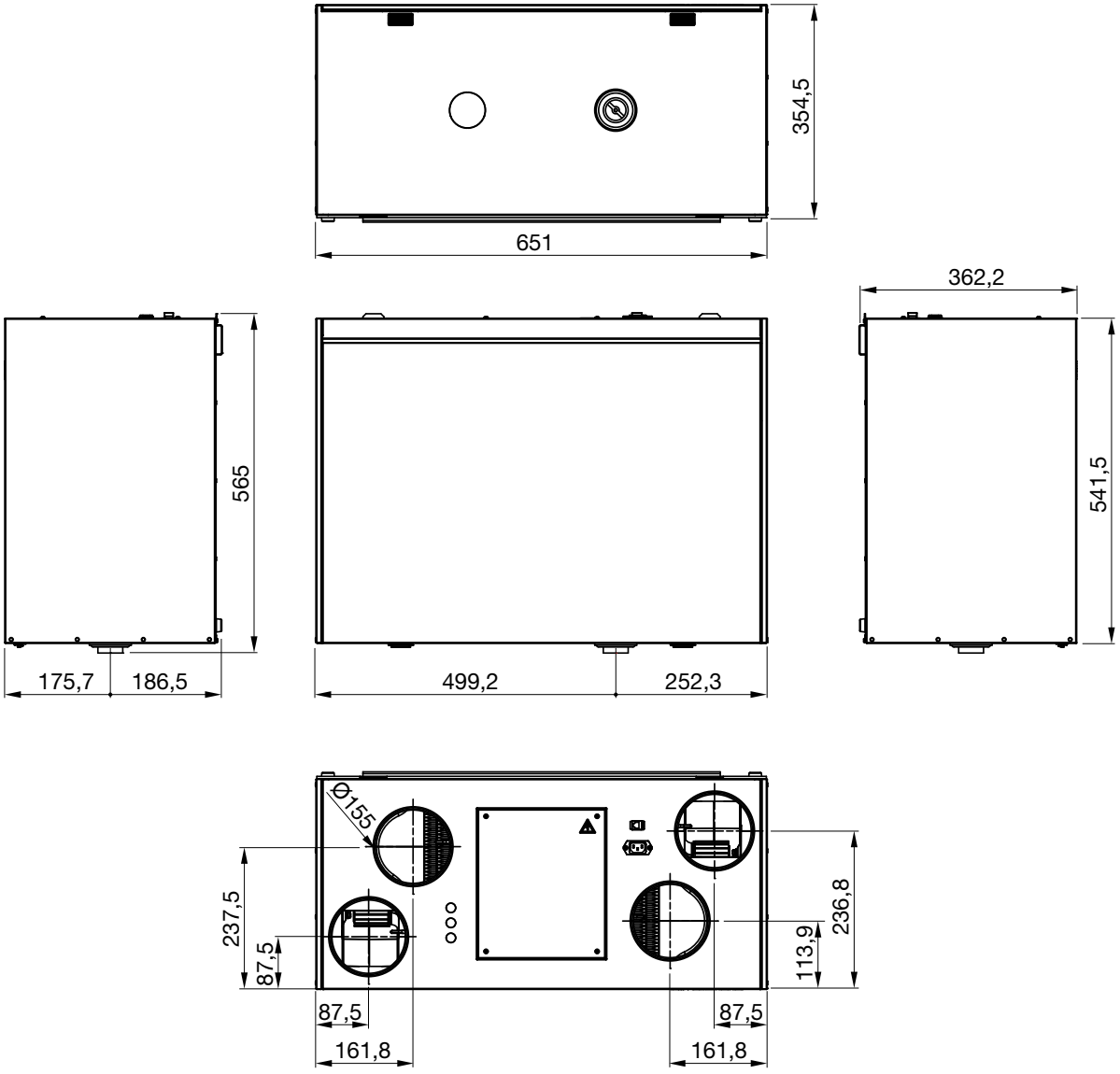
Technical specification

Dimensions	
Height (mm)	542
Width (mm)	752
Depth (mm)	355

Specifications

Cross-counterflow heat exchanger	Plastic / PCBs polystyrene
Cross-counterflow enthalpy exchanger with humidity recovery	Plastic / membrane polymer
Interior lining material	Expanded polypropylene (EPP)
Heat output according to PHI	91 % (FOCUS 200)
Weight	25 kg

Dimensional drawing



Certificates

- General Building Regulations [Germany] approval (Z-51.3-272)
- Passive house certificate

Equipment

Equipment	FOCUS 200	FOCUS 200 enthalpy
Enthalpy exchanger		x
left-hand/right-hand model	x	x
DN 125 connector	x	x
Ready to plug in design	x	x
TFT RD control panel	x	x
LED RD control panel	x	x

Function

Functions with TFT RD control panel

- Standby (darkened display), power consumption < 1 W
- Fan speeds 1 – 3 (programmable in 1% increments)
- Away mode (interval-controlled fan speed 1)
- Intermittent ventilation (duration between 15 and 120 min, individually adjustable)
- Time-controlled automatic operation (individually programmable weekly time programme in 15-min increments for each weekday)
- Automatic sensors, optional with external sensors (CO2, humidity, air quality)
- Menu (access to Information, Settings and Setup menus)
- Context-sensitive help text
- Password-protected, lockable control panel for inactive display interface

Indicators with TFT RD control panel

- Text- and icon-based menu navigation
- Filter replacement indicator (remaining filter life in days)
- Fault notification with notification icon
- Clear text fault indicator in menu information

Functions with LED RD control panel

- Standby (fan speeds not indicated by LED), power consumption < 1 W
- Fan speeds 1 to 7 (fixed settings)
- Intermittent ventilation (duration 15 min, speed 7, fixed setting)
- "Supply air only" and "extract air only" modes (for cooling in summer)
- Reset for filter replacement

Indicators with LED RD control panel

- Filter replacement indicator (LED indicator over filter replacement reset button)
- Fault notification using LED codes

Sound, supply air/ exhaust air

Sound power at the supply air connection at a distance of 0 m

Speed level	Air volume Qv	Pressure ΔP st								
	m³/h	Pa	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	Sum
			dB	dB	dB	dB	dB	dB	dB	dB	dB(A)
46%	100	100	51,8	56,6	55,1	54,8	58,9	49,4	45,4	39,8	62,2
74%	155	100	51,9	65,0	61,7	58,6	62,6	54,0	50,5	45,3	67,9
100%	200	100	51,6	65,7	62,6	59,1	63,6	56,3	51,9	47,2	68,7

Sound, extract air

Sound power at the return air connection at a distance of 0 m

Speed level	Air volume Qv	Pressure ΔP st									
	m³/h	Pa	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	dB(A)
46%	100	100	42,4	43,3	42,4	41,7	38,0	27,9	17,4	5,3	48,6
74%	155	100	41,0	45,8	49,3	44,1	46,2	31,7	23,1	15,5	52,1
100%	200	100	40,6	47,1	50,5	45,4	47,6	34,3	25,9	18,2	53,4

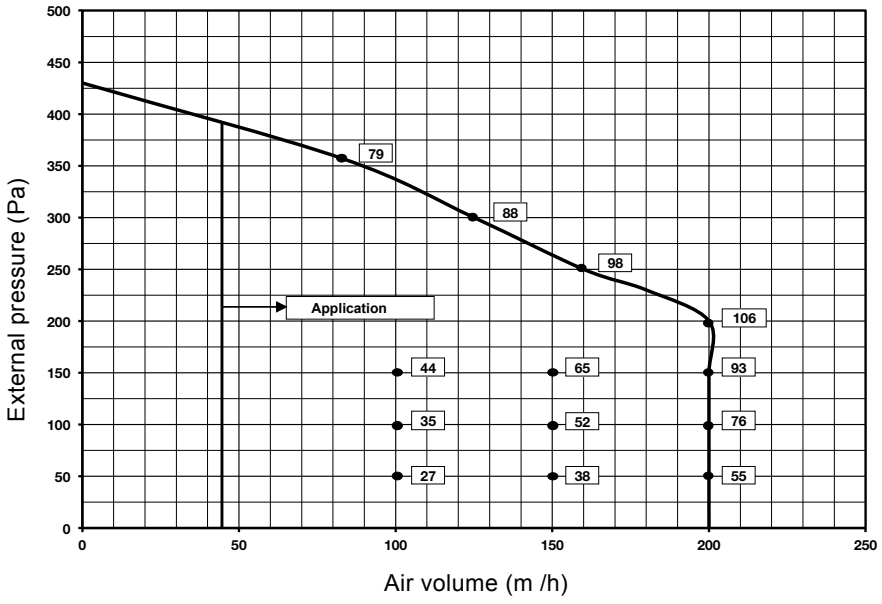
Sound, unit emission

sound power at unit at a distance of 0 m

Speed level	Air volume Qv	Pressure ΔP st									
	m³/h	Pa	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	dB(A)
74%	155	100	31,2	36,8	44,7	49,9	41,0	52,4	28,2	22,6	55,0
100%	200	100	23,9	31,0	37,4	43,5	36,1	46,1	26,3	15,9	48,7

Technical specification

Switch setting, factory setting (speed level)	Speed %	Air volume Qv m^3/h	Pressure ΔP st Pa	Power consumption W
FOCUS 200				
(1)	46	100	50	27
(2)	73	150	50	38
(3)	100	200	50	55
(1)	46	100	100	35
(2)	73	150	100	52
(3)	100	200	100	74
(1)	46	100	150	44
(2)	73	150	150	65
(3)	100	200	150	93



PHI certificate FOCUS 200

Zertifikat

Zertifizierte Passivhaus Komponente
Für kühl-gemäßigtes Klima, gültig bis 31.12.2014

Passivhaus Institut
Dr. Wolfgang Feist
64283 Darmstadt
GERMANY

Kategorie: **Wärmerückgewinnungsgerät**

Hersteller: **PAUL Wärmerückgewinnung GmbH**
08141 Reinsdorf, GERMANY

Produkt: **focus 200**

Einsatzbereich

116 – 155 m³/h

$\eta_{WRG,eff}$

91%

Elektroeffizienz

0,31 Wh/m³

Folgende Kriterien wurden für die Zuerkennung des Zertifikates geprüft:

Passivhaus Behaglichkeitskriterium	$\theta_{Zuluft} \geq 16{,}5$ °C bei $\theta_{Außenluft} = -10$ °C
Wärmebereitstellungsgrad	$\eta_{WRG,eff} \geq 75\%$
Elektroeffizienz	$P_{el} \leq 0{,}45$ Wh/m³
Dichtheit	Der interne und externe Leckluftstrom unterschreitet 3% des Nennvolumenstromes.
Abgleich und Regelbarkeit	Balanceeinstellung möglich: ja Automatische Volumenstrombalance: ja
Schallschutz	Der empfohlene Geräteschall-grenzwert $L_W \leq 35$ dB(A) wird nicht erfüllt. Hier: 51,7 dB(A) Auflage: Das Gerät ist von den Wohnräumen schalltechnisch entkoppelt aufzustellen.
Raumlufthygiene	Außenluftfilter F7 Abluftfilter G4
Frostschutz	Frostschutz des Wärmeübertragers ohne Frischluftunterbrechung bis $\theta_{Außenluft} = -15$ °C

Weitere Informationen siehe Anlage zum Zertifikat.

ZERTIFIZIERTE KOMPONENTE
Passivhaus Institut

www.passiv.de 0300vs03

CDE-FLYERTS143, V0914, eGBR, en, subject to change without notice

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