

Vasco DX4 | DX5 | DX6

Description

The Vasco DX4, DX5 and DX6 are balanced ventilation units with heat recovery for residential applications (HRVU). They mechanically supply fresh air to the home and mechanically extract polluted air from the home using integrated fans. Heat is recovered from the extracted air and transferred to the supplied air.

This unit has been approved in accordance with:

- ✓ EN 308 / EN 13141-7 and for Belgium this is also in accordance with EN 308 with Annex G, whereby the device is included in the EPB product database '4.4 fan and ventilation unit' with code 4.4.2 Double air flow with heat recovery.
- ✓ BCRG quality declaration and declaration of equivalence for the Netherlands.

The ventilation units bear the CE mark and comply with the following directives: 2014/53/EU (Radio Equipment Directive), 2011/65/EU (RoHS), and 2009/125/EU (ErP Directive).

Design

Connections:

Air duct connections on both the top and bottom in EPP (expanded polypropylene).

- ✓ 4 top connections:
 - Supply from outside
 - Exhaust to outside
 - Supply to home
 - Exhaust from home
- ✓ 2 bottom connections:
 - Supply to home
 - Exhaust from home

The unit is equipped with connections providing both an internal diameter of Ø180 mm (female) and an external diameter of Ø200 mm (male). Insulated air ducts can be connected directly to these connections, provided that the appropriate reduction or connection sleeves are used. This ensures a condensation-free and airtight connection.

Reversibility:

By rotating the unit 180° and positioning the suspension system correctly, both a left-hand and right-hand configuration on the dwelling side are possible.

The unit is supplied with a single front panel, which must be fitted on the appropriate side depending on the selected configuration. The panel can be easily removed by releasing the two clips on the left-hand side, tilting it out of the unit and refitting it on the opposite side in reverse order.

Mounting:

The unit can be mounted either vertically or horizontally using the wall bracket supplied as standard.

When mounted vertically, the unit must be installed level. In the case of horizontal installation, the unit must be mounted with a 3° fall to ensure correct condensate drainage.

Both vertical and horizontal free-standing installation are also possible using the optional mounting bracket.

Frost protection:

Ensures frost-free operation of the ventilation unit by means of a temporary imbalance whereby the speed of the supply fan is reduced. This guarantees adequate ventilation during the winter period.

An optional electric preheating element prevents the heat exchanger from freezing and avoids temporary imbalances, resulting in increased comfort and a more efficient system.

Material

Casing:

High-quality painted metal, black (RAL9005) and white (RAL9016) side panels.

Inner side:

Thermally insulating and airtight expanded polypropylene (EPP), which minimises the formation of thermal bridges. PP (polypropylene), ABS (acrylonitrile butadiene styrene) and high-quality (Sendzimir) galvanised metal.

Vasco DX4 | DX5 | DX6

Technical specifications

Dimensions:	Height:	1330 mm
	Width:	588 mm
	Depth:	685 mm
Weight:	49.8 kg	
Supply voltage:	230V AC, 50 Hz, equipped with a 1.8 m cord with earth connection / Euro plug.	
Maximum power consumption:	DX4	152 W (2x 76 W) at 400 m³/h – 100 Pa / 380 m³/h – 150 Pa
	DX5	197 W (2x 99 W) at 480 m³/h – 100 Pa / 450 m³/h – 150 Pa
	DX6	329 W (2x 165 W) at 570 m³/h – 100 Pa / 545 m³/h – 150 Pa
Maximum air flow rate:	DX4	400 m³/h – 100 Pa Adjustable from 250 m³/h to 400 m³/h in increments of 25 m³/h
	DX5	480 m³/h – 100 Pa Adjustable from 350 m³/h to 500 m³/h in increments of 25 m³/h
	DX6	570 m³/h – 100 Pa Adjustable from 450 m³/h to 600 m³/h in increments of 25 m³/h
Efficiency values:	DX4	92.7% according to EN13141-7 89% at 250 m³/h / 88% at 325 m³/h / 87% at 400 m³/h according to EN308 Annex G
	DX5	91.8% according to EN13141-7 89% at 450 m³/h / 89% at 480 m³/h / 89% at 500 m³/h according to EN308 Annex G
	DX6	92.2% according to EN13141-7 88% at 550 m³/h / 88% at 570 m³/h / 88% at 600 m³/h according to EN308 Annex G
Noise level:	DX4	
	Sound power unit emission	51.0 dB(A) at 70 % Qmax at 50 Pa
	Sound power supply channel	46.0 dB(A) at 70 % Qmax at 50 Pa
	Sound power of drainage channel	43.0 dB(A) at 70 % Qmax at 50 Pa
	DX5	
	Sound power unit emission	54.0 dB(A) at 70 % Qmax at 50 Pa
	Sound power supply channel	51.0 dB(A) at 70 % Qmax at 50 Pa
	Sound power of drainage channel	47.0 dB(A) at 70 % Qmax at 50 Pa
	DX6	
	Sound power unit emission	59.0 dB(A) at 70 % Qmax at 50 Pa
	Sound power supply channel	56.0 dB(A) at 70 % Qmax at 50 Pa
	Sound power of drainage channel	51.0 dB(A) at 70 % Qmax at 50 Pa
Energy class:	A A+ with 2 optional RF CO ₂ or RH (humidity) switches.	
Fans:	EC (Electronically Commutated) radial fans with robust, backward-curved blades for easy cleaning. The fans are mounted in scroll housings. The connectors of the extract fan are protected in a gel-filled junction box and comply with protection class IPX8.	
Heat exchanger:	The unit is equipped with an octagonal cross-flow heat exchanger. This geometry ensures optimum utilisation of the available surface area, enabling high heat recovery efficiency in a compact design with low noise levels and low energy consumption. The heat exchanger is manufactured from polystyrene, the smooth surface of which minimises the build-up of dirt and water.	
Air filters:	Equipped as standard with ISO16890 Coarse 65% (= G4 according to EN779) for extract air and ISO16890 ePM1 55% (= F7 according to EN779) for supply air. The filters can be easily replaced via the removable filter drawer. The recommended replacement interval is 6 months and is automatically indicated by, among other things, the standard RF 3-position switch supplied.	
Condensate drainage:	A DN32 connection is provided at the bottom of the ventilation unit for condensate drainage. The supplied DN32 sleeve is inserted into this connection. The connection must be connected frost-free and airtight to the indoor drainage system via a water trap. A dry siphon is supplied as standard and can be installed either horizontally or vertically.	

Vasco DX4 | DX5 | DX6

Features

Regulation / control:	The ventilation units are equipped as standard with automatic, pressure-independent speed control for constant air flow. The set air volume is automatically and continuously regulated, regardless of the resistance in the air duct system and contamination of the air filters.
Bypass:	The ventilation unit is equipped with a modulating bypass (0-100%) for controlling the supply air temperature. This bypass automatically adjusts the amount of recovered heat according to the outdoor temperature, resulting in an optimum indoor climate and improved energy efficiency. “Free Cooling” When the outdoor temperature is lower than the indoor temperature, the filtered outdoor air is supplied directly to the dwelling without heat exchange (natural cooling).
Filter contamination indicator:	The ventilation unit is equipped with a time-based automatic filter contamination indicator. As soon as the filters need to be replaced, the LED will flash orange twice when the standard RF 3-position switch is operated. The filter contamination indicator can then be reset using the RF 3-position switch. Both the indicator and its reset can also be carried out via other optional control devices.
Frost protection:	Ensures frost-free operation of the ventilation unit by means of a temporary imbalance whereby the speed of the supply fan is reduced. This guarantees adequate ventilation during the winter period. An optional electric preheating element prevents the heat exchanger from freezing and avoids temporary imbalances, resulting in increased comfort and a more efficient system.

Controls

RF 3-position switch:	Included as standard, equipped with a 3V Lithium CR2450N battery, with an average lifespan of 10 years. Communication with the ventilation unit is wireless. To be mounted on a wall under construction by means of screw or adhesive mounting. The switch has the following functions: ✓ Operating the ventilation mode (1, 2, 3, Timer) ✓ Setting the maximum air flow rate ✓ Resetting the filter dirt message ✓ LED feedback for error messages Dimensions: H: 83 mm W: 83 mm D: 15 mm Housing: plastic
3 positions contact:	The ventilation unit can be controlled in 3 positions via contact X9 on the circuit board. Position 1 provides 25% air flow, position 2 provides 50% air flow and position 3 provides the maximum set air flow.
1-10V contact:	Via contact X26 on the circuit board, the ventilation unit can be continuously controlled by means of a 1-10V signal. 1V corresponds to the minimum ventilation flow rate of the ventilation unit and 10V to the maximum.
Relay contact error:	Error messages can be read via contact X8 on the circuit board of the ventilation unit. This so-called fault relay is a normal open (NO) potential-free contact that closes as soon as an error message occurs or when the filters need to be replaced.

Vasco DX4 | DX5 | DX6

Accessories:

RF CO₂ switch (surface-mounted):

For automatically controlling and regulating the air flow rate of the ventilation unit based on the CO₂ level in the room. The switch must be connected to a supply voltage of 230V+N and the communication with the ventilation unit is wireless. To be mounted on a wall in construction by means of screw mounting.

The switch has the following functions:

- ✓ Operating the ventilation mode (1, 2, 3, Eco, Comfort)
- ✓ 2 automatic modes (Eco = 950 ppm and Comfort = 800 ppm)
- ✓ LED feedback for error messages
- ✓ Automatic self-calibrating

Dimensions:

H: 100 mm
W: 100 mm
D: 28 mm

Housing: plastic

RF RH Switch:

For automatic control and regulation of the air flow rate of the ventilation unit based on the relative humidity (%) in the room. The switch is equipped with 2 alkaline batteries 1.5V AA for power supply and communication with the ventilation unit is wireless. To be mounted on a wall in construction by means of screw mounting.

The switch has the following functions:

- ✓ Operating the ventilation mode (1, 2, 3, Eco, Comfort)
- ✓ 2 automatic modes (Eco = 60 min setting 2 and Comfort = 30 min position 3)
- ✓ LED feedback for error messages

Dimensions:

H: 100 mm
W: 100 mm
D: 28 mm

Housing: plastic

Gateway:

For operating and reading the ventilation unit via the Vasco Climate Control App. The Gateway must be connected via the supplied micro-USB cable + adapter to a 230V+N socket and the communication with the ventilation unit is wireless. The connection to the modem (LAN) is done via the supplied UTP cable. To be mounted on a wall.

The gateway has the following functions:

- ✓ Operating the ventilation mode (1, 2, 3, Timer, Auto, Away, Party, Vacation, Fireplace)
- ✓ Automatic weekly program
- ✓ Status of bypass, electric preheating element, etc.
- ✓ Display of error messages
- ✓ Setting parameters (e.g. ventilation flows, temperature bypass)

Dimensions:

H: 105 mm
W: 81 mm
D: 28 mm

Housing: plastic

Electric preheater:

The electric preheating element heats the outside air drawn in before it reaches the heat exchanger, thereby reducing the risk of the heat exchanger freezing. Depending on operating conditions, this can reduce the frequency of defrost cycles.

Surface-mounted type, Ø180mm, insulated.

Installed in the outdoor air intake duct. Must be connected to an external power supply via a 230V + N socket. Communication with the unit is wired via the supplied control cable, which transmits a modulating signal from the ventilation unit's circuit board to the relay of the electric preheating element.

There are two variants with different power ratings: 1200W and 1800W.

Mounting bracket:

The mounting bracket for the DX unit has been developed for free-standing installation and is manufactured from high-quality Sendzimir galvanised steel (1.25 mm thickness) with a black painted finish. Two versions are available, both equipped with adjustable rubber feet (adjustment range 16-46 mm) for installation on uneven floors.

The first version is intended for horizontal installation and incorporates the correct inclination to ensure proper condensate drainage, with a height adjustment range of 399-429 mm on the lowest side (condensate connection) and 479-499 mm on the highest side. The second version is intended for vertical installation, with a height adjustment range of 396-442 mm. Both versions are designed to provide a stable, free-standing installation of the ventilation unit.