

Electric preheating element

Description

Vasco heat-recovery ventilation units are equipped with a defrost cycle. In addition, an electric preheater can be installed as an optional measure to minimise the risk of frost formation. This preheater is intended to prevent conditions in which the heat exchanger may freeze, such as when warm, humid indoor air indirectly encounters cold outdoor air. These provisions help maintain stable unit operation and ensure consistent comfort levels.



Communication & control

- Control:
 - Version via integrated solid-state relay (SSR)
 - Version via 0–10 V DC control signal
- Safety: Overheating protection
 - Two automatic overtemperature thermostats (50 °C, automatic reset)
 - Manual safety thermostat (100 °C, manual reset, supplementary protection)

Power and consumption

- External power supply: 230 V AC
- Available models:
 - 0-10V-controlled: 1200 W, 1800 W
 - SSR-controlled: 900 W, 1200 W, 1800 W

Installation

- Suitable for vertical and horizontal mounting
- For indoor use only
- Ductwork before and after the preheater must be insulated
- A downstream 90° duct bend is recommended for improved air mixing

Physical properties

- Flexible, moisture-resistant, and durable for easy installation and long-term reliability
- Aluzinc-coated steel housing
- IP44 protection class
- Pre-insulated with vapour-tight closed-cell elastomer foam (10 mm)

Operation

Activation and modulation of the preheater are determined by the sensor configuration and the applicable software version of the ventilation unit.

Based on the evaluated temperature conditions, the ventilation unit activates the electric preheating element when there is an increased risk of frost formation in the heat exchanger.

Depending on the ventilation unit type and software version, the control logic may use different reference temperatures.

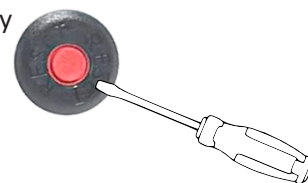
No standalone control or user interaction is required: all switching and regulation of the electric preheating element are managed by the ventilation unit.

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Overtemperature protection

For safe operation, the electric preheating element is equipped with two automatic overtemperature thermostats working in combination, supplemented by a manual safety thermostat providing an additional layer of protection.

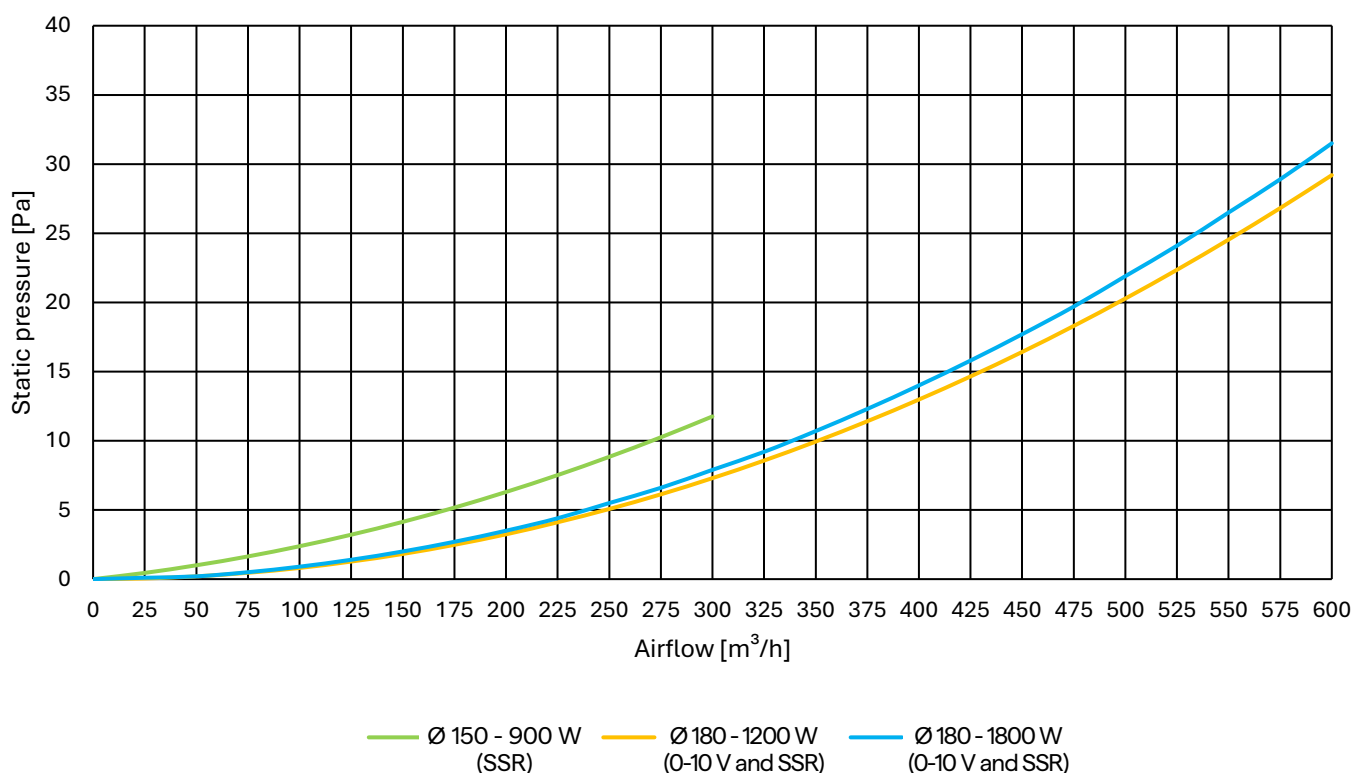
- Two **automatic overtemperature thermostats** operate independently but in parallel to protect against overheating. Depending on the physical orientation of the unit and heat distribution, one thermostat may respond earlier than the other. Both automatically interrupt the heating output in case of overheating and reset automatically once safe operating conditions are restored.
- A **manual safety thermostat** provides an additional protective function by permanently switching off the heater in the event of excessive temperature. Manual reset is only possible after the cause of overheating has been identified and resolved. The reset must be performed by pressing the reset button using a **screwdriver or similar tool**. This safety device is intended to operate only in the unlikely event that the automatic overtemperature thermostats do not prevent overheating.



Technical data

	11VE44300	11VE44310	11VE44320	11VE44330	11VE44340
Diameter	DN150	DN180	DN180	DN180	DN180
Dimensions (L × W × H)	375 x 190 x 220 mm	375 x 220 x 250 mm	375 x 220 x 250 mm	375 x 220 x 250 mm	375 x 220 x 250 mm
Weight	3.3 kg	3.8 kg	4.0 kg	3.8 kg	4.0 kg
Weight incl. packaging	3.6 kg	4.2 kg	4.4 kg	4.2 kg	4.4 kg
Control signal	SSR	SSR	SSR	0 - 10 V	0 - 10 V
Maximum power	900 W	1200 W	1800 W	1200 W	1800 W
Pressure loss	5.3 Pa at 192.5 m³/h	7.4 Pa at 280 m³/h	16.3 Pa at 420 m³/h	5.5 Pa at 245 m³/h	11.3 Pa at 350 m³/h
Recommended ventilation unit	D275 III	DX4	DX5/6	Boost 275/350	Boost 425/500

Pressure drop



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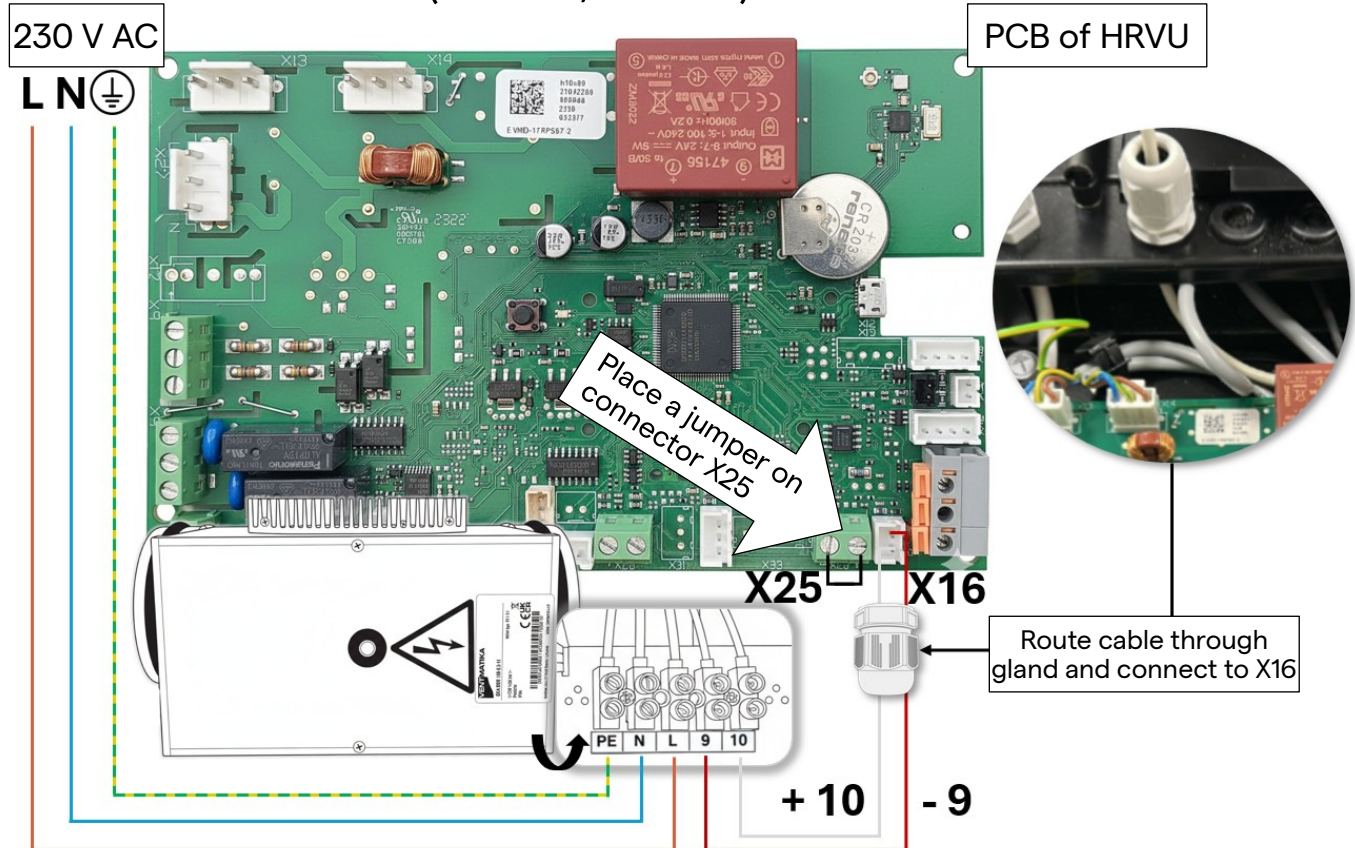
Replacement compatibility

This range of Electric Preheating Elements are fully retrofittable and replace the following legacy Vasco electric preheaters, including their associated unit types as listed in the spare-parts catalogue:

Electric preheating element type & Article number	Corresponding ventilation units	Corresponding former Electric preheating element & Article number
Ø 150 — 900 W — SSR 11VE44300	D275, D275(EP) II and D275(EP) III	H130 – Ø 150 – 700 W 11VE44260 H150 – Ø 150 – 700 W 11VE44160
Ø 180 — 1200 W — SSR 11VE44310	D300E II, DX4(E), DX5(E), D/T/X350 and D/X425	H150 – Ø 180 – 750 W 11VE44100 H150 – Ø 180 – 700 W 11VE44150 H130 – Ø 180 – 700 W 11VE44270
Ø 180 — 1800 W — SSR 11VE44320	D400EP II, D500E II, T/X500, DX5(E) and DX6(E)	H300 – Ø 180 – 1500 W 11VE44110 H150 – Ø 180 – 1400 W 11VE44170 H130 – Ø 180 – 1400 W 11VE44280
Ø 180 — 1200 W — 0 - 10 V 11VE44330	275 Boost and 350 Boost	
Ø 180 — 1800 W — 0 - 10 V 11VE44340	425 Boost and 500 Boost	

Electrical connection

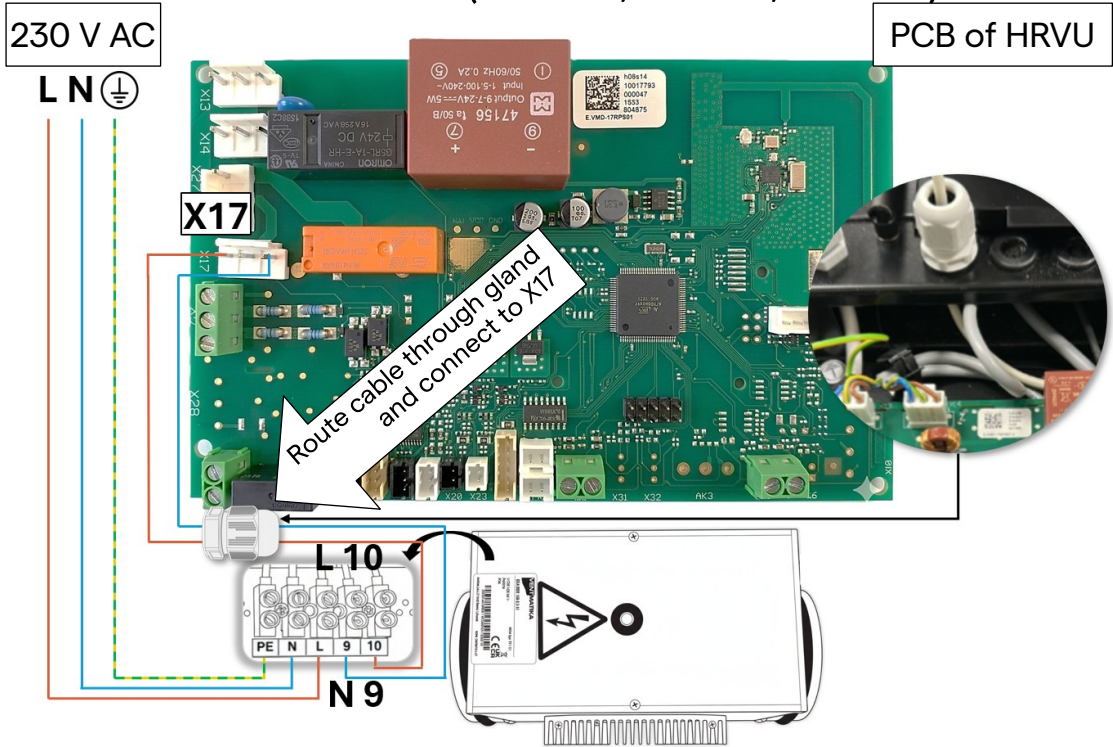
Connections for 0-10 V versions (11VE44330, 11VE44340)



Electric preheating element

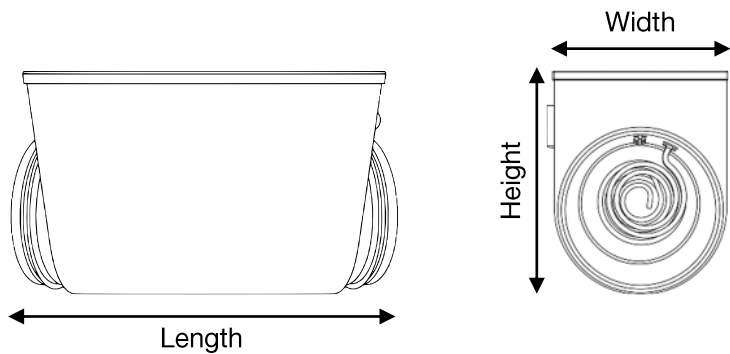
Electrical connection

Connections for Solid State Relais versions (11VE44300, 11VE44310, 11VE44320)



Electrical connection diagram subject to change. For the actual wiring configuration of the electric preheating element, always refer to the diagram located on the rear side of the electrical compartment cover.

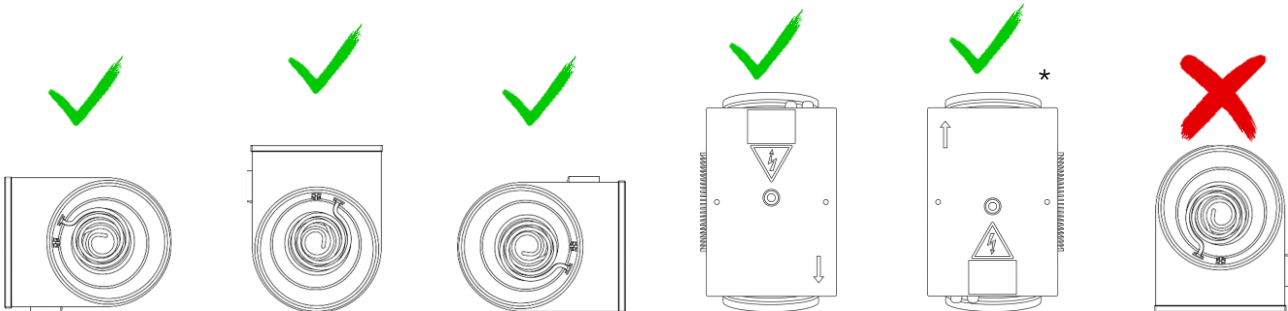
Dimension drawings



Electric preheating element	Dimensions
Ø 150 – SSR – 900 W 11VE44300	L: 375 H: 220 W: 175 + *
Ø 180 – 0-10V – 1200 W 11VE44330	L: 375 H: 250 W: 205 + *
Ø 180 – 0-10V – 1800 W 11VE44320	
Ø 180 – SSR – 1200 W 11VE44310	
Ø 180 – SSR – 1800 W 11VE44320	

* Heatsink (15)

Dimensions in mm



* This configuration applies when the Vasco D275 III is wall mounted.