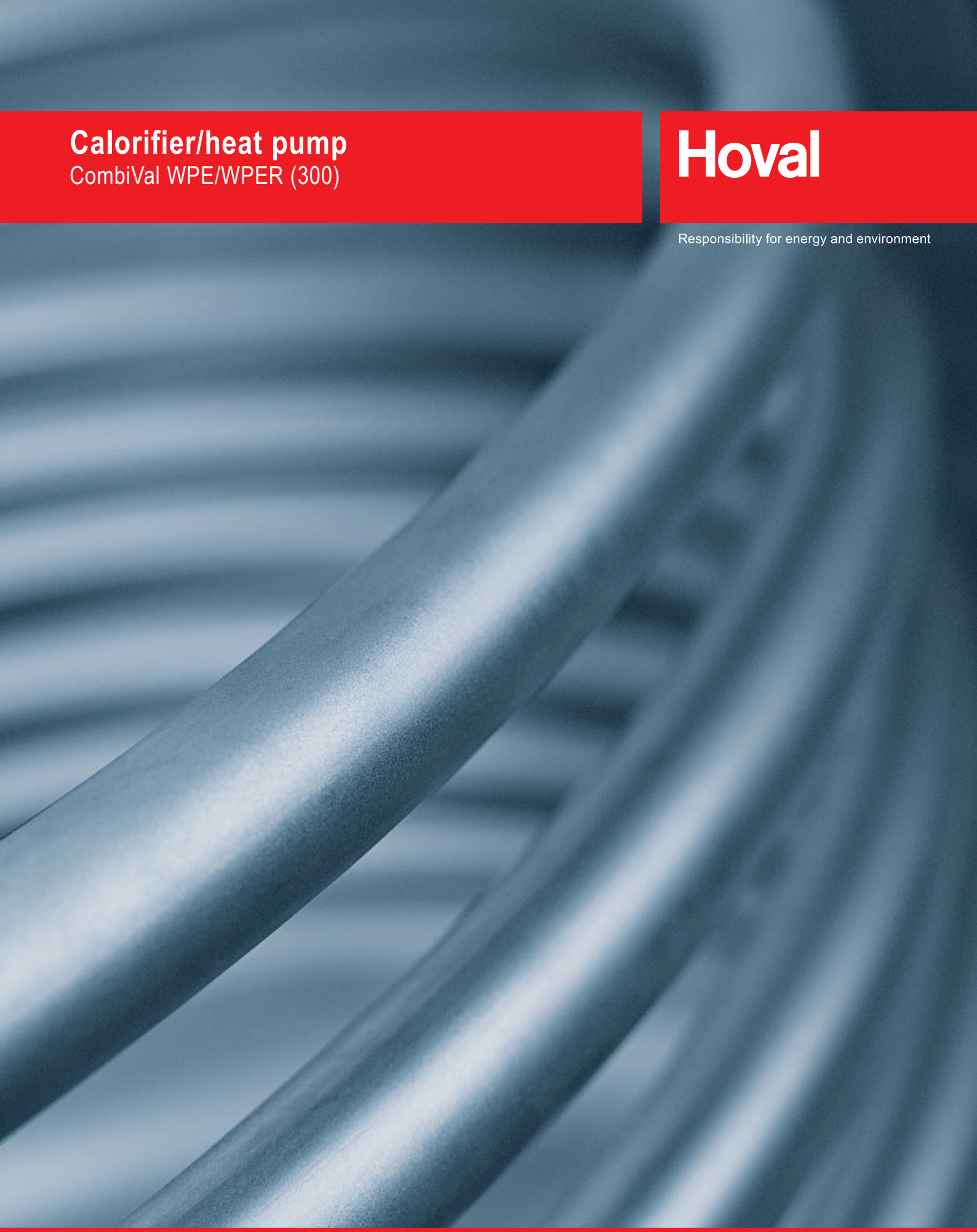
Calorifier/heat pump

CombiVal WPE/WPER (300)

Hoval

Responsibility for energy and environment



Heat pump technology for cost-effective water heating.
Rapid payback as a result of low power consumption.

CombiVal WPE/WPER (300). Advantages at a glance.

The calorifier/heat pump CombiVal WPE/WPER extracts a large part of the energy for water heating from the ambient indoor air that is available for free – for example, from the room in which it is situated. With the aid of the integrated heat pump, energy is drawn from the ambient air, thus heating the water. This saves up to two thirds of the energy costs associated with water heating.

A benefit of this is that small rooms like cellars or pantries can be cooled and dehumidified using the extracted air.

Economical

Low operating costs

- **Rapid payback**
  due to significantly reduced power costs
- **Ideal for use in combination with a photovoltaic solar plant (smart grid)**
  to keep domestic hot water costs to a minimum
- **Reduced operating costs**
  due to holiday program provided as standard

Ecological

Low-emission operation

- **Approx. 66 % less power consumption***
  due to the use of state-of-the-art heat pump technology (*as compared with electric calorifiers)
- **Increased energy efficiency in the entire heating system,**
  as the boiler is not required to heat water during the summer months.

Easy to use

Easy, low-cost maintenance

- **Simple installation**
  due to equipment supplied ready for operation.
- **User-friendly**
  due to integrated control
- **Safe hot water hygiene**
  due to automatic Legionella program
- **Increased protection against corrosion**
  due to automatic maintenance display for magnesium protection anode

Sophisticated

Dehumidification and cooling inclusive

- **Dehumidification and cooling of extract air**
- **Ventilation function**
  provided by independent fan operation
- **Also suitable for operation with fresh air**
  due to integrated defrosting function
- **Low limescale formation**
  due to aluminium coiled-tubing condensing unit that surrounds the outside of the steel shell.

CombiVal WPE/WPER (300).
In detail.

Hoval CombiVal WPE/WPER (300)

Ready-for-connection calorifier/heat pump consisting of air/water heat pump, calorifier and easy microprocessor control.

Heat pump

The heat pump comes equipped with

- Fully hermetic piston compressor
- Aluminium coiled-tubing condensing unit in double casing
- Finned-tube evaporator (Cu/Al)
- 2-stage radial fan
- Air inlet/outlet at top

The cold circuit is equipped with defrosting equipment. This enables a fresh air duct to be connected directly. The aluminium coiled-tubing condensing unit is wound around the outside of the calorifier's steel shell, preventing limescale formation and ruling out the possibility of the domestic hot water becoming contaminated – even in the event of a leak.

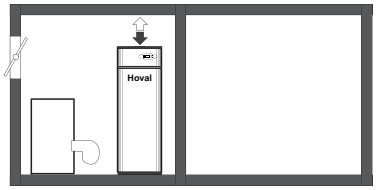
Calorifier

- Steel with a double layer of enamel
- Magnesium protection anode
- WPER model with permanently installed enamel-painted plain-tube heat exchanger for incorporating a thermal solar plant or another heat source.
- Built-in electric heating element with 2 kW heat output
- Highly efficient thermal insulation

Control

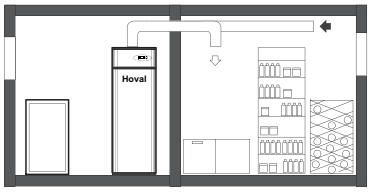
- Built-in microprocessor control
- Heat generators can be combined in all kinds of ways (heat pump, electric immersion heater, boiler).
- Option of integration into a photovoltaic solar plant (smart grid)
- Independent fan function for ventilation purposes
- Automatic program for protection against Legionella
- Holiday program
- Automatic defrosting regulation

Installation versions



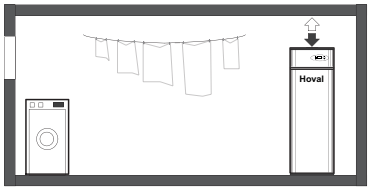
Installation in boiler room

- Air extraction and exhaust take place in the boiler room.
- Use of waste heat from heating



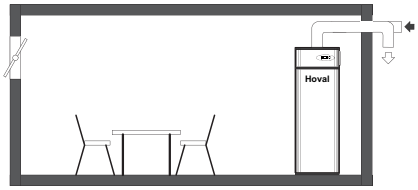
Installation in boiler room with heat pump

- Air extraction and exhaust take place in the adjoining room
- Adjoining room is cooled and dehumidified (wine cellar, pantry; at least 25 m³ room volume)
- Use of waste heat from refrigerators and freezers



Installation in utility room

- Air extraction and exhaust take place in the room.
- The utility room is dehumidified.
- Use of waste heat from washing machine and tumble dryer (laundry room; at least 20 m³ room volume).



Installation in recreation room

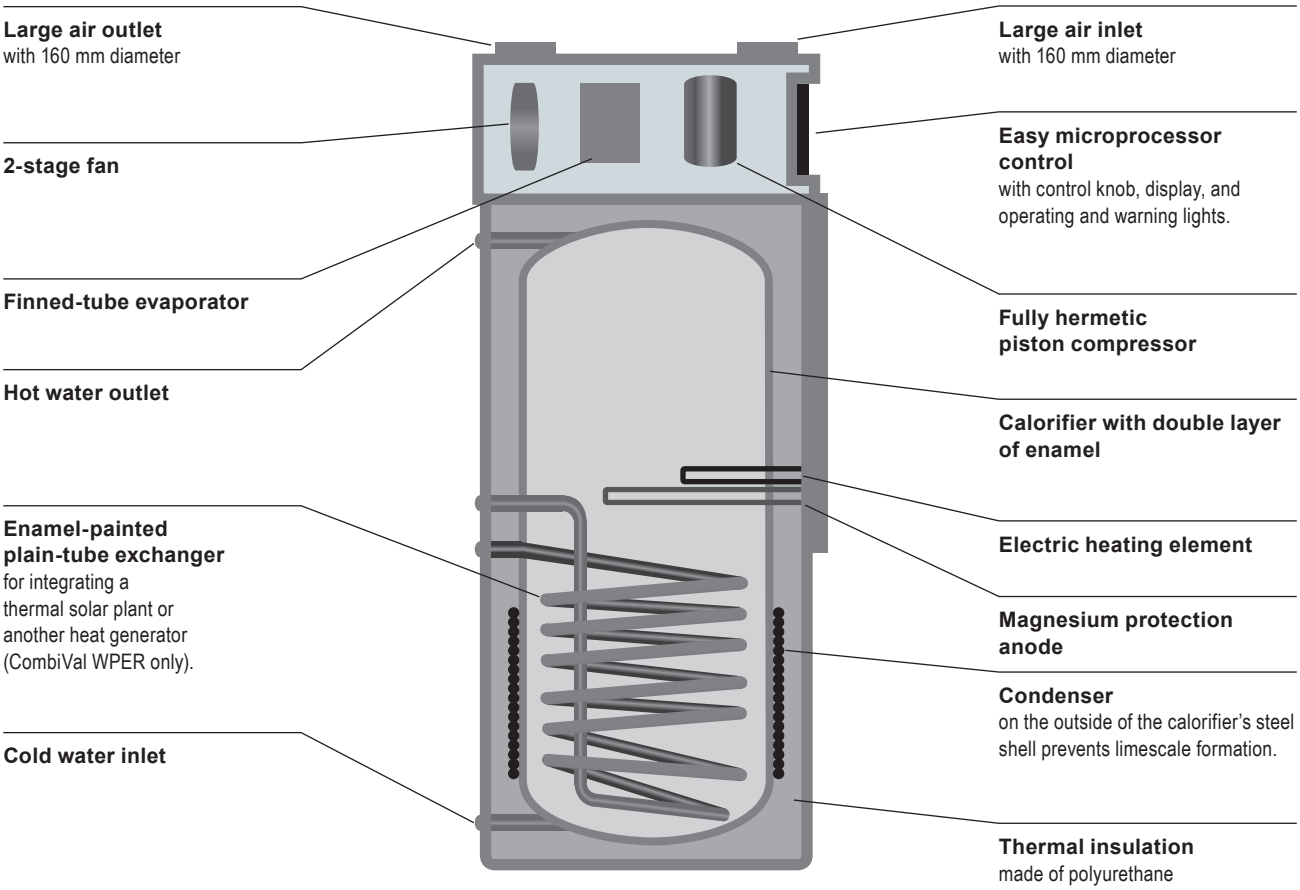
- Air extraction and exhaust take place in the room or outdoors
- If the air guide shown in the drawing is used, the window can remain closed.

Warmwasser-Wärmepumpe
GEPRÜFTE QUALITÄT

Tested at the Heat Pump Test Centre (WPZ) in Buchs in accordance with EN 16147

SG Ready
Smart Heat Pumps

CombiVal WPE/WPER (300).



CombiVal technical data			WPE	WPER
Energy efficiency class			A	A
Volume		Litres	270	270
Maximum operating temperature:	Heat pump operation	°C	62	
	Boiler operation	°C	65	
	Electric operation	°C	65	
Recommended economy temperature	Heat pump operation	°C	48	
Heating surface of heating coil		m^2	-	1,0
Heat pump	Working medium		R 134a	
	Average heat output [1]	kW	1.78	
	Average electrical power consumption [1]	kW	0.53	
	Coefficient of performance (COP) [1]		3.34	
	Maximum supply air temperature	°C	35	
	Minimum supply air temperature	°C	-10	
Electric immersion heater heat output 230 V		kW	2,0	
Electrical connection (unit)		V/Hz	230 / 50	
Hot water output/day [2]		Persons	4	
Weight		kg	114	137
Dimensions (diameter/height/depth)		mm	710 / 1780 / 720	
Air inlet/outlet diameter		mm	160	

1) According to the following standards: EN 16147:2011, EHPA Testing Regulation V1.6
2) Number of persons who can be supplied with domestic hot water in the case of systems without hot water circulation (standard values without recharging).

Subject to changes.

“The calorifier/heat pump CombiVal WPE/WPER (300) extracts a large part of the energy it requires from the ambient indoor air that is available for free. The significant savings in energy costs that are achieved ensure that the initial costs are paid back rapidly.
As an additional benefit, the room air is dehumidified and cooled.”

Philipp Hasler, Head of Product Management for Heat Pumps

CombiVal WPE/WPER (300)
Cost-effective water heating using energy from the ambient air.

Solutions you can rely on.

Hoval

Responsibility for energy and environment.

The Hoval brand is internationally recognised as one of the leading suppliers of indoor climate control solutions. Around 70 years of experience have given us the necessary capabilities and motivation to continuously develop exceptional solutions and technically superior equipment.
Maximising energy efficiency and thus protecting the environment are both our conviction and our incentive. Hoval has established itself as an expert provider of intelligent heating and climate control systems that are exported to over 50 countries worldwide.

Hoval indoor climate systems

Indoor climate systems ensure top air quality and economical usability. Hoval has been installing decentralised systems for many years. The key to its work is using combinations of multiple air conditioning units (even those of different types) that can be controlled individually, but also together as a single system. This enables Hoval to respond flexibly to a wide range of requirements for heating, cooling and ventilation.

Design support from experts.

Take advantage of the expertise of our experienced specialists. We will be happy to support you throughout all project phases when designing your system.
Working in close cooperation with you and taking into account all the specifications of the energy supplier, we develop the most efficient and cost-effective solution for you.

Hoval service expertise.

Hoval systems are professionally commissioned by specially trained and experienced Hoval service technicians, ensuring that the systems will operate perfectly from day one. Maintenance and troubleshooting are performed on-site by an expert customer service team.

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