

A photograph of two white Hoval Belaria heat pumps with blue condenser coils, positioned in front of a modern building with large glass windows and grey panels. The sky is clear and blue. The heat pumps are modular and rectangular, with a red Hoval logo on the side of each unit. The building behind them has multiple stories with large windows reflecting the sky. A garage door is visible on the right side of the building.

**Hoval**

## **Hoval Belaria<sup>®</sup> fit**

Air/water heat pump  
for high-performance solutions  
with renewable energies

Efficient | Modular | Sustainable

# Hoval Belaria® fit

## In detail.



### Belaria® fit

#### for high-performance solutions with renewable energies

The Belaria® fit is designed for systems with high outputs – monovalent or as a hybrid system with a high proportion of renewable energies.

- Efficient
- Modular
- Sustainable

It offers efficient heating, cooling and hot water production at the same time: for example, for industry, hotels, shopping malls, hospitals, office buildings, blocks of flats and many other applications.

### Efficient

Systems with the Belaria® fit are particularly energy-efficient:

- Thanks to modulating inverter technology, it continuously adjusts its output over a very wide range of 40 – 100%, so it always runs at optimum efficiency.
- The evaporator fins are protected by a hydrophilic coating. This ensures consistently high efficiency and shorter defrosting times.
- The R32 refrigerant has a high volumetric refrigerating capacity. This enables high efficiency – both in heating and cooling mode. In addition, the evaporative behaviour of R32 is ideally suited to our temperate climate zone, resulting in high annual performance figures for heating and cooling (SCOP/SEER).

### Modular

As a standalone heat pump, the Belaria® fit provides sufficient power for medium-sized buildings. However, its great advantages come into play in the system:

Up to 16 Belaria® fit units can be combined flexibly to form an easily controllable cascade. This increases operational reliability – and the output which can be modulated increases into the megawatt range.

Hybrid systems in which the Belaria® fit is combined with a gas condensing boiler, for example, offer particularly interesting price/performance ratios.

### Sustainable and fit for the future

The R32 refrigerant complies with EU regulations and offers a future-oriented solution with a low environmental footprint. Systems with the Belaria® fit are considered sustainable due to their high efficiency and are eligible for subsidies.

## Renewable energies up to 1.4 MW – in the hybrid system even up to 4 MW

With Belaria® fit, efficient systems with a high proportion of renewable energies can be planned. As a monovalent system, up to 1.4 MW is possible. Bivalent hybrid systems can even supply up to 4 MW – depending on the required proportion of renewable energies.



Bivalent hybrid system with Belaria® fit and gas condensing boiler UltraGas®.

**50% heat load through heat pump** → **80% renewable energies in the annual demand**

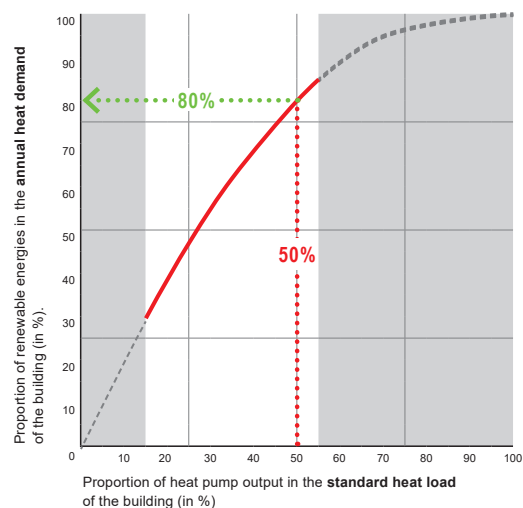
The Belaria® fit covers the base load of the entire annual demand. An additional heat generator only supplies the energy for demand peaks, at low outdoor temperatures or increased domestic water requirements. The entire system is controlled by the Hoval TopTronic® E system control.

In addition to ecological advantages, the hybrid systems offer:

- Increased efficiency, as the advantages of the energy sources in terms of output and temperature level can be used selectively.
- Increased working safety due to redundancy of heat generators and reduced dependence on a specific energy source.
- Lower investment costs for the additional heat generators.

## Renewable energy sources in refurbishment

The Belaria® fit opens up new possibilities for heating system refurbishment: Existing systems, for example gas condensing boiler systems, can be cost-effectively supplemented with a Belaria® fit. They are then considered renewable energy systems.



With 50% of the heat load, the Belaria® fit provides 80% of the annual energy consumption. As a result, legal requirements for a high proportion of renewable energies can be met cost-effectively, even in large plants.

Belaria® fit		(53)	(85)
Heat output*/COP per unit at A2/W35	kW	53.3 / 3.5	84.8 / 3.4
Cooling capacity/EER per unit for A35-W12/7	kW	55.0 / 2.6	88.4 / 2.7
Seasonal coefficients of performance SCOP/seasonal energy efficiency ratios SEER		3.9 / 4.0	4.0 / 3.9
Modulation (1 unit)	%	40–100	40–100
Sound power level** (super silent mode)	dB(A)	71	73
Energy efficiency class*		A++	A++

\* EN 14511 \*\* acc. to EN ISO 9614-2; in super low-noise operation



Belaria® fit (53): up to 853 kW



Belaria® fit (85): up to 1.4 MW

**Hoval quality.**  
You can count on us.

As a specialist in heating and climate technology, Hoval is your experienced partner for system solutions. For example, you can heat water with the sun's energy and your rooms with oil, gas, wood or a heat pump. Hoval ties together the various technologies and also integrates room ventilation into the system. So you can save energy while looking after the environment and your costs – and still enjoy the same level of comfort.

Hoval is one of the leading international companies for indoor climate solutions. More than 75 years of experience continuously motivate us to design innovative system solutions. We manufacture complete systems for heating, cooling and ventilation to more than 50 countries.

We take our responsibility for the environment seriously. Energy efficiency is at the heart of the heating and ventilation systems we design and develop.

## Responsibility for energy and environment

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Your Hoval partner