

**French Boiler** Manuafacturer since 1971



# Hybrid Air/Water heat pumps

#### **Optipac MR32 hybrid**

Heat pump outputs:

- Single-phase : 6, 8, 10, 12, 14, 16 kW
- Tree-phase : 12, 14 or 16 kW

Backup power:

- Oil/Bio-oil : 24 or 32 kW
- Gas/Biogas/Propane : 24 or 32 kW

2 possible solutions:

- Heating only

- Heating + domestic hot water production



Heating only



Heating + domestic hot water production

# The hybrid heat pump: an innovative solution for the future

What is a hybrid heat pump?

The Perge OptiPac MR32 hybrid heat pump combines two energy sources: electricity for the heat pump and oil/bio-oil or gas/biogas for the backup boiler. This combination offers numerous advantages.





**Reduction of carbon footprint** thanks to the possible use of renewable fuels : electricity, bio-oil, HVO or XTL and biogas



**Energy bill optimization** Pay for the cheapest energy available at the moment



# **Boiler body warranty: 10 years**

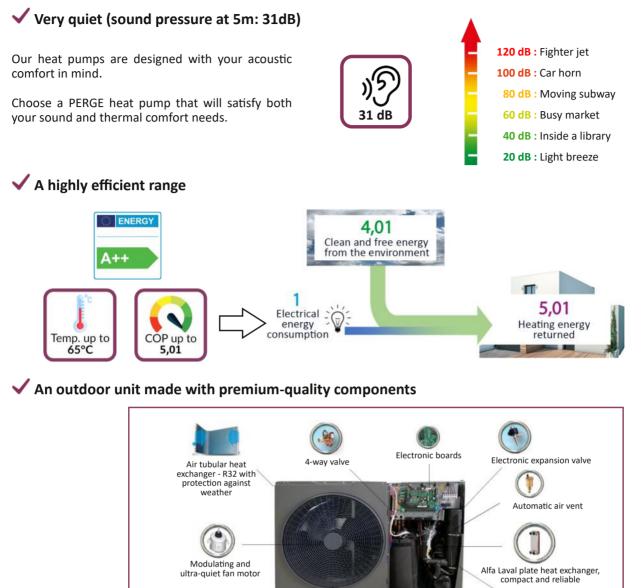


#### **Boiler body warranty: 10 years**

The warranty on the heat exchanger body of the boiler incorporated in the hybrid heat pump, against any risk of corrosion or leaks, is extended from 3 to 10 years if you subscribe an annual maintenance contract with a professional, starting the first year and without interruption for 10 years.



# A high-performance heat pump



# Pay for the cheapest energy available at the moment

The coefficient of performance (COP) of a heat pump varies based on certain criteria. It decreases when:

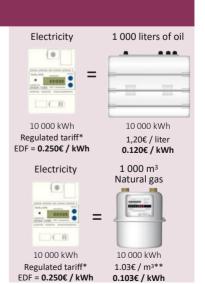
- The outdoor temperature drops
- The heating water temperature increases

For example, when the outdoor temperature falls to -7°C and the heating water temperature is around 55°C (radiator heating), the COP is approximately 2.

Referring to the infographic regarding France, it is noted that as of 01/08/2024, the price per kWh of electricity at the regulated rate is about twice as expensive as oil or natural gas. During cold weather conditions, as mentioned above, the hybrid heat pump offers a more economical heating solution by switching to the backup boiler.

This example can be recalculated taking in account the price of electricity, oil or gas in your country.

By providing the option to use two energy sources, if energy prices fluctuate, the hybrid heat pump can adapt its operation to ensure it always uses the cheapest energy available at the moment.



Electric heater

Modulating circulator

5L expansion tank

Modulating Twin-Rotary compressor

\*Regulated tariff in France as of 01/08/24 \*\*Source : <u>www.vie-publique.fr</u>

# A robust and easy-to-install backup boiler

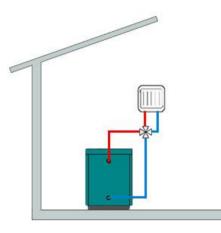
#### ✓ Simplified installation thanks to the original hydraulic design of PERGE boilers

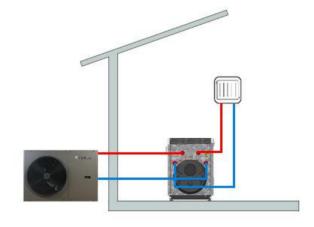
The technology of backup boilers equipping the PERGE OptiPac MR32 hybrid heat pumps is based on an innovative hydraulic design.

It combines the following functions into a single unit:

- A hydraulic buffer volume
- A backup burner
- A control system managing the entire setup

As a result, they can be installed in place of the existing boiler without additional accessories. A hydraulic connection links the backup boiler to the heat pump located outside.





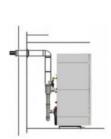
BEFORE



#### Possibility of connection via chimney or room-sealed

The backup boilers of the PERGE OptiPac MR32 hybrid heat pumps can be connected via a chimney or a room-sealed (without a chimney duct).

This allows them to be installed in place of the existing boiler or, if necessary, relocated to a more suitable location.





Horizontal room-sealed connection

Vertical room-sealed connection

### Compatibility with biofuels

In addition to the low NOx emission burner, PERGE oil boilers also benefit from the latest research in the field of bio-oil.

As an industrial partner in this program, PERGE offers burners compatible with bio-oil containing up to 100% rapeseed ester, HVO or XTL.

PERGE gas boilers are compatible with biogas.





# MyPerge application and RC7 control Optimized remote control for your OptiPac MR32 hybrid

#### ✓ Weather compensation control with room temperature adjustment (Class VII) connected

RC7 is a Class VII control system that regulates the heating circuit temperature by:

- modulating it based on outdoor weather conditions
- adjusting and correcting it according to indoor comfort needs

The temperature sensors are easy to install and transmit information either via a wired connection or wirelessly.

The outdoor sensor is available in both wired and wireless versions.

Each heating circuit is equipped with either a wired or wireless **indoor sensor**. The indoor sensor also comes with an option for manual comfort temperature adjustment.

#### Outdoor or indoor sensor without manual comfort temperature adjustment

Heat pump - boile Tandem

2°

Bivalence

Temperature

(can be changed)

Indoor sensor with manual comfort temperature adiustment

## MyPerge application

Available on the Google Play

Control via smartphone with the MyPerge app (Android or iOS) can be done locally through **Bluetooth** or the **internet**, or **remotely** via the internet.

kW

Boile

-7°

Heat Pump

Cut-Off Temperature

Data exchanges are encrypted for enhanced security.

You can control **up to 3 heating circuits** or 2 heating circuits + 1 domestic hot water circuit.

**2 access levels are available:** User and Professional.

#### An optimized operating mode

- "Heat Pump Only" Mode: Only the heat pump operates. Thanks to its very high COP, heat is produced with unrivaled efficiency.

- "Heat Pump-Boiler Tandem" Mode: The heat pump operates at full capacity under still favorable COP conditions. The boiler only provides the necessary additional power.

- "Boiler Only" Mode: The heat pump's COP no longer allows for competitive heating. Only the boiler operates.

#### www.perge.com

Find our catalog-price list, product documentation, and more information about all our product www.perge.com

Dealer stamp



Heat pump output

Heat pump only

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Outdoor

temperature in °C

