

PV hybridisation

The ecoGEO+ PRO heat pumps feature an in-built energy manager, allowing users to store surplus electricity from solar panels as thermal energy. This stored heat is used to adjust set points for both DHW and other services, enhancing self-consumption and energy independence.



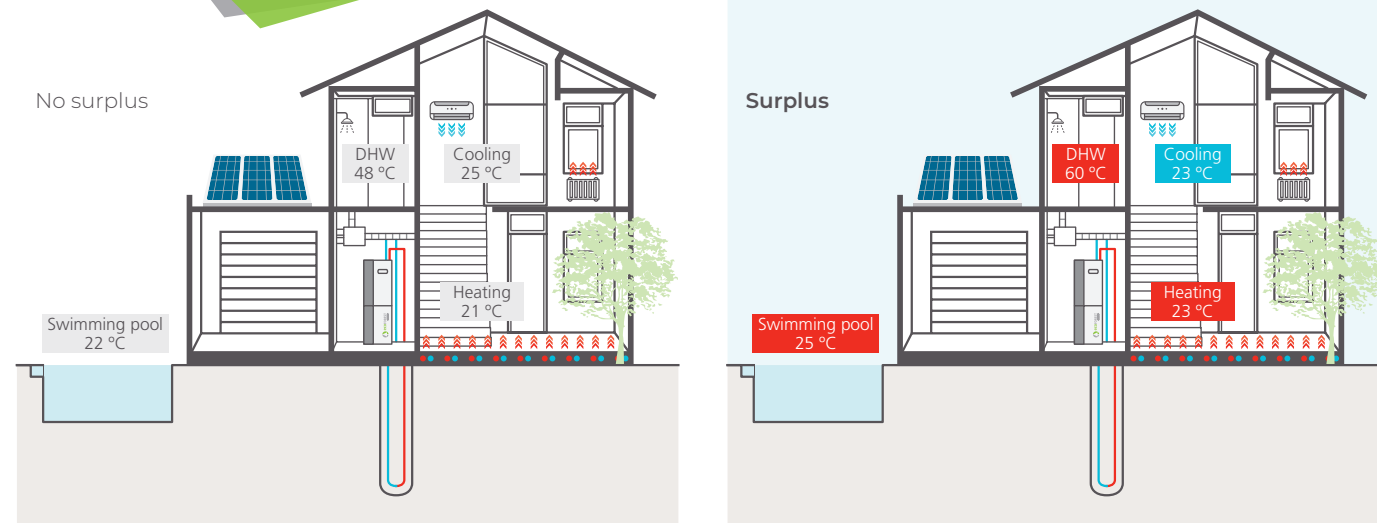
A key feature of Ecoforest's energy managers is that energy is never drawn from the grid when there is a PV surplus. The compressor power adjusts to this surplus without exceeding it, ensuring no electrical energy is consumed from the grid. Ecoforest's experience in the management and development of software and control strategies for variable power compressors (Inverter Technology) has been poured into this system.



Integrated management of PV surplus

	DHW	HEATING	COOLING	SWIMMING POOL
No surplus	45°	35°	15°	26°
Surplus	60°	55°	7°	32°

Thermal storage using DHW or a buffer tank



Thermal storage is optimised through Ecoforest Th-tune thermostats



ecoGEO+ PRO Basic

ecoGEO+ PRO Compact



ecoGEO+ PRO Range

The widest range of domestic ground-source heat pumps with natural refrigerant R290

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WE'R'290



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ecoGEO+ PRO

The first water-to-water heat pump with R290

In 2020 Ecoforest released the ecoGEO+ 1-6 PRO, becoming the first manufacturer globally to introduce a ground-source heat pump with natural refrigerant R290. In 2023 the range expanded with the ecoGEO+ 2-10 PRO and ecoGEO+ 4-16 PRO models to satisfy diverse installation needs with the advantages of the natural refrigerant R290.

Thanks to the high efficiency of ground-source heat pumps, the consumed electricity is multiplied by a factor of four or five, depending on the external and installation conditions. This translates to 4 kW to 5 kW of heat for each kW of electricity consumed. Moreover, Ecoforest's unique technological solutions enable the installation of water-to-water heat pumps in locations where borehole installations are impractical or insufficient for the entire energy demand. This solution utilises air units for air-source collection.

- Radiator compatibility
- Domestic hot water (DHW) up to 75°C
- Ideal for retrofitting projects



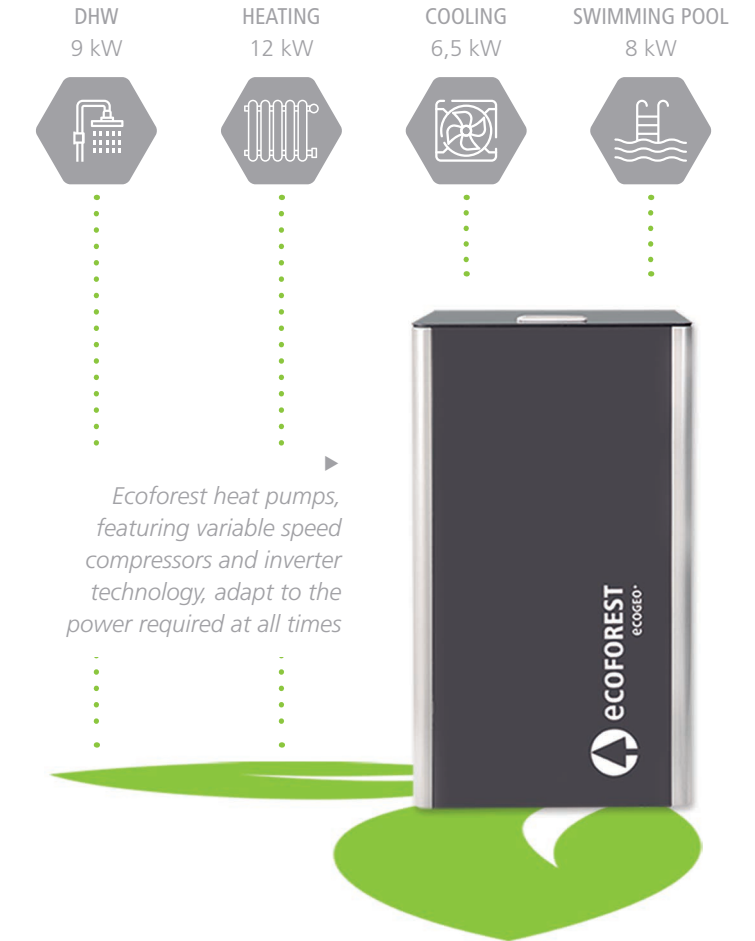
Ground-source heat pumps with natural refrigerant

Ecoforest is committed to environmental sustainability. R290, a natural gas with minimal global warming potential (GWP), offers a broad operational range and high efficiency. It is a naturally occurring, non-toxic gas.

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|-------------|-----------|----------------|
| Natural | Low GWP | Cost-efficient |
| Comfortable | Efficient | Safe |

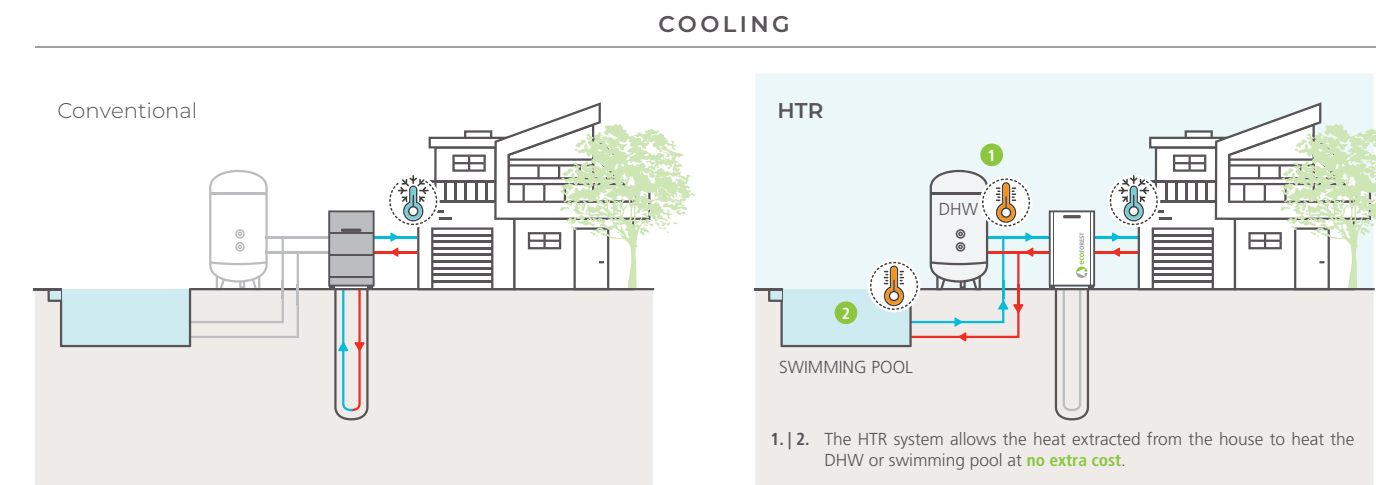
Ecoforest's Commitment to R290:

- 700 times lower GWP than synthetic refrigerants.
- Heating supply temperature up to 70 °C, enabling boiler replacement in radiator installations.
- Indoor installation: with a ventilation system allowing the heat pump installation in any boiler room.

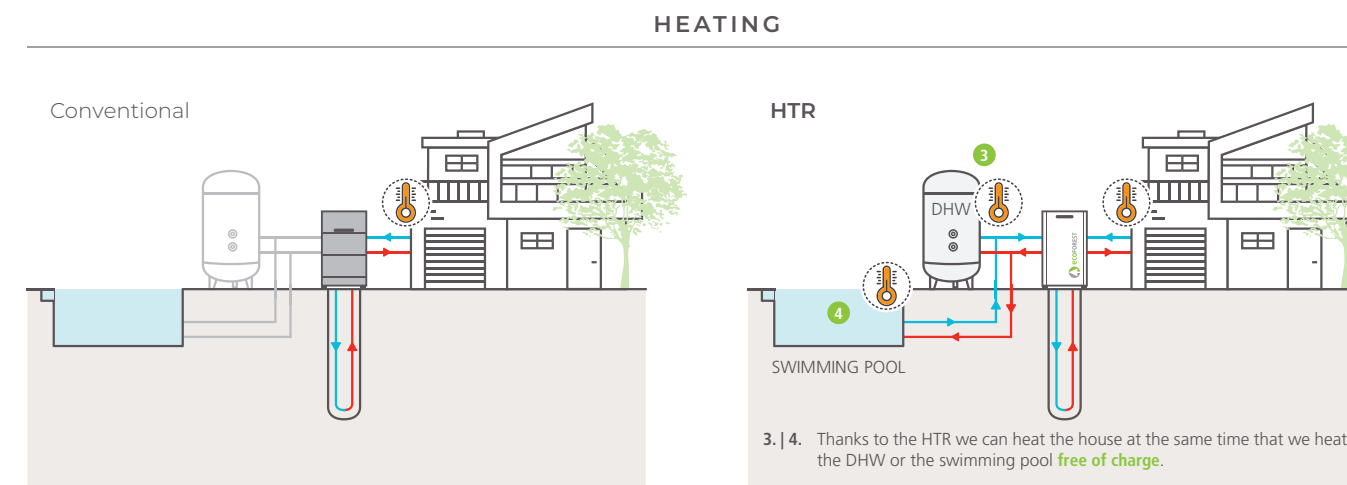


Advantages of ecoGEO+ PRO

- Natural refrigerant R290:**
 - Wide operational range.
 - Hot water supply above 70°C and up to 75°C in DHW.
- Cascade configuration for up to three units.**
- Environmentally friendly:** low global warming potential (GWP).
- Silent operation:** new design reducing sound to minimal levels.
- High Temperature Recovery (HTR) system:** utilises waste heat from the compressor to heat DHW or a swimming pool, enabling simultaneous production of DHW or pool heating with heating or cooling at virtually no cost.
- Inverter technology and variable speed compressor:**
 - Exceptional seasonal performance:** continuously adapts to the home's thermal needs.
 - Compact technical room:** adjusts to thermal needs without oversizing equipment.
- Smaller boreholes:** tailored to the actual needs of the installation.
- Cost-effective and quick installations:** no buffer tanks required.
- Cooling production:** no need for external accessories or additional systems.



Infographic for illustrative purposes. The heat pumps are installed inside the house



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Technical datasheets

- Inverter technology with wide modulation ranges.
- Suitable for indoor installation.
- Total installation control: in-built energy counters and internet control with ecoSMART Easynet.
- Available in Basic and Compact models.
- Compact model with a 165L DHW tank in-built.
- Design optimised for reduced noise levels.
- High Temperature Recovery System (HTR): for simultaneous energy-efficient service production.

	ecoGEO+ PRO 1-6 kW	ecoGEO+ PRO 2-10 kW	ecoGEO+ PRO 4-16 kW
Power	1-6 kW	2-10 kW	4-16 kW
Basic Measures A x A x P (mm)	1058 x 550 x 602	1051 x 609 x 716	1051 x 609 x 716
Compact Measures A x A x P (mm)	1851 x 600 x 720	1943 x 609 x 724	1943 x 609 x 724

- Efficiency up to 500 %
- PV hybridisation
- DHW production up to 75°C
- Single-phase (230V) or three-phase power supply (400V)
- Cascade configuration up to three units (30 kW / 48 kW)
- Hot water production of up to 70°C