



POLYTROPIC

• POOL HEATING SOLUTIONS •

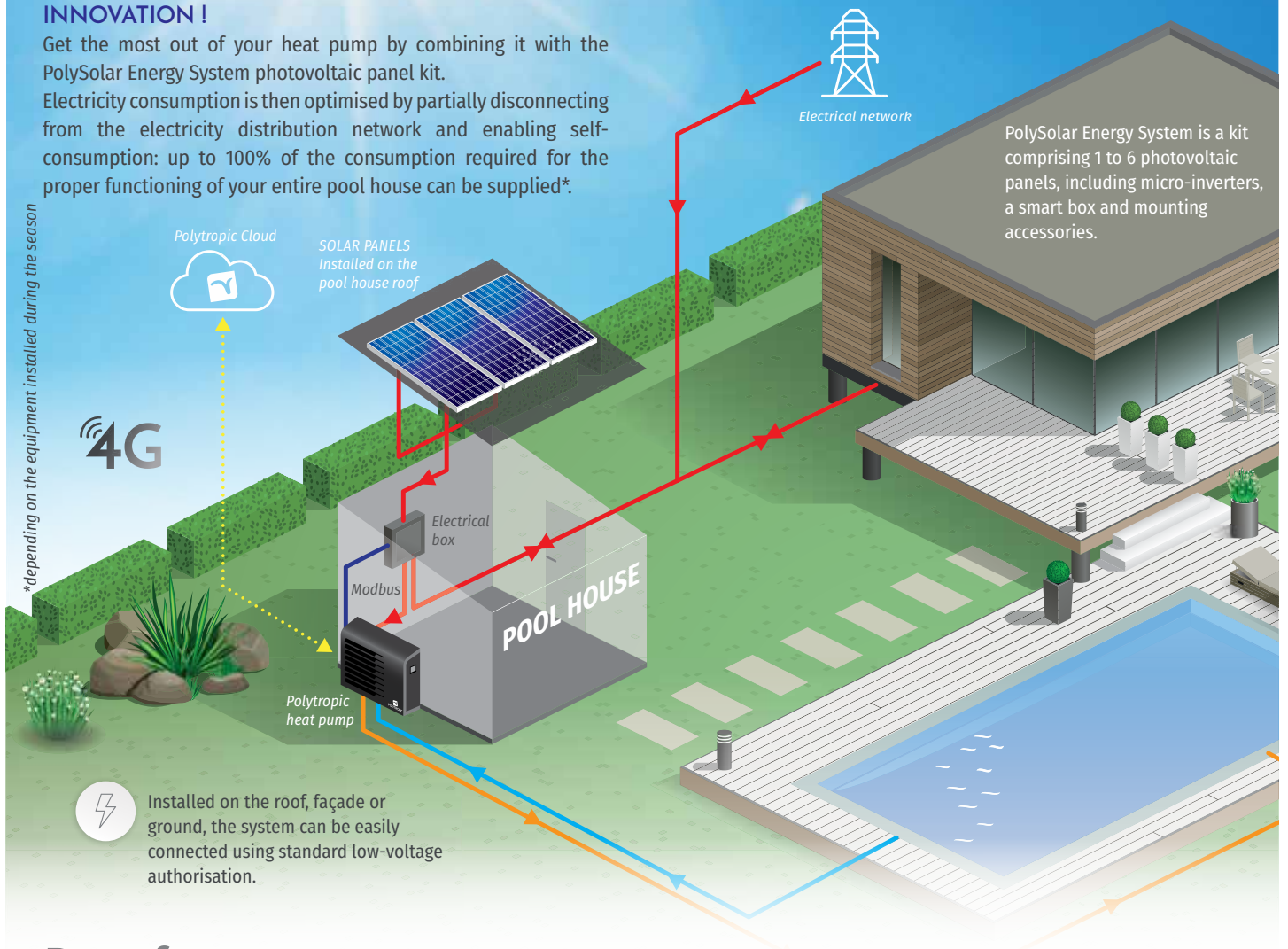
POLYSOLAR ENERGY SYSTEM

the complete patented photovoltaic solution






INNOVATION !

Get the most out of your heat pump by combining it with the PolySolar Energy System photovoltaic panel kit. Electricity consumption is then optimised by partially disconnecting from the electricity distribution network and enabling self-consumption: up to 100% of the consumption required for the proper functioning of your entire pool house can be supplied*.

*depending on the equipment installed during the season



Benefits

-  **COST REDUCTION**
uses free solar energy, reducing electricity consumption and energy bills.
-  **ENERGY OPTIMISATION**
adjusts the power consumed by the heat pump in real time to the energy produced, preventing waste.
-  **ECO-FRIENDLY**
reduces CO2 emissions by promoting renewable energy sources.
-  **CONSTANT COMFORT**
maintains the temperature even when solar production is low.
-  **INVESTMENT VALUATION**
maximises the use of the installed photovoltaic panels and the reservoir itself.

Ideal 'hybrid' installation with photovoltaic panels solution

Save even more on your energy bill by combining your ELITE R290 heat pump with a PolySolar Energy photovoltaic panel kit.

Electricity consumption is further optimised by partially disconnecting from the electricity distribution network and enabling self-consumption.

PROVIDES UP TO 100% OF THE ENERGY REQUIRED FOR YOUR HEAT PUMP TO OPERATE EFFICIENTLY*



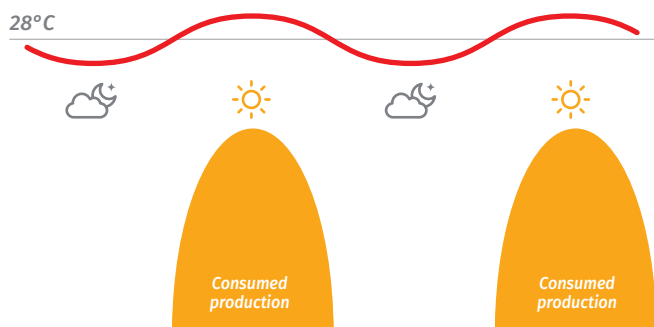
Installation example

PolySolar ENERGY

Patented intelligent operation

When the weather is fine, the heat pump continues to heat the pool up to the upper limit set by the user. Its consumption remains equal to the photovoltaic production, so heating is free. The pool then stores energy in order to anticipate future heat losses, for example during the night. When it is cloudy, the heat pump reduces its power (consumption equals production) while ensuring the comfort desired by the user.

<ul style="list-style-type: none"> • 8mx4m covered swimming pool • Rhône area • heated with a set temperature of 28°C • by a Master-Inverter S heat pump • from 15 May to 15 September 	<p>3-PANEL KIT - 1,5 KW</p> <p>Efficiency: 1950 kWh/an Potential savings*: 380,62 € Return on investment (10 years)**: 4 564,99 € Return on investment (25 years)**: 16 382,65 €</p>
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OPTIMISE UP TO AN ADDITIONAL 25% ON THE ENERGY CONSUMPTION OF YOUR POLYTROPIC HEAT PUMP.

* Customer kWh cost - EDF base rate as at 01/08/2025: €0.1952
 ** Taking into account a 5% increase in electricity prices per annum
 *** 0.5% decrease in module performance per annum (manufacturer)

As soon as the pool water reaches the temperature desired by the customer, the excess energy produced by the photovoltaic panels can power not only the pool house equipment, but also some of the house's equipment.



To go further: patented intelligence

By switching the heat pump to PV mode, the user also has the option of **continuing to heat the pool**, even though it is at the set temperature, transforming it into a **thermal energy reservoir**. On sunny days, the heat pump can continue to operate up to a limit set by the user, thus anticipating future heat losses and avoiding the need for grid energy when the sky is overcast.

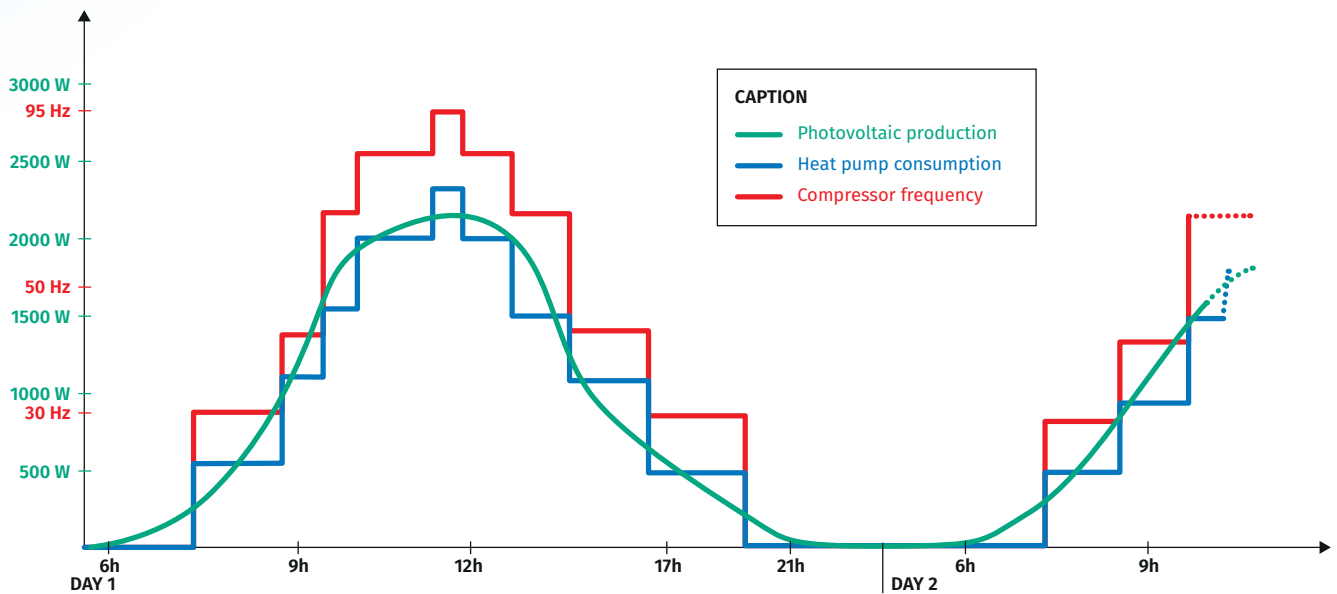
Thanks to the patent, users can customise:

- Their **low setpoint**, adjusted according to their bathing comfort.
- Their **high setpoint**, allowing energy to be stored in the form of heat while optimising consumption in relation to solar production.

In addition to covering the energy cost of the heat pump, the system optimises its operation. PolySolar ENERGY intelligence makes the heat pump/photovoltaic installation combination much more efficient by working together.

The result is an **additional 25% optimisation** compared to a heat pump operating with a photovoltaic installation without intelligence. **The pool is thus heated solely by free solar energy.**

WITH THE POLYSOLAR SOLUTION, THE HEAT PUMP OPERATES ENTIRELY ON SOLAR ENERGY, WHILE ENSURING EFFICIENT AND AUTONOMOUS MANAGEMENT OF THE ENERGY PRODUCED BY THE PHOTOVOLTAIC SYSTEM.



SOLAR MODE

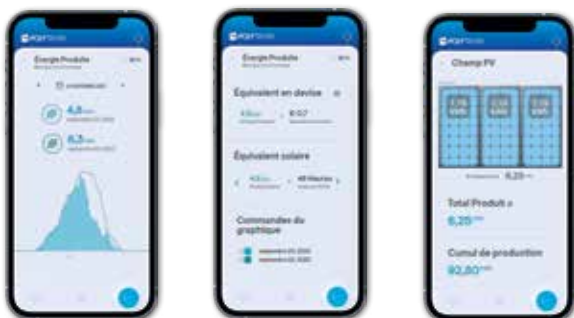
SOLAR mode is an innovative feature that **optimises the use of solar energy to heat pool water**.

When photovoltaic panels are installed on site, **the heat pump automatically detects the energy produced by these panels and adjusts its consumption and heating power accordingly.**

This means that the CAP operates primarily on renewable energy generated, thereby reducing conventional electricity consumption from the grid.

The app

Thanks to the PolyConnect 2.0 application, you have real-time visibility of your self-production/consumption quota.



POLYSOLAR SPLIT

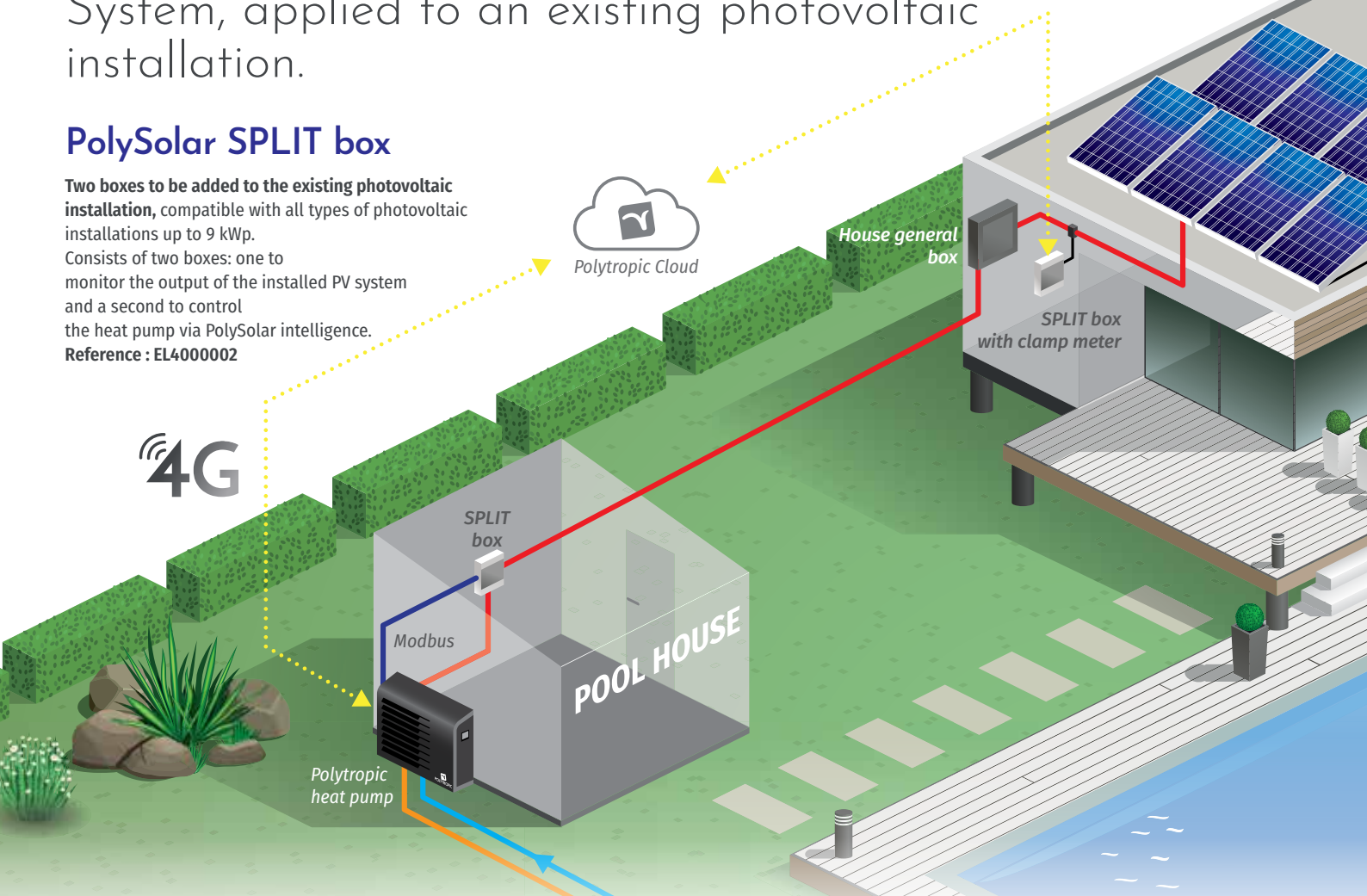
All the advantages of the Polysolar Energy System, applied to an existing photovoltaic installation.

PolySolar SPLIT box

Two boxes to be added to the existing photovoltaic installation, compatible with all types of photovoltaic installations up to 9 kWp.

Consists of two boxes: one to monitor the output of the installed PV system and a second to control the heat pump via PolySolar intelligence.

Reference : EL4000002



All PolySolar Energy solutions are **compatible with** :



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