

POLYSOLAR ENERGY SYSTEM

The photovoltaic solution



INNOVATION !

Get the most out of your CARE290 swimming pool Heat pump by combining it with photovoltaic panels-the Polysolar Energy system.

Energy consumption is thus optimized almost entirely free of the electrical distribution network and self sustaining. Provides up to 100% of the consumption necessary to ensure the proper operation of your swimming pool heat pump*.



*depending on model and number of panels

Reduced electricity bill and savings

Combining the Polytropic heat pump with the **PolySolar Energy system** is already a worthwhile investment and offers many advantages.

By converting solar radiation into electricity, each photovoltaic panel **optimally supplies the pool heat pump with up to the full required power** (depending on the number of modules, exposure and geographical location), while the remaining consumption is covered by the conventional electricity grid.

Electricity consumption is then optimised by being partially freed from the network and allowing self-production and self-consumption.

When the water in the pool has reached 28°, **the surplus energy production supplies the rest of the pool house equipment, but also the house!**

The user can also choose to continue operating the heat pump in order to use the pool as an indirect energy storage in the form of calories.

Installed on the roof of the pool house or directly in a South facing garden and connected by an electrician with a standard electrical licence



Electricity grid

SOLAR PANELS
installed on the roof
of the pool house

Electrical
box

Modbus

Polytropic
Heat pump

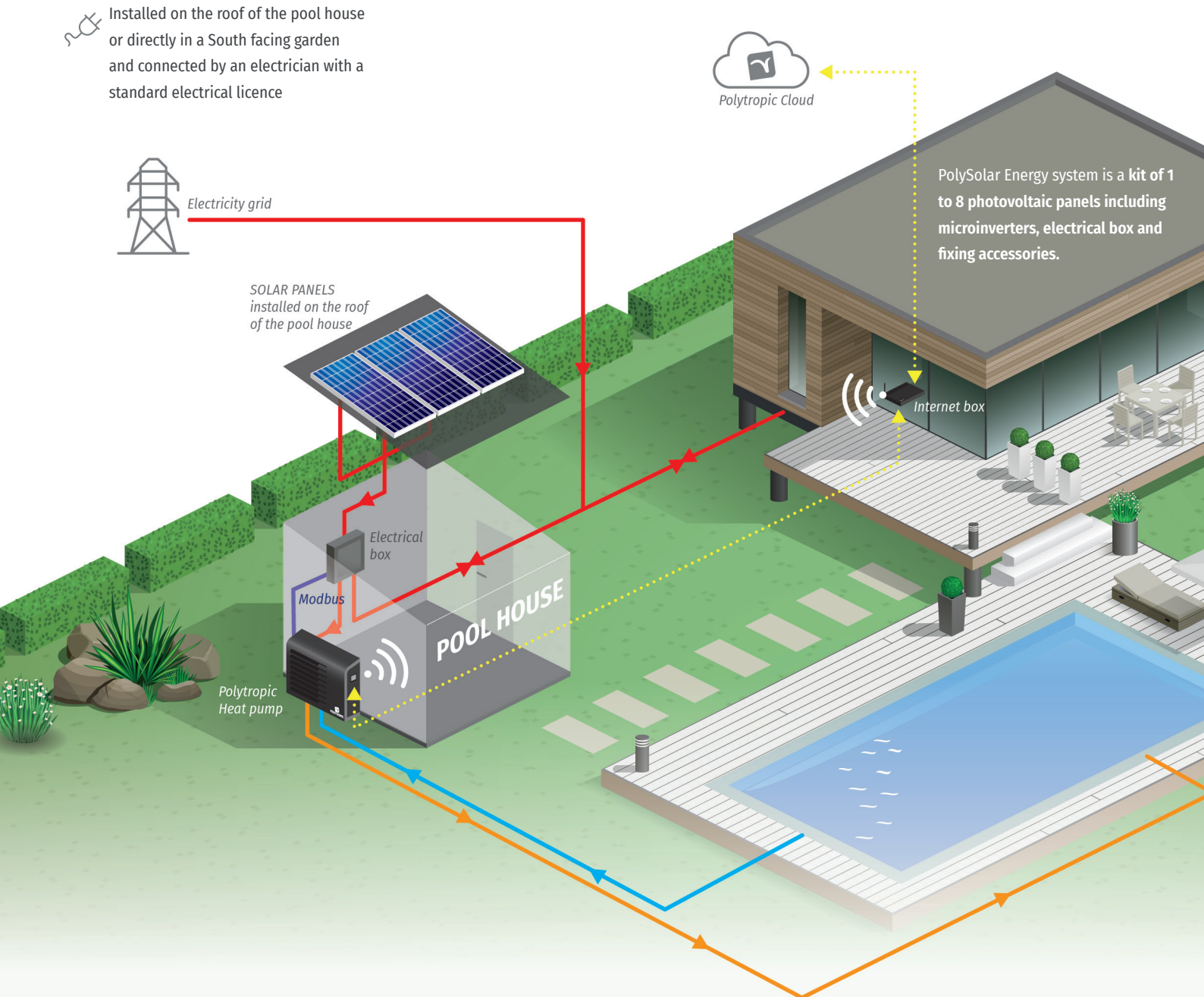
POOL HOUSE



Polytropic Cloud

PolySolar Energy system is a kit of 1 to 8 photovoltaic panels including microinverters, electrical box and fixing accessories.

Internet box



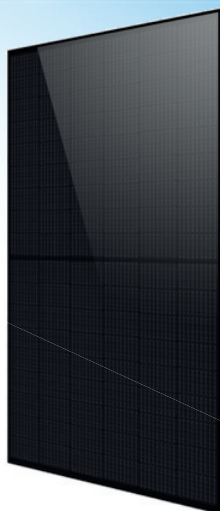
Features and **benefits**



Financial gain: The PolySolar Energy System can produce up to 100% of the energy required to drive the Swimming pool Heat pump. When the desired set point temperature has been achieved, the energy supplied by the panels is consumed by the other electrical appliances in the in the house and contributes to the to the overall profitability of the system.



Performance: high-efficiency solar cells convert the entire solar radiation thanks to their high-performance coating.



Easy: plug & play installation on any pool house roof or in the south facing garden. The kit is very easy to connect, a simple electrical qualification is required.



Warranty: French photovoltaic panel manufacturer, 25 years product warranty. 85% photovoltaic yield guaranteed after 25 years.

Technical **specifications**

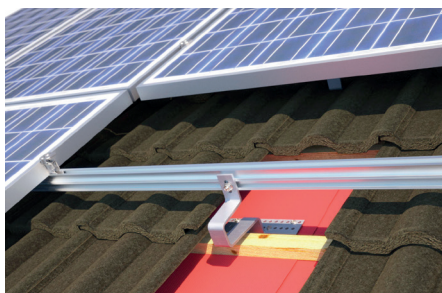
ROOF installation			
Item reference	Name	kit contents	Peak power output
PS010001	Pack PolySolar Energy System 1 panel ROOF	1 PV panel, 1 micro-inverter, 1 box, fixings: 2 rails 4 hooks 4 clamps (+ accessories)	0,375 kWc
PS010002	Pack PolySolar Energy System 2 panels ROOF	2 PV panels, 1 micro-inverter, 1 box, fixings: 2 rails 4 hooks 6 clamps (+ accessories)	0,75 kWc
PS010003	Pack PolySolar Energy System 3 panels ROOF	3 PV panels, 1 micro-inverter, 1 box, fixings : 2 rails 6 hooks 8 clamps (+ accessories)	1,125 kWc
PS010004	Pack PolySolar Energy System 4 panels ROOF	4 PV panels, 1 micro-inverter, 1 box, fixings : 4 rails 2 junctions 8 hooks 12 clamps (+ accessoires)	1,5 kWc
PS010006	Pack PolySolar Energy System 6 panels ROOF	6 PV panels, 2 micro-inverters, 1 box, fixings : 4 rails 2 junctions 12 hooks 16 clamps (+ accessories)	2,25 kWc
PS010008	Pack PolySolar Energy System 8 panels ROOF	8 PV panels, 2 micro-inverters, 1 box, fixings : 8 rails 4 junctions 16 hooks 22 clamps (+ accessories)	3 kWc

FLOOR OR FLAT ROOF installation			
Item reference	Name	kit contents	Peak power output
PS020001	Pack PolySolar Energy System 1 panel FLOOR	1 PV panel, 1 micro-inverter, 1 box, 1 ballast tray (+ accessories)	0,375 kWc
PS020002	Pack PolySolar Energy System 2 panels FLOOR	2 PV panels, 1 micro-inverter, 1 box, 2 ballast boxes (+ accessories)	0,75 kWc
PS020003	Pack PolySolar Energy System 3 panels FLOOR	3 PV panels, 1 micro-inverter, 1 box, 3 ballast boxes (+ accessories)	1,125 kWc
PS020004	Pack PolySolar Energy System 4 panels FLOOR	4 PV panels, 1 micro-inverter, 1 box, 4 ballast boxes (+ accessories)	1,5 kWc
PS020006	Pack PolySolar Energy System 6 panels FLOOR	6 PV panels, 2 micro-inverters, 1 box, 6 ballast boxes (+ accessories)	2,25 kWc
PS020008	Pack PolySolar Energy System 8 panels FLOOR	8 PV panels, 2 micro-inverters, 1 box, 8 ballast boxes (+ accessories)	3 kWc

Dimensions : 1 PV panel: 1 750 x 1 038 x 35 mm **Weight :** 21 kg

Installation

Installation on any pool house roof or in the south facing garden:

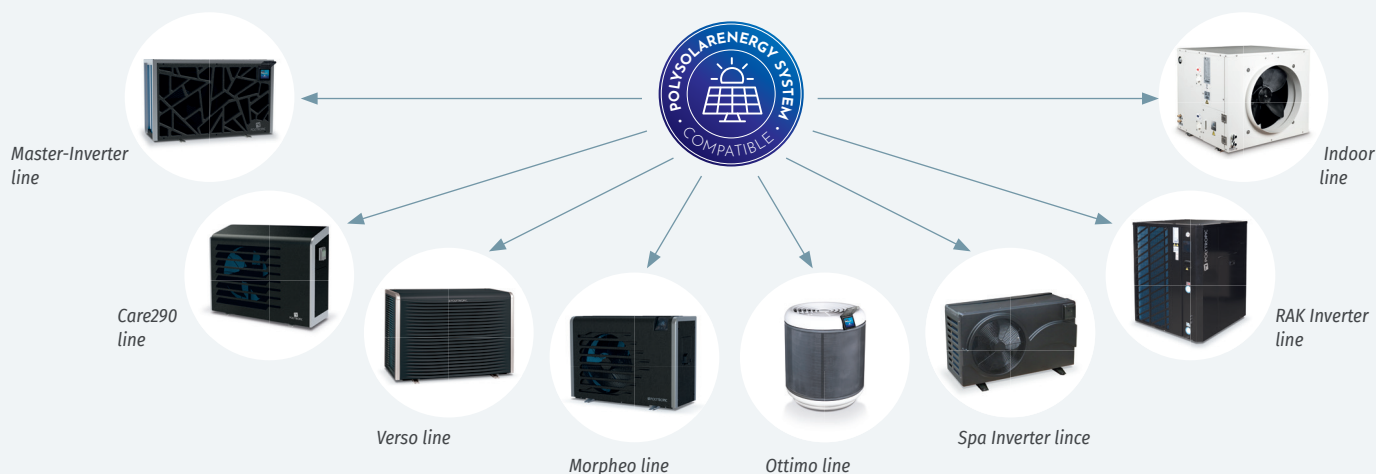


Roofing installation accessories



Accessories for deck or flat roof installation

PolySolar Energy system is **compatible** with :



Case study

Covered swimming pool of **8 m x 4 m**, 1.5 m deep, in the Rhône-Alpes area, heated with a **set temperature of 28°C** by a swimming pool heat pump Master-Inverter S by POLYTROPIC, combined with the Polysolar Energy System from **15 May to 15 September** is:

with a 3 panels pack

> 100% of the electricity consumption of the heat pump during the season is provided by the production of the photovoltaic panel kit

with a 6 panels pack

> 100% of the electricity consumption of the heat pump AND the filtration pump during the season is provided by the production of the photovoltaic panel kit*.

*Indicative data on the annual production of the panel, according to exposure and supplier rates. Polytropic is not responsible for this information.