

What is the ENERGIE Thermodynamic Solar System?

ENERGIE Thermodynamic Solar Systems use a technology based on the principle of the French physicist Nicolas Carnot, who discovered thermodynamics. Thanks to her, Thermodynamic Solar Panels are capable of capturing the heat from the sun, or even from the rain and wind, 24 hours a day, 365 days a year. One of the innovative aspects is that an ecological fluid at freezing temperatures circulates through the solar panel, allowing a greater uptake of the solar energy and a higher absorption of the environmental energy that is then released to the water through a heat exchanger. Thus, **ENERGIE's** Thermodynamic Solar Panels surpass the limitations of the traditional solar panels and make possible a more efficient increase of the water temperature.

Does this solar panel produce electricity?

The **ENERGIE** Thermodynamic Solar Panels do not produce electricity. We can use the Thermodynamic Solar Panels for: heating sanitary water, heating large volume water, acclimatisation of swimming pools heating and central heating.

Does this equipment work as a heat pump?

ENERGIE equipment is not heat pumps. The heat pump is a device that requires mechanical ventilation which causes large energy consumption and excessive noise. In addition, at low temperatures, you need to use an electric heater to eliminate frost which seriously undermines its performance.

Do I need to keep my geyser or water heater and buy a special module?

The **ENERGIE** Thermodynamic Solar System is sufficient to ensure you hot water all year round, with high energy efficiency; therefore you don't need to have any special module or maintain any support system, such as a geyser or water heater.

Can I have hot water in days without sun?

Because the fluid passes inside the panel at very low temperatures, it can receive more solar energy than a normal liquid and even on days without sun or at night. Because of this thermal difference, the solar panel can capture the heat existing in the environment and transmit it to the water. Thus, the system always ensures hot water up to 55°C.

What's the payback period for the investment?

The average investment return for Sanitary Hot Water equipment is about 4 years. Your energy bill will be significantly reduced by hundreds of Euros every year. The **ENERGIE** Thermodynamic Solar System will diminish the impact that energy costs have on your home.

Is the ENERGIE equipment approved and certified?

Yes, all our equipment follows the European standards of quality in accordance with the directives 2006/95/EC and 2004/108/EC and is also certified by **CERTIF** and **SOLAR KEYMARK**.

Does the Thermodynamic Solar System require extensive maintenance care?

Maintenance is almost non-existent, you are just advised to check the magnesium anode, a protection element of the tank, once a year.

Do ENERGIE Thermodynamic Solar Systems consume energy? What is the energy consumption?

ENERGIE Thermodynamic Solar Systems are devices of low consumption and high efficiency. The existing

electricity consumption serves only to make the ecological fluid circulate and not to produce heat, unlike the traditional systems. For example, the ECO 250 ESM system can provide hot water for a family of 4 / 5 people with energy consumption 4 / 5 times lower than the consumption of a traditional geyser or of an electric water heater.

Do I need to have a special hydraulic system on my water network or a strengthened electrical installation?

No, you don't. Both your current piping and electrical installation are sufficient and no additional works are required in this area.

Does this system have any anti-bacterial device?

Yes it does. According to the standard in force, the equipment for sanitary hot water has a function that allows the tank's temperature to be raised to over 70°C, whose activation is manual with automatic deactivation.

Can the ENERGIE Thermodynamic Solar System be installed in any region?

Yes it can. The **ENERGIE** Thermodynamic Solar System can be installed anywhere in the country, including in areas where it rains or snows.

Is the installation quick and easy?

Yes it is. A **ENERGIE** Thermodynamic Solar System for the heating sanitary water can be installed in less than 1 day.

Does it have a Warranty?

The warranty period of the solar panel is 5 years against manufacturing defects and corrosion, though the average lifetime of a thermodynamic solar panel is around 20 years. The tank has a 3 year warranty, if it's in stainless steel and a 2 year warranty if it's enamelled or galvanized.

At what distance must the panel be from the tank?

The distance should not exceed 15 metres heightwise and / or 30 metres in terms of distance.

Do the panels have to be installed on the roof?

No. The **ENERGIE** Thermodynamic Solar System is very versatile. It can be installed either on the roof or on the façade, on a flat roof, terrace, balcony, on the soil, etc.

Is it necessary to reinforce the roof and to request a planning permission to carry out the installation?

It is not necessary to reinforce the roof or to request a planning permission to carry out the installation; a Thermodynamic Solar Panel weighs only 8 kg.

Can the panels be placed in any direction?

Yes, but they should preferably be turned southwards to ensure the equipment's maximum efficiency.

Can the ENERGIE Solar Panels be painted?

The **ENERGIE** Solar Panels can be painted, preferably in dark colours, so that the panel can be easily integrated into the architecture of each customer's house, without compromising its efficiency.

What temperature can be reached in baths?

Approximately 55°C (temperature allowed by law).

Is this an ecological product?

Everyone can make a difference. Installing a **ENERGIE** Thermodynamic Solar System is a step in the fight against global warming.

With our system you can reduce your home's carbon dioxide emissions, thus helping to preserve the environment for the generations to come. An investment in a solar system for the heating of sanitary water will ensure that homeowners will benefit from this type of clean and free energy in the years to come, regardless of the increase in prices of fossil fuels.

What are the defining features of the fluid? Can it be dangerous in the event of leakage?

The used fluid is completely safe, non-toxic and environmentally friendly, so if there's a leakage there will be no problem for the user's health and safety.

Is it necessary to make temporary fluid charges?

Because the primary circuit is completely sealed, you don't need to make any temporary charge, thus ensuring lower maintenance and greater longevity of the equipment.

Will I have hot water when there is no sun for several days, with snow or on a very windy and with an outside temperature of 0°C?

Yes, there will always be hot water.

Is there more heating with 2 panels?

Heating takes up little more than half of the time. For example: For 300L, the average heating time with one panel is 6h, and with two panels it is four hours, with the water always at 55°C.

Is there the possibility of multiple simultaneous showers?

Yes, without losses of temperature or water pressure.

How much does each panel weigh?

The **ENERGIE** Thermodynamic Solar Panel is 2m long and 80 cm wide and weighs approximately 8kg. This panel is the lightest on the market, facilitating its installation and maintenance.

How many ENERGIE Thermodynamic Solar Panels are needed to heat sanitary hot water in a five-person household?

For a family of five people 1 or 2 panels are needed, depending on the equipment which has been installed.