



HEATING LARGE VOLUMES

Hot Water 365 Days of the Year

Efficiency and economy are the principal factors to take into account when there is a need to heat large volumes of water. The ENERGIE system, besides being a system that guarantees low energy consumption, also allows the water temperature to be raised to 55° C. The flexibility of the installation allows easy

replacement of traditional boilers, thereby reducing the costs of producing hot water. The thermodynamic solar system for heating large volumes of water are installed in hotel complexes, shopping centers, laundries, football stadiums, food processing factories, restaurants, clinics, schools and hospitals.

Model	Cap. (L)	Nr. Panels	Height (mm)	Diameter (mm)	Min. Power Absorbed (w)	Max. Thermal Output (w)
Eco 500	500	2	1.830	650	595	2.800
Eco 800	800	4	2.135	750	960	7.290
Eco 1000	1.000	4	2.185	850	960	7.290
Eco 1500	1.500	6	2.460	950	1.230	9.680
Eco 2000	2.000	8	2.520	1.100	1.440	11.240
Eco 3000	3.000	12	2.900	1.250	2.010	16.580
Eco 3000 E	3.000 E	16	2.900	1.250	3.210	24.210
Eco 4000	4.000	24	2.960	1.450	4.140	31.430
Eco 5000	5.000	32	3.030	1.600	5.690	42.600
Eco 6000	2 x 3.000	40	2 x 2.900	2 x 1.250	7.630	52.970

Hot Water Cylinder Dimensions



- 1 Thermodynamic Solar Panel
- 2 Fluid circulation
- 3 Thermodynamic Group
- 4 Hot water cylinder
- 5 Hot water output
- 6 Cold water inlet



HOT WATER WITH SUN, RAIN AND WIND OR EVEN AT NIGHT

The Sun does not always shine. In the winter, on average, there is only light for seven hours a day, with only three or four hours of sun, which places limits on the operation of traditional solar panels. The ENERGIE thermodynamic solar panels go beyond this limit allowing the water temperature to be raised highly efficiently and economically, on rainy days or even at night.

One of the innovations is the fact that in the solar panel, there is an ecological fluid with a temperature of approximately -15° C, which allows greater uptake of solar energy and greater absorption of environmental energy, such as the sun, rain and wind.



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HIGH ENERGY EFFICIENCY

The operational principle of these solar energy systems is based on thermodynamics, a branch of physics, which has developed out of the need to increase machine efficiency. To apply the principle of thermodynamics to the solar panels, we have increased their efficiency and created the latest generation of solar energy systems to produce hot water.

LATEST GENERATION OF SOLAR ENERGY

The thermodynamic solar panel is made out of high-yield anodised aluminium. This new product does not include glass or any other fragile material. It is highly resistant to corrosive agents, which gives it a longer working life of over 20 years.

REDUCTION OF ENERGY BILLS

Optimised ENERGIE solar systems offer savings of up to 80%. This means a reduction in energy bills with the money invested in it recovered within a short space of time.

FLEXIBLE INSTALLATION

The lightness of these solar panels – barely 8kg – and their innovative way of working allow installation between 0 – 900, so that they can be installed on roofs, flat roofs, facades, walls or in gardens. The panels are guaranteed to blend in architecturally with the building and the surrounding area.

QUICK INSTALLATION

A well-trained technician can install two panels in only one day, reducing the time for completion and costs of installation.

ECO-FRIENDLY

Using the ENERGIE thermodynamic solar system helps to reduce gas emissions causing the greenhouse effect, and therefore, global warming, leading to a better world.



MANUEL MONTES DE ALMEIDA



the future dynamics



THERMODYNAMIC SOLAR ENERGY

ecological
economic
efficient



DOMESTIC HOT WATER

Last Generation of Solar Energy

ENERGIE offers you the chance to benefit from the production of Sanitary Hot Water, up to 55°C, with high-energy efficiency and without releasing CO2 into the atmosphere. As well as its ecological and economic benefits, the reliability of the system is demonstrated by the thousands of systems already installed. Maintenance

is practically non-existent, guaranteeing absolute peace to the user. It's revolutionary principle, the application of cutting-edge technology and principally its economy in thermodynamic solar system the latest generation in solar energy for water heating.



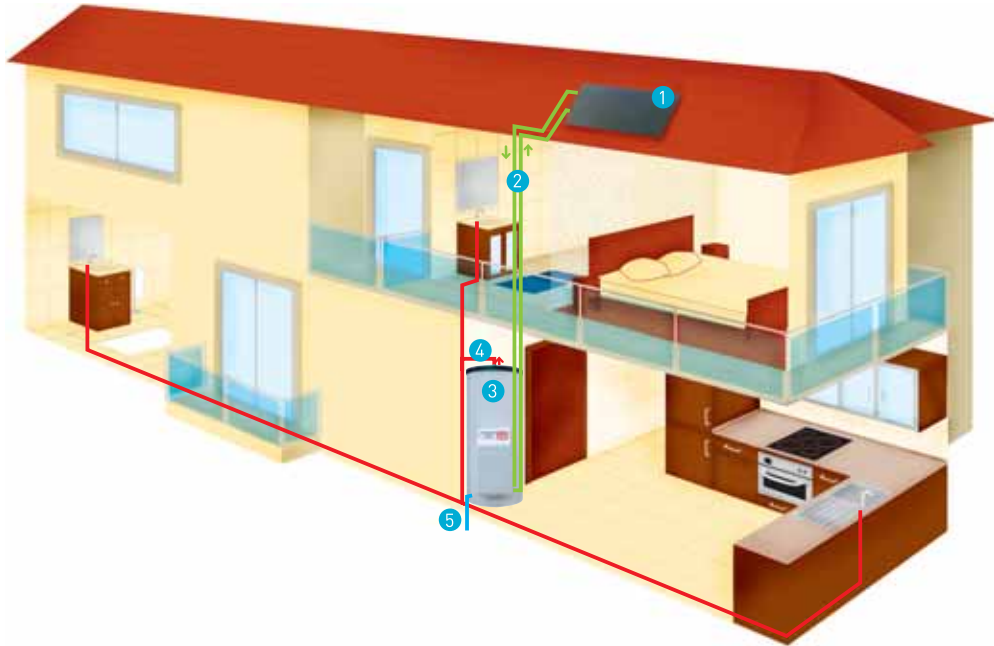
Model	Cap. (L)	Nr. Panels	Height (mm)	Diameter (mm)	Min. Power Absorbed (w)	Max. Thermal Output (w)	Nr. of People
Eco 280 I	250	1	1.650	550	390	1.690	4/5
Eco 200 I	200	1	1.400	550	390	1.690	3
Eco 200 IS	200	2	1.400	550	595	2.800	4
Eco 300 I	300	1	1.630	550	390	1.690	5
Eco 300 IS	300	2	1.630	550	595	2.800	6
Eco 500	500	2	1.650	720	595	2.800	8

Stainless steel
Hot Water Cylinder

Eco 250 esm	250	1	1.500	584	390	1.690	4/5
Eco 300 esm	300	1	1.580	680	390	1.690	6
Eco 250 esmm	250	1	1.500	584	390	1.690	6

Enamelled
Hot Water Cylinder

Hot Water Cylinder Dimensions



SYSTEM
ANTI
LEGIONELA

- 1 Thermodynamic Solar Panel
- 2 Fluid circulation
- 3 Hot Water Cylinder
- 4 Hot water output
- 5 Cold water inlet

CENTRAL HEATING

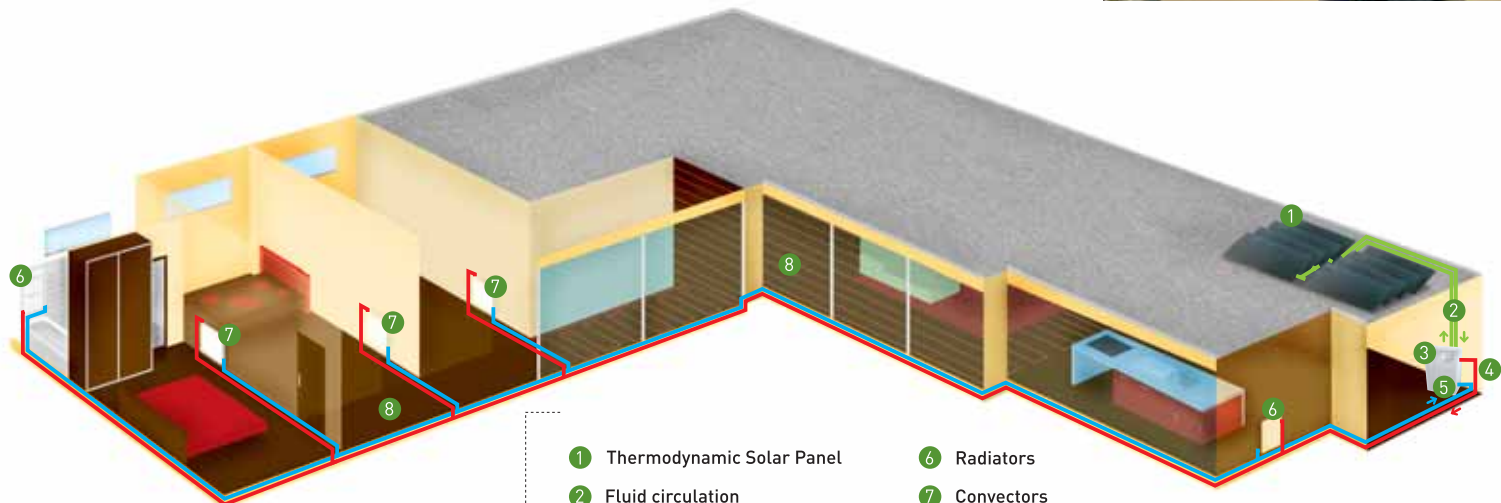
Use Clean and Free Energy

These systems are capable of extracting sufficient warmth to heat a building to a comfortable temperature even on the coldest winter days. While traditional boilers only have efficiency levels below 1, the ENERGIE solar system has much greater efficiency, which translates into the use of clean, secure and free energy.

The ENERGIE solar system can alternate between heating the summer, and heating your house during the winter. In this way, it optimizes your resources and those of nature, paying back your investment in a short period of time and contributing to a better environment.

Model	Nr. Panels	Good Insulation	Poor Insulation	Min. Power Absorbed (w)	Max. Thermal Power (w)	Water Flow (m³/h)
Bloco Solar 4	4	270	150	960	7.290	0,5
Bloco Solar 6	6	350	200	1.230	9.680	0,7
Bloco Solar 8	8	425	250	1.440	11.240	0,8
Bloco Solar 12	12	600	350	2.010	16.580	1
Bloco Solar 16	16	900	450	3.210	24.210	1,5
Bloco Solar 24	24	1.100	700	4.140	31.430	2,8
Bloco Solar 32	32	1.500	900	5.690	42.600	4
Bloco Solar 40	40	2.000	1.300	7.630	52.970	5

Heating Volume (m³)



- 1 Thermodynamic Solar Panel
- 2 Fluid circulation
- 3 Thermodynamic Group
- 4 Hot water output
- 5 Cold water inlet
- 6 Radiators
- 7 Convectors
- 8 Underfloor Heating

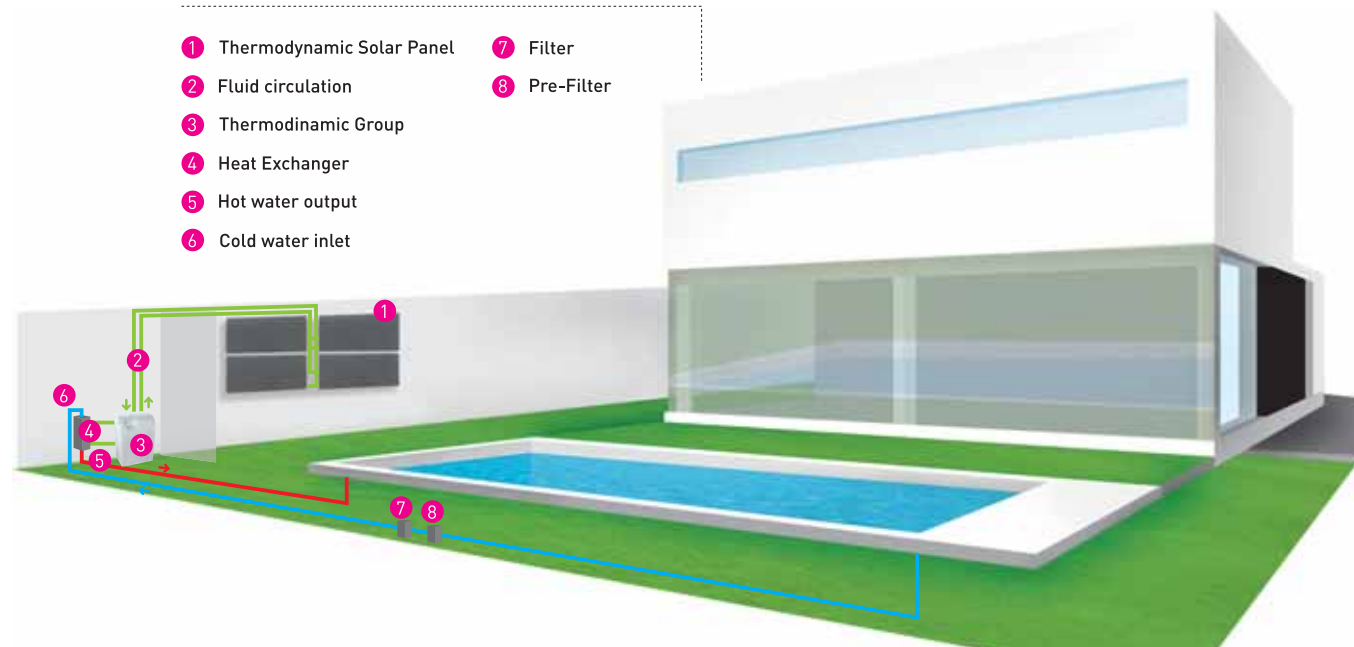
HEATING SWIMMING POOLS

Warm Water no Matter What the Weather

ENERGIE offers you the chance to use your pool all year-round, with low energy consumption. Opting for thermodynamic solar energy to heat your pool is to opt for a reduction in maintenance costs and for a healthier environment. The easiness and flexibility of installation allows the

replacement of your boiler or other existent heat source. Our experience in manufacturing and installation of these solar system is the guarantee of a service that distinguishes for the dedication and quality of our products.

Model	Nr. Panels	Min. Power Absorbed (w)	Max. Thermal Power (w)	Pool Dimensions
Bloco Solar 4	4	960	7.290	10m² ou 20m³
Bloco Solar 6	6	1.230	9.680	15m² ou 25m³
Bloco Solar 8	8	1.440	11.240	20m² ou 30m³
Bloco Solar 12	12	2.010	16.580	40m² ou 55m³
Bloco Solar 16	16	3.210	24.210	60m² ou 80m³
Bloco Solar 24	24	4.140	31.430	80m² ou 120m³
Bloco Solar 32	32	5.690	42.600	120m² ou 150m³
Bloco Solar 40	40	7.630	52.970	150m² ou 180m³



- 1 Thermodynamic Solar Panel
- 2 Fluid circulation
- 3 Thermodynamic Group
- 4 Heat Exchanger
- 5 Hot water output
- 6 Cold water inlet
- 7 Filter
- 8 Pre-Filter