



ENERGIE
THERMODYNAMIC SOLAR ENERGY

THERMODYNAMIC SOLAR SYSTEM OPERATING PRINCIPLE

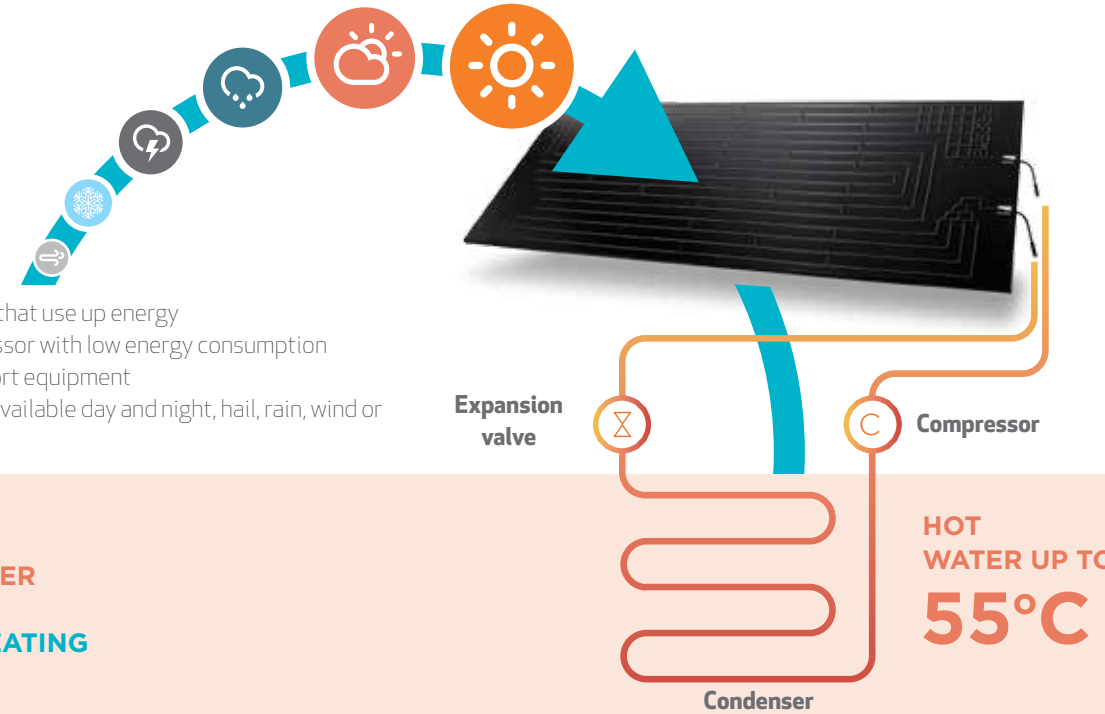
Solar Panel

- Captures heat regardless of climate.
- Primary circuit does not need to dissipate excess heat on hotter days.
- Easy integration with architecture, versatile, no visual impact.



Equipment

- Without ducts
- Without ventilators
- Without defrost cycles that use up energy
- Super efficient compressor with low energy consumption
- No need to install support equipment
- Hot water guaranteed, available day and night, hail, rain, wind or shine up to 55°C



**DOMESTIC HOT WATER
CENTRAL HEATING
SWIMMING-POOL HEATING**



ELECTRONIC EXPANSION VALVE



Solar Block



DOMESTIC HOT WATER INDUSTRIAL USE



CENTRAL HEATING



SWIMMING-POOL HEATING

This unit of the Thermodynamic Solar System has the following main components: a low consumption compressor, which is responsible for the circulation of the liquid throughout the whole system, a heat exchanger that dissipates heat into the water for consumption (Domestic Hot Water) or the closed heating circuit (Central Heating and Swimming-pool Heating) and an expansion component that reduces the boiling temperature from approximately - 30°C so that it can go back to the thermodynamic solar panels and capture heat again.



Solar Panel

- ANODIZED ALUMINUM, WITH HYDROPHOBIC FLEXIBLE COATING.
 - LIGHT WEIGHT - ONLY 8 KILOS, EASY TO TRANSPORT AND INSTALL.
 - DIMENSIONS: 2m X 0,8m X 0,02m.
 - NO GLASS, RUBBER OR FRAGILE MATERIALS.
 - NO RISK OF OVER HEATING.
 - NO RISK OF FREEZING.
 - HIGH RESISTANCE IN SALINE ENVIRONMENT.
 - HIGH RESISTANCE TO HUMIDITY.
- IT CAN BE INSTALLED FROM 10° TO 85° IN A HORIZONTAL POSITION.
 - IT CAN BE INSTALLED ON THE ROOF, WALL, IN THE GARDEN, ETC...
 - ESTIMATED USEFUL LIFE OF 25 YEARS.

Authorized Dealer

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DESIGN, DEVELOPMENT
AND EUROPEAN MANUFACTURING

ENERGIE
THERMODYNAMIC SOLAR ENERGY

SOLAR BLOCK

**DOMESTIC HOT WATER
CENTRAL HEATING
SWIMMING-POOL HEATING SYSTEM**
ECONOMY | COMFORT | ECOLOGY



Day and night, rain or shine

We select the best components and subject our systems to rigorous quality testing to ensure maximum customer satisfaction



Check warranty conditions



More detailed information on
www.energie.pt

ECO XL

HOTELS, HOSPITALS,
SCHOOLS, SPORTS HALLS,
INDUSTRY WITH
DOMESTIC ECONOMY

HOT WATER AT THE LOWEST COST

Reduce hot water bill in your condominium, hotel, school, gym or industry with ENERGIE Thermodynamic Solar System. The solution Eco XL is the latest generation in water heating. Uses a high performance innovative technology that allows the user to benefit from a substantial reduction in water heating costs and getting a quick payback of the investment. You can get water up to 55°C on rainy days or during the night thanks to its innovative operating principle. The maintenance of the solar system is practically non-existent. Only required to check the tank sacrificial anode. The solar system XL Eco does not lose performance over the years, always assuring optimal performance. The capabilities of deposits ranging from 1000 to 6000 liters, it is also possible to link together multiple systems to higher needs. The high performance of the systems also allows a reduction of the area of solar panels compared to traditional systems.



- THE SOLAR PANELS ARE LIGHT, DISCREET AND HAVE VERSATILITY IN TERMS OF WHERE TO PUT THEM
- THE ENERGY CONSUMPTION OF THE EQUIPMENT IS REDUCED DUE TO A VERY EFFICIENT COMPRESSOR
- LATEST GENERATION OF SOLAR ENERGY
- SOLAR HOT WATER UP TO 55°C AVAILABLE
- ALMOST NON-EXISTENT MAINTENANCE

- VERSIONS WITH 1 OR 2 CYLINDERS
- STAINLESS STEEL AISI316 CYLINDERS WITH WATER / WATER HEAT EXCHANGER (OPTIONAL) TO CONNECT A BOILER
- SOLUTIONS FROM 6 UP TO 40 THERMODYNAMIC SOLAR PANELS
- CAPACITIES FROM 1000 UP TO 6000 LITERS

| Model | Eco 1000 | Eco 1500 | Eco 2000 | Eco 3000 | Eco 4000 | Eco 6000 |
|-----------------------|----------|----------|-------------|-------------|----------|----------|
| Solar Panels | 6 | 12 | 12/16 | 16/28 | 28 | 40 |
| Nominal Capacity | 1000 | 1500 | 2000 | 3000 | 4000 | 6000 |
| Maximum Thermal Power | 7500 | 16580 | 16580/24210 | 24210/38220 | 38220 | 54600 |
| Power Consumption | 1230 | 2010 | 2010/3210 | 3210/5650 | 5650 | 8450 |
| Thermal storage | 1 | 1 | 1 or 2 | 1 or 2 | 2 | 2 |
| Users* | 22 | 34 | 45 | 68 | 90 | 135 |

*Considering an average consumption of 50 liters/persons/day

CENTRAL HEATING

COMFORT, CONVENIENCE WITH
MAXIMUM ECONOMY

LET COMFORT INHABIT YOUR SPACE

The Thermodynamic Solar System represents high levels of economy and comfort when heating your house. The cutting edge technology used allows you to obtain both high performance and high efficiency. Thanks to the ability of a Thermodynamic System to harness a variety of renewable energy sources such as sun, wind and rain; a Solar Thermodynamic Systems represents the best solution to reducing energy consumption. With no greenhouse gas emissions, Thermodynamic Solar Systems provide a major environmental benefit. A single system can efficiently and effectively provide both the space heating and domestic hot water requirements. You can also use your system to provide central heating during the colder seasons and then switch to the heating of the pool during the warmer months, maximizing your investment.



- LOW CO₂ EMISSIONS
- SUPER EFFICIENT ENVIRONMENT HEATING AT LOW TEMPERATURE
- NON-EXISTENT PROGRAMMED MAINTENANCE
- POSSIBILITY OF JOINING ALL HOUSE HEATING EQUIPMENT INTO JUST ONE SOLUTION

| Model | | Solar Block 6 | Solar Block 12 | Solar Block 16 | Solar Block 28 | Solar Block 40 |
|-----------------------|-------------------|------------------------------|----------------|----------------|----------------|----------------|
| Solar Panels | | 6 | 12 | 16 | 28 | 40 |
| Maximum Thermal Power | W | 7500 | 16580 | 24210 | 38220 | 54600 |
| Power Consumption | W | 1230 | 2010 | 3210 | 5650 | 8450 |
| Water Flow | m ³ /h | 0,7 | 1,0 | 1,5 | 3,0 | 5,0 |
| Electrical Supply | | 1~/230V/50Hz or 3~/400V/50Hz | | | 3~/400V/50Hz | |
| Area to be heated* | m ² | 90 | 150 | 220 | 300 | 450 |

*Does not relieve the sizing of the solar system according to the building, installation and geographic location

SWIMMING-POOL HEATING

HEATED SWIMMING-POOL
EVERY DAY **OF THE YEAR**

THE PLEASURES OF POOL 365 DAYS A YEAR

The perfect solution for those who want to enjoy their swimming pool all year round with both economic and environmental benefits. With high levels of reliability and efficiency, ENERGIE Thermodynamic Solar Systems are not constrained by the limitations of traditional systems. The system is designed to be maintenance free, thereby reducing running costs. The Thermodynamic Solar System uses a sealed circuit that does not require the periodic addition of fluid. Additionally, the system uses a titanium heat exchanger with very high resistance to the swimming pool chlorine. Needs also less solar panels than traditional systems, being this way more economical and efficient.



- SWIMMING-POOL HEATED ALL YEAR ROUND WITH THE LOWEST COST IN THE MARKET
- NON-EXISTENT PROGRAMMED MAINTENANCE
- POSSIBILITY OF JOINING ALL HOUSE HEATING EQUIPMENT INTO JUST ONE SOLUTION
- HIGHLY EFFICIENT SCROLL COMPRESSOR

- FREE OF DEFROST CYCLES
- SMALL DIMENSION INDOOR UNIT
- HIGH PERFORMANCE ELECTRONIC EXPANSION VALVE

| Model | | Solar Block 6 | Solar Block 12 | Solar Block 16 | Solar Block 28 | Solar Block 40 |
|-----------------------|----------------|------------------------------|----------------|----------------|----------------|----------------|
| Solar Panels | | 6 | 12 | 16 | 28 | 40 |
| Maximum Thermal Power | W | 7500 | 16580 | 24210 | 38220 | 54600 |
| Power Consumption | W | 1230 | 2010 | 3210 | 5650 | 8450 |
| Electrical Supply | | 1~/230V/50Hz or 3~/400V/50Hz | | | | 3~/400V/50Hz |
| Gross Weight | kg | 48 | 96 | 128 | 210 | 320 |
| Volume to be heated* | m ³ | 16 | 36 | 53 | 100 | 120 |

*Does not relieve the sizing of the solar system according to the swimming pool, installation and geographic location