

# SOLAR BLOCK ULTRA HEATING

**THERMODYNAMIC  
SOLAR TECHNOLOGY**  
BUILT TO THE HIGHEST STANDARDS  
OF QUALITY WITH OUTSTANDING  
PERFORMANCE.



# THERMODYNAMIC SOLAR SYSTEM

## WORKING PRINCIPLE

The evaporation of the fluid that runs inside the closed looped circuit happens on the solar panel by capturing the heat from the sun, wind, rain and surrounding air by natural convection. The heated fluid then travels to the compressor, that will compress the fluid increasing its pressure and also its temperature.

Then it goes to the heat exchanger where where this heat is transferred to the water. After this, an expansion valve will make the pressure and temperature drop to sub-zero values. The fluid travels up to the thermodynamic solar panel and the cycle repeats again.

 **PORTUGUESE MANUFACTURING**



MAXIMUM  
RETURN ON  
INVESTMENT

### KEY FEATURES

- Solar performance
- Simple installation "Plug and Use"
- Indoor unit requires small space (<1m<sup>2</sup>)
- Integrated DHW cylinder of 200 liters in stainless steel
- DHW production up to 70°C in heat pump mode through heat recovery
- Maximum distance between interior unit and outside up to 20m



ErP  
READY

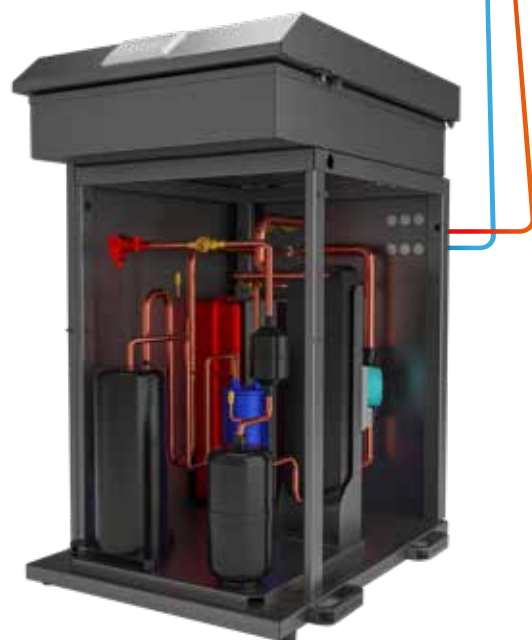
APPLIES TO  
EUROPEAN  
DIRECTIVE  
FOR ENERGY  
RELATED  
PRODUCTS



Solar Keymark



See warranty  
conditions



## SOLAR PERFORMANCE

Tested and certified according to the most rigorous European standards. The testing was carried out without solar irradiance, wind or rain. To enhance the real operating performance even more we advise to instal the thermodynamic solar pane facing South (North on the southern hemisphere), east or west. Vertically or horizontally on a wall, roof, flat roofbut always on a landscape position.

## SOLID AND ROBUST

The thermodynamic solar panel is made of anodised aluminium with a special Solokote finishing that ensures it's robust and long-lasting against corrosion, in particular when exposed to saline and/or aggressive environments. This innovative technical feature allows energie to provide a 10 years warranty against corrosion, ensuring peace of mind to the end user.

## TECHNICAL DATA

|                               |                        |        | ULTRA6                                                                                 | ULTRA12              | ULTRA16      | ULTRA32      |
|-------------------------------|------------------------|--------|----------------------------------------------------------------------------------------|----------------------|--------------|--------------|
| Heating capacity <sup>1</sup> | Power supplied         | kW     | 4,1 - 11,2                                                                             | 5 - 19               | 8 - 26       | 18,5 - 48,2  |
|                               | Maximum power supplied | kW     | 11,2                                                                                   | 18,70                | 25,8         | 48,2         |
| Heating capacity <sup>2</sup> | Nominal power supplied | kW     | 8,5                                                                                    | 10,30                | 16,2         | 39,6         |
|                               | Nominal consumption    | kW     | 1,7                                                                                    | 2,15                 | 3,45         | 8,1          |
|                               | COP                    | kW     | 4,97                                                                                   | 4,80                 | 4,7          | 4,91         |
| Heating energy class          |                        |        | A+  |                      |              |              |
| Dimensions                    | HxWxD                  | mm     | 1060X600X800                                                                           | 1060X600X800         | 1060X600X800 | 1060X600X800 |
| Weight                        |                        | Kg     | 105                                                                                    | 115                  | 128          | 135          |
| Maximum temperature           |                        | °C     | 55                                                                                     |                      |              |              |
| Hydraulic connections         | Inlet/Outlet           |        | 1"M                                                                                    | 1"M                  | 1"M          | 1"1/4M       |
| Refrigerant                   | Type                   |        | R410a                                                                                  |                      |              |              |
|                               | Precharge              | Kg     | 1,5                                                                                    | 3,5                  | 4,5          | 7            |
|                               | Connections            | Liquid | 1/2"                                                                                   | 1/2"                 | 3/4"         | 7/8"         |
|                               |                        | Steam  | 3/4"                                                                                   | 3/4"                 | 7/8"         | 1"3/8        |
| Sound pressure (distance 10m) |                        | dBA    | 55                                                                                     | 61                   | 62           | 65           |
| Electrical supply             | Type                   |        | 240V-50/60Hz                                                                           | 240V or 400V-50/90Hz | 400V-50/60Hz |              |
| Maximum power consumed        |                        | kW     | 2,75                                                                                   | 5,7                  | 7,8          | 13,2         |

## OUTSIDE UNIT - THERMODYNAMIC SOLAR PANELS

|            |             |                          |             |    |    |
|------------|-------------|--------------------------|-------------|----|----|
| Number     |             | 6                        | 12          | 16 | 32 |
| Dimensions | (W x H x D) | mm                       | 2000x800x20 |    |    |
| Weight     |             | Kg                       | 8           |    |    |
| Type       |             | Passive solar evaporator |             |    |    |
| Material   |             | Anodized aluminum        |             |    |    |

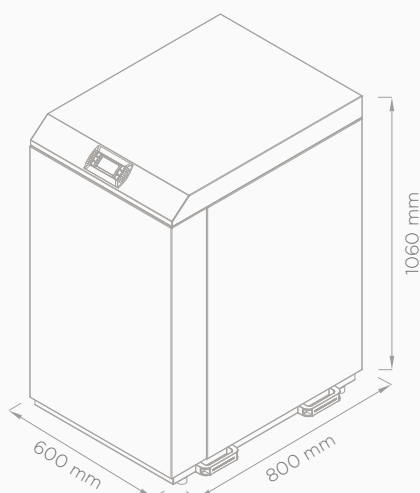
## CONNECTION BETWEEN UNITS

|                          |   |    |
|--------------------------|---|----|
| Maximum nominal distance | m | 20 |
| Maximum Drop             | m | 15 |

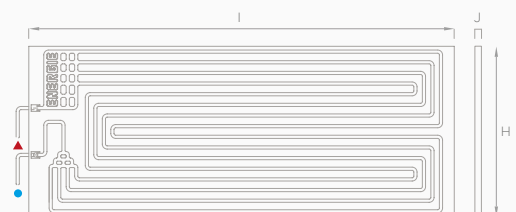
<sup>1</sup> According to EN14511; Air temperature DB/WB 14°C/13°C; Water temperature inlet/outlet 30°C/35°C; Solar radiation 800w/m²

<sup>2</sup> According to EN14511; Air temperature DB/WB 7°C/6°C; Water temperature inlet/outlet 30°C/35°C; Solar radiation 400w/m²  
Hydraulic Kit for Central Heating: Expansion vessel + safety valve

Equipment: **Ultra & Ultra Plus**



Equipment: **Thermodynamic Solar Panel**  
**X6 | X12 | X16 | X32**



▲ Steam line      ● Liquid line

H. Hot water | PT. PT Valve | R. Recirculation  
C. Cold water | Mg. Magnesium anode  
CF. Refrigerator Connections L | V

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