

# Thermodynamic solar equipment

# THERMBOIL 500 E

Thermodynamic solar equipment for domestic hot water

Thermboil is a thermodynamic solar system. Thermodynamic solar system is the name given to the combination of heat pump technologies with the solar thermal energy technologies. It consists of solar collectors called thermodynamic panels, formed by a metallic panel which is directly exposed to the sun and which act as a heat pump circuit evaporator, collecting heat from the Sun and the environment. **The TB500E has a second solar collector associated with an additional condenser in order to improve the overall efficiency of the system.**

**SANITARY HOT WATER  
AT 55°C**

## TECHNICAL CHARACTERISTICS THERMBOIL TB 500E

Model	TB500E
Mean thermal capacity (only thermodynamic) (W)	4000 W
Power consumed range (thermodynamic) (W)	600-1000 W
Maximum power consumed (W)	3000 W
Voltage / frequency	230 V / 1 ph / 50 Hz
Ambient temperature range (°C)	-5°C-45°C
COP range	3-7
Accumulator volume (L)	500
Approx. weight of equipment when empty (kg)	180
ACS temperature range with thermodynamics (°C)	45-55°C
Maximum working pressure (bar)	6 bar
Refrigerant fluid	R134a
Cold/hot water input/output connections (")	3/4
Thermodynamic panel connections (")	1/4-3/8

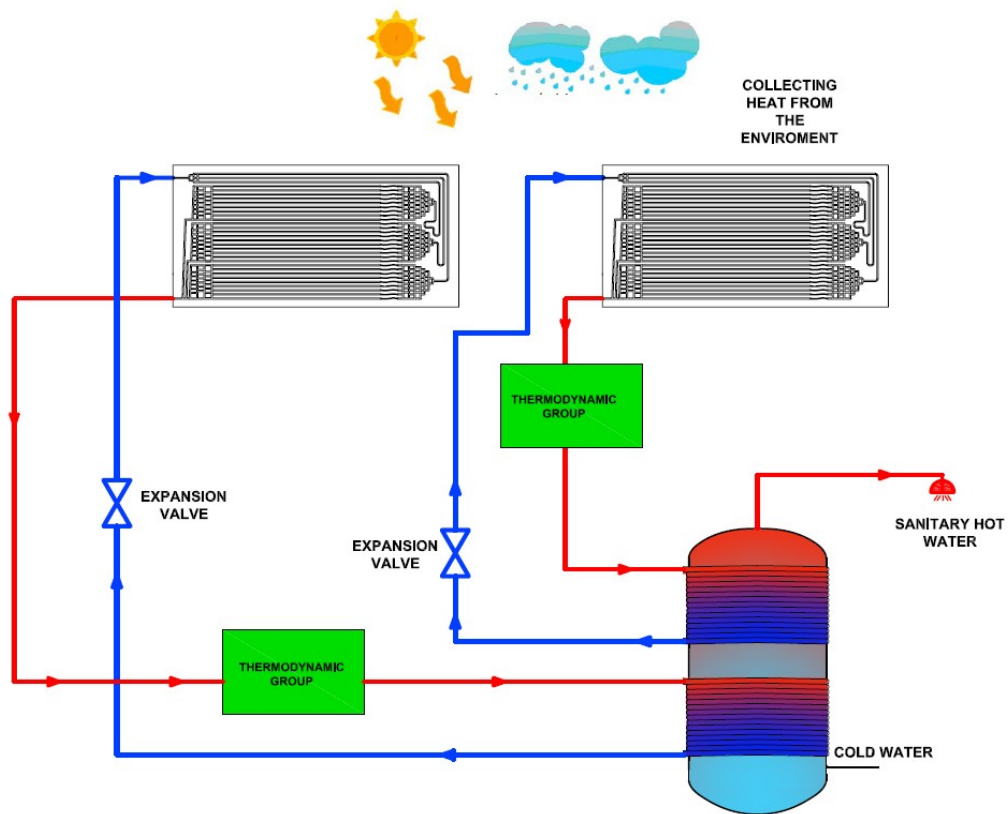
## THECNICAL SPECIFICATIONS



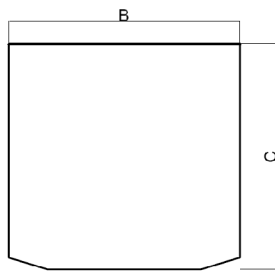
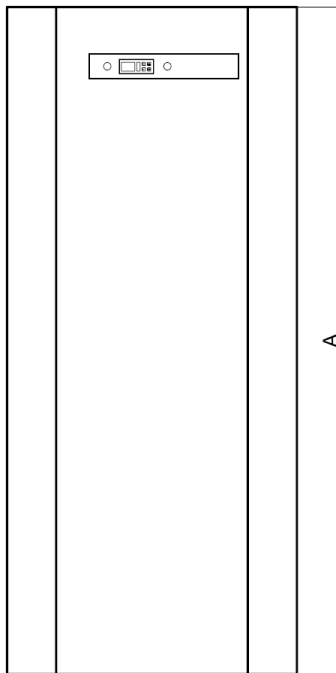
- Water heater for heat pump with thermodynamic panels integrated into the equipment.
- Stainless steel tank
- Compact unit, steel carcass lacquered.
- It has two high-efficiency compressors
- Ecological cooling liquid R134 a.
- Two thermodynamic panels included
- Two Aluminum condensers installed.
- Isolating injected polyurethane 40 kg /m<sup>3</sup>.
- System of protection against high pressures and temperatures of functioning.
- Thermostatic expansion valve.
- Auxiliary electric system.
- All the equipments are tested in factory before sending.



# OPERATING PRINCIPLE

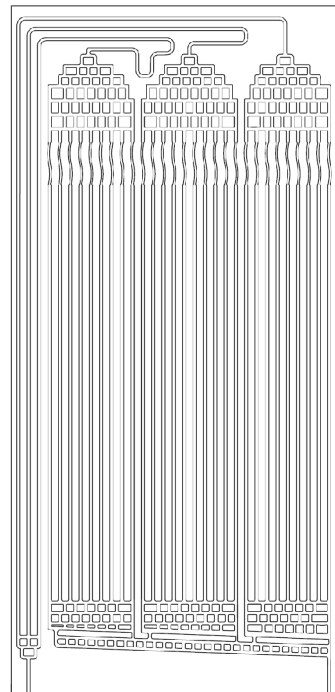


# SYSTEM DIMENSIONS



Model	A(mm)	B(mm)	C(mm)
TB500	2000	708	630

# THERMODINAMIC PANEL DIMENSIONS



1700 x 800x 25 mm

