



DESIGN, DEVELOPMENT
AND EUROPEAN MANUFACTURING



— RENEWABLE ENERGY —



THERMODYNAMIC SOLAR ENERGY | HEAT PUMPS



Address Zona Industrial de Laúndos, Lote 48
4570-311 Laúndos - Póvoa de Varzim PORTUGAL
GPS Coordinates N 41.27.215' , W 8.43.669'
Telephone + 351 252 600 230 **Fax** + 351 252 600 239
E-mail geral@energie.pt **Website** www.energie.pt

Project co-financed by:



This catalogue was created for information purposes only and does not constitute a contractual offer from ENERGIE Est Lda. ENERGIE Est Lda has compiled the content of this catalogue to the best of their knowledge. There is no guarantee expressed or implied regarding the completeness, accuracy, reliability for a particular purpose of its content and the products and services presented therein. Specifications are subject to change without notice. The ENERGIE Est Lda explicitly rejects any direct or indirect damage, in the broadest sense, arising from or related to the use and / or interpretation of this catalogue.

RVO | 09 | 2018

GENERALCATALOGUE

GENERALCATALOGUE

RENEWABLE ENERGY | ECONOMY | INDEPENDENCE | ECOLOGY

www.energie.pt



WE ARE YOUR ENERGY!



Address Zona Industrial de Laúndos, Lote 48
4570-311 Laúndos - Póvoa de Varzim PORTUGAL

GPS Coordinates N 41 27.215' , W 8 43.669'

Telephone + 351 252 600 230

Fax number + 351 252 600 239

E-mail geral@energie.pt

Web www.energie.pt



Company certifications



Partners of the organizations





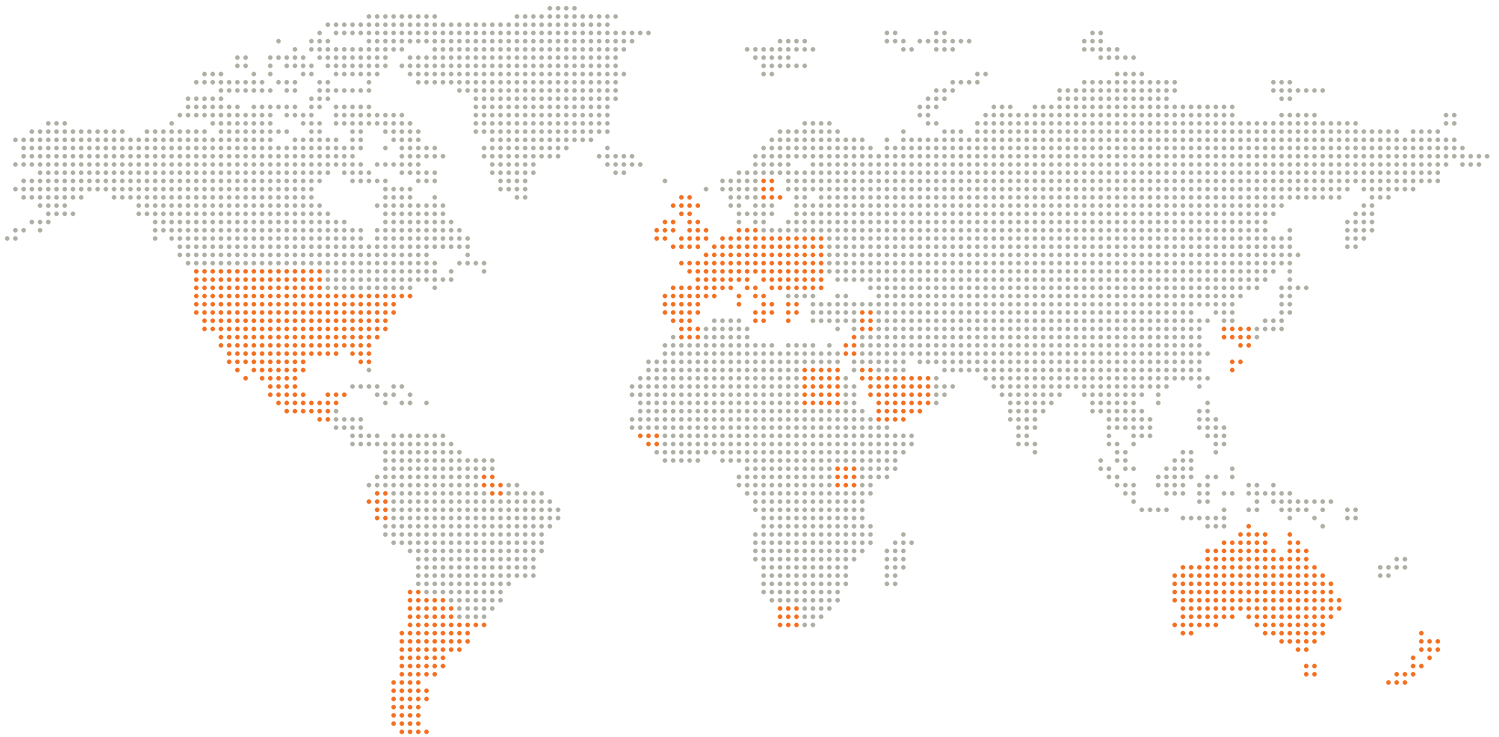
THE ENERGIE BRAND

Based on a customer satisfaction policy, the brand is synonymous with reliability, quality, innovation and efficiency. It is governed by strict standards that aim at economy, comfort and well-being of the consumers. To find out more about us go to:

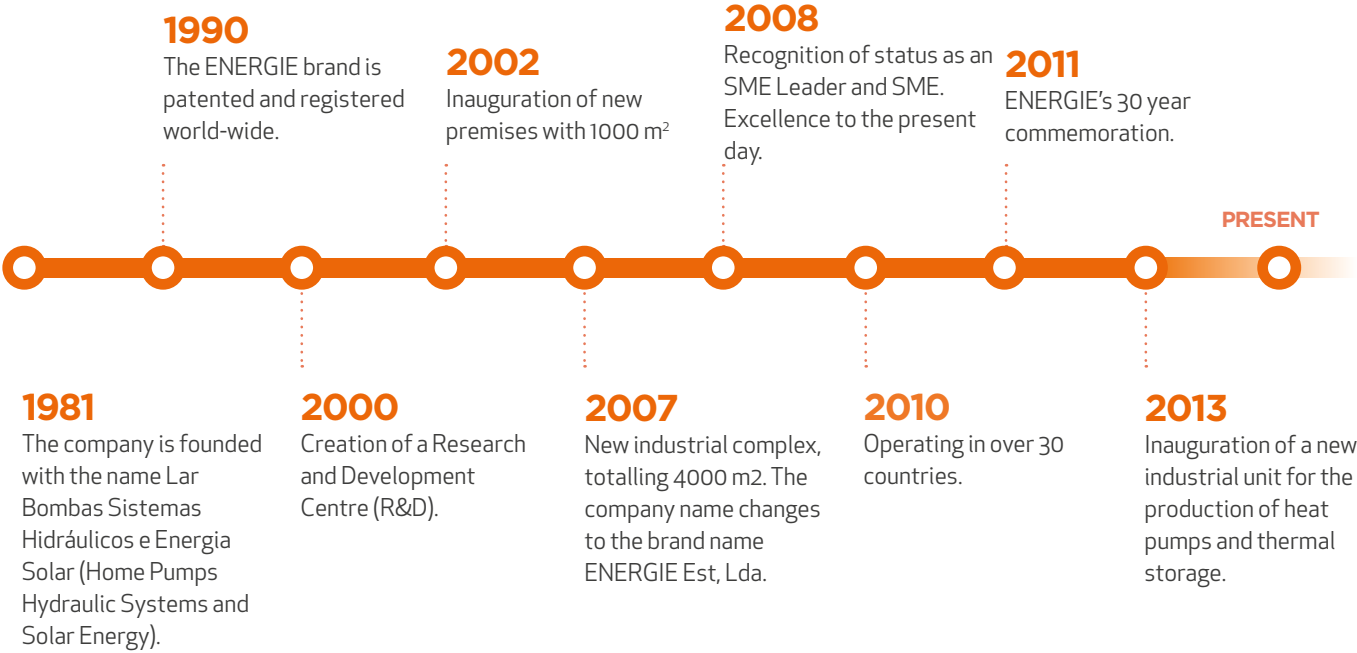
www.energie.pt



ENERGIE AROUND THE WORLD 45 COUNTRIES 5 CONTINENTS



COMPANY CHRONOLOGY



PICTOGRAMS OF THE PRODUCT

Pictograms are icons developed to make the interpretation of key characteristics of each one of our products easier. Check our list of pictograms below and discover the meaning behind each one. When you find one in a product technical sheet you can return to this page to check the meaning if you have doubts.



SOLAR PERFORMANCE

The performance of the equipment is far higher than the COP of any aérothermal heat pump when exposed to Solar Radiation.



ANTI-LEGIONELLA

Function that allows the user to disinfect/sanitise the equipment cylinder.



EXTRA COIL

Equipment with a supplementary/extra coil that allows the other auxiliary systems to be connected.



AUTOMATIC DEFROST

Defrost function with automatic management. The equipment does defrosting to guarantee that it will function even when the temperature is below zero.



R134A

Cooling liquid that is environmentally friendly, nonflammable and non-toxic.



R407C

Cooling liquid that is environmentally friendly, nonflammable and non-toxic.



ENERGY EFFICIENCY

Efficient equipment with low energy consumption.



ENERGY EFFICIENCY +

Super Efficient Equipment with low energy consumption.



EASY TO INSTALL

The system has a small amount of installation items.



GREAT DURABILITY

The system is designed to have longevity.



ANTICORROSION

The system has magnesium anode, which carries out the cathodic protection (anticorrosion) of the cylinder.



RESPECT FOR THE ENVIRONMENT

The polyurethane used inside the cylinder is free of hydrofluorocarbons.



AMBIENT TEMPERATURE DISPLAY

The command panel display shows the temperature of the cylinder.



MADE IN EUROPE

European production.



SILENT

The equipment does not make any sound in your home.



FAST HEATING TIME

Equipment with fast heating time.

ENERGY LABELING AND DIRECTION ErP, WHY?

Halting climate change, securing energy supplies and increasing industrial competitiveness are some of the most important challenges facing the European Union. Energy saving is the best way to address them. With Directive 2009/125/EC on the ecological design of energy-related products (ErP Directive, Energy related Products) and Directive 2010/30/EC on energy labeling, the general requirements (valid for all household

products) have been set for energy savings in one of the most energy-consuming and polluting sectors in the European Union. From the provisions of the previous directives, specific legislative tools have been created for each family of products: the European regulations. The regulations indicate how to use the energy label and define the minimum energy efficiency that new products should bring to market. Once published, the

regulations are immediately applicable in all EU countries and do not require transposition into national regulations. The products for heating and hot water production also have their regulations on ErP and labeling. The energy label simplifies the process of choosing the most efficient product.

Basic Principles

- Defines the shape and content of the energy labels of products and systems for heating and storing hot water;
 - Establishes standards to inform consumers about the energy performance of products;
- Defines the responsibilities of suppliers and sellers.

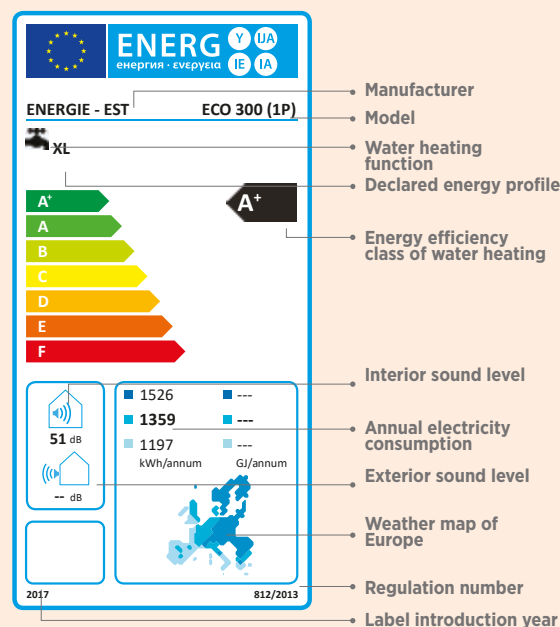
WHY WERE THE HEATING AND HOT WATER PRODUCTS CHOSEN?

The preparatory study carried out by the European Commission has confirmed that domestic heating and hot water production systems account for approximately 30% of Europe’s energy consumption. It was also estimated that, by designing green products (minimum requirements) and encouraging end-users to acquire the most efficient technologies (energy label), the following could be achieved in 2020:

Total annual energy savings equivalent to 56 million tons of oil. The equivalent of erasing all heating and hot water equipment throughout the Iberian Peninsula. This would mean a reduction in CO₂ emissions by 136 Million tons, approximately what would absorb a forest the size of Portugal.

From these premises were created the regulations on ecological design and energy labeling of boilers, heat pumps, micro-co-generation units, water heaters and hot water tanks. Since September 26, 2015, the regulations have mandated these products to meet minimum efficiency and labeling requirements.

ECOLABEL EXEMPLIFICATIVE LABEL



ECODESIGN DIRECTIVE

The Ecodesign directive for heating and hot water production products establishes minimum performance requirements that all appliances must comply with. The new requirements will eliminate less efficient technologies from the market and thus raise the level of energy efficiency of the basic supply. In addition, it will be necessary to comply with those requirements in order to be able to include in the products the CE marking, which is indispensable for their commercialization in the European market. The ErP directive is only applicable to products placed on the market since 9/26/2015. Products previously purchased or already at the dealers' points of sale or warehouses may continue to be sold and installed even if they do not meet the new requirements.

HEATING / REG. 813/2013

- BOILERS (GAS, ELECTRIC, DIESEL)
- HEAT PUMPS (GAS, ELECTRIC)
- MICROCOGENERATION UNITS (WITH MAXIMUM ELECTRICAL POWER <50 KW)

HOT WATER / REG. 814/2013

- CONVENTIONAL GAS / DIESEL / ELECTRIC HEATERS
- HOT HEAT WATER PUMPS
- THERMAL SOLAR INSTALLATIONS
- HOT WATER TANKS (WITH A CAPACITY ≤ 2000 LITERS)

PERFORMANCE EFFICIENCY QUALITY

WE WORK EVERYDAY ON DELIVERING SOLUTIONS FOR YOUR COMFORT AND WELL-BEING!

- DOMESTIC HOT WATER
- CENTRAL HEATING
- SWIMMING-POOL HEATING
- HEATING & COOLING





INDEX

15

DOMESTIC HOT WATER - DOMESTIC USE
ECO || ECOTOP
 200 to 500 litres solutions
SOLAR BOX

ECO || ECOTOP

39

DOMESTIC HOT WATER - INDUSTRIAL USE
ECO XL
 1000 to 6000 litres solutions

ECO XL

49

CENTRAL HEATING
SOLAR BLOCK
 6 to 40 panels solutions

CENTRAL HEATING

55

SWIMMING-POOL HEATING
SOLAR BLOCK
 6 to 40 panels solutions

SP. HEATING

61

DOMESTIC HOT WATER - DOMESTIC USE
AQUAPURA SPLIT
 250 to 500 litres solutions
AQUAPURA MONOBLOC
 100 to 300 litres solutions
HEATING & COOLING
EVI
INVERTER

AQUAPURA

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

The Thermodynamics Solar System joins two incomplete technologies, the heat pump and the solar thermal collector.

Heat pumps are quite efficient equipment but the heat they produce from their renewable component varies only according to changes in the temperature of the environment. Thermal solar collectors are the best source of heat on hot and sunny days but they are totally inefficient whenever there is no sun.

The Thermodynamic Solar Technology manages to surpass the limitations of

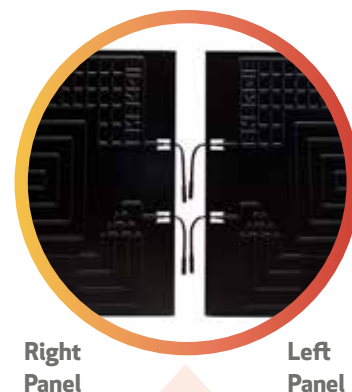
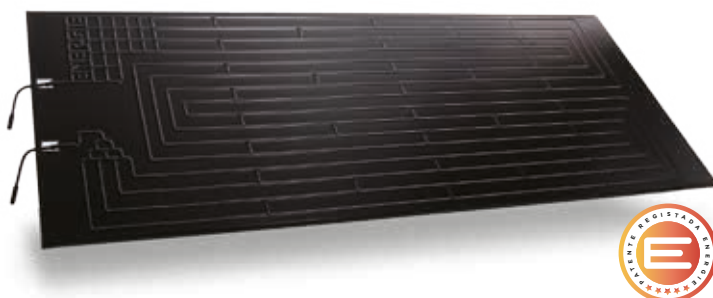
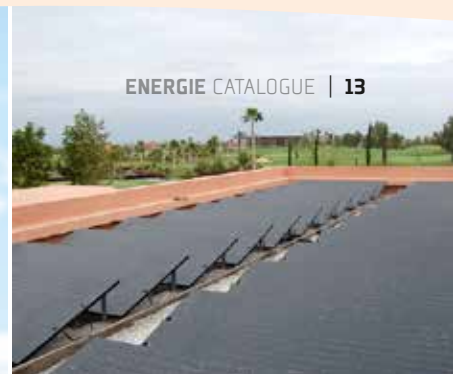
both the heat pump and solar collector technologies.

Through the cooling liquid (R134a or R407c) which covers a closed circuit, the liquid goes into the solar panel and suffers the action of sun, rain, wind, environment temperature and other climate factors. During this process the liquid gains heat in a more favourable way than a heat pump. After this stage, the heat is transferred to an exchanger with the help of a small compressor, which heats the water. The liquid cools down and the circuit is repeated.

As the fluid has a boiling temperature of approximately -30°C , the system works even when there is no sun and it even works at night, providing hot water at 55°C , day and night, hail, rain, wind or shine, unlike the traditional solar thermal system.

The energy consumption of the system is basically the same as a fridge compressor that makes the liquid circulate. There are no ventilators that help the evaporation process, or defrost cycles, which imply unnecessary energy consumption, unlike what happens with heat pumps.

THERMODYNAMIC SOLAR PANEL



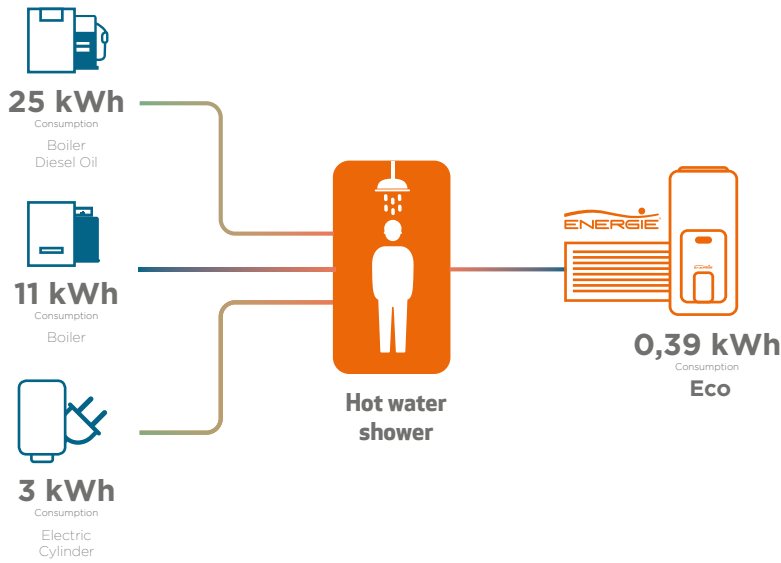
Right Panel

Left Panel

There are left and right thermodynamic solar panels. These can be distinguished by looking at the side that has the connections, as seen in the picture.

- ANODIZED ALUMINIUM, WITH 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...
- THE PANEL DOES NOT LOSE ITS EFFICIENCY WITH TIME OR WITH DIRT.
- NO NEED TO CLEAN.
- ESTIMATED USEFUL LIFE OF 25 YEARS.
- APPROVED FOR CORROSION TEST - SALINE FOG EQUIVALENT TO 20 YEARS.

Distribution of consumption to different systems



DID YOU KNOW?

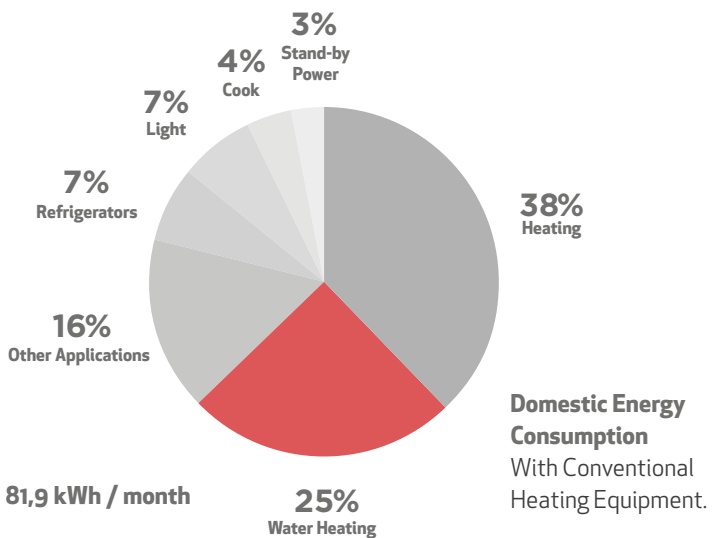
That all thermodynamic solar systems only have one mechanical element that requires electricity? This element is a low energy consumption compressor and is extremely efficient. As the capacity to capture heat from the environment is primarily ensured through solar radiation, it is superior to other equipment with the same goal ensuring saving to the maximum.

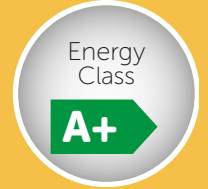
The maintenance of the system is practically non-existent and it has high longevity.

SAVE UP TO

85%

Taking into account Eco300
 7 Hours operation per day
 Consumption of 0,39 kW/h
 Energy necessary / month: $0,39 \text{ kW} \times 7 \text{ h} \times 30 \text{ days} = 81,9 \text{ kWh} / \text{month}$
 *Example family of 5 people





ECO

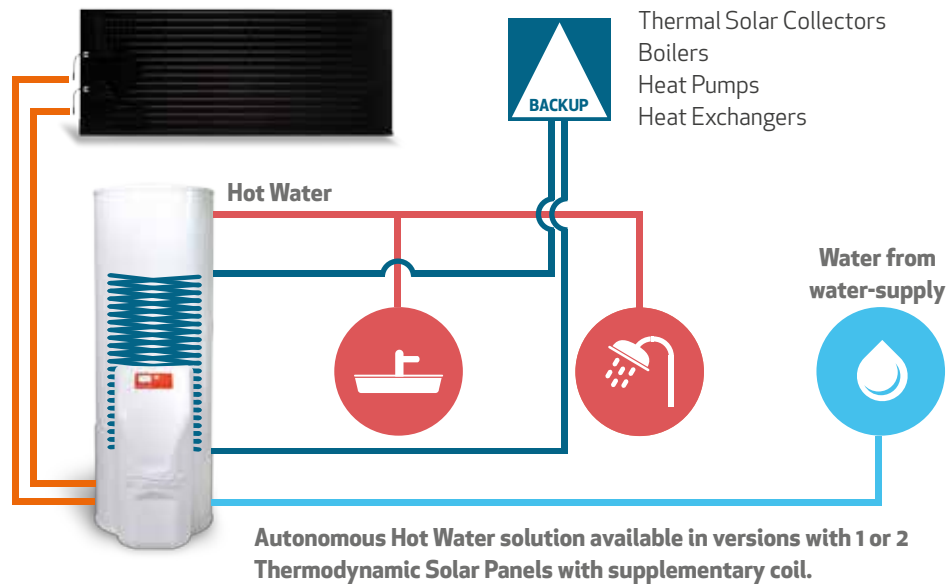
Probably the most developed solar water heater in the world

Available with capacities of 200 to 500 litres.
Versions with one or two solar panels, with or without supplementary coil.
Cylinder available in Enamelled or Stainless Steel.

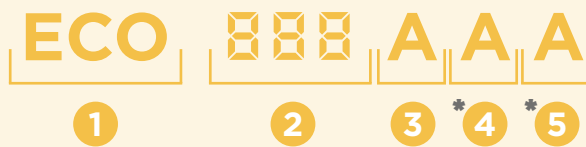
E C O



ECO



Choose your model

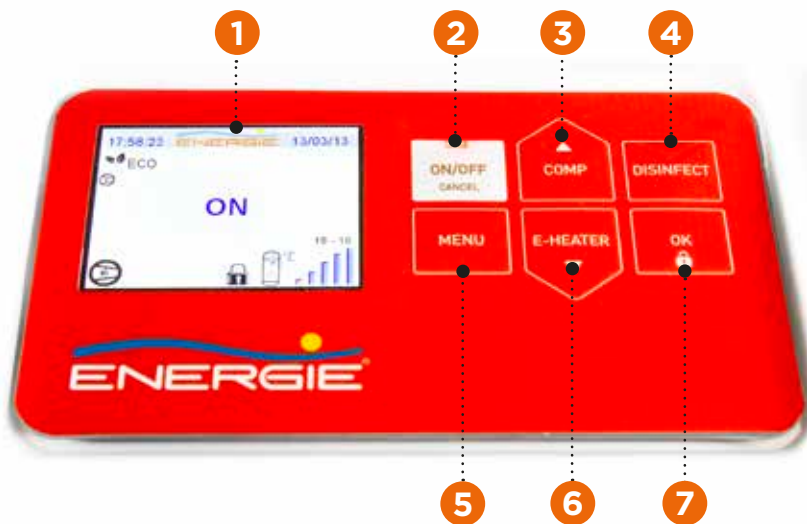


- 1 Model
Eco
 - 2 Capacity (litres)
200, 250, 300, 500 litres Cylinders
 - 3 Cylinder Material
esm (Enamelled)
i (Stainless)
 - * 4 2 Solar Panels
S
 - * 5 Supplementary Coil
X
- * Optional and when applicable
888 Represents the capacity of equipment

Examples

- ECO 300esms** Eco with 300 litres capacity with enamelled cylinder and 2 solar panels
- ECO 200esm** Eco with 200 litres capacity with enamelled cylinder and 1 solar panel
- ECO 300ix** Eco with 300 litres capacity with stainless steel cylinder, supplementary coil and 1 solar panel
- ECO 300isx** Eco with 300 litres capacity with stainless steel cylinder, supplementary coil and 2 solar panels

ELECTRONIC CONTROLLER



- | | |
|----------------------------|------------------------------------|
| 1 LCD colour screen | 5 Menu |
| 2 ON / OFF General | 6 Electrical support (malfunction) |
| 3 ON / OFF Compressor | 7 Execute Lock / Unlock |
| 4 ON / OFF Anti-legionella | |

ECO Operating Mode

In the ECO operating mode, the equipment only works as a Thermodynamic Solar System to heat water in the thermal storage. Thus we can have higher efficiency, guaranteeing maximum saving for the user.

AUTO Operating Mode

In the AUTO operating mode, the equipment works as a Thermodynamic Solar System and/or electrical support, there being an automatic management between the operating of the solar system and electrical support, in order to maintain the efficiency of the equipment, thus providing a higher quantity of hot water available.

BOOST Operating mode

In the BOOST operating mode the equipment works with a Thermodynamic Solar System and electrical support simultaneously. This mode allows the user to get hot water in a shorter amount of time.



MAXIMUM PRODUCTIVITY WITH SOLAR PERFORMANCE

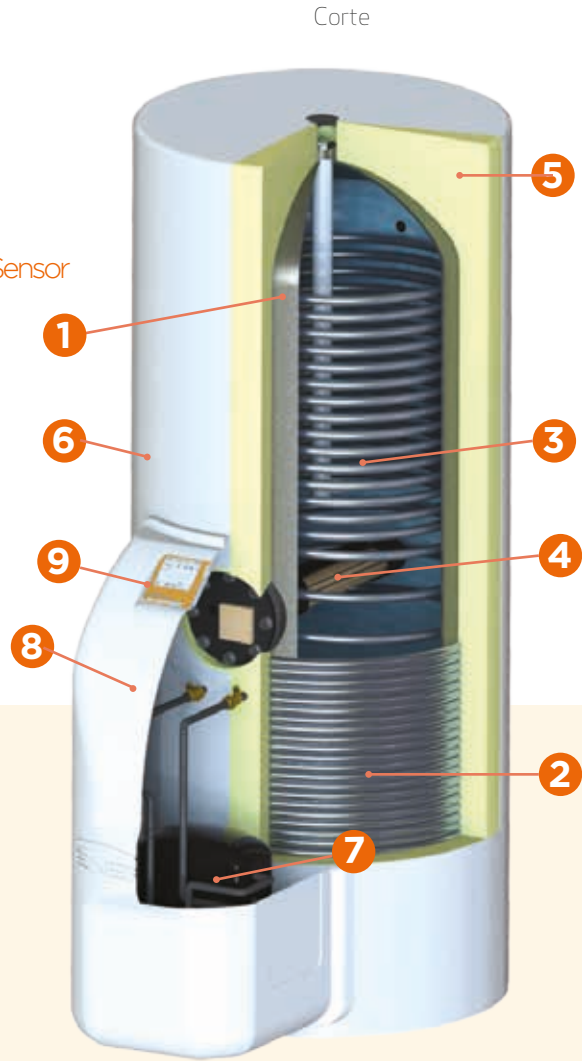


100% ENVIRONMENTALLY FRIENDLY

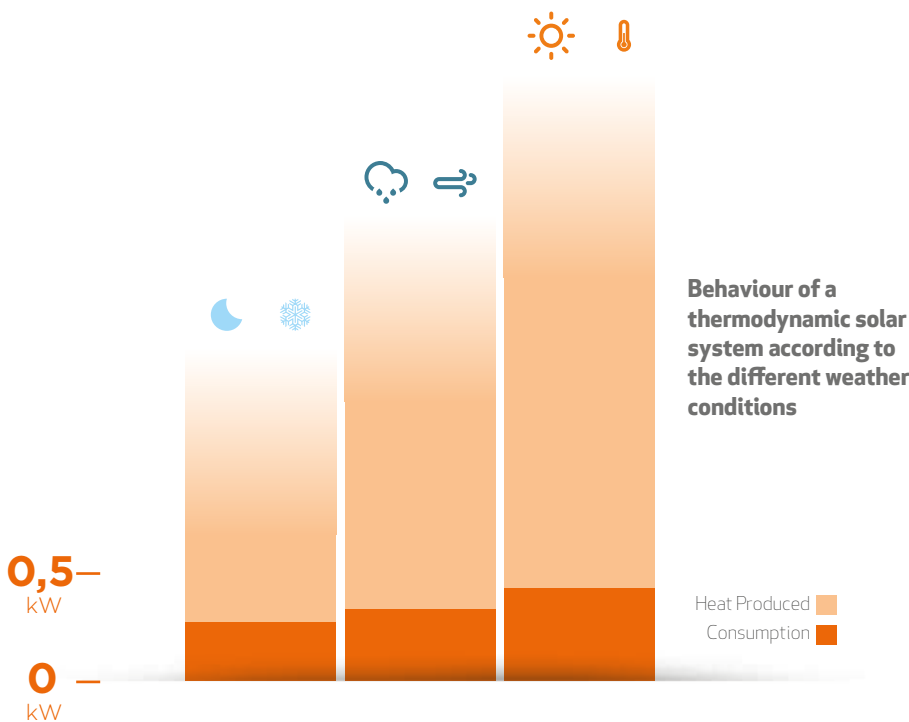
- HEAT IS CAPTURED UNDER THE FORM OF SOLAR RADITION, ENVIRONMENTAL TEMPERATURE, RAIN, WIND AND EVEN SNOW.
- THE HEAT PRODUCED ON COLDER DAYS, EVEN AT NIGHT IS SUFFICIENT TO ATTAIN THE WATER TEMPERATURE DESIRED.
- THE SOLAR PANEL IS LIGHT, DISCREET AND VERSATILE IN TERMS OF WHERE TO PUT IT.
- OUTSIDE CYLINDER CONDENSER (NO CONTACT WITH WATER).
- 3RD GENERATION THERMODYNAMIC SOLAR ENERGY.
- HOT WATER UP TO 55°C AVAILABLE 24h PER DAY.
- ALMOST NON-EXISTENT MAINTENANCE.
- THE ENERGY CONSUMPTION OF THE EQUIPMENT IS REDUCED DUE TO A SUPER EFFICIENT COMPRESSOR.
- NO DEFROST CYCLE.
- PV FUNCTION.

MAXIMUM
EFFICIENCY

- 1 DHW Cylinder
- 2 Condenser
- 3 Optional Supplementary Coil
- 4 Ceramic Resistance + Thermostat + Temperature Sensor
- 5 High Density Insulation
- 6 Outside Coating
- 7 Thermodynamic Block
- 8 Cover
- 9 Electronic Controller



Versions with 1 or 2 Thermodynamic Solar Panels
 Enamelled or stainless steel cylinder
 With or without Supplementary Coil



Check warranty conditions

Thermodynamic Solar System with one Solar Panel

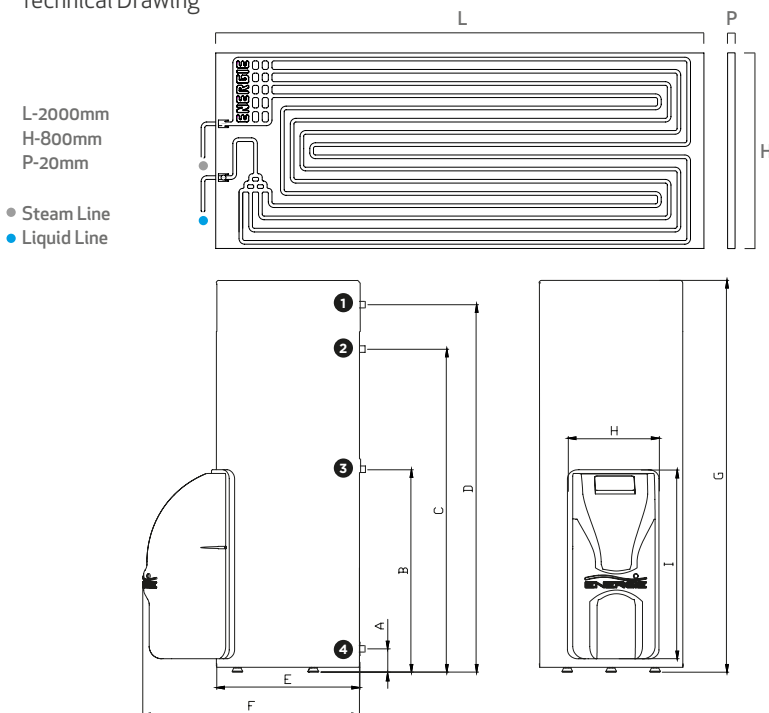


Specifications		Eco 200esm	Eco 250i Eco 250esm	Eco 300i Eco 300esm
Nominal Capacity	L	200	250	300
Thermal Power (Med/Max)	W	1690/2900	1690/2900	1690/2900
Power Consumption (Med/Max)	W	390/550	390/550	390/550
Temperature (Factory Setpoint)	°C	53	53	53
Maximum Temperature	°C	80	80	80
Max. Amount of water at 40°C in a run (St./En.)	L	-/242	317/321	369/374
Maximum Operation Pressure	bar	7	7	7
Number of Panels		1	1	1
Liquid Line	Pol.	1/4	1/4	1/4
Suction Line	Pol.	3/8	3/8	3/8
Electrical back-up power	W	1500	1500	1500
Gross Weight of Cylinder (St./En.)	Kg	-/83	93/69	74/95
Electrical Supply	V/Hz	230/50	230/50	230/50

Equipment with fluid pre-charge
Easy Install
Economic Solar Solution



Technical Drawing



Dimensions (mm)	Eco 200esm	Eco 250i Eco 250esm	Eco 300i Eco 300esm
A	92	89	92
B	830	830	772
C	1161	1333/1341	1172
D	1289	1469	1315
E	580	580	650
F	880	880	950
G	1364	1543	1415
H	370	370	370
I	765	765	765

1 (Hot Water)	3/4" Male
2 (PT Valve) *	1/2" Female
3 (Recirculation)	3/4" Male
4 (Cold Water)	3/4" Male
5 (Coil Inlet)	-
6 (Coil Outlet)	-

With flares valves on the solar panel and on the thermodynamic group.
With dielectric threads for water connections enameled cylinder (esm).

*Optional

Thermodynamic Solar System with one Solar Panel + Supplementary Coil



Specifications		Eco 250ix	Eco 300ix
Nominal Capacity	L	250	300
Thermal Power (Med/Max)	W	1690/2900	1690/2900
Power Consumption (Med/Max)	W	390/550	390/550
Temperature (Factory Setpoint)	°C	53	53
Maximum Temperature	°C	80	80
Max. Amount of water at 40°C in a run (St./En.)	L	308	360
Maximum Operation Pressure	bar	7	7
Number of Panels		1	1
Liquid Line	Pol.	1/4	1/4
Suction Line	Pol.	3/8	3/8
Electrical back-up power	W	1500	1500
Gross Weight of Cylinder (St./En.)	Kg	69	81
Electrical Supply	V/Hz	230/50	230/50

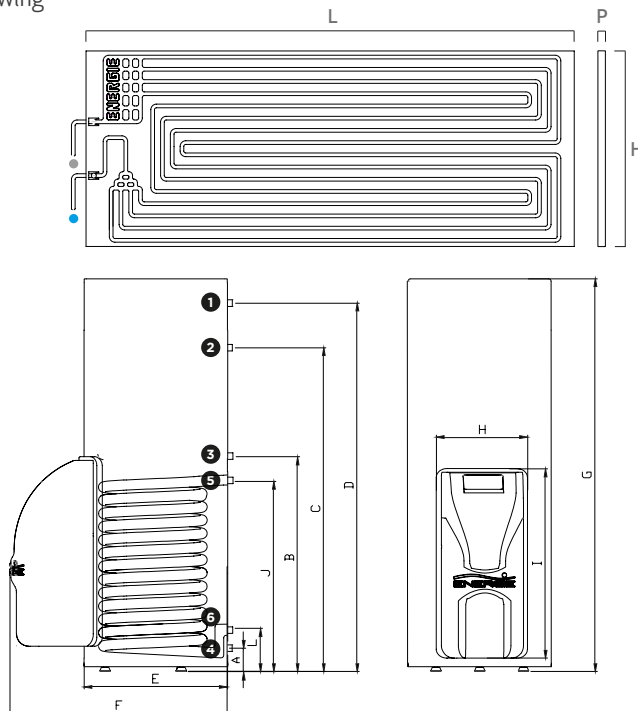
Allows the connection of another heat source
Easy install
Equipment with fluid pre-charge



Technical drawing

L-2000mm
H-800mm
P-20mm

● Steam line
● Liquid line



Dimensions (mm)	Eco 250ix	Eco 300ix
A	89	92
B	830	772
C	1333	1172
D	1469	1315
E	580	650
F	880	950
G	1543	1415
H	370	370
I	765	765
J	696	621
L	205	221
1 (Hot Water)	3/4" Male	
2 (PT Valve)*	1/2" Female	
3 (Recirculation)	1/2" Female	
4 (Cold Water)	3/4" Male	
5 (Coil Inlet)	1" Male	
6 (Coil Outlet)	1" Male	

With flares valves on the solar panel and on the thermodynamic group.

*Optional



Thermodynamic Solar System with two Solar Panels

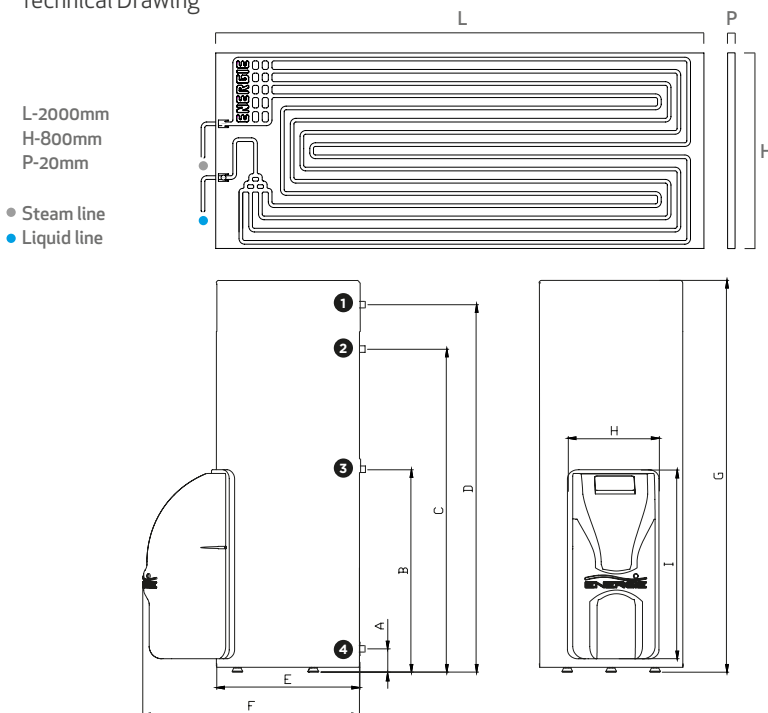


Specifications	Eco 300is		
	Eco 250is	Eco 300esms	Eco 500is
Nominal Capacity	L 250	300	449
Thermal Power (Med/Max)	W 2800/4550	2800/4550	2800/4550
Power Consumption (Med/Max)	W 595/890	595/890	595/890
Temperature (Factory Setpoint)	°C 53	53	53
Maximum Temperature	°C 80	80	80
Max. Amount of water at 40°C in a run (St./En.)	L 317/-	369/374	537/-
Maximum Operation Pressure	bar 7	7	7
Number of Panels	2	2	2
Liquid Line	Pol. 3/8	3/8	3/8
Suction Line	Pol. 1/2	1/2	1/2
Electrical back-up power	W 1500	1500	2500
Gross Weight of Cylinder (St./En.)	Kg 62/-	74/95	110/-
Electrical Supply	V/Hz 230/50	230/50	230/50

Superior Performance
Equipment with fluid pre-charge
Larger number of users



Technical Drawing



(x2)

Dimensions (mm)	Eco 300is		
	Eco 250is	Eco 300esms	Eco 500is
A	89	92	92
B	830	772	772
C	1333	1172	1760
D	1469	1315	1927
E	580	650	650
F	880	950	950
G	1543	1415	1995
H	370	370	370
I	765	765	765

	Eco250is 300is/300esms	Eco500is
1 (Hot Water)	3/4" Male	1" Male
2 (PT Valve) *	1/2" Female	1/2" Female
3 (Recirculation)	3/4" Male	3/4" Male
4 (Cold Water)	3/4" Male	1" Male
5 (Coil Inlet)	-	-
6 (Coil Outlet)	-	-

Includes Liquid Distributor.
With dielectric threads for water connections enameled cylinder (esm).

*Optional

Thermodynamic Solar System with two Solar Panels + Supplementary Coil



Specifications		Eco 250isx	Eco 300isx	Eco500isx
Nominal Capacity	L	250	300	440
Thermal Power (Med/Max)	W	2800/4550	2800/4550	2800/4550
Power Consumption (Med/Max)	W	595/890	595/890	595/890
Temperature (Factory Setpoint)	°C	53	53	53
Maximum Temperature	°C	80	80	80
Max. Amount of water at 40°C in a run (St./En.)	L	308	360	525
Maximum Operation Pressure	bar	7	7	7
Number of Panels		2	2	2
Liquid Line	Pol.	3/8	3/8	3/8
Suction Line	Pol.	1/2	1/2	1/2
Electrical back-up power	W	1500	1500	2500
Gross Weight of Cylinder (St./En.)	Kg	69	81	117
Electrical Supply	V/Hz	230/50	230/50	230/50

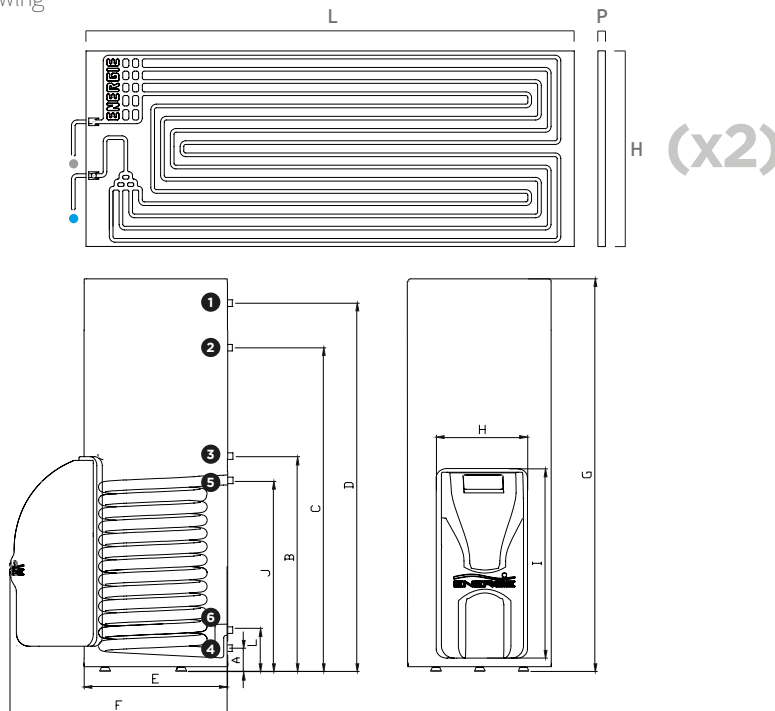
Superior Performance
Equipment with fluid pre-charge
Larger number of users
Allows the connection of another heat source



Technical Drawing

L-2000mm
 H-800mm
 P-20mm

- Steam line
- Liquid line



Dimensions (mm)	Eco 250isx	Eco 300isx	Eco 500isx
A	89	92	92
B	830	830	772
C	1333	1172	1760
D	1469	1315	1927
E	580	650	650
F	880	950	950
G	1543	1451	1995
H	370	370	370
I	765	765	765
J	696	621	1515
L	205	221	625

	Eco 250isx/300isx	Eco500isx
1 (Hot water)	3/4" Male	1" Male
2 (PT valve)*	1/2" Female	1/2" Female
3 (Recirculation)	1/2" Female	1/2" Female
4 (Cold water)	3/4" Male	1" Male
5 (Coil Inlet)	1" Male	1" Male
6 (Coil Outlet)	1" Male	1" Male

Includes Liquid Distributor.

*Optional

Accessories included in the equipment



Steel profiles to put up the panel (small and large sizes)



Safety group



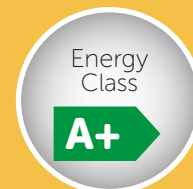
Pressure reducing valve and manometer



M6 Screws + washers + panel setting rawlplug

List of equipment from the range

Model	No. of Panels	Enamelled	Stainless	Extra Coil	Litres	No. of People
Eco 200esm	1 <input type="checkbox"/>	x			200	4
Eco 250esm	1 <input type="checkbox"/>	x			250	4
Eco 300esm	1 <input type="checkbox"/>	x			300	5
Eco 250i	1 <input type="checkbox"/>		x		250	4
Eco 300i	1 <input type="checkbox"/>		x		300	5
Eco 250ix	1 <input type="checkbox"/>		x		250	4
Eco 300ix	1 <input type="checkbox"/>		x		300	5
Eco 300esms	2 <input type="checkbox"/> <input type="checkbox"/>	x			300	6
Eco 250is	2 <input type="checkbox"/> <input type="checkbox"/>		x		250	5
Eco 300is	2 <input type="checkbox"/> <input type="checkbox"/>		x		300	6
Eco 500is	2 <input type="checkbox"/> <input type="checkbox"/>		x		455	9
Eco 250isx	2 <input type="checkbox"/> <input type="checkbox"/>		x		250	5
Eco 300isx	2 <input type="checkbox"/> <input type="checkbox"/>		x		300	6
Eco 500isx	2 <input type="checkbox"/> <input type="checkbox"/>		x		455	9



ECOTOP



ECOTOP

Probably the most developed solar water heater in the world

Available with capacities of 200 to 250 litres.
Version with one solar panel, with or without supplementary coil.
Cylinder available in Stainless Steel.

ECOTOP



CYLINDER IN STAINLESS STEEL

Thermodynamic Solar System with one Solar Panel

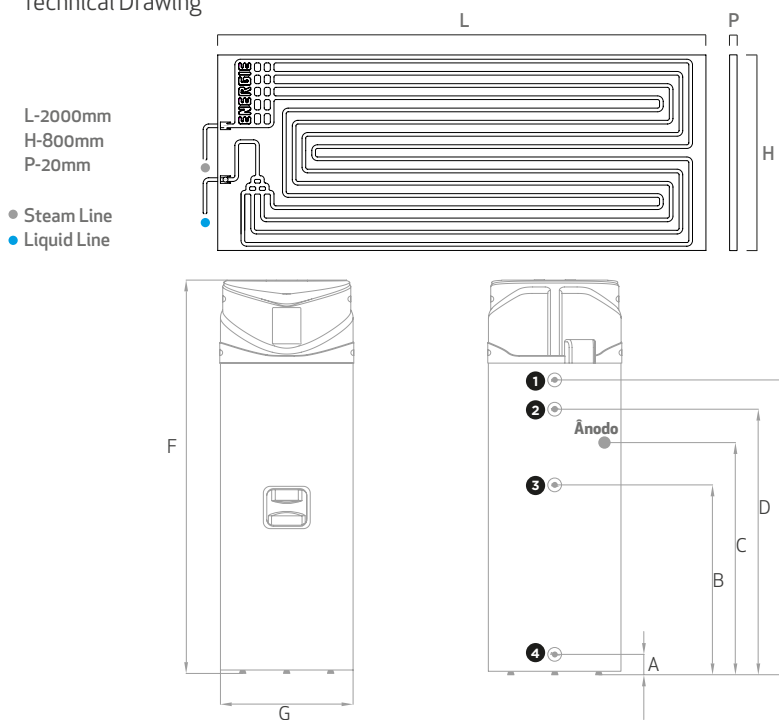


Specifications		Ecotop 200i	Ecotop 250i
Nominal Capacity	L	200	250
Thermal Power (Med/Max)	W	1250/2100	1250/2100
Power Consumption (Med/Max)	W	350/600	350/600
Temperature (Factory Setpoint)	°C	53	53
Maximum Temperature	°C	80	80
Max. Amount of water at 40°C in a run (St./En.)	L	247	343
Maximum Operation Pressure	bar	7	7
Number of Panels		1	1
Liquid Line	Pol.	1/4	1/4
Suction Line	Pol.	3/8	3/8
Electrical back-up power	W	1500	1500
Gross Weight of Cylinder (St./En.)	Kg	94	102
Electrical Supply	V/Hz	230/50	230/50

Equipment with fluid pre-charge
Easy Install
Economic Solar Solution



Technical Drawing



Dimensions (mm)	Eco200i	Eco 250i
A	89	89
B	830	830
C	965	1015
D	1034	1333
E	1170	1469
F	1608	1923
G	580	580

1 (Hot Water)	3/4" Male
2 (PT Valve) *	1/2" Female
3 (Recirculation)	3/4" Male
4 (Cold Water)	3/4" Male
5 (Coil Inlet)	-
6 (Coil Outlet)	-

*Optional

With flares valves on the solar panel and on the thermodynamic group.
With dielectric threads for water connections enameled cylinder (esm).

Thermodynamic Solar System with one Solar Panel + Supplementary Coil



Specifications		Ecotop 200ix	Ecotop 250ix
Nominal Capacity	L	195	245
Thermal Power (Med/Max)	W	1250/2100	1250/2100
Power Consumption (Med/Max)	W	350/600	350/600
Temperature (Factory Setpoint)	°C	53	53
Maximum Temperature	°C	80	80
Max. Amount of water at 40°C in a run (St./En.)	L	240	337
Maximum Operation Pressure	bar	7	7
Number of Panels		1	1
Liquid Line	Pol.	1/4	1/4
Suction Line	Pol.	3/8	3/8
Electrical back-up power	W	1500	1500
Gross Weight of Cylinder (St./En.)	Kg	101	107
Electrical Supply	V/Hz	230/50	230/50

ECOTOP

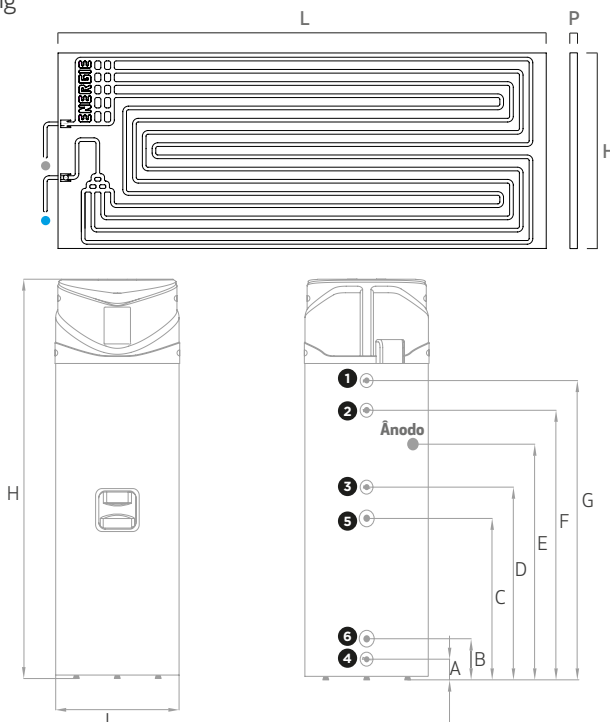
Allows the connection of another heat source
Easy install
Equipment with fluid pre-charge



Technical drawing

L-2000mm
H-800mm
P-20mm

● Steam line
● Liquid line



Dimensions
(mm)

	Eco 200ix	Eco 250ix
A	89	89
B	205	205
C	696	696
D	830	830
E	1015	1015
F	1034	1333
G	1170	1469
H	1608	1923
I	580	580

1 (Hot Water)	3/4" Male
2 (PT Valve)*	1/2" Female
3 (Recirculation)	1/2" Female
4 (Cold Water)	3/4" Male
5 (Coil Inlet)	1" Male
6 (Coil Outlet)	1" Male

*Optional

With flares valves on the solar panel and on the thermodynamic group.

Accessories included in the equipment



Steel profiles to put up the panel (small and large sizes)



Safety group









Pressure reducing valve and manometer



M6 Screws + washers + panel setting rawlplug

List of equipment from the range

Model	No. of Panels	Stainless	Extra Coil	Litres	No. of People
Ecotop 200i	1 <input type="checkbox"/>	x		200	4 
Ecotop 250i	1 <input type="checkbox"/>	x		250	5 
Ecotop 200ix	1 <input type="checkbox"/>	x		195	4 
Ecotop 250ix	1 <input type="checkbox"/>	x		245	5 

SOLAR BOX

RETRO FITS TO THE EXISTING CYLINDER



Energy Class

A

- IDENTICAL FUNCTION PRINCIPLE OF AN ECO
- THE SOLAR BOX CAN BE HUNG ON THE WALL OR BE PLACED ON THE FLOOR
- VERY COMPACT UNIT
- LOW CONSUMPTION
- ADAPTS TO ALL KINDS OF CYLINDERS
- EQUIPMENT WITH FLUID PRE-CHARGE R134A
- AVAILABLE IN MODELS OF 1 OR 2 THERMODYNAMIC SOLAR PANELS



Check warranty conditions



KEEP YOU DHW CYLINDER
AND TURN IT INTO AN
EFFICIENT SOLAR SYSTEM

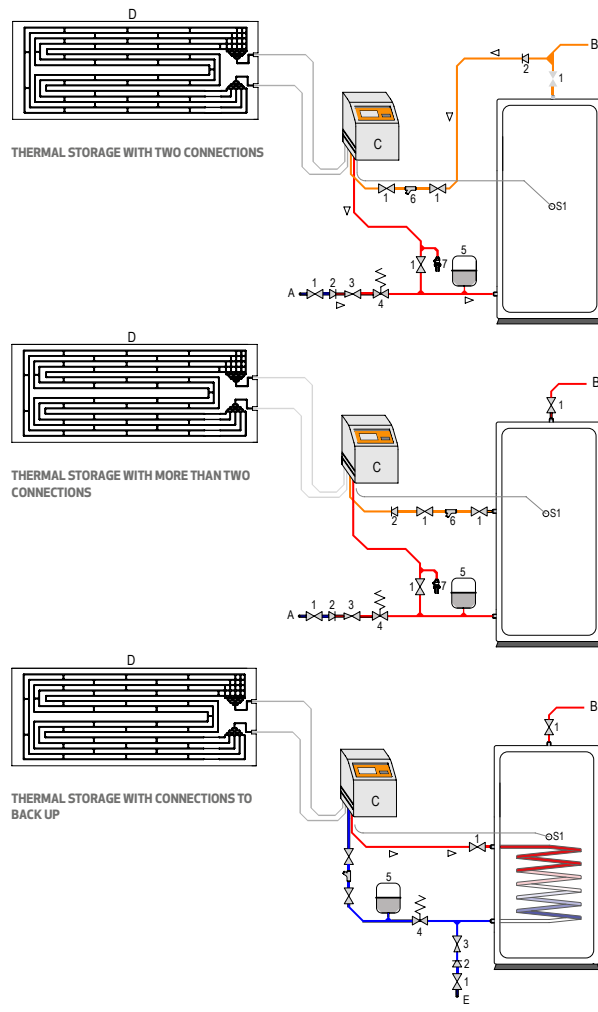
**HOT WATER DAY & NIGHT,
HAIL, RAIN, WIND OR SHINE**

SAVINGS UP TO

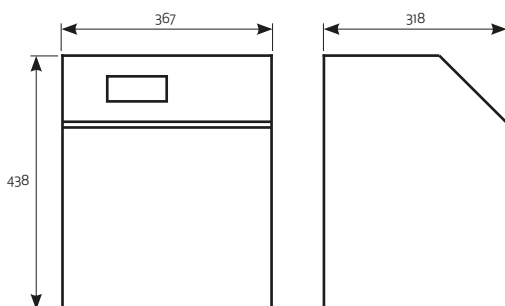
80%

Diagram

Caption	
1	Sectioning Valve
2	Check Valve
3	Pressure Reducer
4	Safety Group
5	Expansion Vase
6	Filter
7	Discharge Valve
A	Network
B	Hot water Outlet
C	SolarBox
D	Thermodynamic Panel
E	Network
S1	Temperature Sensor



Technical drawing



Specifications		1 Panel	2 Panels
Provided Thermal Power (Méd./Máx.)	W	1690/2900	2800/4550
Power Consumption (Méd./Máx.)	W	390/550	595/890
Electrical Supply	V/Hz	230/50-60	230/50-60
Cooling Fluid	-/kg	R134a / 0,8	R134a / 1,0
Maximum Temperature	°C	55	55
Maximum Operation Pressure (Water)	bar	7	7
Hydraulic Connection (Inlet/Outlet)	Pol.	1/2 1/2	1/2 1/2
Weight (Solarbox/Panel)	kg	23,5/8	23,5/ 2 x 8
Flare Connections (Suction/Liquid)	Pol.	3/8 1/4	1/2 3/8
Energy Class Tapping Profile		A L	A XL

Includes hydraulic filter and anti-vibration system



ENERGIE
THERMODYNAMIC SOLAR ENERGY





THERMODYNAMIC SOLAR BLOCK



**ELETRONIC
EXPANSION VALVE**



Solar Block



**DOMESTIC HOT WATER
INDUSTRIAL USE**



**CENTRAL
HEATING**



SWIMMING-POOL HEATING

SOLAR BLOCK

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.

- MOST ADVANCED SCROLL COMPRESSOR IN THE MARKET.
- OPTIMIZED SOUNDPROOFING.
- ELECTRONIC EXPANSION VALVE.
- VERSATILE ELECTRONIC CONTROLLER WITH INTUITIVE HANDLING.
- EXCELLENT QUALITY HEAT EXCHANGERS.



**Heat dissipation
through radiators,
under floor heating,
converters, among
others**



Hot water up to
60°C
Day & Night, Hail,
Rain, Wind
or Shine

Versatility of the Solar Block application
in an installation box.

**Energy solutions in conformity with the
Paris protocol (2015).**



Heated
Swimming-pool



ELECTRONIC CONTROLLER



Exit



Unlock | ON/OFF



Menu | Modify | Set



Change Values | Go through
Menu | Sub-Menu | Display



ON/OFF Backup

Electronic controller Inside



The Solar Block controller is the interface between the equipment and the user. Among other functionalities, it gives access to:

- SYSTEM STATUS
- TEMPERATURE INFORMATION THROUGH RESPECTIVE SENSOR
- PROGRAMMING (DAILY/WEEKLY/ETC)
- DATE AND TIME INFORMATION
- EASY TO CONTROL THROUGH THE INSTALLATION BOX
- SIMPLIFIED PARAMETRIZATION
- OUTLETS TEST
- 12 PREDEFINED CONFIGURATIONS
- INTEGRATION IN 3 CIRCUITS (CIRCULATOR PUMPS)
- 4 TEMPERATURE SENSORS
- CHRONO-THERMOMETRE
- 6 LANGUAGES
- OPTIONAL GTC MODULE





Energy Diagram

Energy needed to raise the temperature of 1000L of water from 15° to 55°. Calculation based on norm EN 16147.

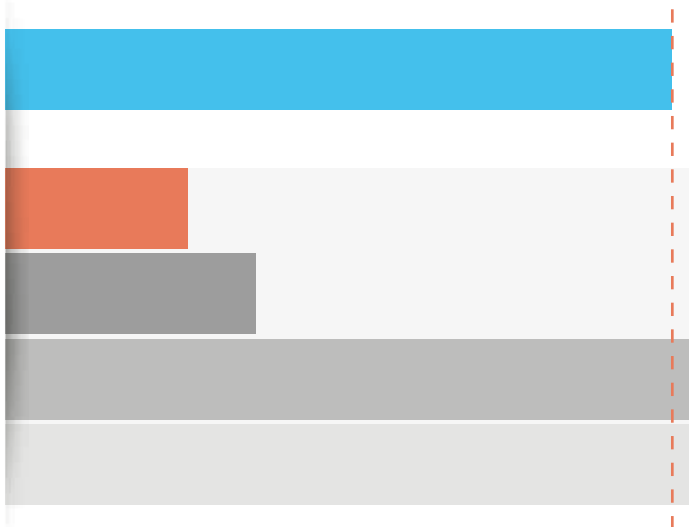
HOTEL WITH CAPACITY FOR 40 GUESTS

ECO XL

HEAT PUMP

ELECTRIC RESISTANCE

GAS AND DIESEL



Compare Consumptions Example for a 3 star Hotel with 20 double rooms



ECO XL

Thermodynamic Solar Solution to heat domestic water for industrial use

Equipment with 6 to 40 solar panels.
Capacities of 1000 to 6000 litres.
Stainless Steel Cylinders AISI316.

ECO XL



ECO XL

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



THE MOST EVOLVED INDUSTRIAL SOLUTION

- POSSIBILITY OF ADAPTING THE EXISTING INSTALLATION WITHOUT THE NEED FOR CIVIL CONSTRUCTION WORKS.
- HEAT IS CAPTURED THROUGH SOLAR RADIATION, ENVIRONMENT TEMPERATURE, RAIN, WIND AND EVEN SNOW.
- THE HEAT PRODUCED ON COLDER DAYS, EVEN AT NIGHT IS SUFFICIENT TO ATTAIN THE WATER TEMPERATURE DESIRED.
- 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.

**MAXIMUM
EFFICIENCY**

- 1 Magnesium Anode
- 2 High density insulation
- 3 DHW Cylinder
- 4 Water/water serpentine heat exchanger
- 5 Finned tube heat exchanger
- 6 Outside coating



Versions with 1 or 2 Cylinders

Stainless Steel AISI316 Cylinders with finned tube heat exchanger

With or without water/water heat exchanger

Equipment from 6 up to 40 Thermodynamic Solar Panels

Capacities from 1000 up to 6000 litres

- DOUBLE WALL CONDENSERS
- 3rd GENERATION SOLAR ENERGY
- SOLAR HOT WATER UP TO 60°C AVAILABLE
- ALMOST NON-EXISTENT MAINTENANCE
- UP TO 3 CYCLES OF HOT WATER REPLACEMENT SYSTEM CAPACITY PER DAY



Check warranty conditions

Thermodynamic Solar Systems for Large Volumes of Domestic Hot Water with a Cylinder



ECO 8888 I 88 and ECO 8888 IX 88

1000 to 2000



- 1 Stainless Steel Cylinder with Simple Flange
- 1 High Efficiency Finned Tube Heat Exchanger
- Optional Water/Water Serpentine Heat Exchanger
- 1 Solar Block

Model	Litres	Solar Block
Eco 1000	1000	6
Eco 1500	1500	12
Eco 2000	2000	12,16

8888 Represents the capacity of the equipment

88 Represents the number of panels

Thermodynamic Solar Systems for Big Volumes of Domestic Hot Water with two Cylinders



ECO 8888 ID 88 and ECO 8888 IXD 88

2000 to 6000



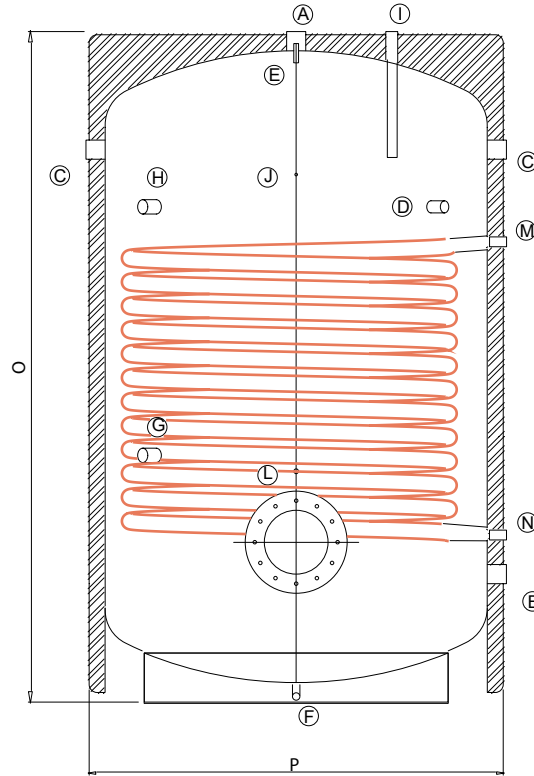
- 2 Stainless Steel Cylinders with Simple Flange
- 2 High Efficiency Finned Tube Heat Exchangers
- Optional Water/Water Serpentine Heat Exchanger
- 1 Solar Block

Model	Litres	Solar Block
Eco 2000	2x1000	12,16
Eco 3000	2x1500	16,28
Eco 4000	2x2000	28
Eco 6000	2x3000	40

8888 Represents the capacity of the equipment

88 Represents the number of panels

STAINLESS Cylinder

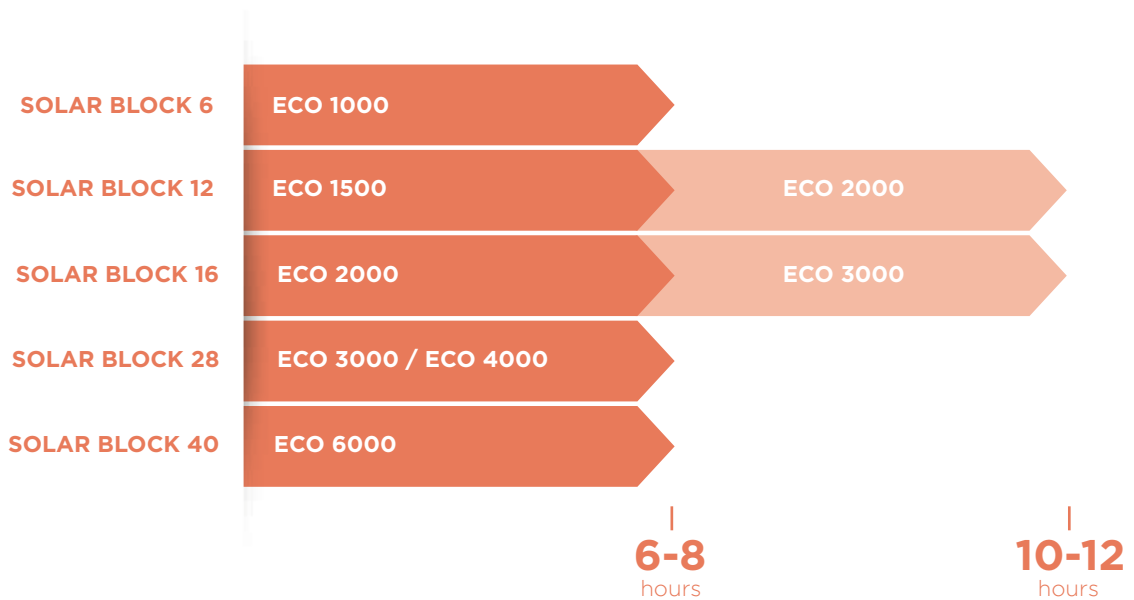


Letter	1000 Inox	1500 Inox	2000 Inox	3000 Inox
A	1" 1/4 F	1" 1/2 F	2" F	2" F
B	1" 1/4 F	1" 1/2 F	2" F	2" F
C	1" 1/4 F	1" 1/2 F	2" F	2" F
D	1" 1/4 F	1" 1/4 F	1" 1/4 F	1" 1/4 F
E	1/2" F	1/2" F	1/2" F	1/2" F
F	1" F	1" F	1" F	1" F
G	1/2" F	1/2" F	1/2" F	1/2" F
H	1/2" F	1/2" F	1/2" F	1/2" F
I	1" F	1" 1/4 F	1" 1/4 F	1" 1/4 F
J	1/2" F	1/2" F	1/2" F	1/2" F
L	1/2" F	1/2" F	1/2" F	1/2" F
M	1" 1/4 F	1" 1/4 F	1" 1/4 F	1" 1/4 F
N	1" 1/4 F	1" 1/4 F	1" 1/4 F	1" 1/4 F
O	2010mm	2100mm	2160mm	2300mm
P	930mm	1140mm	1300mm	1500mm

Note: Technical drawing of the Solar Block on page 54

DURATION OF THE HEATING CYCLE

Average period of time necessary for the **total volume** of water in the equipment to reach the desired temperature



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

*Considering an average consumption of 50 litres /person /day

Stainless Steel Cylinders

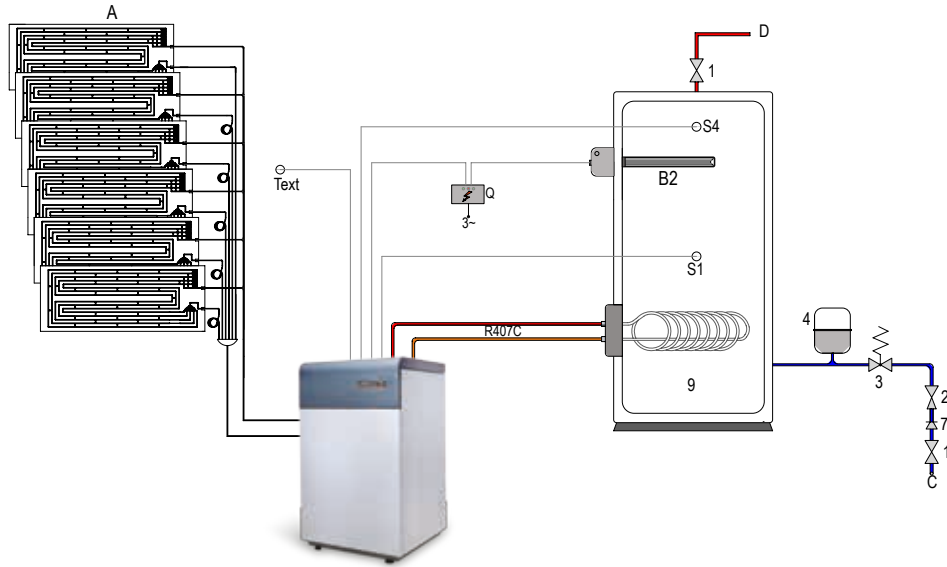
Name	Nominal Capacity	Cylinder	Panels	N. Flanges	Coil	Electrical Supply*
Eco 1000I6	1000	Stainless	6	1	No	S or T
Eco 1000IX6	1000	Stainless	6	1	Yes	S or T
Eco 1500I12	1500	Stainless	12	1	No	S or T
Eco 1500IX12	1500	Stainless	12	1	Yes	S or T
Eco 2000I12	2000	Stainless	12	1	No	S or T
Eco 2000IX12	2000	Stainless	12	1	Yes	S or T
Eco 2000ID12	2×1000	Stainless	12	1	No	S or T
Eco 2000IXD12	2×1000	Stainless	12	1	Yes**	S or T
Eco 2000I16	2000	Stainless	16	2	No	S or T
Eco 2000IX16	2000	Stainless	16	2	Yes	S or T
Eco 2000ID16	2×1000	Stainless	16	1	No	S or T
Eco 2000IXD16	2×1000	Stainless	16	1	Yes**	S or T
Eco 3000I16	3000	Stainless	16	2	No	S or T
Eco 3000IX16	3000	Stainless	16	2	Yes	S or T
Eco 3000ID16	2×1500	Stainless	16	1	No	S or T
Eco 3000IXD16	2×1500	Stainless	16	1	Yes**	S or T
Eco 3000I28	3000	Stainless	28	2	No	T
Eco 3000IX28	3000	Stainless	28	2	Yes	T
Eco 3000ID28	2×1500	Stainless	28	1	No	T
Eco 3000IXD28	2×1500	Stainless	28	1	Yes**	T
Eco 4000ID28	2×2000	Stainless	28	1	No	T
Eco 4000IXD28	2×2000	Stainless	28	1	Yes**	T
Eco 6000ID40	2×3000	Stainless	40	1	No	T
Eco 6000IXD40	2×3000	Stainless	40	1	Yes**	T

*The suffix Single-Phase (S) or Three-Phase (T) is added at the end of each designation.

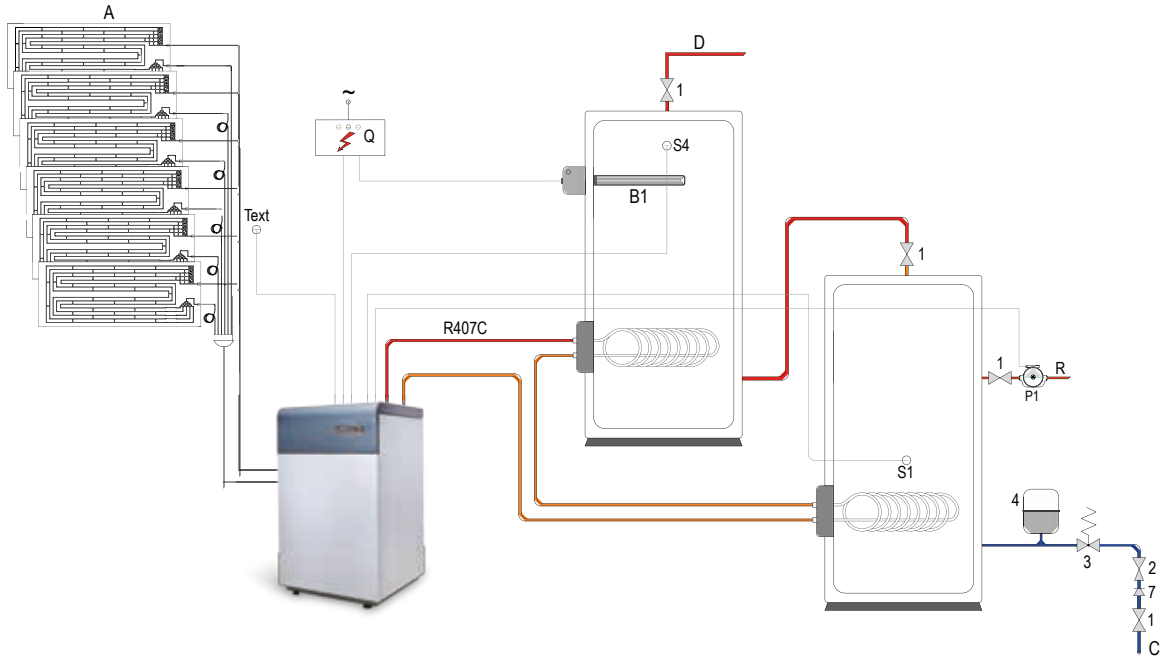
** Only one of the heaters has a serpentine.

The Thermodynamic Solar Solutions aimed at heating domestic water for industrial use have enough versatility in order for their application to meet the needs of the case at hand.

ECO XL
Standard Installation
with Electrical Support



ECO XL
Installation with
2 Cylinders
in Series with
Electrical Support



1 Shut-off Valve	7 Check Valve (non-return)	D Hot Water Outlet	Text Outside Thermostat
2 Pressure Reducer	9 Thermal Storage	P1 Circulating Pump 1	B1 Resistance Kit (Support)
3 Security Valve	A Thermodynamic Solar Panels	S1 Temperature Sensor S1	B2 Resistance Kit (Support)
4 Expansion Valve	C Cold Water Inlet	S4 Temperature Sensor S4	Q Control Box

Choose your model



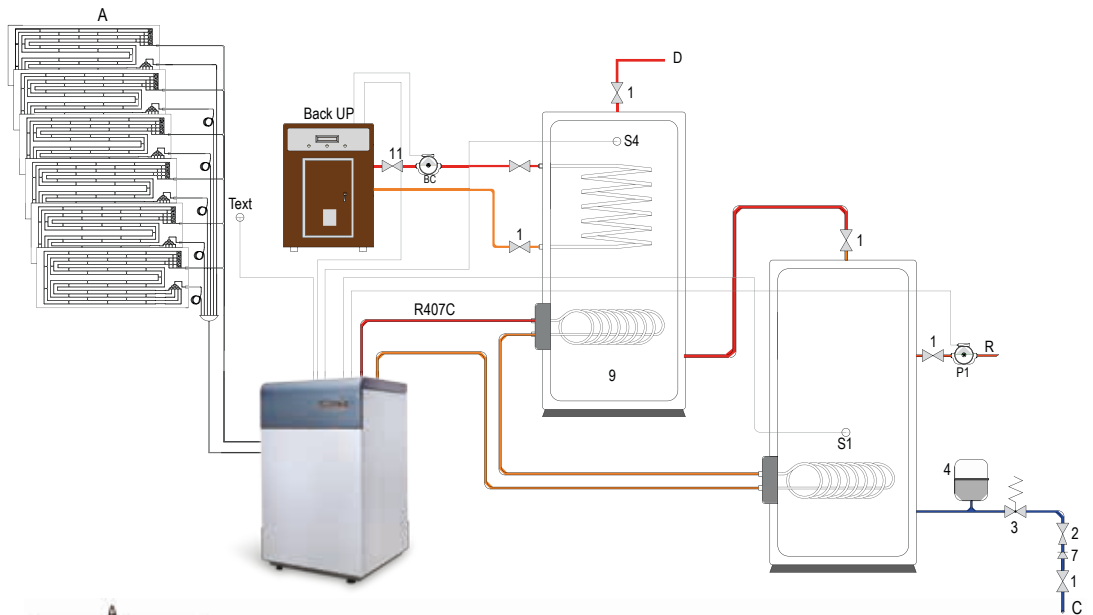
Example

ECO 3000 IXD 28 T ECO of 3000 litres capacity with 2 Stainless steel cylinders with a high productivity exchanger, 28 panels, three-phase version.

It is also in thinking about the needs of the professionals in this sector that we make an ample range of equipment available so that any new or existing installation is no longer a challenge and is simplified. The focus is always on economy and efficiency.

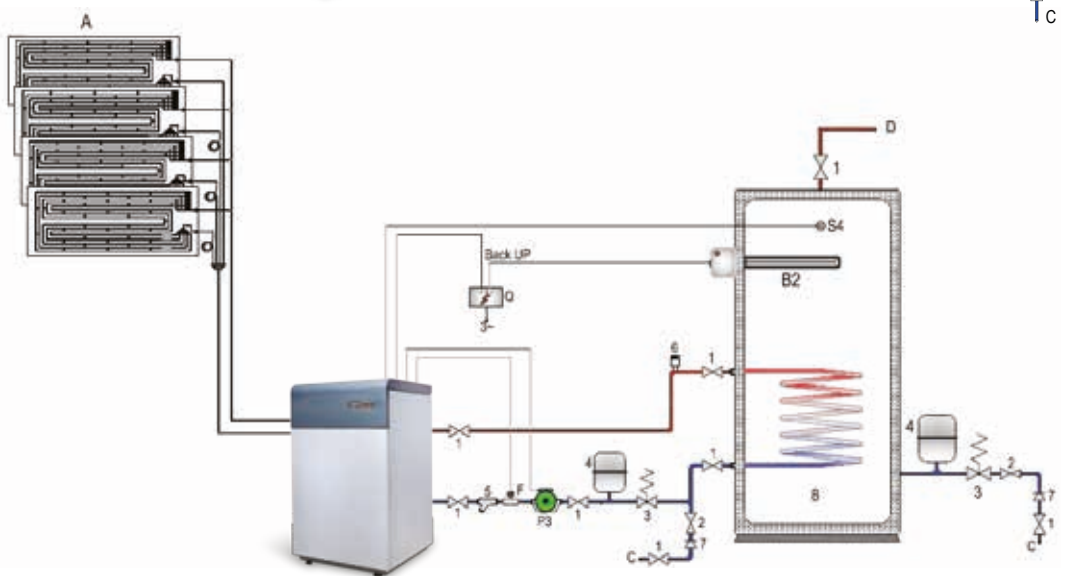
ECO XL

Installation with 2 Cylinders in Series with Boiler support



ECO XL

Use of Existing Cylinder



1 Shut-off Valve	7 Check Valve (non-return)	D Hot Water Outlet	BC Boiler Circulator Pump
2 Pressure Reducer	9 Thermal Storage	S1 Temperature Sensor S1	CA Boiler (Support)
3 Security Valve	A Thermodynamic Solar Panels	S4 Temperature Sensor S4	
4 Expansion Valve	C Cold Water Inlet	Text Outside Thermostat	

ECO XL

- 1 Model**
Eco XL
- 2 Capacity (litres)**
1000, 1500, 2000, 3000, 4000 ou 6000 litres
- 3 Cylinder Material**
i (Stainless)

- * 4 Supplementary Coil (Stainless 6 Cylinders)**
X (optional)
- * 5 2 Cylinders**
D (Available in models Eco 2000, Eco 3000, Eco 4000 e Eco 6000) (optional)

- 6 Number of Solar Panels that make up the system**
- 7 S Single-phase**
T Three-phase

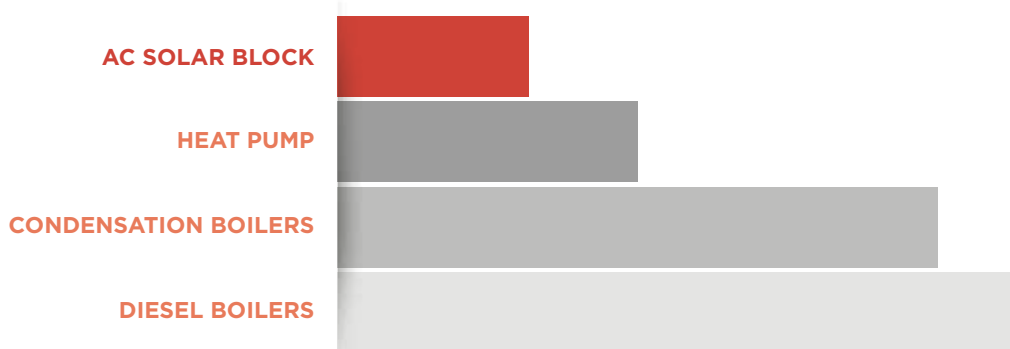
* Optional and when applicable
8888 Represents the capacity of equipment



Advantages in acquiring a Solar Block for Central Heating:

- LOW CO₂ EMISSIONS
- WITH ELECTRICITY PRICES GOING UP ALL THE TIME, THE RIGHT INVESTMENT IS IN EFFICIENCY TO OBTAIN MAXIMUM SAVING
- RENEWABLE ENERGY IN YOUR HOME
- MAKE YOUR HOME ENVIRONMENTALLY FRIENDLY

Comparison of primary energy consumption between different heating systems





CENTRAL HEATING

Thermodynamic Solar Solution for central heating

Equipment with 6 to 40 solar panels

CENTRAL HEATING



CENTRAL HEATING

COMFORT, CONVENIENCE WITH MAXIMUM ECONOMY



Check warranty conditions



- SUPER EFFICIENT ENVIRONMENT HEATING AT LOW.
- NON-EXISTENT PROGRAMMED MAINTENANCE.
- POSSIBILITY OF JOINING ALL HOUSE HEATING EQUIPMENT INTO JUST ONE SOLUTION.
- POSSIBILITY OF ALTERNATING BETWEEN ENVIRONMENT HEATING IN THE COLDER SEASONS AND SWIMMING-POOL HEATING IN THE WARMER SEASONS.
- ABSOLUTE GUARANTEE OF PRODUCTION OF HOT WATER FOR HEATING AT 55°C DURING THE WINTER.
- HIGHLY EFFICIENT SCROLL COMPRESSOR.
- HIGH QUALITY STAINLESS STEEL PLATES EXCHANGER.
- FREE OF DEFROST CYCLES.
- SMALL DIMENSION INDOOR UNIT.
- CENTRAL HEATING WITHOUT CHIMNEYS AND BURNT GASES, TOTALLY ENVIRONMENTALLY FRIENDLY.
- WORKS WITH UNDERFLOOR HEATING, RADIATORS, CONVECTORS OR FAN COILS.
- ELECTRONIC EXPANSION VALVE.

MAXIMUM EFFICIENCY



Note Simplified representative diagram

Technical drawing of Solar Block on page 54

Specifications

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 Min.	W	1230	2010	3210	5650	8450
Water Flow	m ³ /h	0,7	1,0	1,5	3,0	5,0
Pressure Drop	kPa	3,0	9	7	11	36
Electrical Supply		1~/230V/50 Hz or 3~/400V/50 Hz			3~/400V/50 Hz	
Protection (M/T)*	A	16/6	25/10	2x16/16	20	25
Hydraulic Connections	Pol.	1	1	1	1	1
Block Gross Weight	kg	48	96	128	210	320

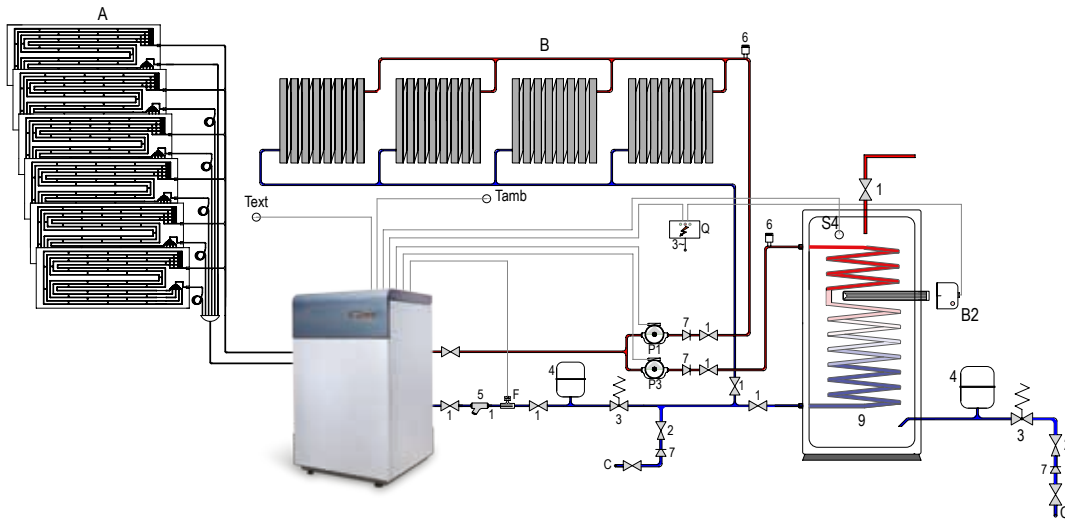
*Magnetothermic Protection Switch (S, for the Single-Phase version and T for the Three-Phase version) to be fitted by the installer.

Model	Panels	Area to be heated*	Cylinder	Electrical Supply
Solar Block 6	6	90 m ²	-	230V or 400V
Solar Block 12	12	150 m ²	-	230V or 400V
Solar Block 16	16	220 m ²	-	230V or 400V
Solar Block 28	28	300 m ²	-	400V
Solar Block 40	40	450 m ²	-	400V
Solar Block 6 Plus	6	90 m ²	200	230V or 400V
Solar Block 12 Plus	12	150 m ²	300	230V or 400V
Solar Block 16 Plus	16	220 m ²	300	230V or 400V
Solar Block 28 Plus	28	300 m ²	500	400V
Solar Block 40 Plus	40	450 m ²	500	400V

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

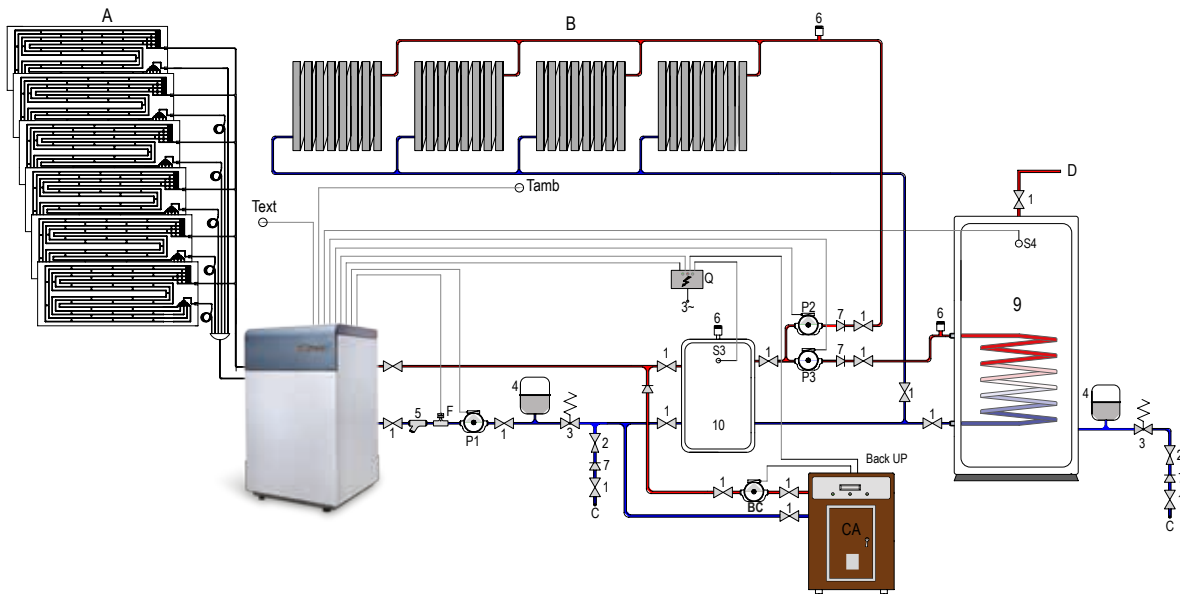
Central heating

Combined Solution (Central heating + Domestic Hot Water)



Central heating

Combined Solution with Backup (Central Heating + Domestic Hot Water with a backup boiler)



1 Shut-off Valve	7 Check Valve (non-return)	D Hot Water Outlet	S4 Temperature Sensor S4
2 Pressure Reducer	9 Thermal Storage	F Flow Switch	Tamb Environment Thermostat
3 Security Valve	10 Buffer Tank	P1 Circulating Pump 1	Text Outside Thermostat
4 Expansion Valve	A Thermodynamic Solar Panels	P2 Circulating Pump 2	BC Boiler Circulator Pump
5 Filter	B Environment Heating	P3 Circulating Pump 3	B2 Resistance Kit (Support)
6 Drain Valve	C Cold Water Inlet	S3 Temperature Sensor S3	Q Control Box

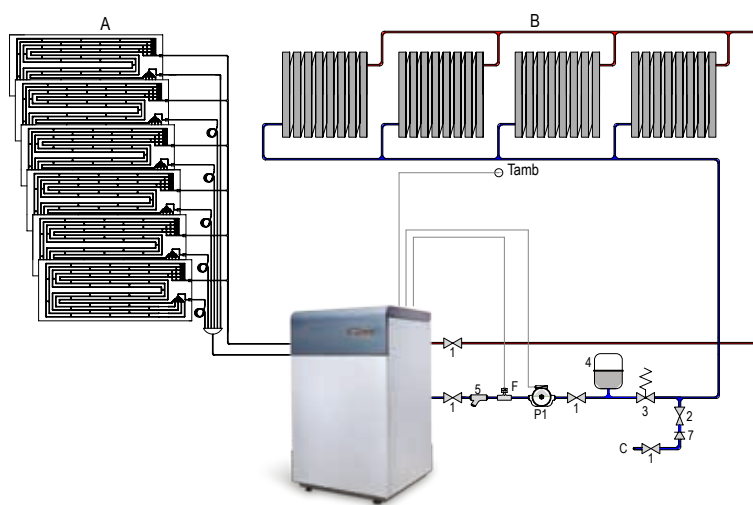
Choose your model

SOLAR BLOCK **88** **PLUS** **888** **A**

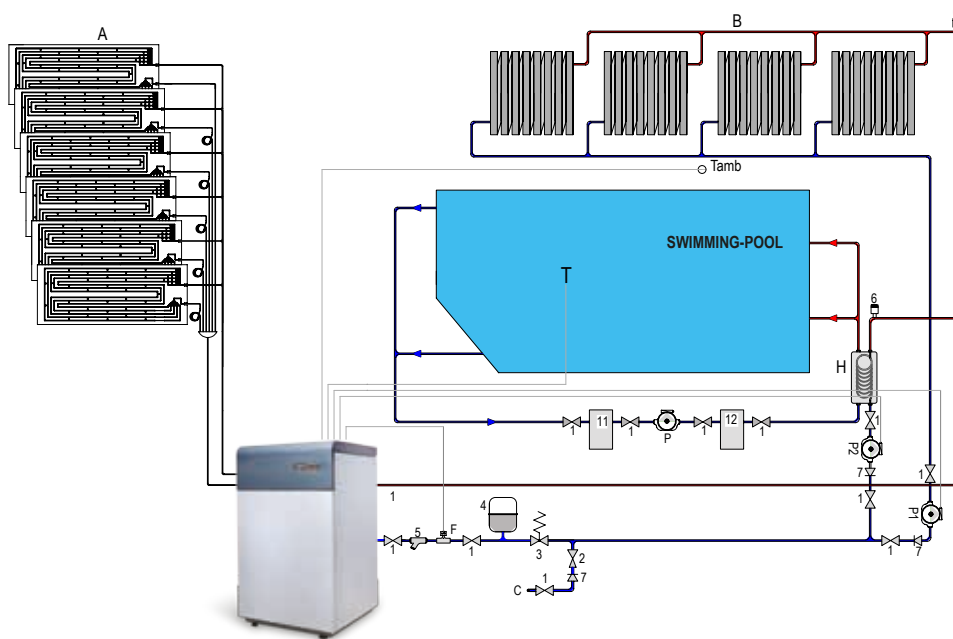
① ② * ③ * ④ ⑤

888 Represents the capacity of the equipment
88 Represents the number of panels

Central heating
Standard Installation



Central heating + Swimming-pool
Combined Installation



1 Shut-off Valve	6 Drain Valve	B Environment Heating	Tamb Environment Thermostat
2 Pressure Reducer	7 Check Valve (non-return)	C Cold Water Inlet	T Thermostat
3 Security Valve	11 Pre-filter	F Flow Switch	G Swimming-pool
4 Expansion Valve	12 Filter	P1 Circulating Pump 1	H Water/Water Titanium Heat Exchanger
5 Filter	A Thermodynamic Solar Panels	P2 Circulating Pump 2	

- 1 Model**
Environment Heating Solar Block
- 2 Number of Solar Panels**
6, 12, 16, 28, or 40
- * 3 Combined Solution**
A Central Heating or Central Heating + Domestic Hot Water (Plus)

- * 4 DHW Cylinder capacity of the Combined Solution**
Capacities available are 200, 300 or 500 litres
- 5 S Single-Phase Version**
T Three-Phase Version

* Only for the Combined Solution if applicable

SWIMMING-POOL HEATING





SWIMMING-POOL HEATING

Thermodynamic Solar Solution for Swimming-pools

Equipment from 6 up to 40 solar panels

SWIMMING-POOL HEATING



SP. HEATING

HEATED SWIMMING-POOL EVERY DAY OF THE YEAR



Check warranty conditions



- 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.
- POSSIBILITY OF ALTERNATING BETWEEN ENVIRONMENT HEATING IN THE COLDER SEASONS AND SWIMMING-POOL HEATING IN THE WARMER SEASONS.
- HIGHLY-RESISTANT AND DURABLE TITANIUM EXCHANGER.
- HIGHLY EFFICIENT SCROLL COMPRESSOR.
- FREE OF DEFROST CYCLES.
- SMALL DIMENSION INDOOR UNIT.
- ELECTRONIC EXPANSION VALVE.

MAXIMUM EFFICIENCY



Note Simplified representative diagram

Technical drawing of the Solar Block on page 54

SPECIFICATIONS

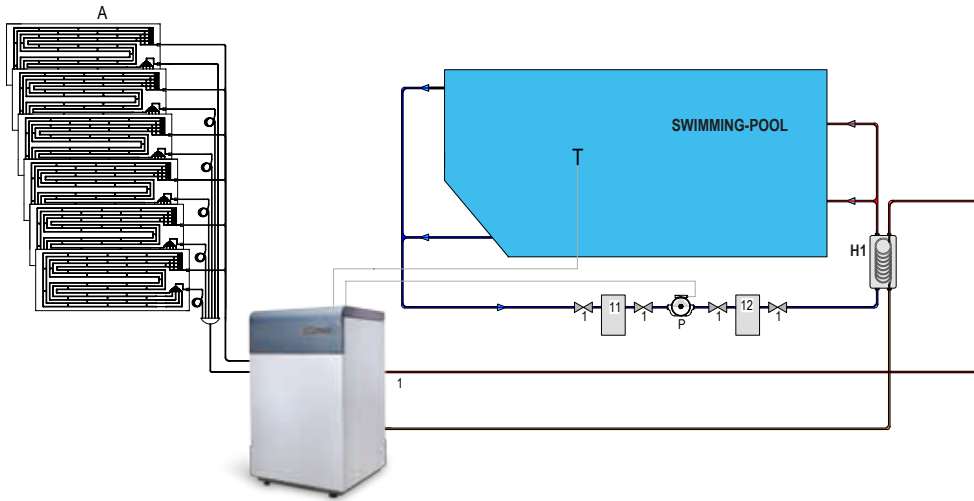
Model		Solar Block 6	Solar Block 12	Solar Block 16	Solar Block 28	Solar Block 40
Solar Panels		6	12	16	28	40
Maximum Thermal Power	W	7500	16580	24210	38220	54600
Power Consumption Min.	W	1230	2010	3210	5650	8450
Electrical Supply		1~/230V/50 Hz or 3~/400V/50 Hz				3~/400V/50 Hz
Protection (M/T)*	A	16/6	25/10	2x16/16	20	25
Gross Weight	kg	48	96	128	210	320

*Magnetothermic protection switch (S, for the Single-phase version and T, for the Three-phase version) to be fitted by the installer.

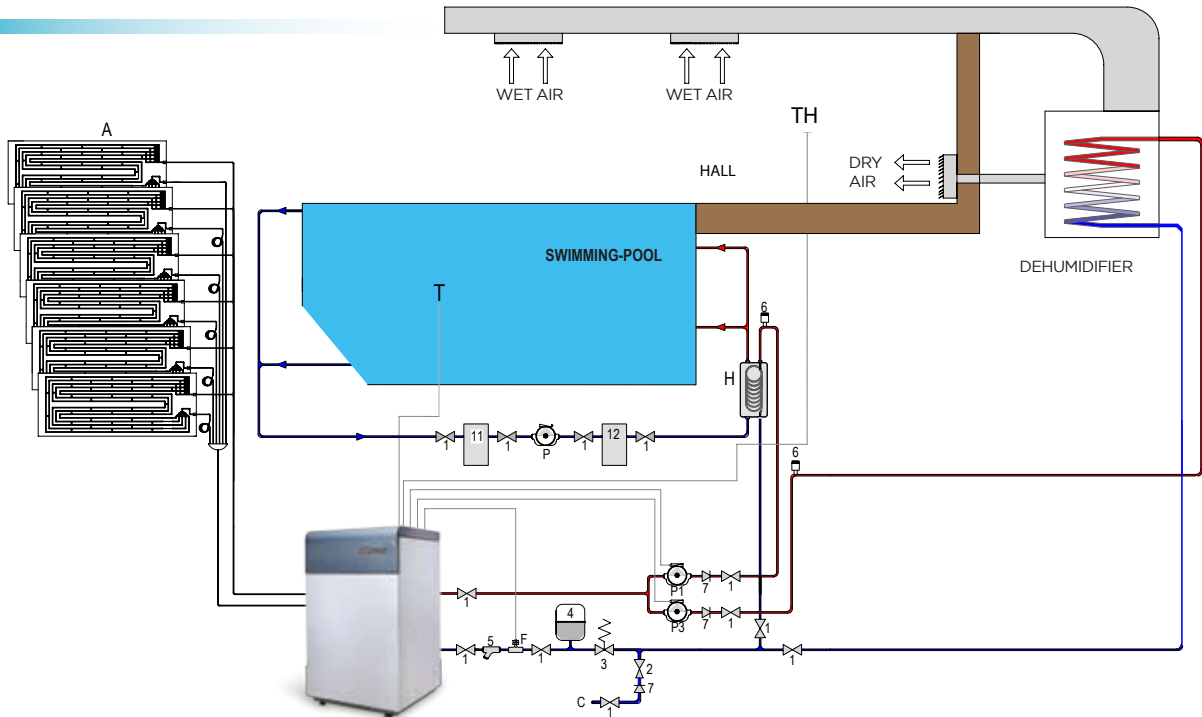
Model	Panels	Volume to be heated* (Water Mirror Surface)	Cylinder	Electrical Supply
Solar Block 6	6	16 m ²	-	230V or 400V
Solar Block 12	12	40 m ²	-	230V or 400V
Solar Block 16	16	60 m ²	-	230V or 400V
Solar Block 28	28	120 m ²	-	400V
Solar Block 40	40	150 m ²	-	400V
Solar Block 6 Plus	6	16 m ²	200	230V or 400V
Solar Block 12 Plus	12	40 m ²	300	230V or 400V
Solar Block 16 Plus	16	60 m ²	300	230V or 400V
Solar Block 28 Plus	28	120 m ²	500	400V
Solar Block 40 Plus	40	150 m ²	500	400V

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

Swimming-pool Heating
Standard Installation



Swimming-pool + Dehumidifier
Combined Solution



1 Shut-off Valve	6 Drain Valve	C Cold Water Inlet	T Thermostat
2 Pressure Reducer	7 Check Valve (non-return)	F Flow Switch	G Swimming-pool
3 Security Valve	11 Pre-filter	P1 Circulating Pump 1	H Water/water titanium heat exchanger
4 Expansion Valve	12 Filter	P2 Circulating Pump 2	TH Thermo-Hygrometer
5 Filter	A Thermodynamic Solar Panels	P3 Circulating Pump 3	H1 Gas/Water Titanium Heat Exchanger

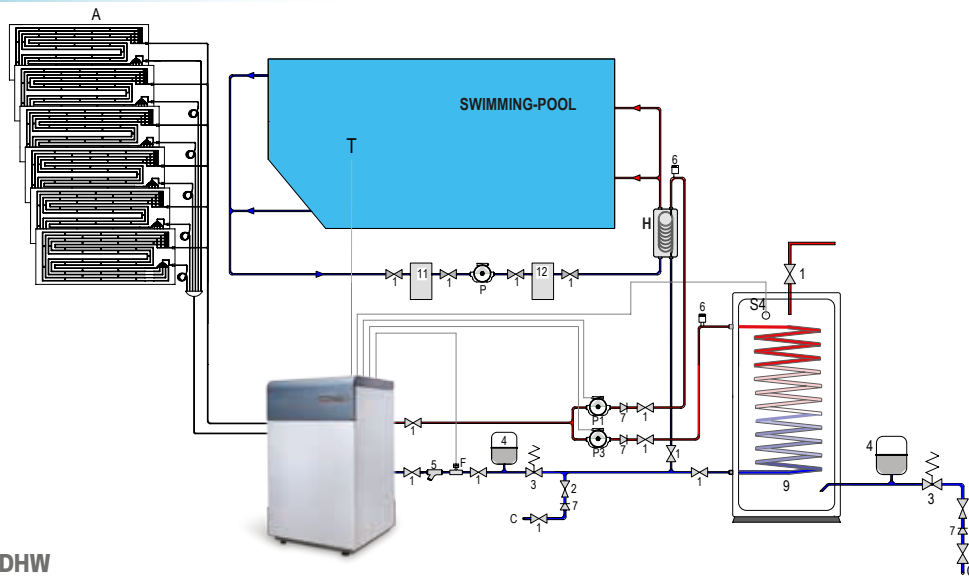
Choose your model

SOLAR BLOCK **00** **PLUS** **000** **A**

1 **2** ***3** ***4** **5**

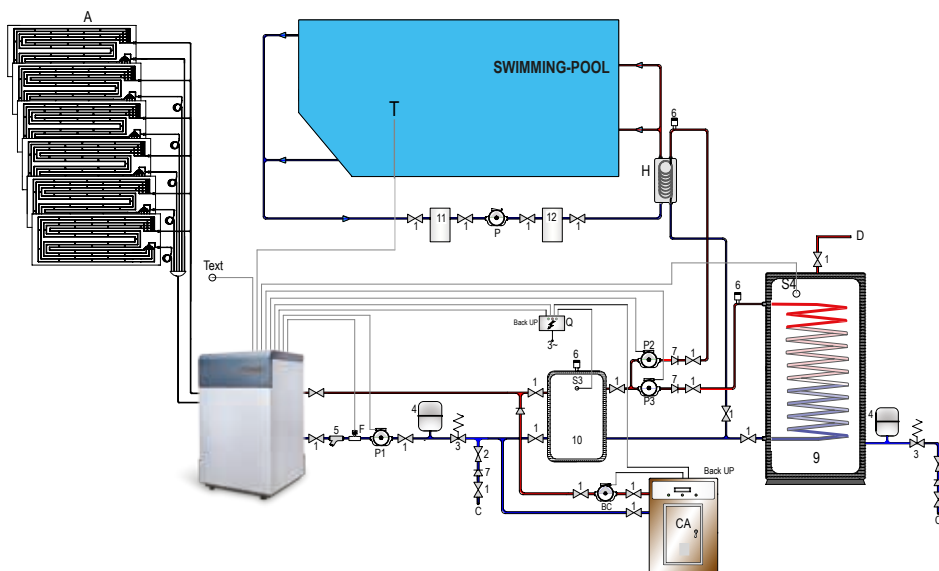
Swimming-pool + DHW

Combined Solution



Swimming-pool + DHW

Combined Solution with backup



1 Shut-off Valve	9 Thermal Storage	P1 BCirculating Pump 1	BC Boiler Circulator Pump
2 Pressure Reducer	11 Pre-filter	P2 Circulating Pump 2	Q Control Box
3 Security Valve	12 Filter	P3 Circulating Pump 3	G Swimming-pool
4 Expansion Valve	A Thermodynamic Solar Panels	S3 Temperature Sensor S3	H Water/water titanium heat exchanger
5 Filter	C Cold Water Inlet	S4 Temperature Sensor S4	
6 Drain Valve	D Hot Water Outlet	Text Outside Thermostat	
7 Check Valve (non-return)	F Flow Switch	T Thermostat	

1 Model

Swimming-pool Heating Solar Block

2 Numbers of Solar Panels

6, 12, 16, 28, ou 40

*** 3 Combined Solution**

Central Heating or Central Heating + Domestic Hot Water (Plus)

*** 4 Capacity**

Being a Plus Solution the Available Capacities are 200, 300 or 500 litres

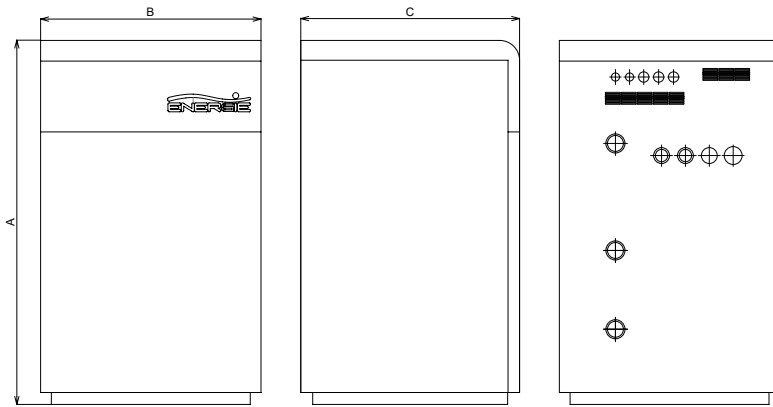
5 M Single-Phase Version

T Single-Phase Version

* Only for the Combined Solution if applicable

SOLAR BLOCK COMMON TO ECO XL, CENTRAL HEATING AND SWIMMING-POOL

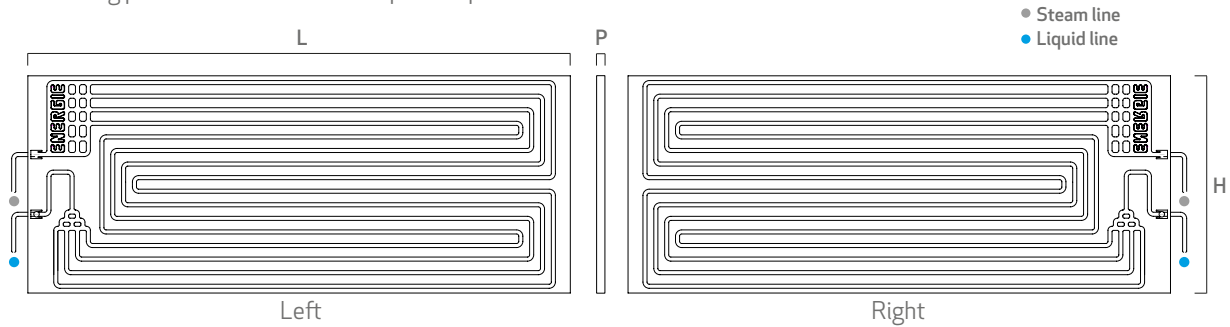
Technical drawing



	6 to 16 Panels	28 to 40 Panels
A	915	915
B	555	654
C	550	634.5

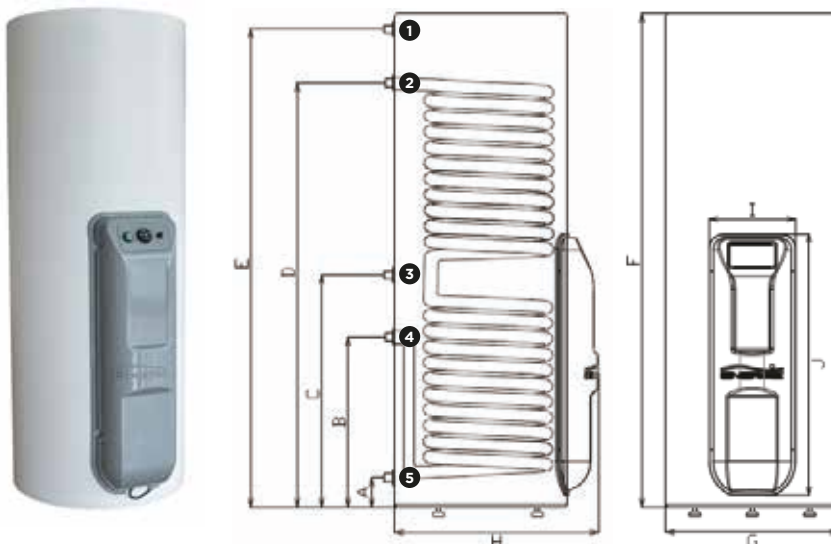
LEFT AND RIGHT THERMODYNAMIC SOLAR PANEL

Technical drawing | Measured in mm : L-2000 | H-800 | P-20



DHW CYLINDERS OF THE COMMON PLUS SOLUTIONS FOR CENTRAL HEATING AND SWIMMING-POOL

Technical drawing



	200 HP	250 HP	300 HP
A	74 mm	74 mm	74 mm
B	681 mm	681 mm	681 mm
C	815 mm	815 mm	815 mm
D	1061 mm	1251 mm	1251 mm
E	1219 mm	1454 mm	1671 mm
F	1350 mm	1530 mm	1750 mm
G		580 mm	
H		685 mm	
I		290 mm	
J		879 mm	
1 (Hot Water)		4 (Coil Outlet)	
2 (Coil Inlet)		5 (Cold Water)	
3 (Recirculation)			

AQUAPURA

HEAT PUMPS FOR DOMESTIC WATER HEATING

ENERGIE PRESENTS

AQUAPURA SPLIT
AQUAPURA MONOBLOC

Energy
Class

A+



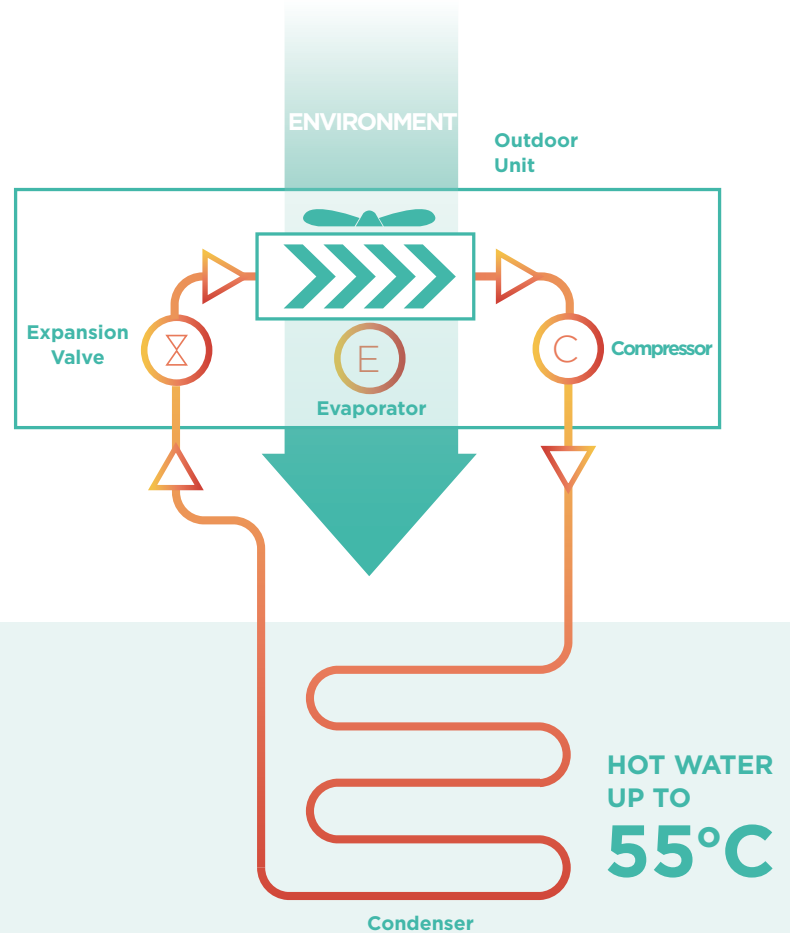
A Q U A P U R A

AQUAPURA

AQUAPURA

It is a system designed to get an optimal regulation of domestic water heating. The heat pump is a modern, efficient and clean solution that guarantees comfort in your home, always respecting the environment.

It is an intelligent way of using nature's resources in order to improve your quality of life. In adopting this solution you will be making a serious commitment in terms of reducing harmful emissions to our atmosphere thus contributing to the natural balance of the planet.



AQUAPURA SPLIT
AQUAPURA MONOBLOC

Operating Principle

There is a cooling liquid that is pumped to an outdoor heat exchanger (evaporator).

Here the liquid, with the help of a fan, absorbs the energy from the atmosphere to the temperature differential obtained outdoors. During this process, the liquid changes to a gaseous state.

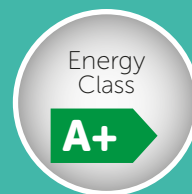
The gaseous state is sucked in by the mechanical part of the system, the compressor. Here it is compressed,

the pressure goes up and consequently the liquid temperature increases.

After this, the liquid travels to a second inside heat exchanger (condenser) and transfers heat to the water in the cylinder.

The fluid goes into liquid state by cooling down. The liquid pressure is reduced due to a strangulation that happens in the expansion valve and the process starts again.

75%
OF FREE
ENERGY



AQUAPURA SPLIT

Domestic Hot Water

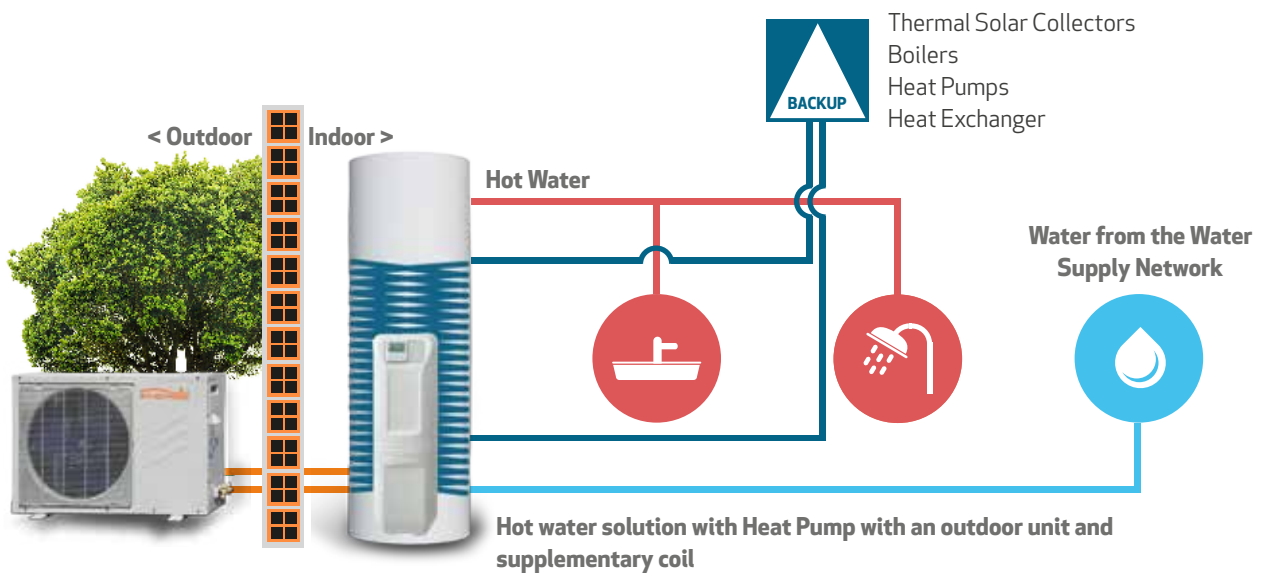
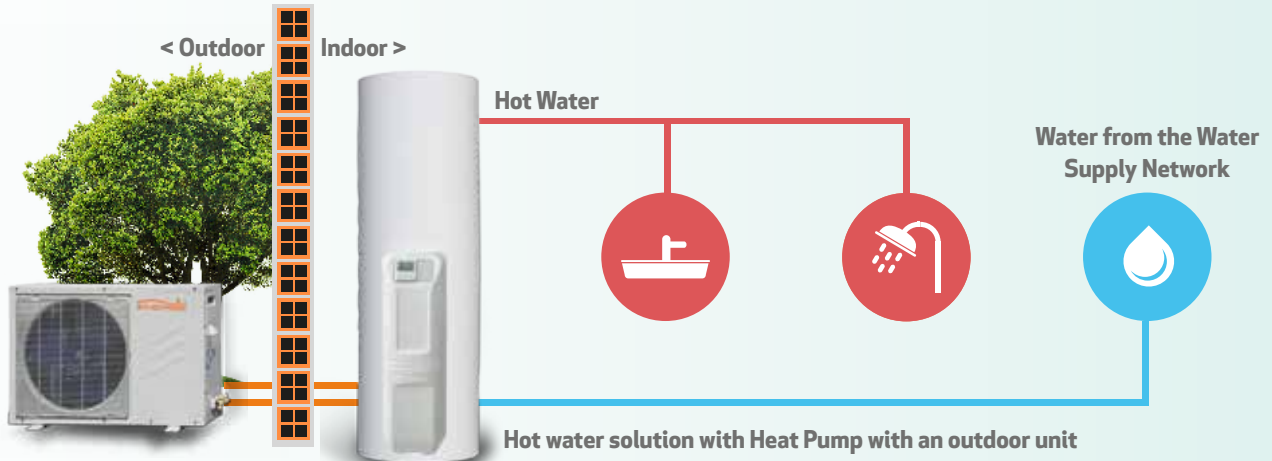
Heat Pumps to heat Domestic Water
Available with capacities of 250, 300 and 500 litres.

SPLIT

HOTWATER
UP TO
65°C









AQUAPURA



ELECTRONIC CONTROLLER



Button	Function
	(ON/OFF)
	(OK) Confirmation
	Clock / Programming
	ON/OFF Electrical resistance
	Change Values
	Go through Menus/Submenus

- 3 DISTINCT OPERATING MODES
- 2 FUNCTIONALITIES
- ALLOWS TEMPERATURE DISPLAY
- ELECTRICAL SUPPORT
- TIME PROGRAMMING
- KEYBOARD LOCK

EFFICIENCY AND SILENCE

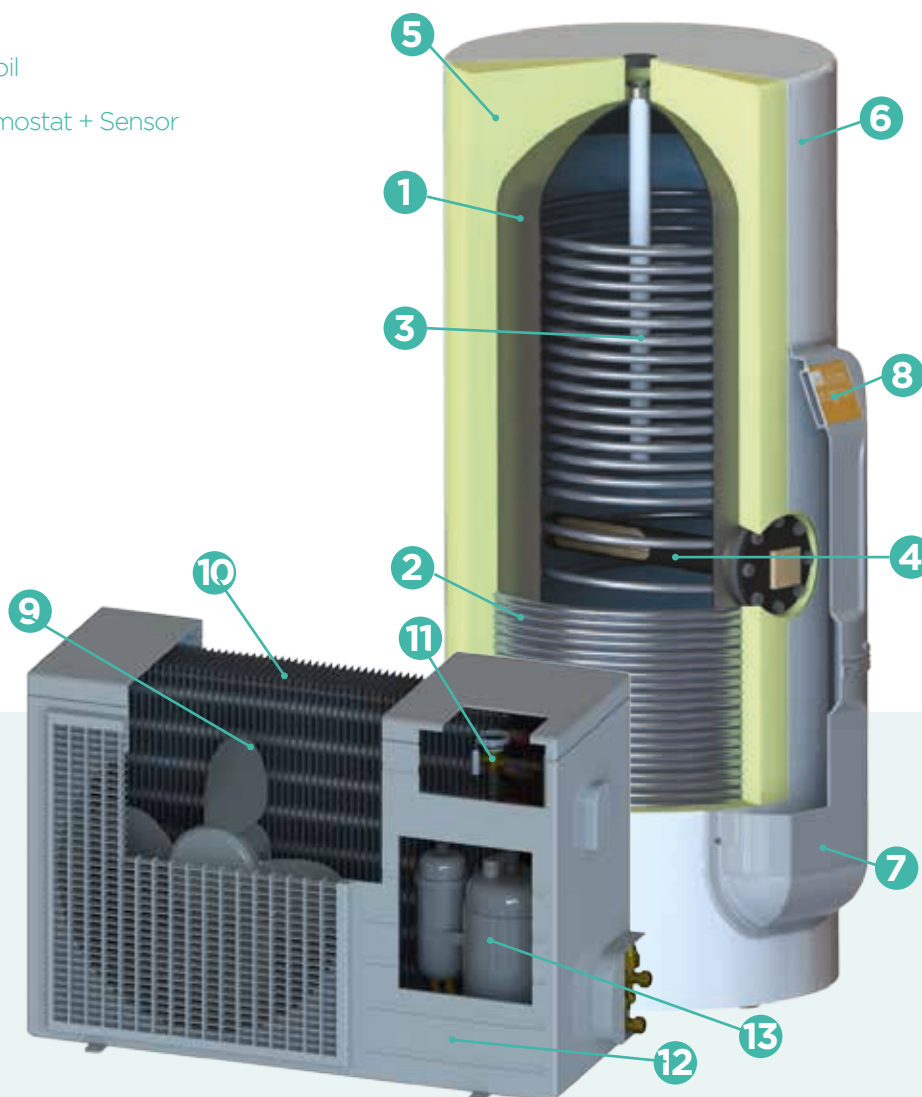


Check warranty conditions

- SILENCE AT HOME
- WITHOUT DUCTS
- REDUCED HEATING TIME
- LOW MAINTENANCE
- OUTSIDE THE CYLINDER CONDENSER (NO CONTACT WITH WATER)
- IMPROVEMENT OF THE ENERGY CLASSIFICATION OF THE BUILDING
- OPERATION TIME PROGRAMMING
- EFFICIENT FUNCTIONING EVEN AT LOW TEMPERATURES OUTDOORS
- EFFICIENCY AND SILENCE

COP 3,5
MAXIMUM
EFFICIENCY

- 1 DHW Cylinder
- 2 Condenser (Coil)
- 3 Optional Supplementary Coil
- 4 Ceramic Resistance + Thermostat + Sensor
- 5 High Density Insulation
- 6 Outside Coating
- 7 Split Cover
- 8 Electronic Controller
- 9 Ventilator
- 10 Evaporator
- 11 Expansion Valve
- 12 Unit box
- 13 Compressor



**THE
PERFECT
SYMBIOSIS**

Outdoor Unit
 High productivity
 Low noise emission
 High performance
 Robust
 Easy installation

Condenser
 High thermal conductivity
 Outside the cylinder (no contact with water)
 High contact area with cylinder (favouring thermal transfer)

Electronic Controller
 Easy to use
 Intuitive
 High resolution LCD screen
 Total control of Equipment

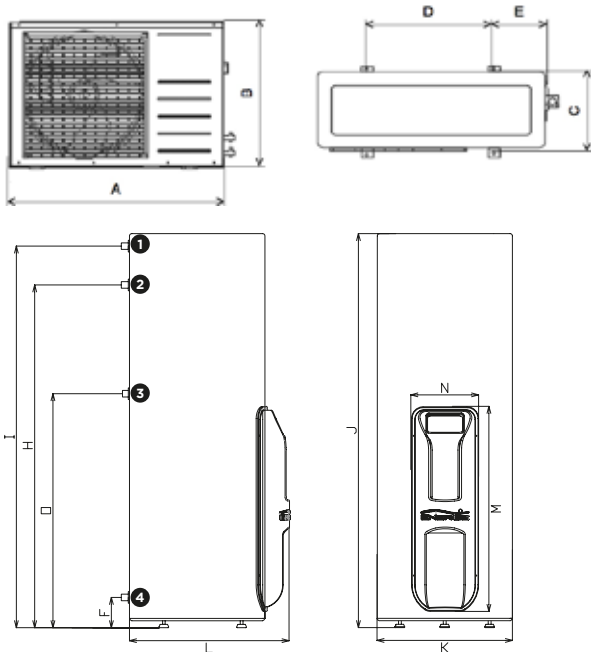
Characteristics
 Adjustable support leg
 Outdoor aluminium plate
 Electrical support to meet the need for bigger consumption
 Protection anode against corrosion
 Safety thermostat

Insulation
 High density
 Polyurethane
 High thermal resistance
 High mechanical resistance

Termoacumulador
 Stainless Steel or Enamelled Cylinder
 High to corrosion
 Mechanical
 Robustness
 High dimension precision in the hydraulic connections

Split Heat Pump Domestic Hot Water

Technical drawing



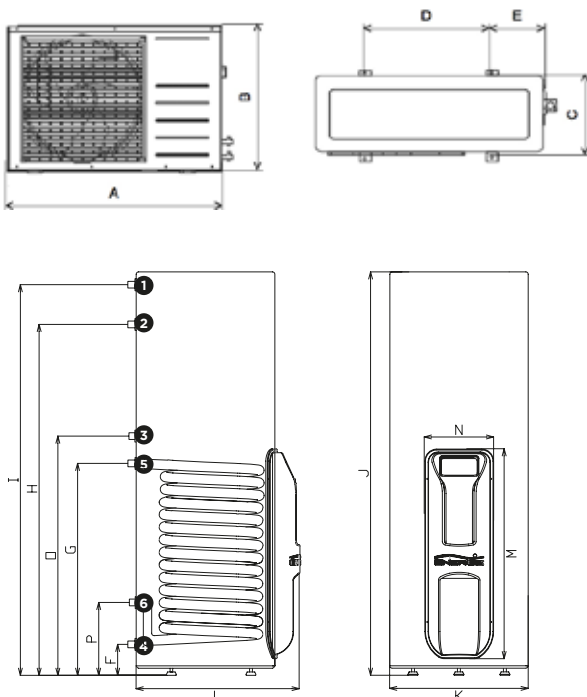
Dimensions	Outdoor Unit
A	776
B	530
C	241
D	548
E	114

Dimensions	250i	300i	500i
F	89	92	92
O	830	772	772
H	1333	1172	1760
I	1469	1315	1927
L	685	755	755
J	1543	1400	1995
K	580	650	650
M	879	879	879
N	290	290	290

	250i	300i	500i
1 (Hot water)	3/4" Male	1" Male	
2 (PT valve)	1/2" Female	1/2" Female	
3 (Recirculation)	3/4" Male	3/4" Male	
4 (Cold water)	3/4" Male	1" Male	

With flares valves on the split unit and on the cylinder.

Technical drawing



Dimensions	Outdoor Unit
A	776
B	530
C	241
D	548
E	114

Dimensions	250ix	300ix	500ix
F	89	92	92
P	203	221	625
G	696	621	1515
O	830	772	772
H	1333	1172	1760
I	1469	1315	1927
L	685	755	755
J	1543	1415	1995
K	580	650	650
M	879	879	879
N	290	290	290

	250ix	300ix	500ix
1 (Hot water)	3/4" Male	1" Male	
2 (PT valve)	1/2" Female	1/2" Female	
3 (Recirculation)	1/2" Female	1/2" Female	
4 (Cold water)	3/4" Male	1" Male	
5 (Coil Inlet)	1" Male	1" Male	
6 (Coil Outlet)	1" Male	1" Male	

With flares valves on the split unit and on the cylinder.

Split Heat Pump Domestic Hot Water

TECHNICAL DATA

CYLINDER		250 I/IX	300 I/IX	500 I/IX
Capacity	L	250	300	500
Dimensions (ø height)	M	0,58 1,530	0,65 1,390	0,65 1,990
Gross weight	Kg	62/69*	72/79*	110/121*
Material	-	Stainless Steel AISI444		
Outside coating	-	Metallic slate		
Insulation	-	High density polyurethane (55mm)		
Corrosion protection	-	Magnesium Anode 1"1/4		
Maximum water temperature	°C	80		
Maximum operation pressure	Bar	7		
Thermal loss	kWh/24h	1,01	1,17	1,81
Coil* (ø length)	M	0,025 10	0,025 10	0,025 24
Coil thermal power*	kW	20**		54**
Protection Index	-	IPX1		
Auxiliary coil power	W	1500		2200
Refrigerating connections	pol.	1/4" 3/8"		
Hydraulic Connections (Inlet outlet recirculation PT valve coil *)	pol.	3/4M 3/4M 3/4M 1/2F 1M		1M 1M 3/4M 1/2F 1M

*Models IX

**Primary circuit (Te = 90°C; Ts = 80°C); DHW circuit (Te = 10°C; Ts = 60°C)

OUTSIDE UNIT

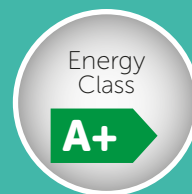
Weight	kg	33		
Refrigerating connections	pol.	1/4" 3/8"		
Sound level	dB	59		
Power supply	V / Hz	230 Mono / 50		
Protection Index	-	IPX1		
Absorbed electrical power (BC) (med / max)	W	600 / 1000		
Thermal power supplied (BC) (med / max)	W	1920 / 3200		
Maximum distance between refrigeration connections	m	20 (hight max. 10)		
Outdoor operating temperature range	°C	-14 / 43		
Refrigerating fluid	type/g	R134a / 1600		
Air flow	m3/h	1300		

PERFORMANCE

Tapping profile	-	XL	XL	XXL
COP	-	3,35	3,44	3,26
Amount of water removed at 40°C	L	323	362	572
ErP Class	-	A+	A+	A+
Energetic efficiency	%	139,3	143,2	134,4
Annual electricity consumption	kWh/year	1202,6	1170	1603,2

*A14 / W54 according to EN16147 and Delegated Regulation (EU) N°812 / 2013





AQUAPURA MONOBLOC

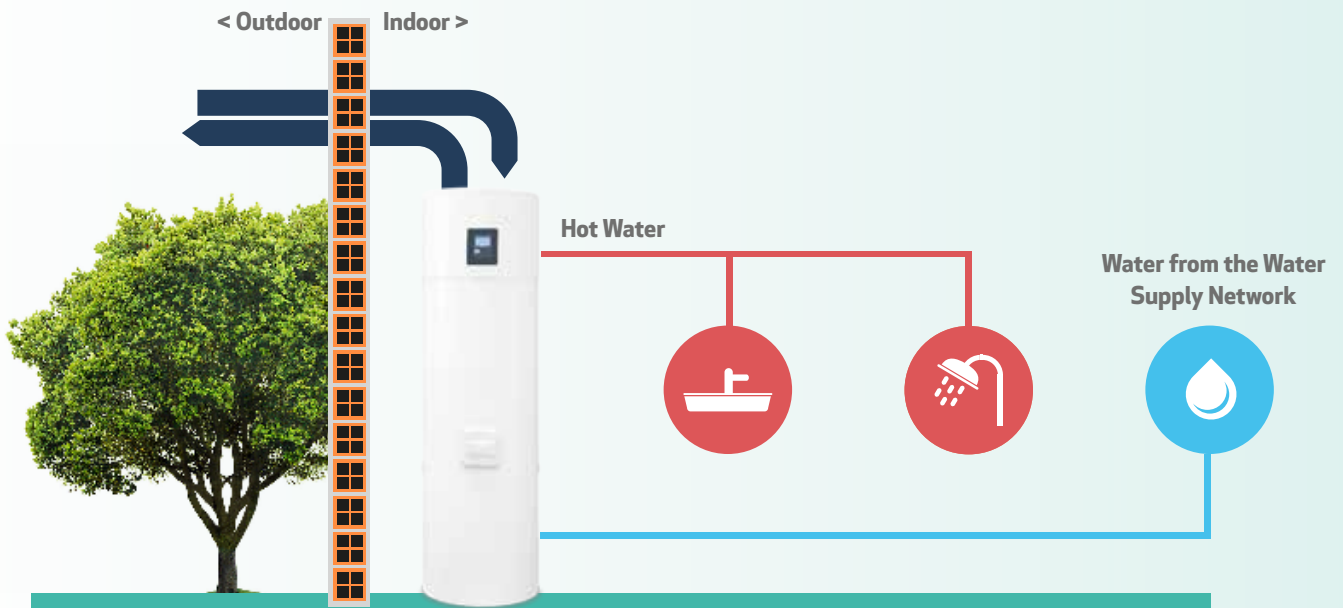
Domestic Hot Water

Heat pumps to heat Domestic Water
Available with capacities of 100, 200 and 250 litres.

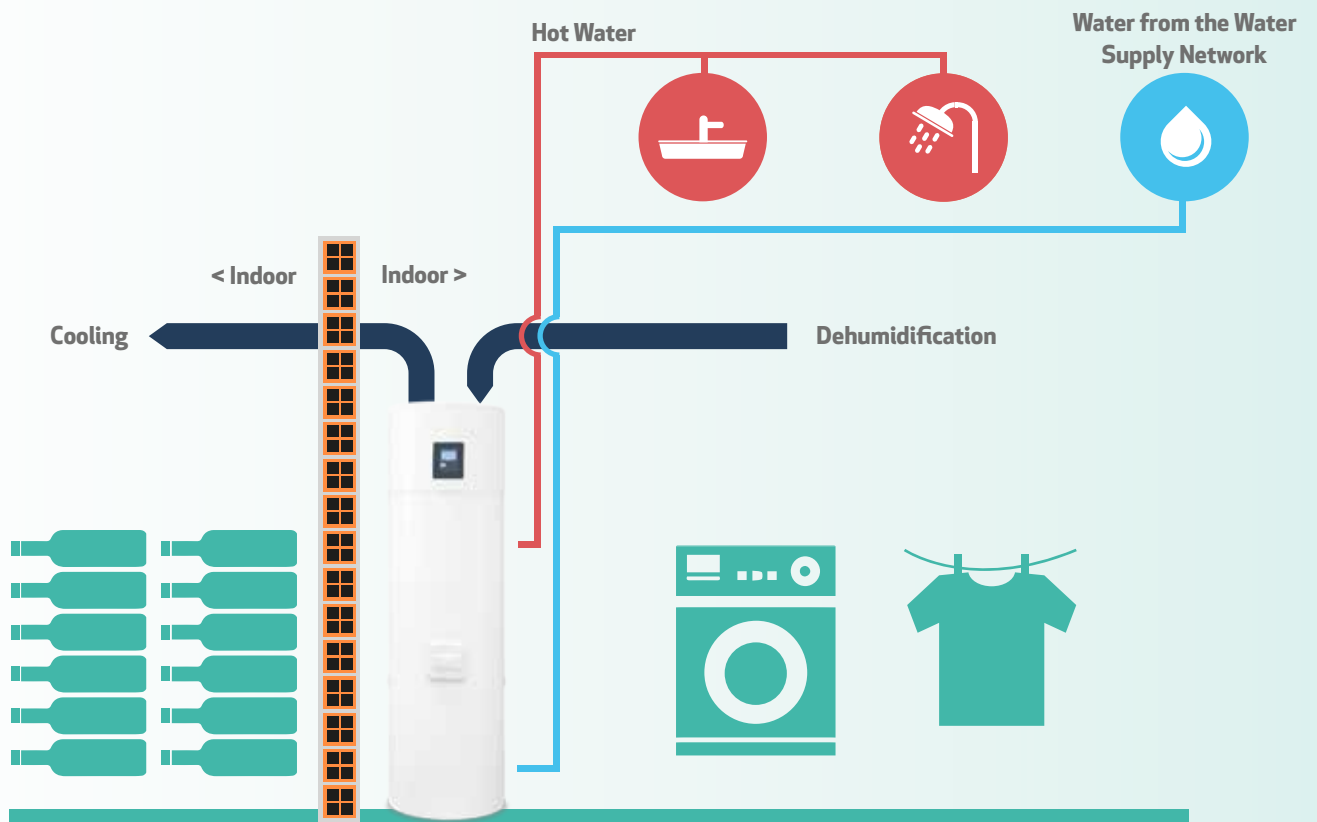
MONOBLOC



WALL
APPLICATION



Standard Installation



Installation with dehumidification and refreshing of the space

AQUAPURA MONOBLOC



WALL
APPLICATION

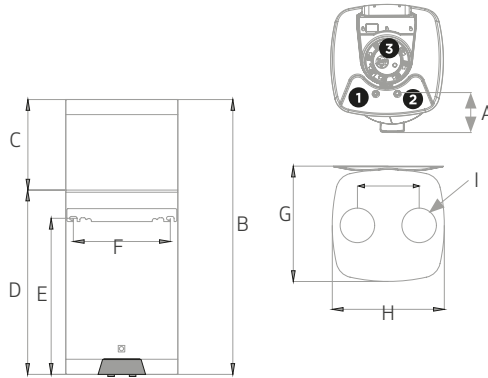


Check warranty conditions

ADVANTAGES AQUAPURA MONOBLOC

- MINIMUM SPACE INSIDE YOUR HOUSE
- HIGH EFFICIENCY LEVEL
- WORKS WITH PV SYSTEMS
- EASY TO INSTALL
- DEHUMIDIFIES THE AIR
- ANTI LEGIONELLA FUNCTION
- QUIET OPERATION
- STAINLESS STEEL CYLINDER
- FUNCTIONAL, SIMPLE AND ATTRACTIVE DESIGN
- ECONOMIC AND ECOLOGICAL
- WORK UP TO -5°C
- 55°C WATER TEMPERATURE EVEN DURING WINTER

Technical drawing



Dimensions mm	100esm
A	116
B	1725
C	420
D	855
E	724
F	450
G	535
H	520
I	160
1 (Hot water)	3/4" M
2 (PT valve)	3/4" M
3 (Anode)	

OPERATING MODE

ECO

100% Heat pump.

AUTO

Automatic management of heat pump and electrical element.

BOOST

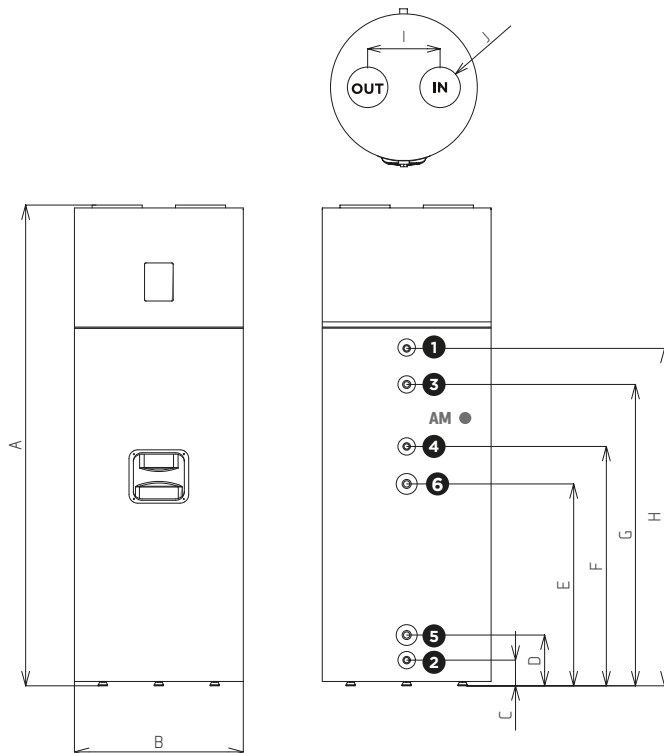
Heat pump and electrical element.

MODEL 100 esm



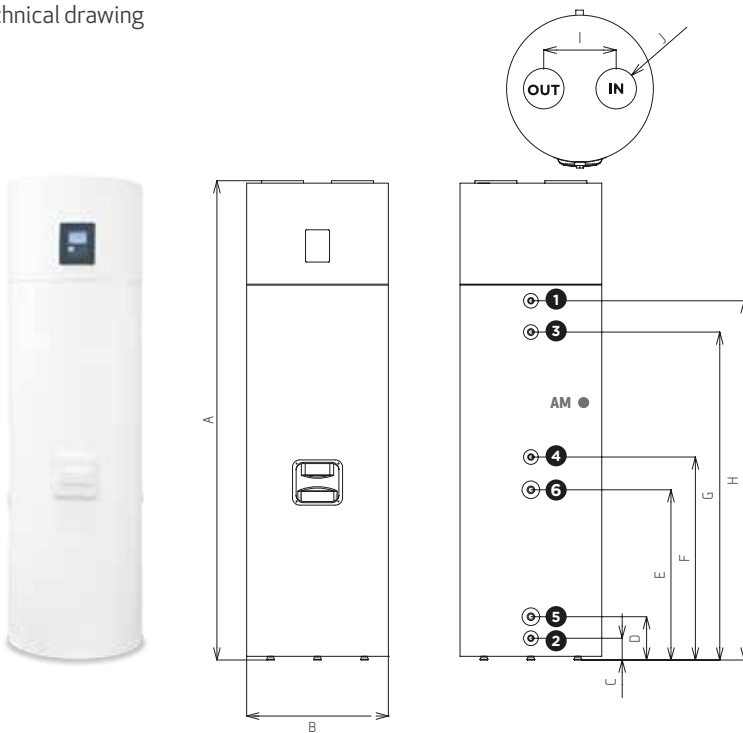
- 1** ON/OFF
- 2** Unlock Keyboard | Enter Menu | Confirm Parameters
- 3** Select Operation Mode | Decrease Values
- 4** Activation Of The Defrosting Cycle | Increase Values

Technical drawing



Dimensions mm	200i / 200ix
A	1666
B	580
C	89
D	205
E	696
F	830
G	1034
H	1170
I	286
J	160
1 (Hot Water)	3/4" M
2 (Cold Water)	3/4" M
3 (PT valve)	1/2" F
4 (Recirculation)	1/2" F
5 (Coil Inlet)	1" M
6 (Coil Outlet)	1" M

Technical drawing



Dimensions	250i / 250ix
A	1975
B	580
C	89
D	205
E	696
F	830
G	1333
H	1469
I	286
J	160
1 (Hot Water) 3/4" M	
2 (Cold Water) 3/4" M	
3 (PT valve) 1/2" F	
4 (Recirculation) 1/2" F	
5 (Coil Inlet) 1" M	
6 (Coil Outlet) 1" M	

OPERATING MODE

MODELS 200 | 250



- 1 Color LCD
- 2 ON/OFF
- 3 Menu
- 4 Compressor ON/OFF
- 5 Electrical Element
- 6 Anti-Legionella
- 7 Enter

ECO - The equipment only works as heat pump.

AUTO - The equipment works as a heat pump and with electrical elements should it be required.

BOOST - The equipment works simultaneously as a heat pump with the electrical element.

VACATIONS - Allows the user to setup a certain number of days on which the system will be off. On the last days the system will perform a anti-legionella cycle.

DISINFECT - Heating cycling at a higher temperature in order to disinfect the water (legionella) May be programed automatically or manual.

PV FUNCTION - Increases the water temperature set point when PV in producing electricity heating water for free.

TECHNICAL DATA

	Unid.	100esm	200i	200ix	250i	250ix
Power Supply	V~/Hz			220-240/50		
Thermal Power	W			1800		
Electrical Power	W	400-650		400-700		
Electrical Element	W	1000		1500		
Cop En255-3/En16147	-	2.8	3.47	3.47	3.24	3.24
Heating Time* (EN16147)	h:m	02:20	05:23	05:23	06:46	06:46
Amount of water removed at 40 °C in one extraction (EN16147)	l	109	242	241,1	314,6	313,1
Sound Level @ 2m	dB			51		
Refrigerant Fluid	-			R134a		
 ErP Class	-			A+		
Tapping Profile	-	M	L	L	XL	XL

DIMENSIONS / WEIGHT / CONNECTIONS

Dimensions Ø/H	mm	520/1275	580/1667	580/1955	580/1955	580/1955
Weight	kg.	70	73	88	80	88
Air Vent Diameter	mm			160		
Cold Feed & Hot Water Diameters	Pol.	1/2"	3/4"	3/4"	3/4"	3/4"

HOT WATER CYLINDER

Nominal Capacity	l	100	200	200	250	242
Maximum Operating Pressure	bar	7	7	7	7	7
Material	-	Enamelled		Stainless Steel ^{***}		
Insulation	-			High Density ^{****}		
Corrosion Protection	-			Magnesium Anode		
Auxiliary Coil (Comp./Ø)	m/mm	-	-	10/25	-	10/25
Auxiliary Coil Hydraulic Connections	-	-	-	1"	-	1"

WORKING CONDITIONS

Outside Air Temperature Min/Max	°C			-5/40		
Maximum Water Temperature - Eco Mode	°C			55		
Maximum Water Temperature - Boost Mode	°C			70		

EN16147: Water heating from 10 °C to 54 °C

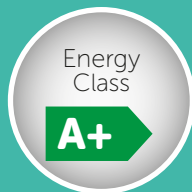
* Water temperature raised from 10°C up to 54°C. Air temperature 7°C. | ^{***}High Corrosion Resistance | ^{****} 60mm Thickness



AQUAPURA EVI-INVERTER

AIR TO WATER HEAT PUMPS

Heating And Cooling Heat Pumps



AQUAPURA

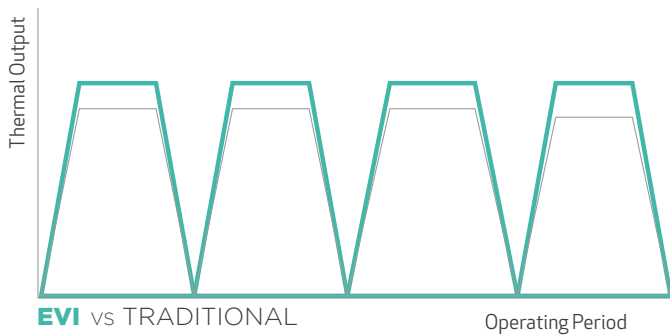
HIGHLY EFFICIENT AIR TO WATER HEAT PUMPS THAT OFFER BOTH HEATING AND COOLING SOLUTIONS

Our Heat Pump Solution Offers:

High efficiency with maximum comfort | Reduction household bills, whilst never compromising the comfort | Improve BER rating | Low operating noise | Easy to maintain | Aesthetically pleasing.

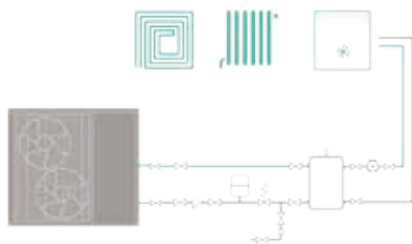
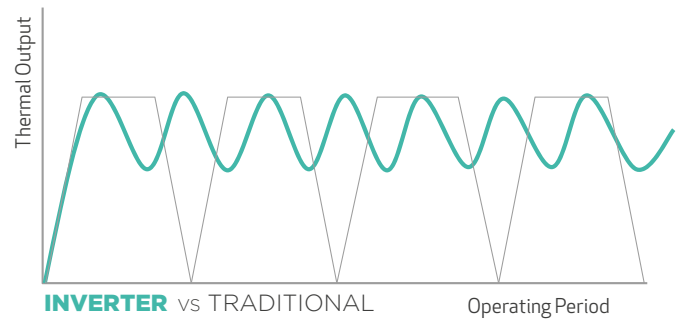
EVI TECHNOLOGY

The EVI SCROLL optimized steam injection technology confers a higher efficiency to conventional SCROLL technology. This is achieved with an intermediate steam injection during the compression cycle thus reducing the high working frequency of the compressors, allowing an increase of the heat production capacity with lower energy consumption.

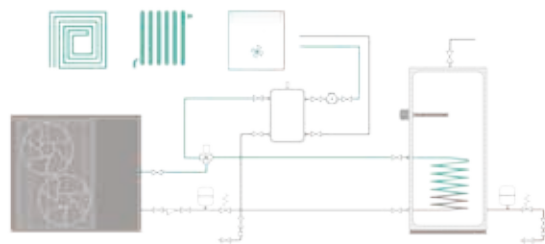


DC INVERTER TECHNOLOGY

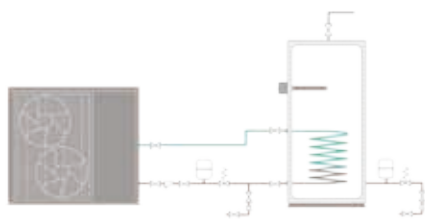
The DC INVERTER technology differs from many other existing technologies in the market since it possesses compressors with the capacity to vary the frequency of operation according to the exact comfort needs of the house HVAC. There is therefore lower energy consumption.



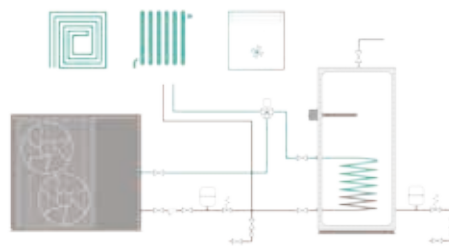
HEAT PUMP WITH BUFFER



HEAT PUMP WITH BUFFER + DHW



HEAT PUMP FOR DOMESTIC HOT WATER (DHW)



HEAT PUMP WITHOUT BUFFER + DHW

Features		FF EVI 10	FF EVI 17	INVERTER 4-12
*Output	kW	9.20	17.00	4.20-12.30
*COP	kW	2.24	4.00	0.80-3.20
**Refrigerated power	kW	4.10	4.25	4.21
**EER	kW	7.68	15.36	2.80-10.00
Supply	kW	2.48	4.52	1.00-3.40
Compressors	W/W	3.10	3.40	3.57
Kind of compressor	V/Hz	230~/50	400~/50	230~/50
Electric Resistance Kit	kW	3	3	3
Integrated circulating pump	Un	1	2	1
Fans	Un	1	1	1
Liquid dimensions (L /A /P)	/	EVI SCROLL	EVI SCROLL	ROTARY
Packed dimensions (L /A /P)	/	Yes	Yes	Yes
Nominal Output	mm	1160/845/424	1364/1180/450	960/910/440
Electrical efficiency	mm	1200/880/480	1375//1255/550	1010/920/470
*Electric power	dB	62	68	68
**Electric power	°C	35	35	35
Noise Level (outdoor unit)	kW	9.20	17.00	8.52
***ErP	%	135	137	152
Efficiency energy-class	/	A+	A+	A++

*Output: environment temperature (DB/WB): 7°C/6°C, water temperature (In /Out): 30°C/35°C

**Refrigerated power: environment temperature (DB/WB): 35°C/24°C, water temperature (In/Out): 23°C/18°C

***Average climate (-10°C)





This catalogue was created for information purposes only and does not constitute a contractual offer from ENERGIE Est Lda. ENERGIE Est Lda has compiled the content of this catalogue to the best of their knowledge.

There is no guarantee expressed or implied regarding the completeness, accuracy, reliability for a particular purpose of its content and the products and services presented therein. Specifications are subject to change without notice. The ENERGIE Est Lda explicitly rejects any direct or indirect damage, in the broadest sense, arising from or related to the use and / or interpretation of this catalogue.

