

Solar Water Heating system

ECA Technology brings the heat of the sun into the home using highly efficient, renewable energy technology. The solar water heating system captures solar energy, stores it and uses it for **meet the requirements to produce domestic hot water and heating** that is environmentally friendly and cost-effective.

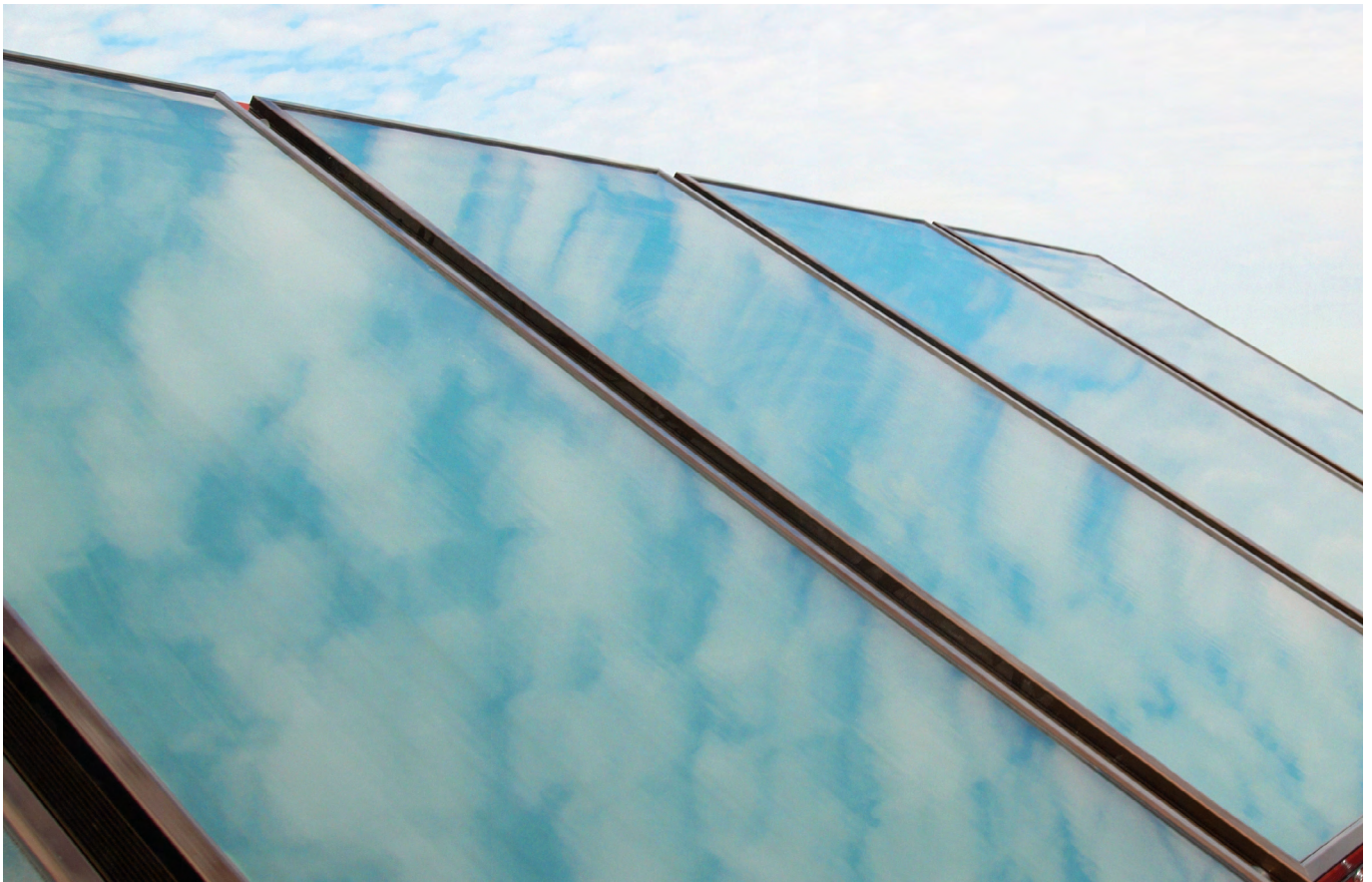
The comfort that is derived from solar water heating systems can be measured in terms of the benefits for the environment and in a reduction in utility bills!

The system can be designed using **natural circulation** by installing a water heater just above the solar panel which stores the heat collected by the fluid circulating in the circuit in a natural manner.

If larger quantities of water are required, or positioning a tank above the panels is not possible, a **forced circulation** system can be designed to meet the needs of the customer, which transfers the collected heat to a domestic water tank via a heat exchanger.

Advantages

- Energy and cost savings of at least 50%;
- Can be integrated into existing or new systems;
- Increases the energy class of the building;
- Reduces CO2 emissions.



SOLAR WATER HEATING

Forced Circulation

Forced circulation systems are modular systems that can be installed in different positions with respect to solar collectors.

These systems include a hydraulic pump and electronic control unit, which allow complete control of the system.

A Kit includes:

- selective solar collector with prismatic tempered glass,
- enamelled steel water heater,
- hydraulic unit including pump, deaerator, and valve
- control panel,
- pipeline cover casing,
- liquid circulation fitting kit and connection accessories,
- glycol tank,
- galvanised steel profiles to mount the frame,
- hot-dip galvanised steel support structure,
- safety valves.



EPS collector and EBF water heater

TECHNICAL DATA

MODEL		ESM151S	ESM1/201S	ESM2/201S	ESM1/301S	ESM2/301S	ESM1/501S	ESM2/501S
Collector	mod.	ESPS260	ESPS210		ESPS260		ESPS210	
Quantity	No.	1	2		2		3	
Dimensions	HxWxD	2050x1279x90	2050x1012x90 (x2)		2050x1279x90 (x2)		2050x1012x90 (x3)	
Surface area	m ²	2.62	2.08 (x2)		2.62 (x2)		2.08 (x3)	
Open surface	m ²	2.33	1.80 (x2)		2.33 (x2)		2.33 (x3)	
Collector weight	kg	45	36 (x2)		45 (x2)		36 (x3)	
Tank	mod.	EBF150/1S	EBF200/1S	EBF200/2S	EBF300/1S	EBF300/2S	EBF500/1S	EBF500/2S
Nominal capacity	l	150	200	200	300	300	500	500
Dimensions	Ø / L	603x1050	603x1400	603x1400	603x1930	603x1930	730x1970	730x1970
Weight	kg	64	85	93	108	128	165	182
Energy class		C	C	C	E	E	E	E
Dissipation	W	76	85	85	136 W	136 W	169 W	169 W
Code		1902011	1902012	1902013	1902014	1902015	1902018	1902019

N.B. Estimates for forced circulation kits with AISI 316L stainless steel tanks are available

Forced Circulation Components



Support for collectors



MTDC



Hydraulic Unit



Expansion tank

COLLECTORS	CODE
Selective collector ESPS210 steel frame	1901100
Selective collector ESPS260 steel frame	1901101

ENAMELLED STEEL WATER HEATERS	CODE
EBF150/1S Water Heater 1 coil	1902201
EBF200/1S Water Heater 1 coil	1902202
EBF200/2S Water Heater 2 coil	1902203
EBF300/1S Water Heater 1 coil	1902204
EBF300/2S Water Heater 2 coil	1902205
EBF420/1S Water Heater 1 coil	1902206
EBF420/2S Water Heater 2 coil	1902207
EBF500/1S Water Heater 1 coil	1902208
EBF500/2S Water Heater 2 coil	1902209

ACCESSORIES	CODE
Hydraulic unit including pump, deaerator, valve for MTDC	1902299
Control panel mod. MTDC	1902103
Expansion tank 18L	1902302
Expansion tank connection pipe	1902601
Expansion tank support base	1902602
Glycol Tank 10L	1901502
Collector support (for models with 1 collector)	1902500
Collector support (for models with 2 collectors)	1902501
Collector support (for models with 3 collectors)	1902502
Hydraulic connection accessories (for models with 1/2 collectors)	1902401
Hydraulic connection accessories (for models with 3 collectors)	1902402
3 kW electric element with thermostat	1903000