

SFERASOL™ SF-S

PATENTED SOLAR THERMAL COLLECTOR WITH FORCED CIRCULATION
INTEGRATED WITH HEAT EXCHANGE SYSTEM AND 150 LITERS WATER STORAGE



System Description

Product

Integrated Storage Collector SFERASOL™ made by:

- 2 external methacrylate hemispheres
- 2 internal steel 09/10 P06 hemispheres
- 1 water tank in INOX AISI 304 stainless steel
- 1 heat exchanger in INOX AISI 304 stainless steel, length 8,20 m
- 1 INOX AISI 304 stainless steel basement
- 1 30W – 1.300 rpm Circulation Pump
- 1 Electronic Control Unit

System Classification

System Model:SFERASOL™
System Code:SF-S
Classification:forced circulation, integrated with storage tank

Collector System

Nr. of Collectors:1
Gross Collector Surface:4,524 m²

Collector Data

Type:
Spherical
Gross total surface:4,524 m²
Aperture surface:1,130 m²
Net total surface:0,891 m²
Nr. of coverages:1
Coverage Material:Methacrylate
Coverage thickness:3 mm

Structure material:INOX AISI 304 Stainless Steel
Net mass:130 kg
Outer dimensions:1200*1200*1600 mm

Absorber

Material:09/10 P06 steel
Surface treatment:black selective paint - high opacity
Connections:copper pipes Ø 8mm

Thermalconvector fluid

Type:
mixture of monopropylene glycol + water
Antifreeze protection:YES

Storage

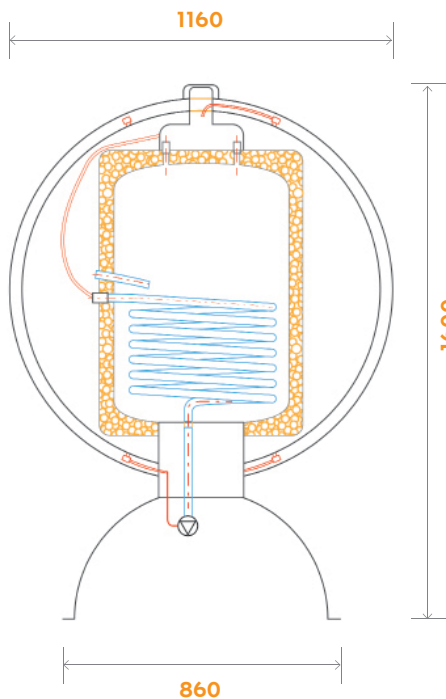
Capacity:150 liters
Storage material:INOX AISI 304 steel
Dimensions:Ø 600mm – H 850mm
Isolation:polyurethane 45 kg/m³
Isolation thickness:50 mm
Heat Exchanger:Ø 27mm - INOX AISI 304
Length:8200 mm
Operating pressure:system pressure – max 6 bar

Protection against Corrosion:Magnesium anode, L 600mm
Electric RESistance (optional):400W – 1200W

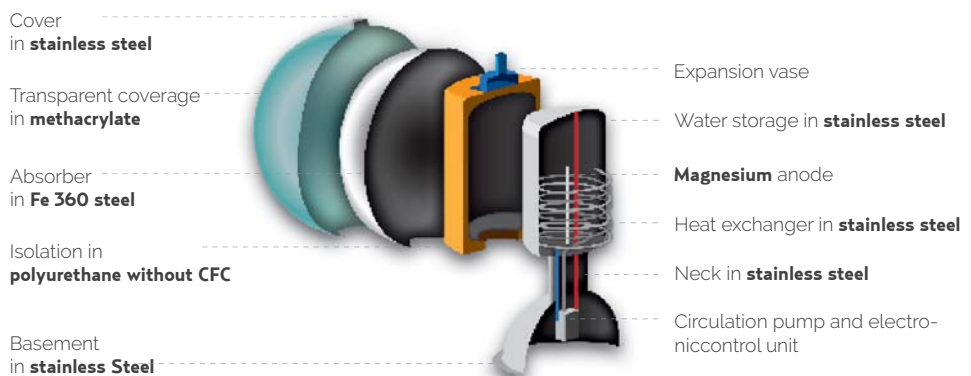
Connections

Hot water:Ø 1/2" R
Cold water:Ø 1/2" R

Outer Diameter



Components



100% produced in Italy.

ENEA Certified according to norm
UNI EN 12976-2:2006



Look our Video

SFERASOL™ SF-S

PATENTED SOLAR THERMAL COLLECTOR WITH FORCED CIRCULATION
INTEGRATED WITH HEAT EXCHANGE SYSTEM AND 150 LITERS WATER STORAGE



System Thermal Performance, test results and data elaboration

Geolocalisation of test site: Lat - Long **40° 09'N - 16°38'E (ENEA Trisaia)**
 Positioning, orientation: **towards SOUTH - 0° horizontal inclination**
 Test date: **October 2007**

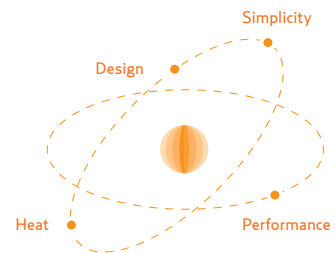
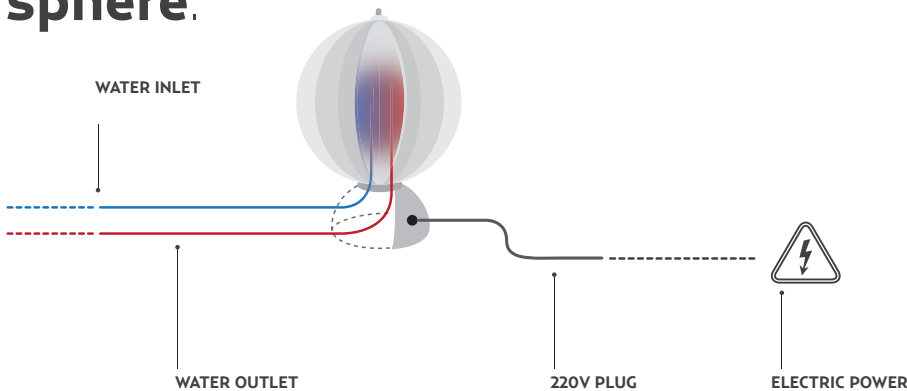
Data input on 12h daily operation

12 h test						Draw-off			Output
H	Hd	Ta (day)	Tc	ΔT_1	u	Vd	Td (max)	ΔT_2	Q
(MJ/m ²)	(MJ/m ²)	(°C)	(°C)	(°C)	(m/s)	(l)	(°C)	(°C)	(MJ)
17.6	-	17.2	25.5	-8.3	-	450	48.4	22.9	14.1
14.2	-	17.8	25.4	-7.6	-	450	44.0	18.6	11.5
11.1	-	17.9	25.2	-7.3	-	450	37.2	12.0	7.5
7.6	-	12.7	25.1	-12.4	-	450	32.0	6.9	5.2
7.3	-	20.1	24.5	-4.4	-	450	37.9	13.4	6.5
6.3	-	15.1	23.8	-8.7	-	450	29.5	5.7	4.2
13.2	-	17.5	23.7	-6.2	-	450	43.4	19.7	12.7
11.8	-	15.9	23.7	-7.8	-	450	41.3	17.6	11.0
6.3	-	16.0	23.7	-7.7	-	450	30.5	6.8	4.3

Due to the particular shape of the collector, all measurements have been done considering the radiation onto the horizontal surface

Technology, Saving, Simplicity: All contained within a sphere.

Easy to install, efficient, economical and futuristic, Sferasol, represents a new frontier in alternative heating. It is a fully integrated system needing only two hookup tubes (inlet and outlet for water) and a 220v outlet making your new solar system as easy to install as a washing machine. Within the Sferasol, is a 150 liter sanitary hot water tank, a thermal exchange unit, a pump and control system. It requires no maintenance.



DECLARATION OF CONFORMITY

The Manufacturer Sferasol S.r.l. address: Via G. Pascoli, 1 - 10060 Scalenghe (TO) - ITALY declares under its own responsibility that the thermal solar collector named "Sferasol™ SF-S" model is conform to essential specifications of safety according to the following directives:

- 2006/42/CE (machines);
- 2006/95/CE (low voltage);
- 2004/108/CE (ECM).

The product is supplied with CE mark and user manual. The person authorized to fill in the technical data sheet is the legal representative of Sferasol S.r.l. being in the Company seeds.

Authorized Reseller