

Savo 12 SG collector



The sun rises in the North!



Key features

- Direct flow MPE absorber with optimised heat transfer
- Highly effective, selective PVD MEMO absorber coating applied to the complete absorber (patent pending)
- High transmittance tempered glass
- Etched antireflective treatment of the glass, which does not degrade over time
- Integrated connection hoses, minimising heat losses and shadowing
- Self-supporting frame structure for loads up to 2500 Pa
- PED module A2 certification according to directive 2014/68/EU of the European commission

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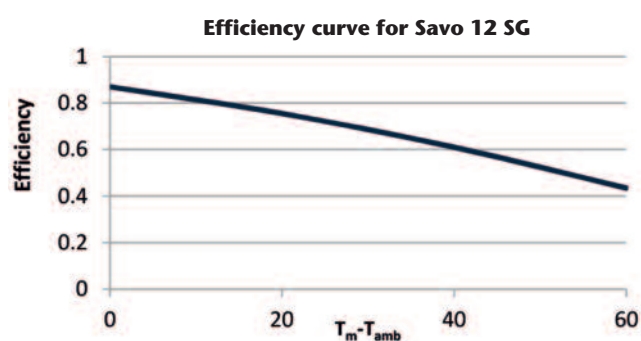
Savosolar collector with Direct Flow MPE absorber

The Savo 12 SG collector is characterized by a direct flow aluminium absorber, which is manufactured from MPE profiles. This technology is adopted from the automotive industry, where it has dominated heat exchanger designs the past 30 years, and has now been optimized for solar heating by Savosolar.

The absorber is coated with a highly selective PVD MEMO coating (patent pending) and the use of MPE profiles minimises the average distance between the coated surface and the heat transfer fluid. This leads to a uniform temperature distribution where conductive heat losses are minimised.

Just as modern cars and aircraft are assembled with glue, Savosolar assembles its collectors by gluing the galvanised steel frames, molded corner pieces and anti-reflective solar glass together. In combination with venting elements, this minimises condensation or dust contamination.

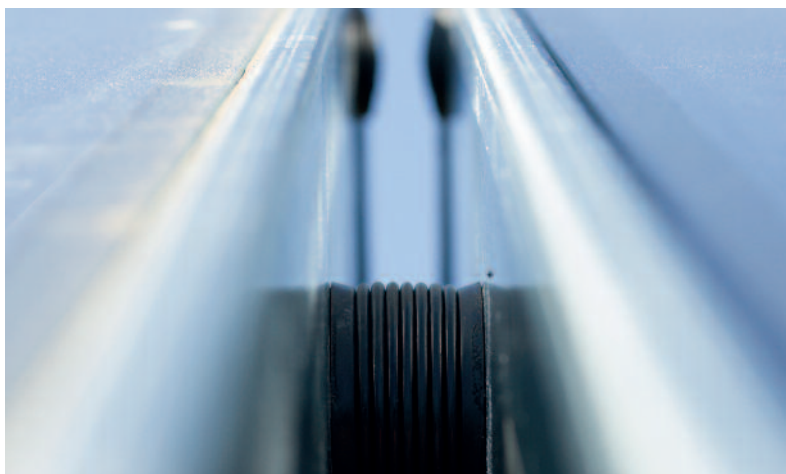
The Savo 12 SG collector is tested according to ISO 9806:2013, as well as AS/NZS 2712:2017 and AS/NZS 2535.1:2007 by SPF in Switzerland, and has received the Oceanamark certification by IAPMO R&T Oceana.



Integrated connections

Savosolar's large area collector for district heating and industrial installations has integrated connection hoses within the collector which allows mounting with no more than 40 mm distance between collector (patent pending).

This technology reduces heat loss since the connection hoses are protected by the collector's insulation.



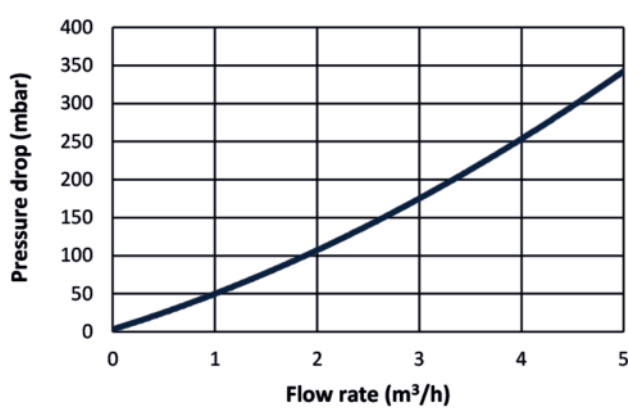
Technical data

Product number	SF500-12SG
External Dimensions	5968 x 2181 x 157 mm
Gross area	13.01 m ²
Aperture area	12.07 m ²
Efficiency*	$\eta_0 = 0.874$ $a_1 = 3.16$ $a_2 = 0.0098$
Incident angle modifier	$K_{50} = 0.98$
Stagnation temperature	210 °C
Absorber coating	3 layer highly selective MEMO
Coating absorption	96 +/- 2%
Coating emissivity	5 +/- 2%
Max. operating pressure	1000 kPa (10 bar)
Thermal insulation	80/35 mm mineral wool
Glass	Tempered solar safety antireflective glass
Solar glass transmittance	95%
Liquid content	23.2 liters
Weight empty	328 kg
CE marking	Yes

*Related to aperture area

Pressure drop

Savo 12SG pressure drop



Quality

Savosolar has been ISO 9001 certified since 2013 and has also received PED module A2 certification for the production of its large area collectors according to the European commission's directive 2014/68/EU.

Savosolar is the only producer of collectors for district heating and industrial applications with PED module A2 certification.