FLAT-PLATE COLLECTOR SUN600

Technical datasheet Nr 95

The flat-plate collector SUN 600, available in 2m² and 2.3m², is perfectly suited to the Mediterranean, Middle East and North Africa regions. Its ventilation concept offers an optimal protection in maritime (water) and desert environment (sand). It can be installed near the sea (except in tropical zone) as well as in the middle of the desert.

The collectors SUN 600.20 (2.0m²) and SUN 600.23 (2.3m²) can be mounted on the ground or on a tilted frame at 45° on flat-roof (or on tilted roof upon request).



• DESCRIPTION:

- 3.2mm tempered and prismatic solar safety glass (transmission 89.5%).
- Aluminium plate absorber of 0.4mm, laser-welded copper harp tube (risers 8mm and manifold 22mm) with highly selective coating adatped to saline environment (absorption 95%, emissivity 5%).
- 30mm rock wool insulation on backside.
- Aluminium frame collector.
- Weatherproofing between cover and frame ensured by UV-resistant silicone seal.
- Intelligent ventilation concept prevents the ingress of windborne sand and dirt.
- Humidity absorber inside the solar collector.
- · Accurate automatic production.
- Easy-to-install.
- Unbeatable value for money.

Installation options:

- Installation on tilted frame at 45° on flat-roof or on ground.
- On tilted roof (upon request).

• TECHNICAL SPECIFICATIONS:

Designation	Unit	SUN 600.20	SUN 600.23
Reference		50070102231	50070102232
Gross area	m²	2.02	2.34
Aperture area	m²	1.92	2.23
Overall height	mm	1730	2000
Overall width (with connections)	mm	1170 - 1215	1170 - 1215
Depth	mm	73	73
Empty weight	kg	28	32
Fluid capacity		1.6	1.7
Connections	"	4 x 22mm copper fitting	4 x 22mm copper fitting
Zero-loss efficiency η0		0.755	0.757
First-order coefficient a1	$W/(m^2.K)$	3.745	3.501
Second-order coefficient a2	W/(m ² .K ²)	0.015	0.017
Zero-loss efficiency B		0.77	0.77
Overall coefficient of heat transfer K	W/(m².K)	4.80	4.69
Maximum operating pressure	bar	10	10
Stagnation temperature	°C	197	210
Recommanded flow rate	I/(h.m² _{aperture})	25*	25*
Maximum quantity of collectors per array		6	6
Tilt angle limits	0	15° to 75°	15° to 75°
Maximum wind speed	km/h	150**	150**
Maximum snow load	kN/m²	0.75**	0.75**
Warranty (Term and Conditions apply) – Collector = 10 year (except cover, under conditions).			

^{*} Other versions upon request. ** Please contact us at elevated load.