

# FLAT-PLATE COLLECTOR SUN 301 V - VERTICAL

## Technical datasheet Nr 97

The range SUN 301 includes a latest-generation flat-plate meander vertical collector, dedicated especially to collective building and suitable for a various types of roofing. The collectors are available in 3 sizes: 2 m<sup>2</sup>, 2.5 m<sup>2</sup> and 3.3m<sup>2</sup>.

### • DESCRIPTION:

- 4mm tempered solar safety glass, prismatic, with low iron content for a high transmission of solar radiation.
- Full-area meander absorber, laser-welded with long-term high-selectivity PVD coating for guaranteed solar performances.
- Certified low-density mineral wool.
- Weather-resistant aluminium frame construction with aluminium rear panel, patented CMT (Cold Metal Transfer) welded collector box guarantees a long service life and high reliability.
- Glass sealed by a silicone seal with double temperature- and UV-resistance and covered by a cover strip.
- Optimized ventilation.
- Very slim design construction (62mm).
- Fast and easy patented hydraulic connections with double "O-ring" seals.
- High resistance to snow and wind.
- Enlarged aperture area.
- Up to 10 collectors in series\*.



### Installation options:

- Installation on tilted frame on flat-roof.
- Installation on tilted roof : flat tiles, corrugated tiles, roman-tiles, slates, container steel, cement.
- Installation in-roof: flat tiles, corrugated tiles, roman-tiles, slates.

Certified SOLAR KEYMARK



### • TECHNICAL SPECIFICATIONS:

Designation	Unit	SUN 301.20 V	SUN 301.25 V	SUN 301.33 V
Reference	-	50070102233	50070102234	50070102235
Gross area	m <sup>2</sup>	2.012	2.555	3.312
Aperture area	m <sup>2</sup>	1.892	2.417	3.146
Overall height	mm	1702	2162	2802
Overall width	mm	1182	1182	1182
Depth	mm	62	62	62
Empty weight	kg	33	42	53
Fluid capacity	l	1.4	1.7	1.9
Connections	Cu...mm	4 x Cu22mm with large end	4 x Cu22mm with large end	4 x Cu22mm with large end
Zero-loss efficiency $\eta_0$	-	0.800	0.810	0.810
First-order coefficient a1	W/(m <sup>2</sup> .K)	4.072	3.869	3.976
Second-order coefficient a2	W/(m <sup>2</sup> .K <sup>2</sup> )	0.014	0.016	0.015
Zero-loss efficiency B	-	0.81	0.82	0.82
Overall coefficient of heat transfer K	W/(m <sup>2</sup> .K)	5.05	5.10	5.54
Maximum operating pressure	bar	10	10	10
Stagnation temperature	°C	184	184	185
Recommended flow rate	l/(h.m <sup>2</sup> <sub>aperture</sub> )	25	25	25
Maximum quantity of collectors per array	-	max. 5 to 10*	max. 5 to 10*	max. 5 to 10*
Tilt angle limits	°	15° to 70°	15° to 70°	15° to 70°
Warranty (Term and Conditions apply) – Collector = 10 year (under conditions).				

\* Under conditions.