

FLAT-ROOF MOUNTING SYSTEMS SUN 301.33 V

Technical datasheet Nr 101

These mounting systems are designed to install rows of 1 to 10⁽¹⁾ collectors SUN 301.33 V on flat-roof or on ground with frames tilted at 20°, 40° and 60° depending on your needs.

• TECHNICAL SPECIFICATIONS:

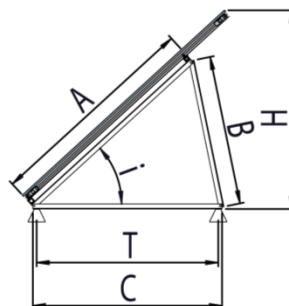
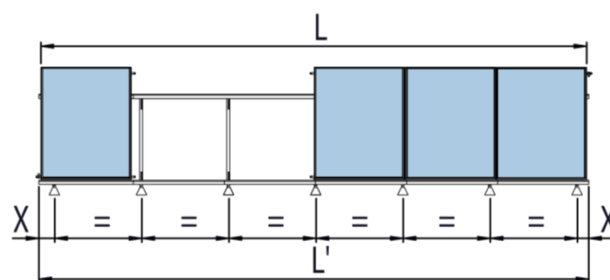
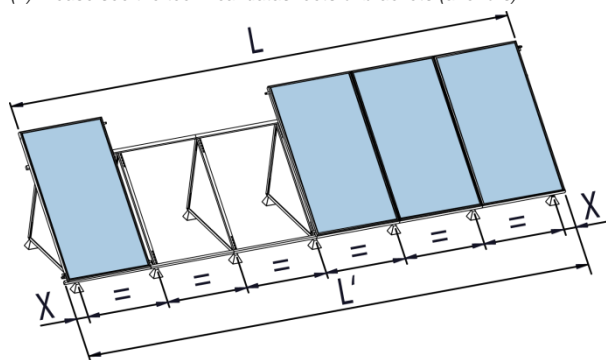
Number of collectors	References		Dimensions ⁽³⁾ (mm)			
	20°	40° / 60°	L	L'	X ⁽²⁾ (100-250)	= ⁽²⁾
1	50070201364	50070201384	1 182	1 236	173	890
2	50070201365	50070201385	2 374	2 428	174	1 040
3	50070201366	50070201386	3 566	3 620	175	1 090
4	50070201367	50070201387	4 758	4 812	166	1 120
5 ⁽¹⁾	50070201368	50070201388	5 950	6 004	177	1 130
6 ⁽¹⁾	50070201369	50070201389	7 142	7 196	178	1 140
7 ⁽¹⁾	50070201370	50070201390	8 334	8 388	169	1 150
8 ⁽¹⁾	50070201371	50070201391	9 526	9 580	190	
9 ⁽¹⁾	50070201372	50070201392	10 718	10 772	166	1 160
10 ⁽¹⁾	50070201373	50070201393	11 910	11 964	182	1 160

(1) Maximum number of collectors per row under certain conditions.

(2) Detailed quotation with range of tolerance available in our installation manual or on request.

(3) Dimensions defined according a standard load of 150 kN/m². At elevated load, additional frames and brackets (anchors)⁽⁴⁾ must be add.

(4) Please see the technical datasheets of brackets (anchors).



Angle i (°)	Dimensions ⁽³⁾ (mm)				T ⁽²⁾
	A	B	C	H	
20	2 800	1 000	2 800	1 110	2 540 (2330-2750)
40	2 800	1 900	2 465	1 970	2 210 (2000-2420)
60	2 800	2 465	1 900	2 500	1 640 (1430-1850)

Calculus of the distance between collector rows to avoid shadows:

- $\beta = 90^\circ - 23.5^\circ - L$
- $z = H_{ht} \times [\cos(\alpha) + \sin(\alpha) / \tan(\beta)]$
- $d = z - H_{ht} \times \cos(\alpha)$

Where:

- β = Angle of the position of the sun
- L = Latitude of the place considered
- z = Spacing between rows of collectors
- α = Tilt angle of the collectors
- H_{ht} = Overall height of the collector

Example:

Field of collectors SUN 301.33 V ($H_{ht} = 2802\text{mm}$) located at Brest (Latitude = 48.45°) with an inclination of 40° :

- $\beta = 90^\circ - 23.5^\circ - 48.45^\circ = 18.1^\circ$
- $z = 2.802 \times [\cos(40) + \sin(40) / \tan(18.1)] = 7.67\text{m}$
- $d = 7.67 - 2.802 \times \cos(40) = 5.53\text{m}$

