

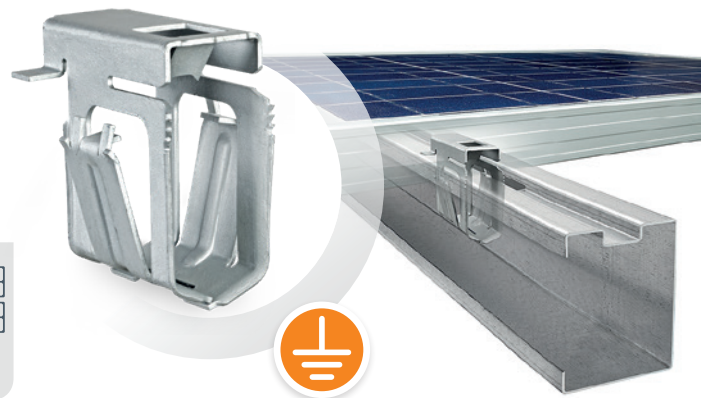
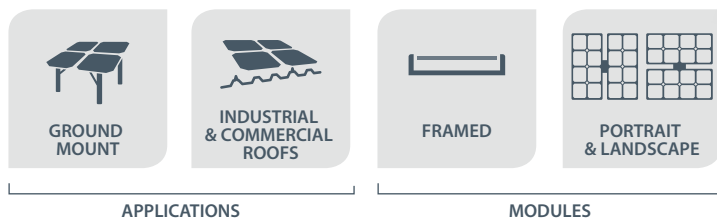
FASTENING & GROUNDING CLIP FOR FRAMED MODULES



Screwless and tool-free clipped fastening solutions provide fast and simple assembly, enabling customers to reduce the overall cost of renewable energies.

PowAR Snap® S

COMBINED **FASTENING & GROUNDING** CLIP
FOR FRAMED PV MODULE



Benefits

EASY TO USE

- Tool-free set up
- Minimal training required
- Intuitive: the "click" signals job is properly done
- Friendly: no need for climbing on structure, panels can be inserted from underneath the array

PERFORMING

- Tested by accredited laboratories and qualified by major module manufacturers
- High protection against corrosion and lightning
- Grounding continuity of the string preserved when a module is dismantled for maintenance
- Anti-theft designed

QUICK

- Fastening and grounding in a single operation
- 1 module installed within 30 seconds⁽¹⁾

COST SAVING

- Lower overall costs of the PV installation
- Lower land investment and structure savings thanks to minimized inter module gap: up to 3% more modules per available surface
- Lower maintenance costs: Screw-less, no periodic torque control required
- Hot spot risk reduction for PV modules thanks to elastic mechanical clamping⁽²⁾

(1) According to field tests results available on demand

(2) Mechanical shocks and daily thermal cycles often induce micro-cracks within cells, leading to hot spots and power output degradation.

TECHNICAL SPECIFICATIONS

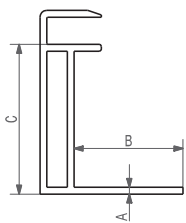


		CLIPS FOR PV MODULE FASTENING	REMOVAL TOOLS	
		PowAR Snap® S	Front access	Back access
PRODUCT DETAILS	ARTICLE N°	244113000	237942001 / 244429001	235216001
	MATERIAL	Steel 1.1231 - DIN EN 10132:2000 (SAE 1070 – ASTM AISI)	Metal assembly	Metal assembly
	SURFACE TREATMENT	Zn Al Flake coating	—	—
	DIMENSIONS	44 x 48 x 34 mm 1.732 x 1.890 x 1.338 in	237942: 1100 x 50 x 140 mm 244429: 200 x 50 x 140 mm	280 x 130 x 40 mm
	WEIGHT IN G	33,4	237942: 1300 244429: 292	500
PERFORMANCES	MECHANICAL RESISTANCE	Load +5400/-2400 Pa internal tests	—	—
	CORROSION RESISTANCE	No red rust after 720 hours salt spray internal tests acc. EN60068-2-11:1999	—	—
	GROUNDING CONTINUITY	IEC 60439-1:2004 8.2.4.1 certified by Veritas. Internal tested after 1 000 hours	—	—
ENVIRONMENT	PV MODULE SPECIFICATIONS	Module with frame thickness A between 1,5 and 2,2 mm, minimum lip length B of 16 mm and minimum frame height C of 30 mm (see technical drawing 1)	—	—
	RAIL SPECIFICATIONS	Standard Strut rails 41 x 41 mm or 41 x 62 mm (see technical drawing 2) or steel rails with square punch (see technical drawing 3) or with specific punch (see technical drawing 4)	—	—

Product Information disclosed in this “data sheet” can be modified without any previous notice.

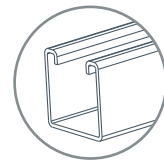
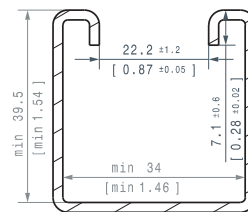
PV MODULE FRAME AND RAIL SPECIFICATIONS

1

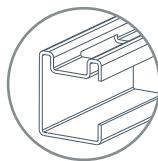
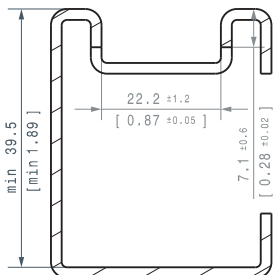


A = 1,5 mm to 2,2 mm
B = min. 16 mm
C = min. 30 mm

2 B-Channel



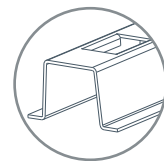
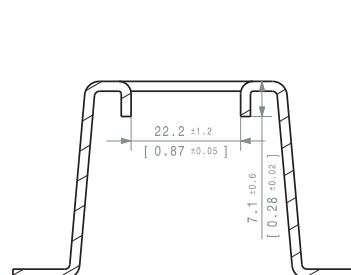
3 Groove rail



Examples of shapes for the rail



4 Punched rail



Examples of shapes for the rail

