

# FASTENING & GROUNDING<sup>(1)</sup> CLIP

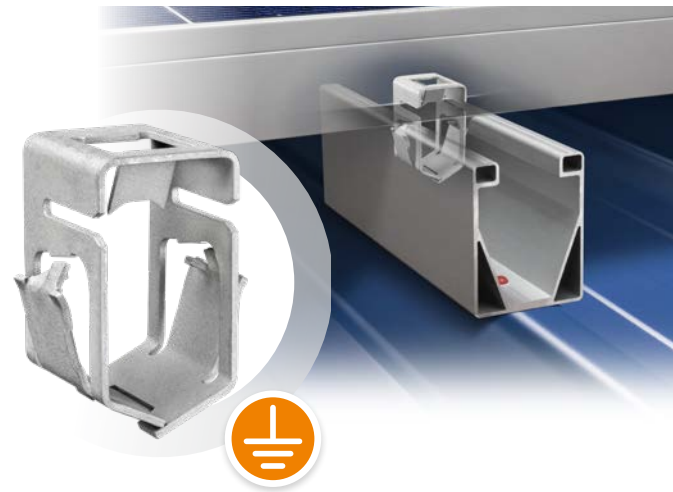
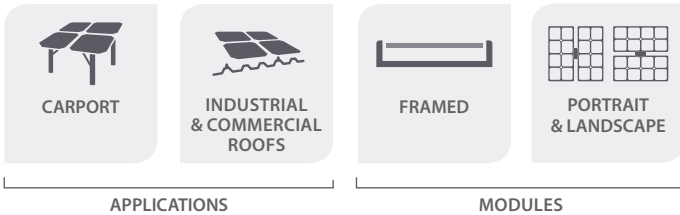
## FOR FRAMED MODULES



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

### PowAR Snap<sup>®</sup> S+

#### COMBINED PV MODULE FASTENING & GROUNDING<sup>(1)</sup>



## Benefits

### QUICK

- Fastening and grounding in a single operation
- 1 module installed in less than 30 seconds<sup>(2)</sup>

### EASY TO USE

- Tool-free set up
- Minimal training required
- Intuitive: the "click" signals that the job is properly done
- Installation friendly: no need to climb on structure, panels can be inserted from underneath the array
- Can be dismantle independantly

### COST SAVING

- Lower overall costs of the PV installation
- No maintenance costs: screw-less, no periodic torque control required
- Hot spot risk reduction for PV modules thanks to elastic mechanical clamping<sup>(3)</sup>
- Anti-theft design

### APPROVALS

- High protection against corrosion and lightning
- Grounding continuity of the circuit maintained when a module is dismantled for maintenance
- Tested by accredited laboratories & qualified by major manufacturers



(1) Bonding PV panel frame to connected rail, requires rail bonded to grounding electrode system.

(2) Report available upon request.

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



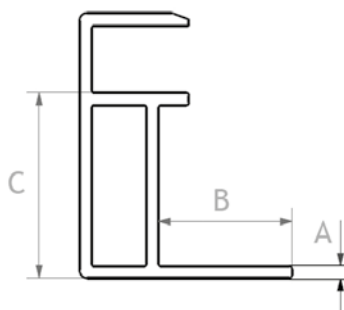
## TECHNICAL SPECIFICATIONS

		PowAR Snap S+	Removal Tool
PRODUCT DETAILS	ARTICLE N°	252387000	254279000
	MATERIAL	Steel 1.1231 - DIN EN 10132:2000	
	SURFACE TREATMENT	Combines an inorganic zinc-rich with basecoat with aluminium-rich organic topcoat	
	DIMENSIONS IN MM DIMENSIONS IN INCH	37 x 30 x 25 mm 1.46 x 1.19 x 0.99 in	350 x 80 x 40
	WEIGHT IN G	16.7	200
PERFORMANCES	MECHANICAL RESISTANCE	Tested load +5400/-2400 Pa compliant with IEC 61215-10.16	
	CORROSION RESISTANCE	No red rust after 1000 hours salt spray acc. EN 60068-2-11:1999	
	GROUNDING CONTINUITY	IEC 6064391:20014 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 minium frame height C of 10 mm	
	RAIL SPECIFICATIONS	Standard steel or aluminium rails (see technical drawing) minimum required dimension.	

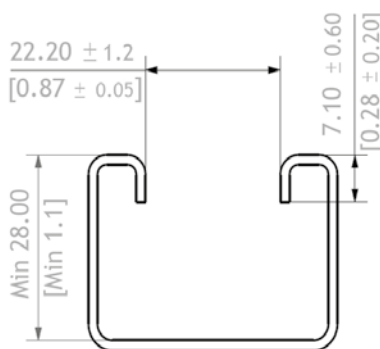
Product information disclosed in this "data sheet" can be modified without any previous notice.

## PV MODULE FRAME AND RAIL SPECIFICATIONS

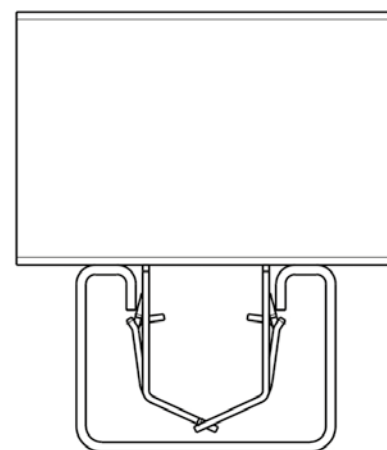
- A: 1.5 to 2.2 mm
- B: 16 mm min
- C: 10 mm min



Module frame



Supporting rail



[www.araymond-energies.com](http://www.araymond-energies.com)

ARaymond Energies SAS (RCS Grenoble 798 705 604) - ZI Technisud 123 rue Hilaire de Chardonnet - 38100 Grenoble - FRANCE has designed this datasheet.

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