

## FASTENING AND GROUNDING CLIPS FOR PHOTOVOLTAIC SYSTEMS

ARaymond believes in the importance of renewable energies for our future and is committed to developing breakthrough technologies in order to make the assembly process easier, faster, cheaper.

Rooftop structure with PowAR Snap® - INDIA

### ARAYMOND ENERGIES we focus on small, yet vital parts

Our clips allow photovoltaic panels to snap easily into place without the need for labor-intensive screw and bolt systems, significantly **reducing assembly time** and **removing maintenance**, thus making the whole installation **more cost efficient**.





# PANEL FASTENING AND GROUNDING CLIPS

Clips work universally, accommodating any framed module.

### Module assembly made easy

Quick, cost efficient, and ergonomic installation on site:

- No heavy or bulky tools required
- Safer installation as there is no need to climb onto the modules
- Clips eliminate need for loose componentry, reducing installation time and cost

### Proven long-term performance

- Secure panel clamping, no loosening of the clips
- Vibration resistance
- Tested in both static and dynamic loading
- No re-torque service requirements
- Theft deterrent features

### Effectively and simply grounded modules

Clips act as a **jumper** between modules and rails, making the frame the medium for the system bonding/grounding path.

ARAVMOND PRODUCT	PowAR Cinch™	PowAR Snap <sup>®</sup> S <sup>+</sup>	PowAR Slot	PowAR Slot E/W (for first solar series 6)
GROUND MOUNT	**	**	***	***
TRACKER	***			
TILT ROOFTOP		***		
CARPORT	**	$\mathcal{L}$		





PowAR Snap<sup>®</sup> S<sup>+</sup> on a solar panel



PowAR Cinch<sup>™</sup> on a solar panel



PowAR Slot F6 E/W on a solar panel



PowAR Slot on a solar panel

# CABLE MANAGEMENT CLIPS

CABLE QUANTITY	ONE DIRECTIC	MULTIDIRECTIONAL (with cable straps)		
	PARALLEL TO THE EDGE	PERPENDICULAR TO THE EDGE		
ONE CABLE	228185 018690	019659	200	
MULTIPLE CABLES	228187	220917	208738	236331

Our dedicated selection of **robust metal and plastic** clips, cable straps and modular adapters for attaching cables over, along or on the side of module edges or rail structures.





## **GROUNDING CLIP**

Our **Rayvolt**<sup>®</sup> grounding clip enables stripping, connecting electrically and fastening the cable in **one easy, hassle-free step**.

Position the clip freely on the frame. It fits all aluminum frame panels ranging from 1.5 mm (0 1/16") to 2.5 mm (0 3/32") in thickness. Made for multi-strand flexible 6 mm<sup>2</sup> (0 15/64") green yellow cables.





Rayvolt













## ARAYMOND'S METAL CLIP-MAKING PROCESS

#### **Raw material**

All metal clips are made of C67S Carbon steel.

#### **Stamping and bending**

All clips are stamped and bent in one of our production lines.

#### **Heat treatment**

The clips are heated and austempered until 1200 MPa yield strength is achieved.

#### Surface coating

The clips are coated multiple times in a Zinc-Aluminum flacking bath. The aluminum-rich topcoat prevents any galvanic corrosion between the anodized module frame and the clip.

Our surface coating is one of the most resistant finishes on fasteners used in the automotive industry.







## ARAYMOND WORLDWIDE

**International expert** in fastening and assembly solutions.



We bring 150 years of experience in **product innovation** and **manufacturing** to provide our customers with **ergonomic, easy** and **quick solutions** for any assembly challenge.





Slide and Clip structure with PowAR Cinch<sup>™</sup> - FRANCE



Rooftop structure with PowAR Snap® - SOUTH AFRICA



Slide and Clip structure with PowAR Cinch<sup>™</sup> - AUSTRALIA



### www.araymond-energies.com

#### HEADQUARTERS FRANCE

ARAYMOND ENERGIES SAS 123 rue Hilaire de Chardonnet 38000 Grenoble FRANCE Tel.: +33 456 52 61 60

#### IN THE WORLD

EMEA contact@araymond-energies.com

North America contact.us@araymond-energies.com

#### South America

contact.br@araymond-energies.com

China contact.cn@araymond-energies.com

#### India

contact.in@araymond-energies.com

### South East Asia & Pacific

contact@araymond-energies.com

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