

Solar Mounting Solutions

UK and Ireland



PV-ezRack®



Innovations towards
Energy Independence & Security



Clenergy Technology (Stock Code: 603628), since its inception in 2007, has been deeply rooted in the renewable energy photovoltaic sector, pioneering excellence for decades. As a high-tech enterprise publicly listed on China's A-share market, Clenergy has empowered a multitude of landmark projects across the globe with unwavering reliability — bearing witness to the journey of green energy from visionary blueprints to a transformative force that spans continents.

We proudly operate three synergistic business pillars: Advanced solar mounting systems and energy storage solutions, Full-scope EPC and intelligent O&M services for solar power plants, and Renewable power investments. With these, we are accelerating our evolution into a globally preeminent energy provider. Driven by our mission "Innovations towards Energy Independence & Security" we are co-writing a luminous, sustainable future with the world.



50_{GW+}

Worldwide installations



50⁺

Country Presence



15,000⁺

Solar plants



1,200,000⁺

Rooftop solar projects



Official certification



Indonesia



Malaysia



Philippines



Thailand



Japan



Australia



Australia



The United Kingdom



UAE



Japan

Milestones



2016-2021 Public Listing

Listed on the Main Board of the Shanghai Stock Exchange

Formed strategic partnerships with leading carbon-neutral partners, delivering flagship projects for Bosch Siemens Home Appliances and Panasonic Group, among others



2007-2010 Founding Years

Founded in Melbourne, Australia, commencing operations in the renewable energy industry

Launched the 'PV-ezRack®' solar mounting system

Established itself as Australia's leading rooftop solar mounting brand, with market share exceeding 50%

2022-Current New Heights



Recognised as a market-leading solar mounting brand across the UK and APAC regions

Achieved a combined manufacturing capacity of over 30GW across three major manufacturing bases

Officially opened the Global Sales & Marketing Centre in Shanghai

2011-2015 Global Expansion



Commissioned two advanced manufacturing bases in Xiamen and Tianjin, with annual production capacity exceeding 18GW

Established subsidiaries across Australia, Germany, the UK, Japan, Thailand and the Philippines

Expanded into solar power plant EPC, operations & maintenance services, and renewable power investment, marking the company's early commitment to carbon neutrality



PV-ezRack®

PV-ezRack® is a solar mounting brand of Clenergy, with nearly 20 years of deep roots in the industry. We offer the solar sector versatile mounting solutions for every application – from ground mounts and sloping terrain to commercial & industrial rooftops, residential roofs, carports, etc.

Our products are sold across more than 50 countries. We've grown into an icon of the Australian solar industry, while also holding leading positions across the Asia-Pacific, the UK and Europe.

Our heritage is founded on the art of engineering and a culture of collaboration. We've built our legacy with a future focus that stays true to the fundamentals of sustainable design. PV-ezRack® is the flagship product line from Clenergy, which has been designing products since 2007. Our ongoing R&D is backed by a culture of open innovation, excellence through quality, and a service-first mindset. We develop for optimal functionality, with an emphasis on simplicity for aesthetically brilliant projects. Our technically advanced solar mounting gear is complemented by unique Kliplok clamps and accessories, as well as our unparalleled logistics & operations team – all with a strong focus on customer service.

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// SolarRoof Pro

Clenergy PV-ezRack® SolarRoof Pro is a roof-mounting solution suitable for most types of residential and commercial pitched roofs. Using our innovative rail, Z module and roof hooks pre-assembled with our unique Cross connection clamp, SolarRoof Pro provide quick, easy, and safe installation method. The interfaces, rails and clamps use high quality, robust and corrosion resistant materials including structural grade aluminium alloy (AL6005-T5) and stainless steel (SUS304).

Main Benefits

Simple and Fast Installation

Using our innovative Z-module technology to easily attach the Solar PV modules and our unequalled pre-assembled Cross connection clamp for effortless coupling of the rail to our roof hooks.

Versatile Application

A straightforward system designed for portrait and landscape orientation, SolarRoof Pro is suitable for most residential and commercial roof applications.

Compatibility

A universal roof mounting system, SolarRoof Pro is suitable for most roofs and compatible with most of the framed Solar PV modules on the market.

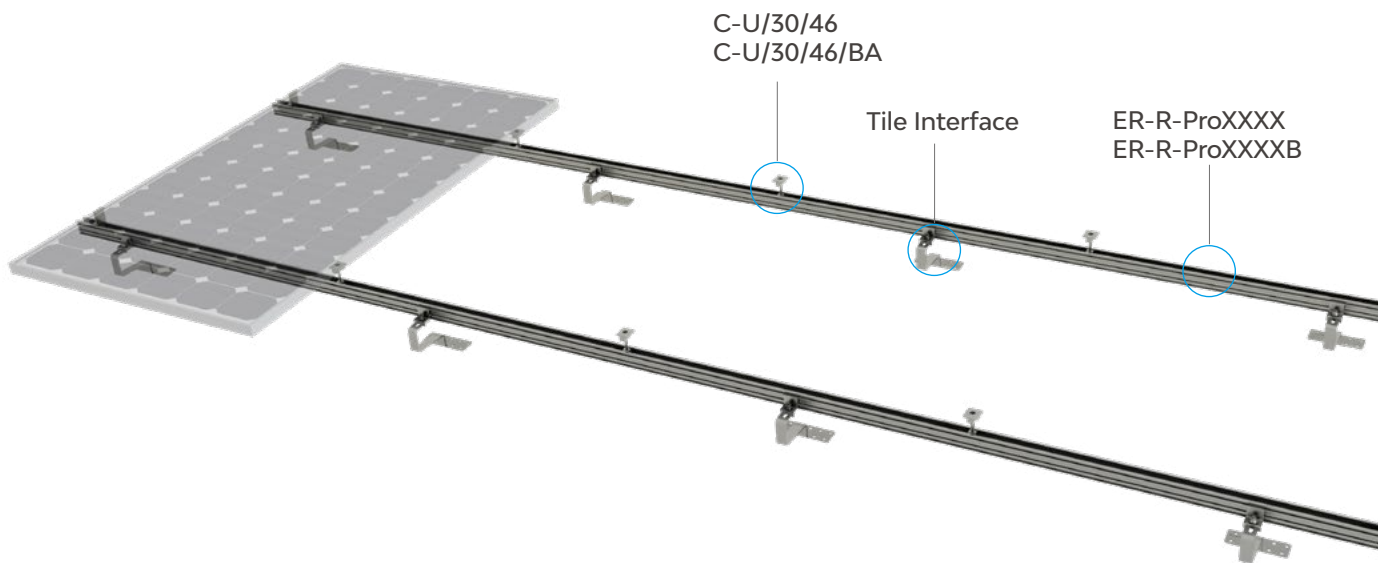
Uncompromising Quality

SolarRoof Pro only uses high grade anodised aluminum and stainless steel components to international standards. Strict quality control over materials and finished products ensures optimum strength and long life for your installations.

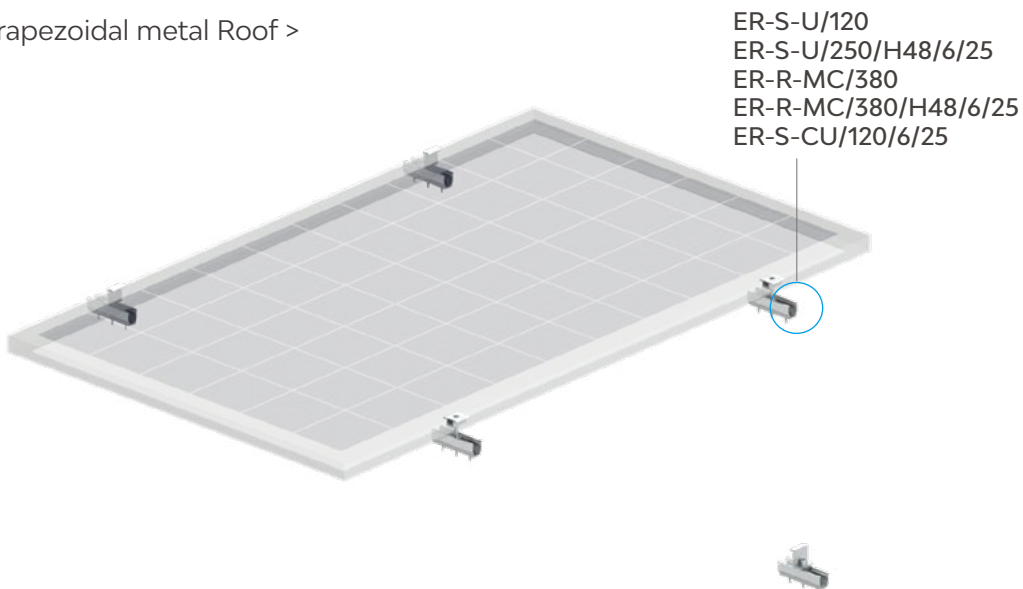
Technical Details

Module Orientation	Landscape or Portrait
Module Type	Framed
Snow Load	Customised
Wind Load	Customised
Roof Type	Trapezoidal metal and Tile Roof
Material	Main Components: AL6005-T5 Roof Hooks: AL6005-T5 and SUS304 Fasteners: SUS 304
Certification	CE, MCS
Standard	BS EN1991-1 BS EN1991-3 BS EN1991-4
Warranty	25 years

< Tile Roof >



< Trapezoidal metal Roof >



C-U/30/46
C-U/30/46/BA
Akashi Clamp

- Akashi Clamp
- Module for Akashi Clamp
- Hexagon socket button head screw M8*55
- Washer 8
- Spring for Akashi Clamp



ER-CC-Pro
Cross connection clamp

- Cross connection clamp
- Z Module
- Hexagon socket head cap screw M8*25
- Washer 8

 ER-R-ProXXXX ER-R-ProXXXXB Pro Rail	- Pro Rail
 ER-SP-ST ER-SP-ST/BA Splice for Standard Rail	- Splice for Standard Rail - Hexagon socket head cap screw M8*12
 ER-I-PRO/01 Tile Interface for light to medium	- Main Part of Roof Hook Pro H132 - Buildex 14-11 x 70 Hex Head Zips screw - Hexagon nut with flange M8 - Cup head square neck bolts M8*30 - ezClip Spring - ezClip 30 - Conical spring Washer M8.5*20
 ER-I-PRO/01A Tile Interface for Adjustable for light to medium snow load	- Upper Part of Roof Hook Pro H117V - Lower Part of Roof Pro H117V - Buildex 14-11 x 70 Hex Head Zips screw - Hexagon nut with flange M8 - Cup head square neck bolts M8*25 - Cup head square neck bolts M8*30 - ezClip Spring - ezClip 30 - Conical spring Washer M8.5*20
 ER-I-PRO/01/A/LS Tile Interface, adjustable for light to medium snow load, landscape	- Lower Part of Roof Pro H117VL - Upper Part of Roof Hook Pro H117VL - Buildex 14-11 x 70 Hex Head Zips screw - Hexagon nut with flange M8 - Cup head square neck bolts M8*25 - Cup head square neck bolts M8*30 - ezClip Spring - ezClip 30 - Conical spring Washer M8.5*20
 ER-I-PRO/01DA Two way Adjustable Roof Hook 40-60mm, with PRO-Rail Clamp	- Upper Part of Roof Hook Pro H117V - Middle Part of Two way Adjustable Roof Hook 40-60mm - Lower Part of Two way Adjustable Roof Hook 40-60mm - Buildex 14-11 x 70 Hex Head Zips screw - ezClip 30 - Conical spring Washer M8.5*20 - ezClip Spring - Hexagon nut with flange M8 - Cup head square neck bolts M8*25 - Cup head square neck bolts M8*30

 ER-I-PRO/02 Flat Tile Interface	- Main Part of Roof Hook Pro Plain Tile H125 - Buildex 14-11 x 70 Hex Head Zips screw - Plain washer large 8*24 - Hexagon nut with flange M8 - ezClip Spring - Conical spring Washer M8.5*20 - Cup head square neck bolts M8*30 - ezClip 30
 ER-I-PRO/02A/LS Plain Tile Roof Hook, landscape	- Upper Part of Roof Hook Pro H117VL - Lower Part of Wawasan Roof Hook Pro PlainTile H107V, version 2.0 - Buildex 14-11 x 70 Hex Head Zips screw - Cup head square neck bolts M8*25 - Hexagon nut with flange M8 - Conical spring Washer M8.5*20 - ezClip Spring - ezClip 30 - Cup head square neck bolts M8*30
 ER-I-PRO/04 Slate/Prefa Interface	- Main Part of Roof Hook Pro Slate/Prefa H75 - Buildex 14-11 x 70 Hex Head Zips screw - Hexagon nut with flange M8 - Cup head square neck bolts M8*30 - ezClip Spring - ezClip 30 - Conical spring Washer M8.5*20
 ER-I-PRO/07 Flat Tile Interface for Tegalit roof	- Main Part of Roof Hook Pro Flat Tile H132 - Buildex 14-11 x 70 Hex Head Zips screw - ezClip 30 - Conical spring Washer M8.5*20 - Hexagon nut with flange M8 - Cup head square neck bolts M8*30 - ezClip Spring
 ER-S-U/120 U Support	- U Support - Rubber Pad for U Support
 ER-R-MC/380 Mycro Rail	- Mycro Rail 380mm - Rubber Pad for U Support

	ER-S-U/250/H48/6/25 U Support H48	- U Support H48 - Foam EPDM Pad 118*18*3 - Self-drilling Screw, Buildex M6-11 x 25 Hex Head Zips screw
	ER-R-MC/380/H48/6/25 Mycro Rail H48	- Mycro Rail H48 - Foam EPDM Pad 118*18*3 - Self-drilling Screw, Buildex M6-11 x 25 Hex Head Zips screw
	ER-S-CU/120/6/25 Corrugated U Support 120mm	- Corrugated U Support - Foam EPDM Pad 118*18*3 - Self-drilling Screw, Buildex M6-11 x 25 Hex Head Zips screw
	ER-HB-10/200A Hanger Bolt M10*200mm	- Hanger Bolt for wood purlin, M10*200 - Waterproof Gasket for Hanger bolt M10*200 - Hexagon nut with flange M10(coating)
	ER-MP-HB Mounting Kit for Hanger Bolt	- Mounting Plate T6*116, for M10 hanger bolt - Hexagon nut with flange M8 - ezClip 35 - ezClip Spring - Conical spring Washer M8.5*20 - Cup head square neck bolts M8*30
	ER-I-16/Z/L80 KL Interface for standing seam	- Main Hook for KL Interface for standing seam - Side Hook 22 - Spring Washer GB/T 93-8-A2 - Plain washer DIN 125-1-8-A2 - Hexagon socket head cap screw M8*25
	ER-I-33 Brooklyn Klip-lok Clamp with Z-Module Channel	- Main Hook of Brooklyn Klip-lok Clamp with Z-Module Channel - Side Hook of Brooklyn Klip-lok Clamp with Z-Module Channel - Hexagon socket head cap screw M8*70 - Plain washer 8 - Washer 8 - Hex Nut GB/T 6170-M8-8-tZn
	ER-CAP-PRO/G ER-CAP-PRO/B Cap for Pro Rail	- Cap for Pro Rail

// SolarTripod

Tilted flat roof frame designed for commercial installations

PV-ezRack® SolarTripod is designed for commercial PV-installations on flat roofs with tilted panels in portrait orientation.

The supports are available in fix and adjustable tilt angles, in addition they are compatible with a wide range of purlin distances. The components are made entirely of structural grade (AL6005-T5) anodised aluminium and stainless steel. SolarTripod is available in two designs: single and double row panels.

Main Benefits

Quick Installation

Completely pre-assembled, the SolarTripod supports simply need to be unfolded and secured to the roof structure for installation. For most installations the legs require only 2 fixing points each and the rails can overcome large spans. All these features result in a fast, easy and cost efficient installation, crucial for commercial projects.

Maximising Installation Size and Output on Small Roofs

The DoubleTripod has two rows of PV-panels in portrait orientation.

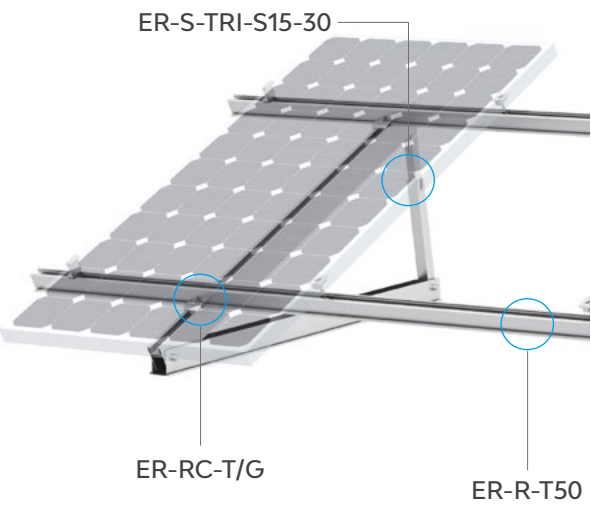
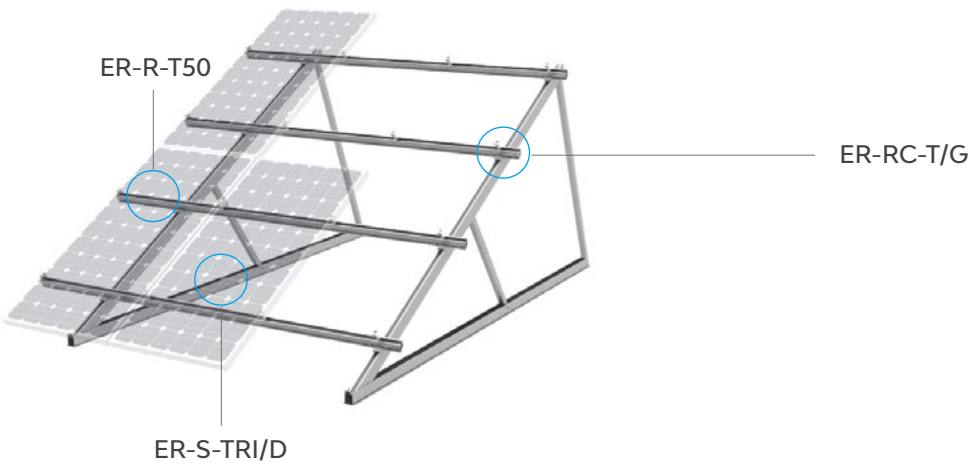
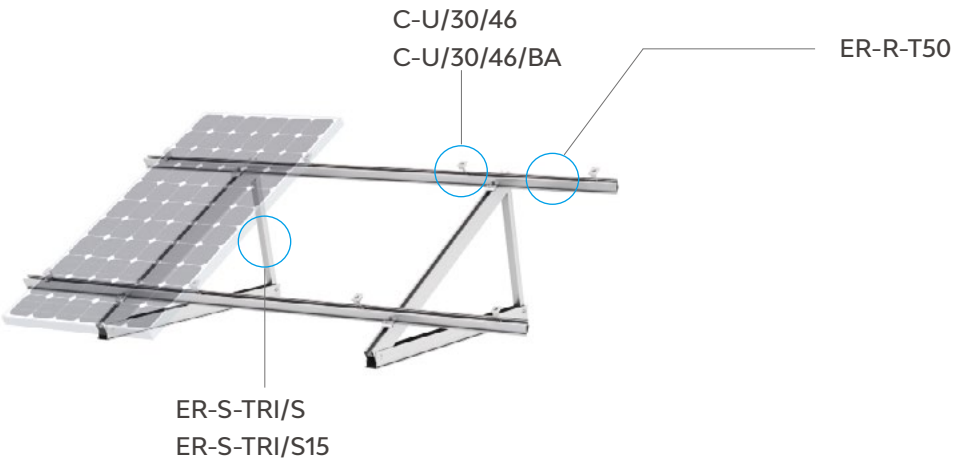
This allows you to perfectly utilise narrow roof sections while doubling the installation size and output, where you would normally only be able to fit one row of panels.

Simplicity

Bill of materials can be confusing and complicated. On a basic BOM for SolarTripod you will only find 6 components, keeping it simple and transparent for all parties to better understand and work with the product.

Technical Details

Module Orientation	Landscape or Portrait
Module Type	Framed
Snow Load	Customised
Wind Load	Customised
Roof Type	Concrete Flat Roof
Tilt Angle	Single Tripod: 30 degree Double Tripod: 30 degree Adjustable Tripod: 15-30 degree
Material	Main Components: AL6005-T5 Tripod support: AL6005-T5 Fasteners: SUS 304
Certification	CE
Standard	BS EN1991-1 BS EN1991-3 BS EN1991-4
Warranty	25 years



Components



ER-S-TRI/S30-AU

Solar Tripod, Single Support

- Hexagon socket head cap screw M10 x 65
- Plain washer 10
- Washer 10
- Hexagon nut M10
- Tripod U Bracket
- Tripod, Al-Tube 35.5 x 35.5 x 689
- Base Support 70 x 1350
- Upper Support 75 x 1250
- Bushing Ø18.5 x 35.5



ER-S-TRI30-D3000

Solar Tripod, Double Support

- Hexagon socket head cap screw M10 x 65
- Hexagon nut M10
- Plain washer 10
- Washer 10
- Tripod U Bracket
- Base Support 70 x 3000
- Upper Support 75 x 3000
- Tripod, Al-Tube 35.5 x 35.5 x 801
- Tripod, Al-Tube 35.5 x 35.5 x 1562
- Bushing Ø18.5 x 35.5



ER-S-TRI/S15-30

Adjustable Tripod

- Base Support 70 x 1350
- Upper Support 75 x 1250
- Leg Tube-358
- Leg Strug-348
- Bushing
- Double-Fixed Block(Anodised)
- Set screw M8 x 12
- Hexagon Socket bolt M10 x 65
- Hex nut M10
- Washer 10
- Flat washer 10
- U Bracket
- Bushing Ø18.5 x 35.5



ER-R-T50

T-Rail 50

- With standard lengths:
- 2560mm
- 3405mm
- 4200mm



ER-SP-T50

Splice for T-Rail 50

- Splice with standard length of 300mm
- Self-Tapping Screw ST6.3 x 22



ER-RC-T/G

Rail Clamp for T-Rail with
grounding/earthing pins

- Rail Clamp with pins 50 x 30 x 11.8mm
- Hex Socket Head Bolt M8 x 30mm
- Spring Washer M8
- Z-Module



C-U/30/46

C-U/30/46/BA

Akashi Clamp

- Akashi Clamp
- Module for Akashi Clamp
- Hexagon socket button head screw M8*55
- Washer 8
- Spring for Akashi Clamp

// Ascent 1.1



Deutsches
Patent-Und Markenamt

Patent No.: [DE202024104420U1](#)

Patent No.: [DE202024104393U1](#)

PV-ezRack® Ascent 1.1 is a low ballast, south/north, east-west facing solution for PV installation on flat roofs. With the special design and a tilt angle of 10° and 15°. Ascent 1.1 is suitable for most common flat roof installations. Its innovative support and clamp design allow for both short-side and long-side clamping using the same components, ensuring flexibility and ease of installation.

Main Benefits

Wind Tunnel tested

Ballast reduction through aerodynamic optimized construction. Also tested in boundary layer wind tunnel by the independent wind tunnel test agency, to achieve optimum ventilation for maximum energy output.

Pre-assemble

Pre-assembled inter and end clamp with legs reduce SKU, and also save warehouse and pick up cost.

Click-in technology

Easy installation and Tool-free assembly of the base rail due to click-in innovative patented design.

Roof friendly

With building protection rubber pad and optimal support surface, Ascent 1.1 achieves exceptional adaptability on flat foil, bitumen and concrete roofs.

Technical Details

Application	Flat roof up to 5°
Setting Angle	10°/15°
Module Orientation	Short Side Clamping: North/South, East-West; Landscape Long Side Clamping: North/South, East-West; Landscape
Roof covering	concrete roof, membrane roof, bitumen roof
Module Size	Maximum Solar Panel Dimensions Short Side Clamping -When using 1500 and 2450mm base rail: length 2000mm,width 1190mm, height 40mm -When using 2240mm base rail: length 2000mm,width 1134mm, height 40mm. Long Side Clamping -When using 1500 and 2450mm base rail: length 2400mm,width 1151mm, height 40mm. -When using 2240mm base rail: length 2400mm,width 1047mm, height 40mm.
Snow Load	Customised
Wind Load	Customised
Material	Main Components: AL6005-T5 Wind Deflector/Ballast bar: MAC Steel Fasteners: SUS 304 Plate: Polypropylene (PP) and EPDM
Certification	TUV CE Wind Tunnel Test (I.F.I. Institute)
Warranty	25 years

Short Side Clamping



FL-ACV11/G/10 & FL-ACV11/G/15
FL-ACV11/G/10/MI & FL-ACV11/G/15/MI
Front Leg 10°/15°



RL-ACV11/G/10 &
RL-ACV11/G/10/MI
Rear Leg 10°



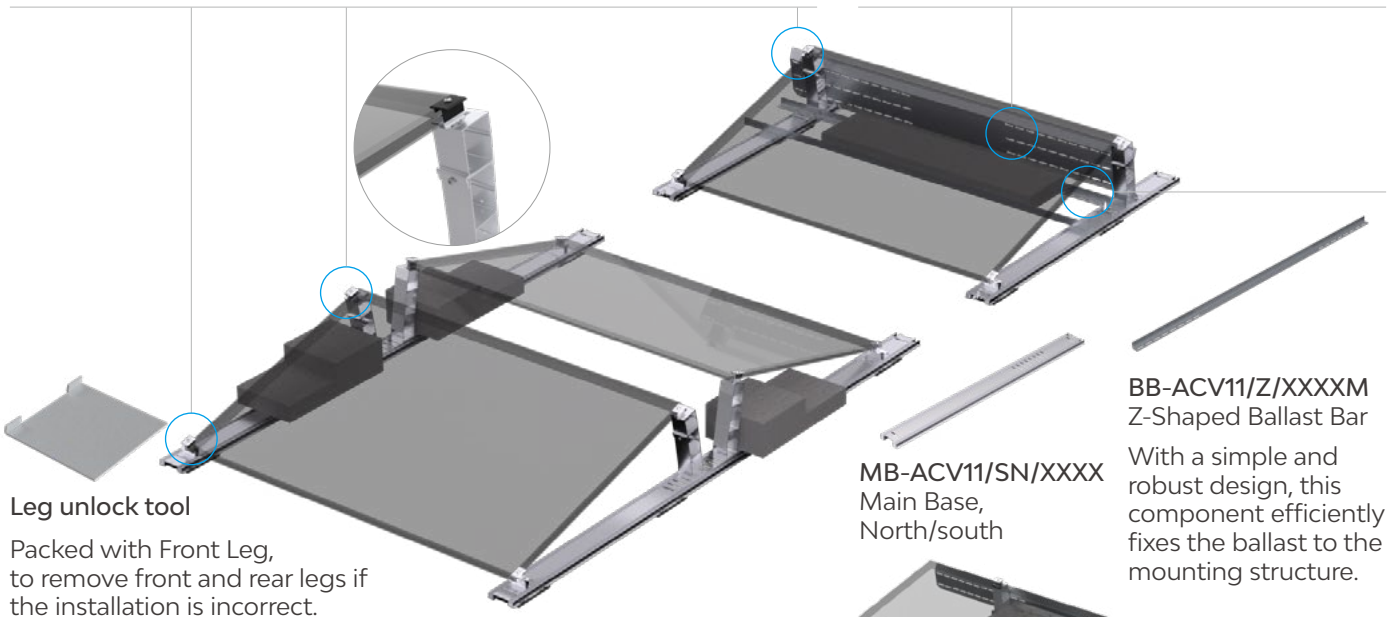
RL-ACV11/G/15 &
RL-ACV11/G/15/MI
Rear Leg 15°



WD-ACV11/XX/XXXXM
Wind Deflector, 10° and 15°

Made of aluminium, preassembled with end clamp and inter clamp, Front Leg and Rear Leg are click-in assembly to the base rail that offer excellent corrosion resistance.

The wind deflector is fixed to the legs, normally installed on the end of array for deflecting wind and ensuring system stability.



Leg unlock tool

Packed with Front Leg, to remove front and rear legs if the installation is incorrect.

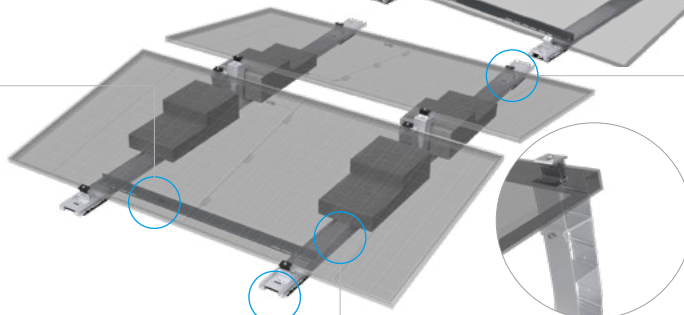
MB-ACV11/SN/XXXX
Main Base, North/south

BB-ACV11/Z/XXXXM
Z-Shaped Ballast Bar
With a simple and robust design, this component efficiently fixes the ballast to the mounting structure.

Long Side Clamping



Connection Rail
Special designed for long side clamping solution.



EZ-PM-AC
EZ-PM-AC/RB
Protection Mat



SEB-ACV11/100
Start and End Base L100



MB-ACV11/EW/XXXX
Main Base, East-west



CB-ACV11/EW/XXX
Connection Base, East-west

The Polypropylene & EPDM mat offer a clearance between the roof surface and the base for water drainage. Also achieves exceptional adaptability on flat foil, bitumen and concrete roofs.

// SolarTerrace Eco

Aluminum Ground Mounting System



Clenergy PV-ezRack® SolarTerrace Eco (ST Eco) is a highly pre-assembled ground mounting system, suitable for commercial and utility-scale PV installations. Innovative M and W module channel rails are very convenient and helpful to improve the installation accuracy. Using high quality components, ST Eco is more suitable for areas with higher salinity, and significantly saves labor time and cost, especially delivering large scale projects.

Main Benefits



Excellent Corrosion Resistance

Anodised aluminum and SUS304 stainless steel parts make the system suitable for even the toughest corrosive environments, such as coastal areas.



Easy and Fast Installation

Thanks to the completely pre-assembled support, ST Eco only needs to be opened up and secured to the foundation. And with the pre-installed positioning rail clamps, you don't need measure and mark rail positions anymore. The system saves valuable time and cost in assembly and logistics.



Versatility

With modular design, such as A-shaped support, N-shaped support, W-shaped support, TM rail and TW rail, ST Eco can be compatible with different regions where the wind and snow load vary.



Technical Details

Module Orientation	Landscape or Portrait
Wind Load	Up to 70 m/s (ASCE 7-10)
Tilt Angle	0-60°
Foundation	Ground Screw Concrete
Material	Main Structure: AL6005-T5 Ground Screw: HDG Steel Fasteners: SUS304
Land Slope	Up to 30° in East-west direction, no limitation in South-north direction
Span	≤3000 mm*
Standard	Eurocode 0-9 NTC 2018 AS NZS 1170.2 ASCE 7-16 JISC 8955
Certification	TUV, CE
Warranty	Please refer to the official warranty documentation for details

*for other values, please consult with Clenergy

// SolarTerrace Ikon

Effortless and Installation-friendly Ground PV Mounting Solution



PV-ezRack® SolarTerrace Ikon is an optimal ground mounting solution designed for commercial and utility-scale PV installations. Its innovative and efficient design, including quick positioning for panels, swift clamps for structure, back-locked panels, and self-grounding systems, enables effortless and safe installation on all terrains. Furthermore, the perfect compatibility of the bifacial modules secures maximum power generation. This solution not only facilitates shorter station construction periods, but also delivers higher ROI and lower LCOE.

Main Benefits



Effortless and Quick Installation

Thanks to innovative clamps with fewer fasteners, the system can be swiftly assembled in seconds, requiring only one tool per person.



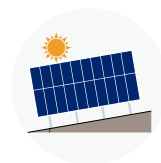
Rapid Positioning

The module positioning shim suspends the panel frame, enabling quick positioning and installation of PV modules.



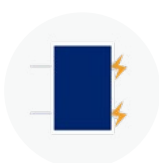
Safe Installation

PV modules are secured using clamp bolts from the backside, eliminating the need for climbing and ensuring safe installation and convenient maintenance.



Excellent Terrain Adaptability

With the design of stepless adaptive connector between the crossbeam and post, the system can be installed along the slope.



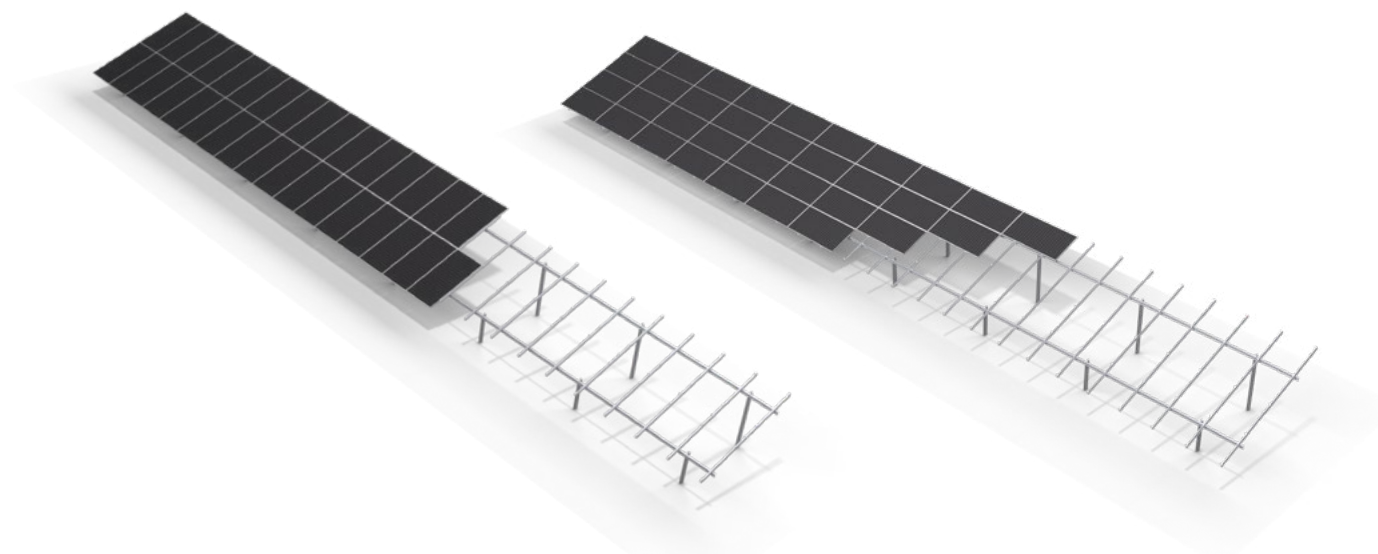
Self-Grounding Capability

Unique module clamps with a built-in grounding function, ensuring the grounding of PV modules without the need for additional parts.



Comprehensive Certification

ST Ikon has obtained ISO9001 certification, TUV certification and CE certification, undergone wind tunnel testing, ensuring the system's stability and durability.



Technical Details

Module Orientation	Portrait or Landscape (2P / 4L)
Wind Load	25m/s according to EN1990 for standard, customisable
Snow Load	Up to 0.85 Kpa for standard, customisable
Tilt Angle	15-35°
Foundation	Ramming
Material	Post: HDG Crossbeam: ZAM (Zinc-Aluminum-Magnesium) Steel Purlin: ZAM (Zinc-Aluminum-Magnesium) Steel Fastener: SUS304 or HDG
Terrain Adaptability	N-S: Unlimited
Post Span	Perimeter Rows: Up to 4m for standard, customisable Interior Rows: Up to 6m for standard, customisable
Table Length	Standard Table Length: Up to 35m (3Px30 or 2Px30), customisable Maximum Table Length: Up to 100m (3Px90 or 2Px90), customisable
Standard	Eurocode 0-9 NTC 2018 AS NZS 1170.2 ASCE 7-16 JISC 8955
Certification	CE, TUV, Wind Tunnel Test
Warranty	Please refer to the official warranty documentation for details

*for other values, please consult with Clenergy

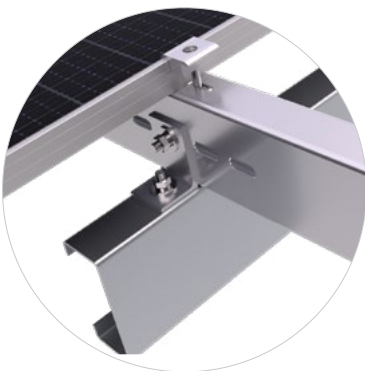
// SolarTerrace MAC

Zinc-Aluminium-Magnesium Coating Steel Ground Mounting Solution



PV-ezRack® SolarTerrace MAC is a highly versatile ground-mounting solution suitable for commercial and utility-scale PV installations. Thanks to the well-considered design, the system is very cost-effective and convenient for PV installations. Manufactured from MAC steel (Zinc-Aluminium-Magnesium Coating) with excellent corrosion resistance and an elegant surface, PV-ezRack® SolarTerrace MAC offers a reliable and durable solution.

Main Benefits



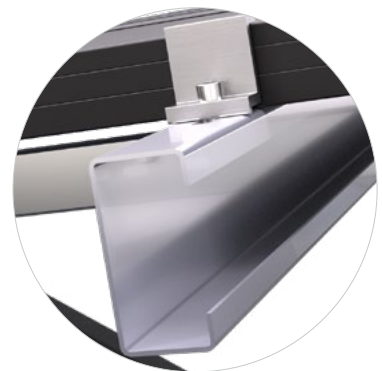
Easy and Quick Installation

Thanks to the efficient and simple design with fewer brackets and fasteners, the system can be completed with simple tools in a shorter time.



Excellent Corrosion Resistance

Manufactured from MAC steel with excellent corrosive resistance nature and self-healing function, the system ensures a reliable protection defending against site corrosion condition.



Excellent Flexibility

With the design of adjustable slots, the system can be installed flexibly, with multiple adjustment options available.



Technical Details

Module Orientation	Max 3P or 6L*
Wind Load	Up to 70 m/s (ASCE7-10)
Snow Load	Up to 3.0 KN/m2
Tilt Angle	0-60°
Foundation	Ground Screw Concrete Ramming
Material	Main Structure: Zn-Al-Mg Coating Steel Post : HDG Steel Clamps: AL6005-T5 Fasteners: SUS304 or HDG Steel
Land Slope	Up to 30° in East-west direction, no limitation in South-north direction
Span	≤4000mm*
Standard	Eurocode 0-9 NTC 2018 AS NZS 1170.2 ASCE 7-16 JISC 8955
Certification	CE, ETL
Warranty	Please refer to the official warranty documentation for details

*for other values, please consult with Clenergy

// D1P

One Portrait Horizontal Single-axis Tracker



Advantages

- Advanced Smart Control
- Flexible Layout for Irregular Terrains
- Comprehensive Certification
- Easy and Quick Installation

Power Generation Increased

Up to 25%

Compared to a Standard Fixed Tilt System

Features

Clenergy presents an adaptable, cost-effective solar tracker ideal for commercial or utility scale PV projects.

- Terrain adaptability – slope up to 20%
- Customisable foundation variations
- Easy-to-install structure
- Advanced AI control and excellent wind stability



Tracking



Backtracking



Diffuse
Tracking



Night
Stow



Wind
Stow



Snow
Stow



Rain Clean



Flood Stow

Technical Details

PV-Modules	
PV-Modules Supported	All Commercial Modules (210/182/166)
Structure	
Type	Horizontal single-axis tracker, independent row
Maximum Capacity Per Row	63kWp (Estimated with 700W PV-Modules)
PV-Modules Quantity Per Row	Up to 90 modules, depending on module string length
Bifacial Features	Available with optimized central torque tube gap
PV-Modules Configuration	One in portrait 3 x 1,500 strings per standard tracker
PV-Modules Attachment	By bolts, can self-grounding and electrical tool- actuated
Tracking Range	±60° (120°)
Tracking Accuracy	≤2°
Ground Coverage Ratio (Gcr)	0.25~0.35
Structural Materials	HDG steel, Zn-Al-Mg coating steel
Foundation	Steel pile, Concrete foundation
Quantity of Foundation/MW	Normally about 250 PCS/MW (Estimated with 545W PV-Modules)
Electrical	
Motor Type	24V DC Motor
Motor Quantity	1 motor per row
Drive Method	Slewing drive
Tracking algorithm	Astronomical algorithm + closed-loop control integrated AI control tracking algorithm
Signal Transmission	Wire or wireless
Backtracking	Yes
Power Supply	Option1: String powered, integrated backup battery Option2: AC power supply: subject to project drive quantity; communication: wireless or wired.
Protection Function	
Night Stow Mode	Yes
Wind Protection	Intelligent wind stowing with self-locking
Environment	
Wind Load	Customisable according to local condition
Operating Temperature	String powered: -20°C to +60°C AC powered: -30°C to +60°C
Civil and Installation	
Slope Tolerance	North-South up to 20%
Special Tools	Not required
Other	
Commissioning & Handover Support	Yes
Design Standards	EURCODE 0-9 NTC 2018 AS NZS 1170.2 ASCE 7-22 JISC 8955 GB 50009
Corrosion Grade	C1-C4 (C5 requires customer customization)
Warranty	10 years for main structure 5 years for drive and control components (Warranty extension can be customized according to the project)



ETL Certification



CPP Wind Tunnel Test



CE Certification



ISO 9001 Certification



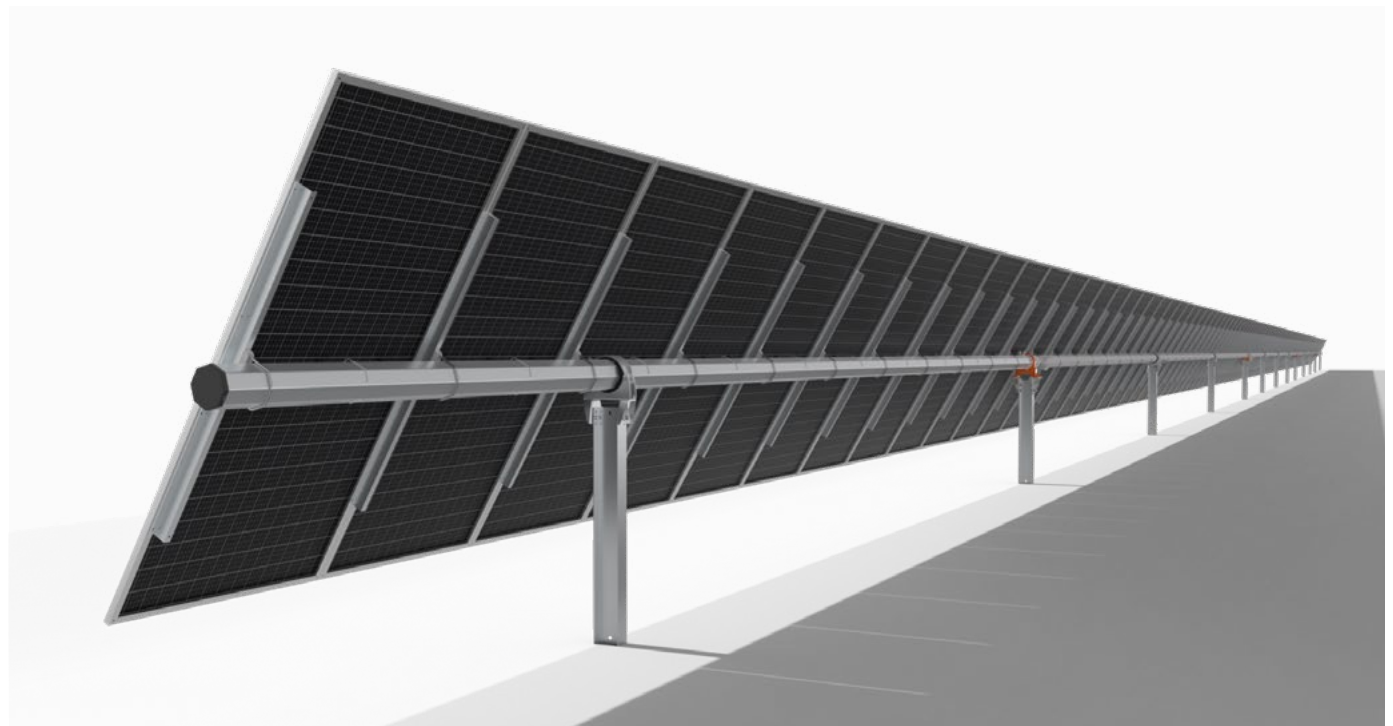
Carbon Footprint Certification



IEC62817

// D1P120

Newest Generation One Portrait Smart Solar Tracker



Advantages

- Multi-drive System for Maximum Aeroelastic Stability
- Advanced Smart Control
- Excellent Adaptability for Irregular Terrains
- Full Professional Certification

Power Generation Increased

Up to 25%

Newest Generation 1 x Portrait Smart Solar Tracking System

Features

The innovative model is characterized by its high system stability throughout the life of the solution, maximizing the energy output for solar plants. Innovative structure with fewer parts, ensure the system is more durable and faster to install. This system is designed to adapt flexibly to sloped and uneven terrain, making it suitable for sites with complex topographical conditions.

- Higher power density - supports up to 120 modules with 4x1,500V-strings
- Lower construction costs - easy and quick installation with fewer parts
- Bifacial compatibility - secures the maximum power generation



Tracking



Backtracking



Diffuse Tracking



Night Stow



Wind Stow



Snow Stow



Rain Clean



Flood Stow

Technical Details

PV-Modules	
PV-Modules Supported	All Commercial Modules (210/182/166)
Structure	
Type	Horizontal single-axis, independent row
Maximum Capacity Per Row	84kWp (Estimated with 700W PV-Modules)
PV-Modules Quantity Per Row	Up to 120 modules, depending on module string length
Bifacial Features	Available with optimized central torque tube gap
PV-Modules Configuration	One in portrait 4 x 1,500 strings per standard tracker
PV-Modules Attachment	By bolts, can self-grounding and electrical tool-actuated
Tracking Range	±60° (120°)
Tracking Accuracy	≤2°
Ground Coverage Ratio (Gcr)	0.25~0.35
Structural Materials	HDG steel, Zn-Al-Mg coating steel
Foundation	Steel pile, Concrete foundation
Quantity of Foundation/MW	Normally about 170 PCS/MW (Estimated with 630W PV-Modules)
Electrical	
Motor Type	24V DC Motor
Drive Method	Patented multi-drive
Tracking algorithm	Astronomical algorithm + closed-loop control integrated AI control tracking algorithm
Signal Transmission	Wire or wireless
Backtracking	Yes
Power Supply	Option1: String powered, integrated backup battery Option2: AC power supply; subject to project drive quantity; communication: wireless or wired.
Protection Function	
Night Stow Mode	Yes
Wind Protection	Intelligent wind stowing with self-locking Multi-drive system for maximum array stability
Environment	
Wind Load	Configurable up to 60m/s (3s gust)
Operating Temperature	String powered: -20°C to +60°C AC powered: -30°C to +60°C
Civil and Installation	
Slope Tolerance	North-South up to 20%
Special Tools	Not required
Other	
Commissioning & Handover Support	Yes
Design Standards	EURCODE 0-9 NTC 2018 AS NZS 1170.2 ASCE 7-22 JISC 8955 GB 50009
Corrosion Grade	C1-C4 (C5 requires customer customization)
Warranty	10 years for main structure 5 years for drive and control components (Warranty extension can be customized according to the project)



ETL Certification



CPP Wind Tunnel Test



CE Certification



ISO 9001 Certification



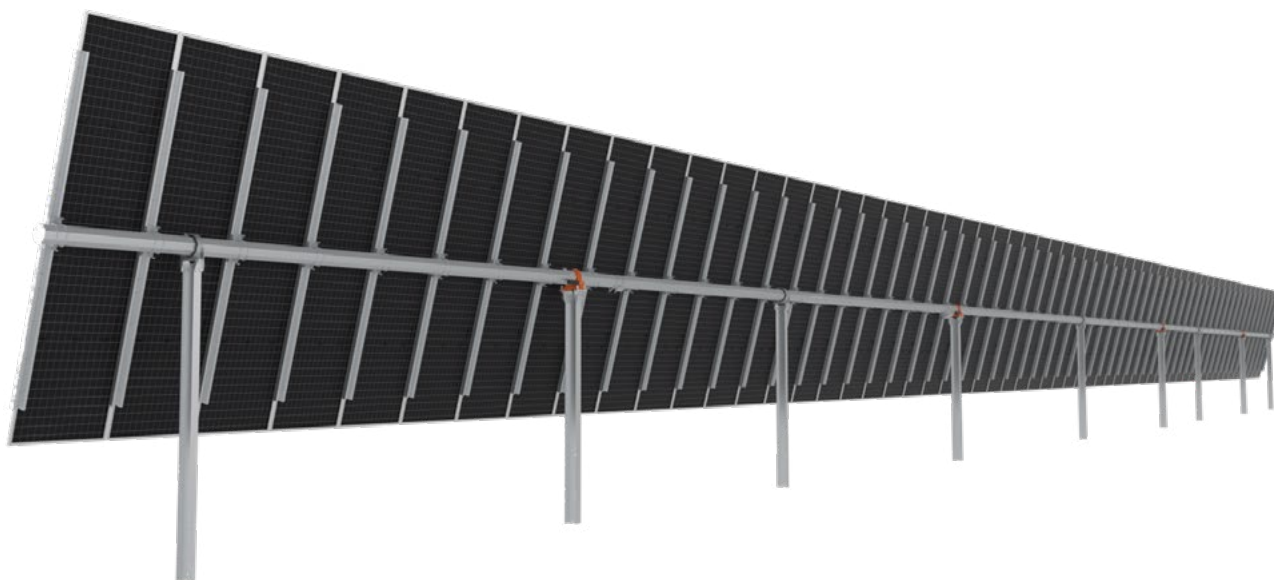
Carbon Footprint Certification



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// D2P120

Newest Generation Two Portrait Smart Solar Tracker



Advantages

- Multi-drive System for Maximum Aeroelastic Stability
- Advanced Smart Control
- Flexible Layout for Irregular Terrains

Power Generation Increased

Up to 25%

Newest Generation 2 x Portrait Smart Solar Tracking System

Features

The innovative model is characterized by its high system stability throughout the life of the solution, maximizing the energy output for solar plants. This system can be flexibly used for sites with challenging soils and delivers a perfect solution for Agrivoltaics and Fisheryvoltaics projects.

- Higher power density - supports up to 120 modules with 4x1, 500V-strings
- Lower construction costs - requires 135 posts per MW
- Bifacial compatibility - secures the maximum power generation



Tracking



Backtracking



Diffuse Tracking



Night Stow



Wind Stow



Snow Stow



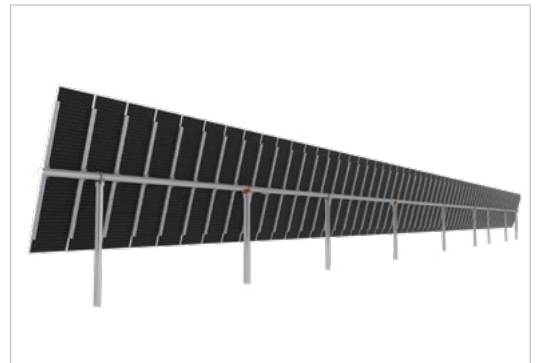
Rain Clean



Flood Stow

Technical Details

PV-Modules	
PV-Modules Supported	All Commercial Modules (210/182/166)
Structure	
Type	Horizontal single-axis, independent row
Maximum Capacity Per Row	84kWp (Estimated with 700W PV-Modules)
PV-Modules Quantity Per Row	Up to 120 modules, depending on module string length
Bifacial Features	Available with optimized central torque tube gap
PV-Modules Configuration	2 in portrait 4 x 1,500 strings per standard tracker
PV-Modules Attachment	Self-grounding and electrical tool-actuated
Tracking Range	±60° (120°)
Tracking Accuracy	≤2°
Ground Coverage Ratio (Gcr)	30% to 50%
Structural Materials	HDG steel, Zn-Al-Mg coating steel
Foundation	Steel pile, Concrete foundation
Quantity of Foundation/MW	Normally about 135 PCS/MW (Standard W8 section foundation posts)
Electrical	
Motor Type	24V DC Motor
Drive Method	Patented multi-drive
Tracking algorithm	Astronomical algorithm + closed-loop control integrated AI control tracking algorithm
Signal Transmission	Wire or wireless
Backtracking	Yes
Power Supply	Option1: String powered, integrated backup battery Option2: AC power supply: subject to project drive quantity; communication: wireless or wired
Protection Function	
Night Stow Mode	Yes
Wind Protection	Intelligent wind stowing with self-locking Multi-drive system for maximum array stability
Environment	
Wind Load	Configurable up to 190 kph (3s gust)
Operating Temperature	String powered: -20°C to +60°C AC powered: -30°C to +60°C
Civil and Installation	
Slope Tolerance	North-South up to 20%
Special Tools	Not required
Other	
Commissioning & Handover Support	Yes
Corrosion Grade	C1-C4 (C5 need to check with request)
Design Standards	EURCODE 0-9 NTC 2018 AS NZS 1170.2 ASCE 7-22 JISC 8955 GB 50009
Warranty	10 years for main structure 5 years for drive and control components (Warranty extension can be customized according to the project)



ETL Certification



CPP Wind Tunnel Test



CE Certification



ISO 9001 Certification



Carbon Footprint Certification



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// ezShade 2.0

Solar Parking Solution for Residential and Commercial Projects



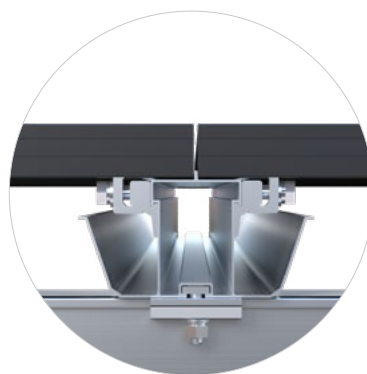
PVEzRack® ezShade 2.0 is a solar parking solution providing solar panels support as well as car sheltering for residential and commercial projects. The high quality aluminum components and stainless steel fasteners ensure a robust and reliable system. With the exquisite structure design, the waterproof function is available without using a large amount of EPDM rubbers.

Main Benefits



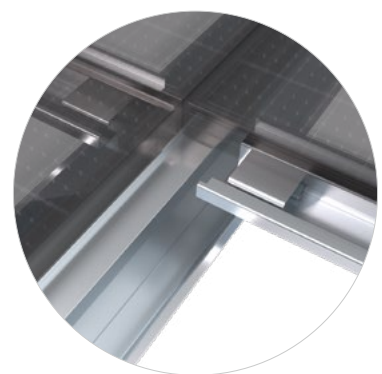
Easy Installation

Thanks to the innovative structural design, the system can be installed with less steps in a short time.



Safety

High safety performance and easily installation due to innovative clamp which can help fasten PV panels from bottom, avoiding the danger of cracking and preventing workers from falling.



Waterproof

With the special water guide rails and gutters install under the gap of PV panels, the PVEzRack® ezShade 2.0 is totally waterproof. Water will flow along the gap into the gutters and water guide rails, finally into the ground.



Technical Details

Module Orientation	3P (module length is around 1800±100 mm) 2P (module length is around 2278±150 mm)
Module Type	Framed
Foundation	Concrete
Wind Load	Up to 50 m/s (3s gust, MRI = 50Y)
Tilt Angle	5° (standard)*
Material	Main Structure: AL6005-T5 Fasteners: SUS304
Span	5500 mm (standard)*
Standard	Eurocode 0-9 NTC 2018 AS NZS 1170.2 ASCE 7-16 JISC 8955
Mini Ground Clearance	2100mm*
Application	Carport, Backyard Shade, Swimming Pool Shade – Applications are endless
Certification	CE
Warranty	12 years
Power Output	3P (module power 415 Wp, total power 12.45 kWp for per unit 3P x 10) 2P (module power 575 Wp, total power 11.50 kWp for per unit 2P x 10)

*for other values, please consult with Cleenergy

// ezShade Razor

Solar Parking Solution for Large Commercial and Utility Scale Projects



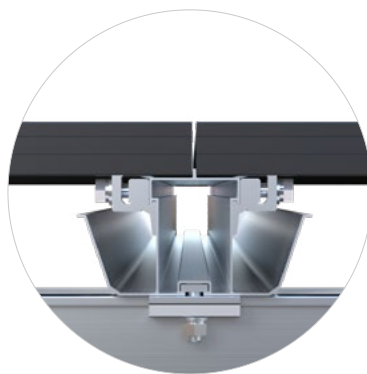
PV-ezRack® ezShade Razor is a solar parking solution generating clean solar energy as well as car sheltering to protect people and vehicles from solar irradiation, snow and rain. The main components are manufactured from high quality steel and aluminum to offer a reliable and robust solution. With multiple waterproof structures, the system is more intelligent and environmentally friendly.

Main Benefits



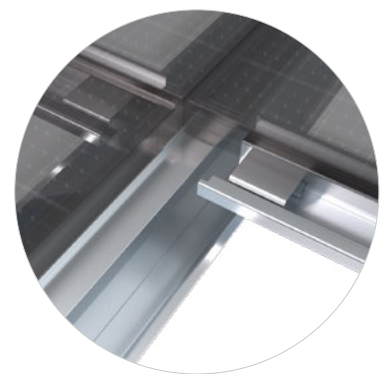
Parking Friendly

With the single post positioned at the end of Carport, ensuring optimal space utilization, people can easily drive in and out either straight or angled parking. We can also offer a back-to-back parking solution for maximum output.



Safety

High safety performance and easily installation due to innovative clamp which can help fasten PV panels from bottom, avoiding the danger of cracking and preventing workers from falling. Furthermore, an innovative hook design for locating enables quicker installation.



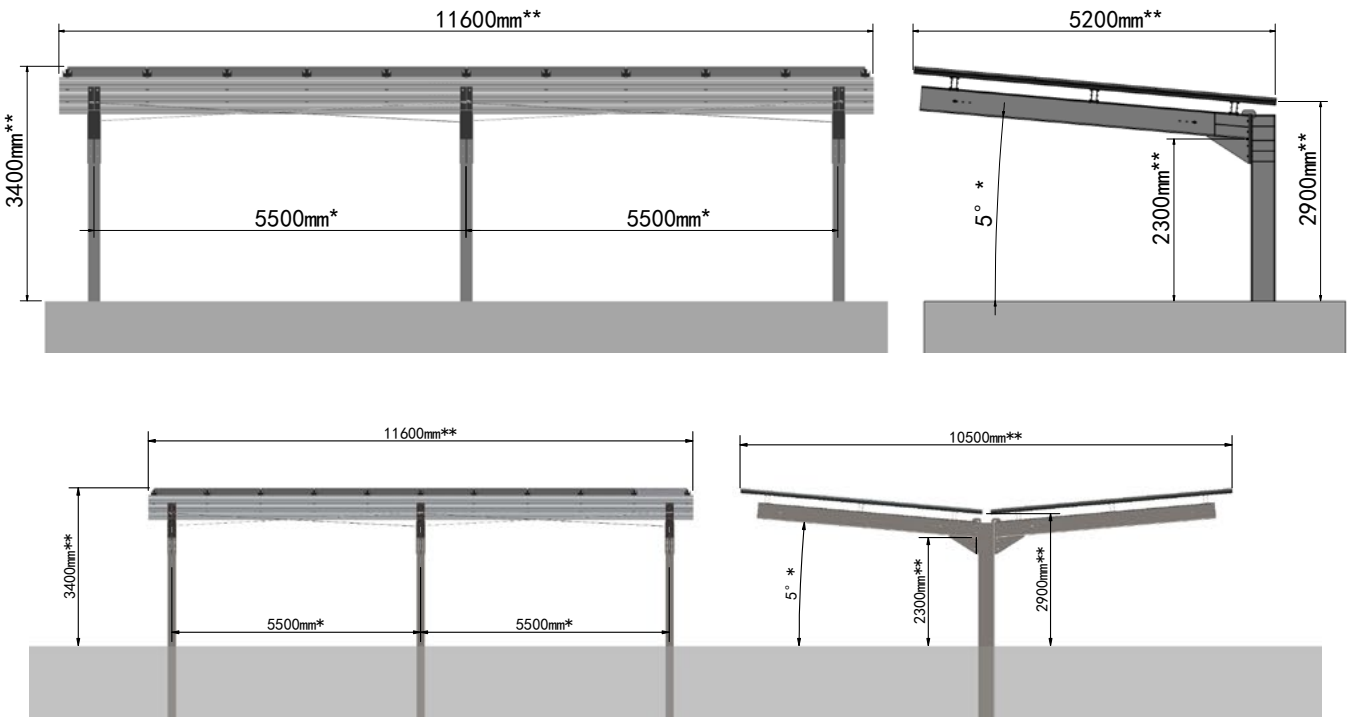
Waterproof

With the special water guide rails and gutters install under the gap of PV panels, the PVezRack® ezShade Razor is totally waterproof. Water will flow along the gap into the gutters and water guide rails, finally into the ground.

Technical Details

Module Orientation	3P (module length is around 1800±100 mm) 2P (module length is around 2278±150 mm)
Module Type	Framed
Foundation	Concrete
Wind Load	Up to 50 m/s (3s gust, MRI = 50Y)
Tilt Angle	5° (standard)*
Material	Post & Girder: HDG Rails & Clamps: AL6005-T5 Fasteners: HDG or SUS304
Span	5500 mm (standard)*
Standard	Eurocode 0-9 NTC 2018 AS NZS 1170.2 ASCE 7-16 JISC 8955
Mini Ground Clearance	2900mm**
Application	Carport, Backyard Shade, Swimming Pool Shade – Applications are endless
Certification	CE
Warranty	12 years

*For other values, please consult with Clenergy
**Only for reference, actual projects may be slightly different



Innovation, Quality
Service and
Customer Centric



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Leading towards a Sustainable Future

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