PV-ezRACK®

Designed for the United Kingdom

Product Catalogue

Solar Mounting Solutions

Last Updated-Oct. 2024

At **PVezRack**® our heritage is founded on the art of engineering and a culture of collaboration. We've built our legacy with a future focus that still stays true to the fundamentals of sustainable design. We have built a collaborative culture amongst stakeholders from across our industry, which was critical for us to deliver on our mission. We offer the solar industry, versatile mounting equipment for every application.

PVezRack® is the flagship product line from Clenergy, which has been designing products since 2007 and has grown into an Australian solar industry icon with its products sold across 30 countries. Our ongoing research and development is backed by a culture of open innovation, excellence through quality and being service focused.

We develop for optimal functionality, with anemphasis 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, with an emphasis on customer service.

CLENERGY

Clenergy is a veteran manufacturer with startup roots in Melbourne, Australia, we have earned a solid reputation throughout the nation and across APAC, because of a proven track record of success.

We bring our expertise to the table to provide your company and engineers with creative insights, and attention to detail.

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Key Facts

Market Value

Founded in 2007
Public listed on the Shanghai Stock Exchange in 2017
Strategic investment by Chinese state-owned enterprises

Industry Leader

30GW of worldwide installations
Top 3 Solar Tracker Supplier in China
Largest share of AU rooftop solar PV market for 14 years
31 billion+ kWh green power generation capacity annually

Core Business

Global offering of solar products
Solar PV + Smart Energy Solution
1,000,000+ rooftop solar projects
15,000+ solar plants

Milestones

2021-Current
New Heights

Clenergy enters the building industry with cable management solutions, and launches the RUNNUR brand.

Clenergy sealed a strategic partnership with Xiamen C&D Inc. and Xiamen Lide Group.

Launched country-wide distributed rooftop pilot program across Xiang'an district backed by the National Energy Administration.

Clenergy rebrands to reflect our new vision and mission.

Clenergy Xinjiang Subsidiary established. 2GW PV power generation demonstration base and 5GW ezTracker equipment manufacturing plant planned in Urumqi.

2016-2020
Public Listing

IPO application approved by the CSRC in 2016.

Successfully listed in the Shanghai Stock Exchange in 2017.

Doubled the sales volume in 2018, reaching 1.7GW.

Cooperated with Obton and Hunan Xinhua on 65MW and 77.1MW solar project respectively in 2019.

Pipeline of more projects across Asia, Japan, Germany & Australia.

Annual shipments reached 2GW in 2020; Bagged 293MW order in Shihezi, Xinjiang, making it the largest solar tracker project within China in 2020.

2011-2015
Global Expansion - Diversified Development

Added a Tianjin manufacturing base.

New Official Subsidiaries – Australia, US, Japan, Thailand and the Philippines.

Business Model – Global Market + Local Service + Global Supply Chain.

2009-2010
Turning Pointing

Successfully developed the "PVezRack®" series.

Lead to Australia's No.1 Solar Mounting Equipment supplier.

2007-2008
Startup - Foundation

Founded Manufacturing in Xiamen, China. Developed the Australian market. Great Industry brand awareness.

SolarRoof™ Pro

The Clenergy PVezRack® 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.
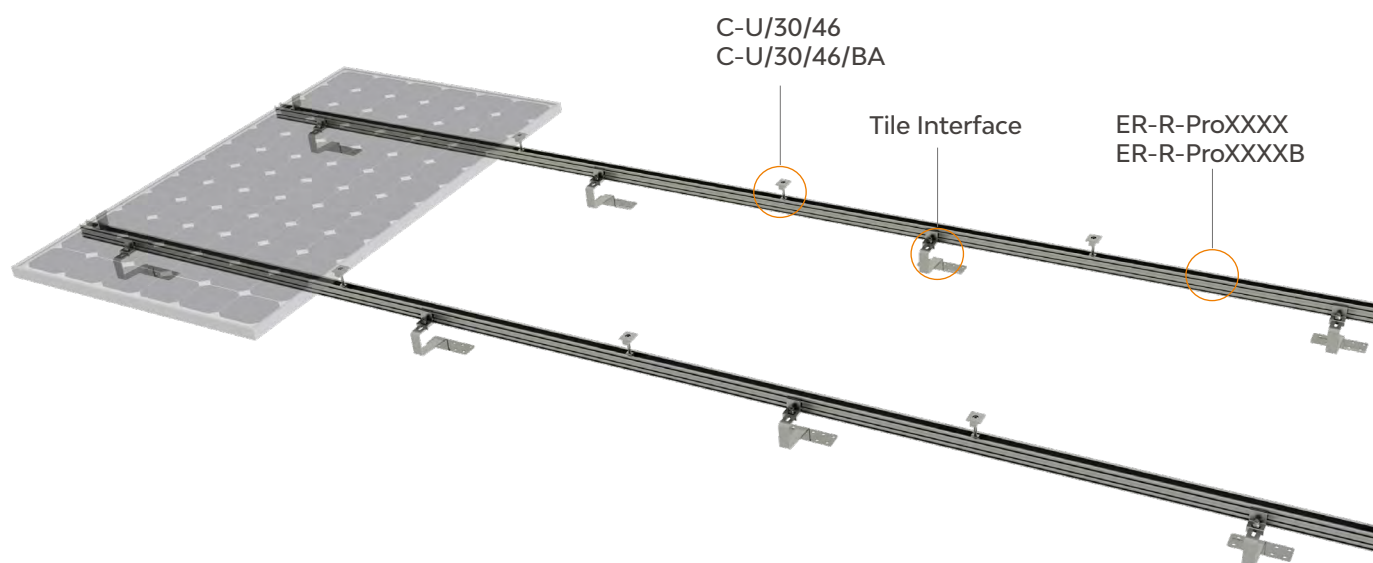
Uncompromising Quality
SolarRoof™ Pro only uses high grade anodised aluminum and stainless steel components to international standards. Strict quality control over materials and finished products ensures optimum strength and long life for your installations.
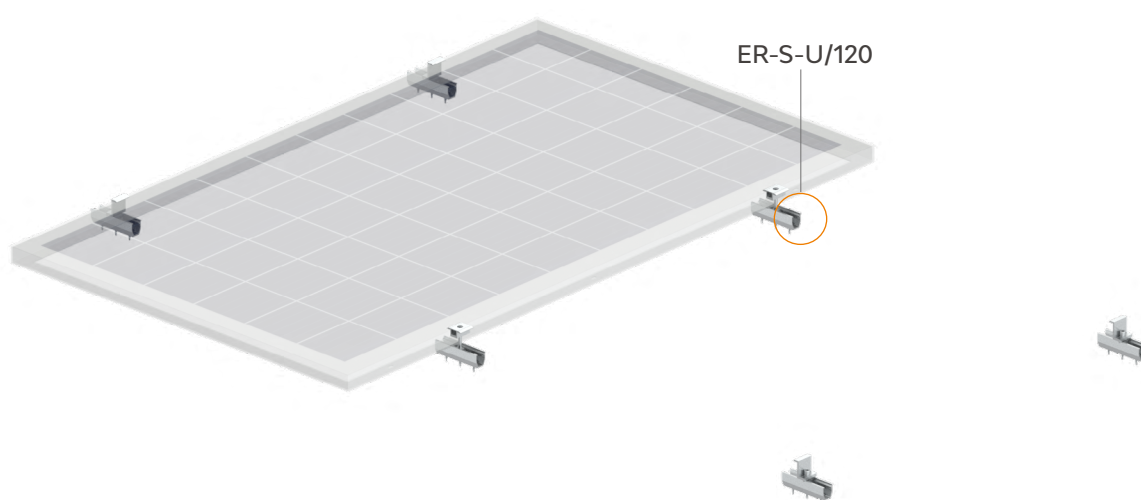
Technical Details

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 >

C-U/30/46
C-U/30/46/BA

Tile Interface

ER-R-ProXXXX
ER-R-ProXXXXB

< Trapezoidal metal Roof >

ER-S-U/120

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	

Product	Description
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 380mm
– Rubber Pad for U Support

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-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

PVezRack® 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
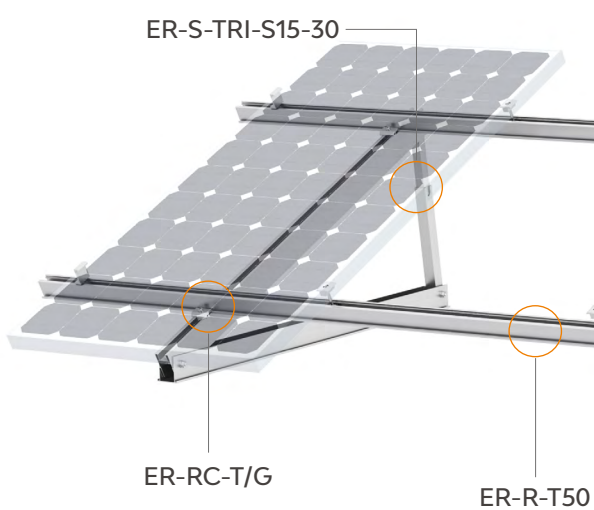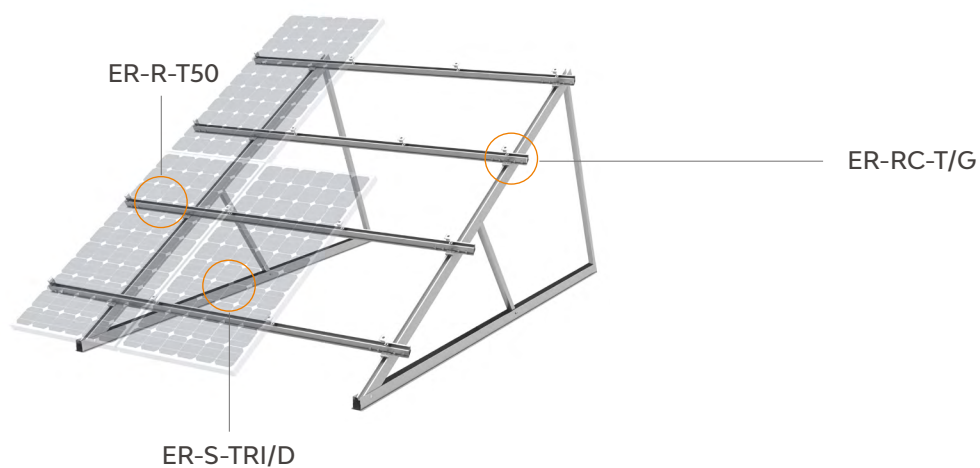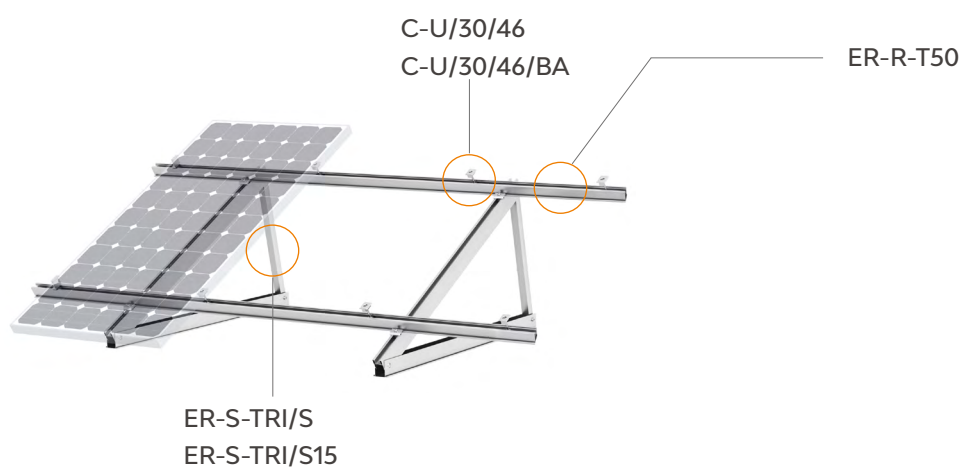The DoubleTripod has two rows of PV-panels in portrait orientation.
This allows you to perfectly utilise narrow roof sections while doubling the installation size and output, where you would normally only be able to fit one row of panels.

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

C-U/30/46
C-U/30/46/BA

ER-R-T50

ER-S-TRI/S
ER-S-TRI/S15

ER-R-T50

ER-RC-T/G

ER-S-TRI/D

ER-S-TRI-S15-30

ER-RC-T/G

ER-R-T50

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 Support70 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

The PVezRack® Ascent 1.1 is a low ballast, south/north, east-west facing solution without rails 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.

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	North/South, East-West; Landscape
Roof covering	concrete roof, membrane roof, bitumen roof
Module Size	Length: 1700-2400 mm Width: 990 -1150mm; Height: 28-40 mm
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)
Standard	Eurocode 0-9	BRE489	AS NZS1170.2	JISC8955	ASCE 7-10
Warranty	25 years

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.
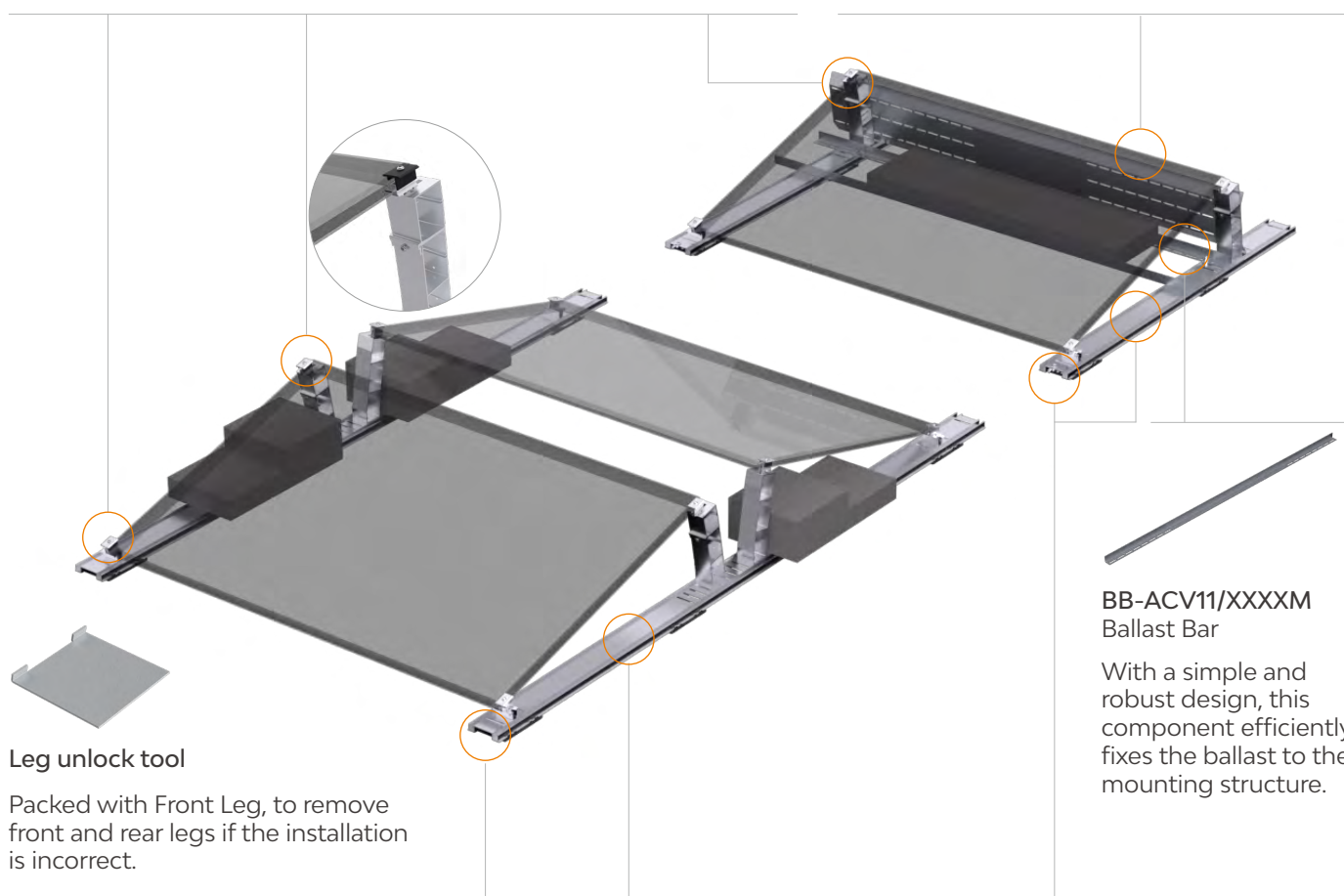
Leg unlock tool

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

BB-ACV11/XXXXM
Ballast Bar

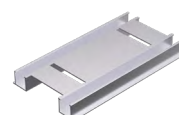With a simple and robust design, this component efficiently fixes the ballast to the mounting structure.

EZ-PM-AC
Protection Mat

SEB-ACV11/120
Start and End Base L120

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

CB-ACV11/EW/250
Connection Base, East-west

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

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 PVezRack® 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.
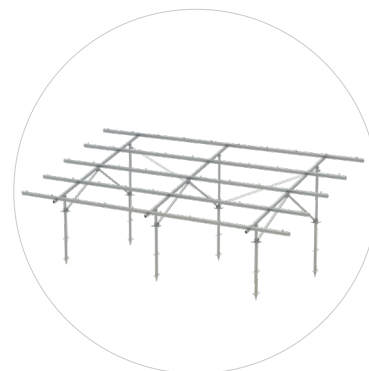
Versatility

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.
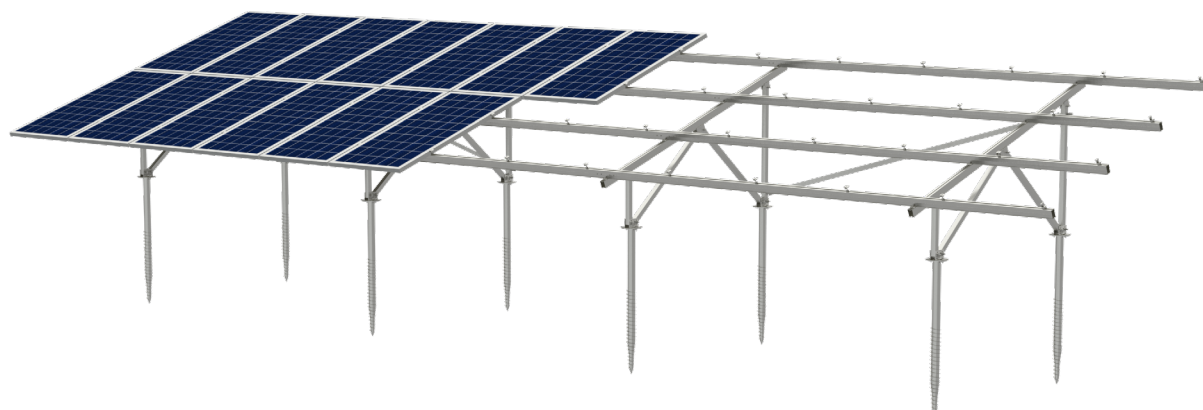
Technical Details

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: SUS 304
Land Slope	Up to 30° in East-west direction, no limitation in South-north direction
Span	≤5000 mm*
Standard	ASCE 7-10 | EUROCODE 0-9 I JISC 8955 | AS NZS 1170.2
Certification	TUV, CE
Warranty	12 years

*for other values, please consult with Clenergy

SolarTerrace MAC

Zinc-Aluminium-Magnesium Coating Steel Ground Mounting Solution

PVezRack® SolarTerrace MAC is a highly versatile ground-mounting soluiton 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, PVezRack® SolarTerrace MAC offers a reliable and durable solution.

Main Benefits
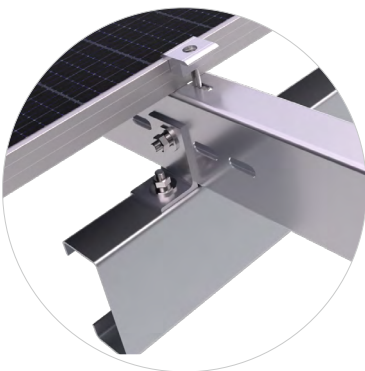
Easy and Quick Installation

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.
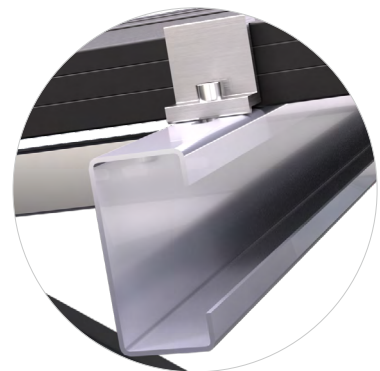
Excellent Flexibility

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 70m/s (ASCE7-10)
Snow Load	Up to 3.0 KN/m2
Tilt Angle	0-60°
Foundation	Ground Screw	Concrete
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	≤5000mm*
Standard	AS NZS 1170.2	EURCODE 0-9 I JISC 8955	ASCE 7-10
Certification	CE, ETL
Warranty	12 years

*for other values, please consult with Clenergy

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.
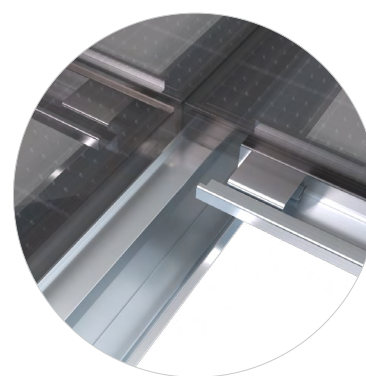
Main Benefits

Easy Installation

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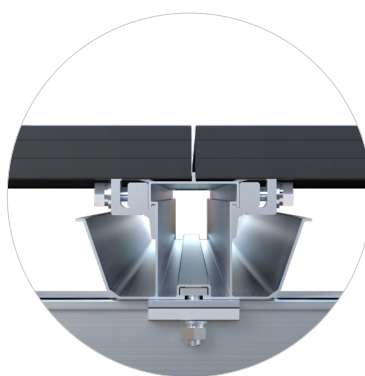
Safety

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 50m/s (3s gust, MRI = 50Y)
Tilt Angle	5° (standard)*
Material	Main Structure: AL6005-T5 Fasteners: SUS 304
Span	5500 mm (standard)*
Standard	ASCE 7-10 | EUROCODE 0-9 | JISC 8955 | AS NZS 1170.2
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 Clenergy

ezShade Razor

## Solar Parking Solution for Large Commercial and Utility Scale Projects

PVezRack® 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.
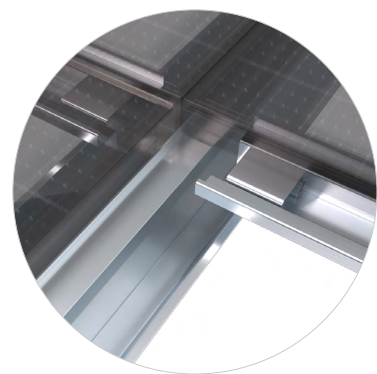
Main Benefits

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.
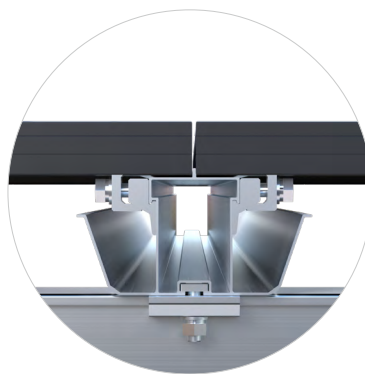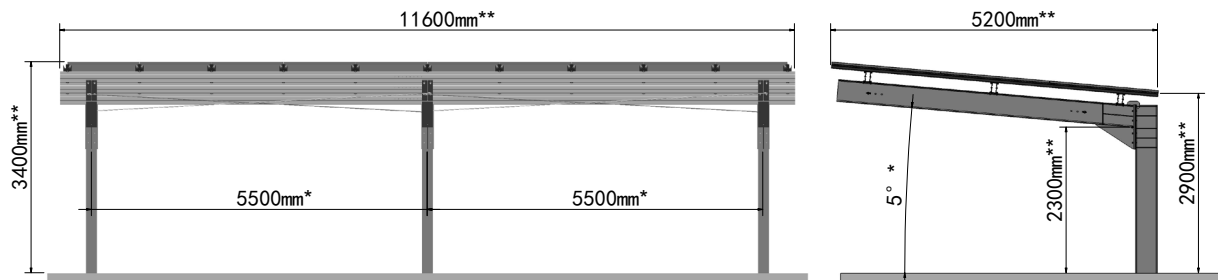
Safety

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.
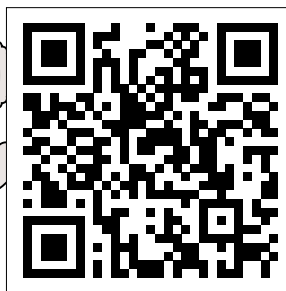
PV-ezRACK®

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 50m/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	ASCE 7-10 | EUROCODE 0-9 | JISC 8955 | AS NZS 1170.2
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

Merch Store

Merch Store

PV-ezRACK®

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A Clenergy Technologies Company