Solar Racking Solutions

PV Mounting & Tracking Systems



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STEEL

史蒂欧(上海)进出口有限责任公司

Steel （Shanghai） Import & Export Co., Ltd.



ABOUT US

Solar PV Mounting System>>

As one of the top manufacturers in the Solar PV Mounting System Industry, we have an excellent technical teams, sophisticated production equipments, and a broad production sites, specializing in the production of zinc-aluminum-magnesium brackets, carbon-steel brackets, aluminum alloy brackets and frames, C, Z, U-shaped steel and other cold-formed steel.

Our company has been engaged in the production of solar pv mounting system for many years. We have abundand experience of designing and production so that we can provide customers with the most effective suggestions and suitable solutions. Our company has more than 10,000 square meters of production space, large and more than 30 small cold bending and stamping equipments, and 15 assembly lines. Generally, the monthly output can reach 200 megawatts while the annual output can reach more than 50,000 tons. We promise that we must use our strong productivity to provide customers with the most timely and stable quality Services.

Centralized Ground-mounted PV System>>

Our company has a complete service system that can respond to customer feedback as soon as possible, solve customer problems and meet customers as quickly as possible. Our company can produce and process materials with specifications ranging from 21mm-320mm,materials Q195-Q235B, Q345B, etc.,and thicknesses ranging from 1.2mm-3.25mm. It can be made in according to the drawings provided by customers. At the same time, our comp at the comprehensive development and utilization of solar energy and is engaged in the development and management of large-scale photovoltaic power stations and distributed photovoltaic power stations. By integrating upstream and downstream resources, we can provide you with all-in-one solution of photovoltaic power stations.

10 years
industry experience

8 GW
Annual production capacity

1,000+
solar projects supported







ROOF MOUNTING SYSTEMS

01–02 Pitchd Roof Mounting Systems
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GROUND MOUNTING SYSTEMS

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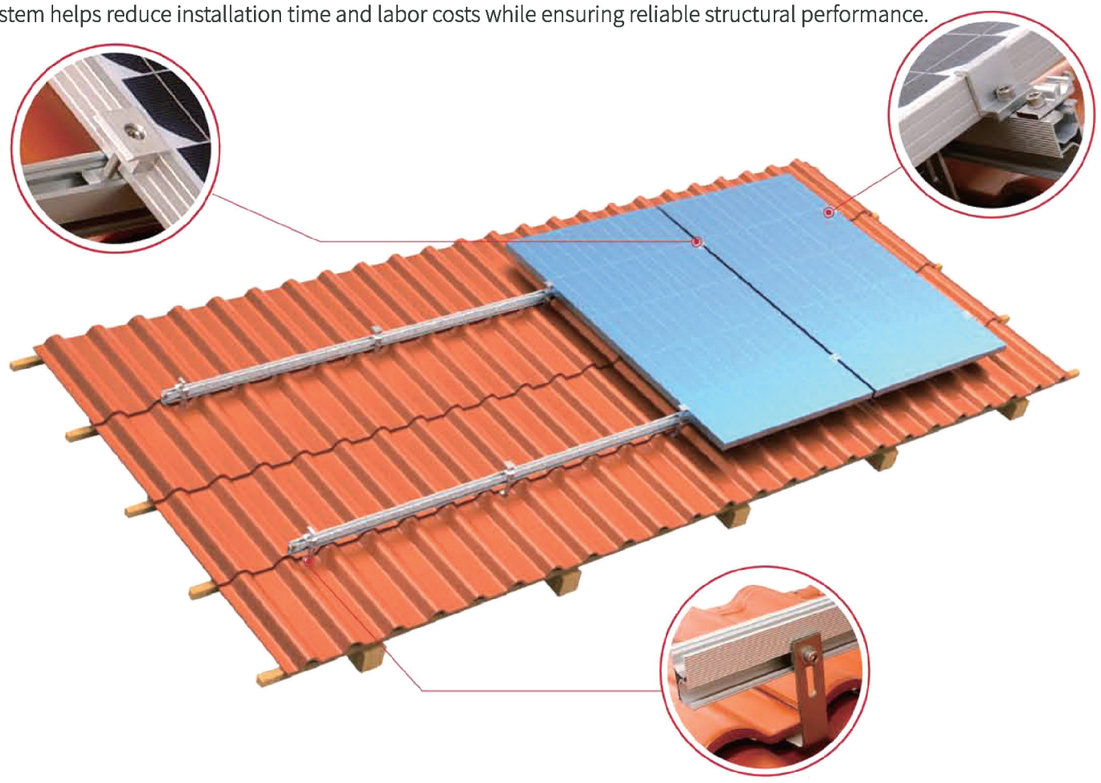
Pitched Tile Roof Mounting is designed for both residential and commercial rooftop solar applications.
Its patented, innovative design features standardized components and pre-assembled clamps, enabling fast and straight-forward installation.
This system helps reduce installation time and labor costs while ensuring reliable structural performance.



Components List



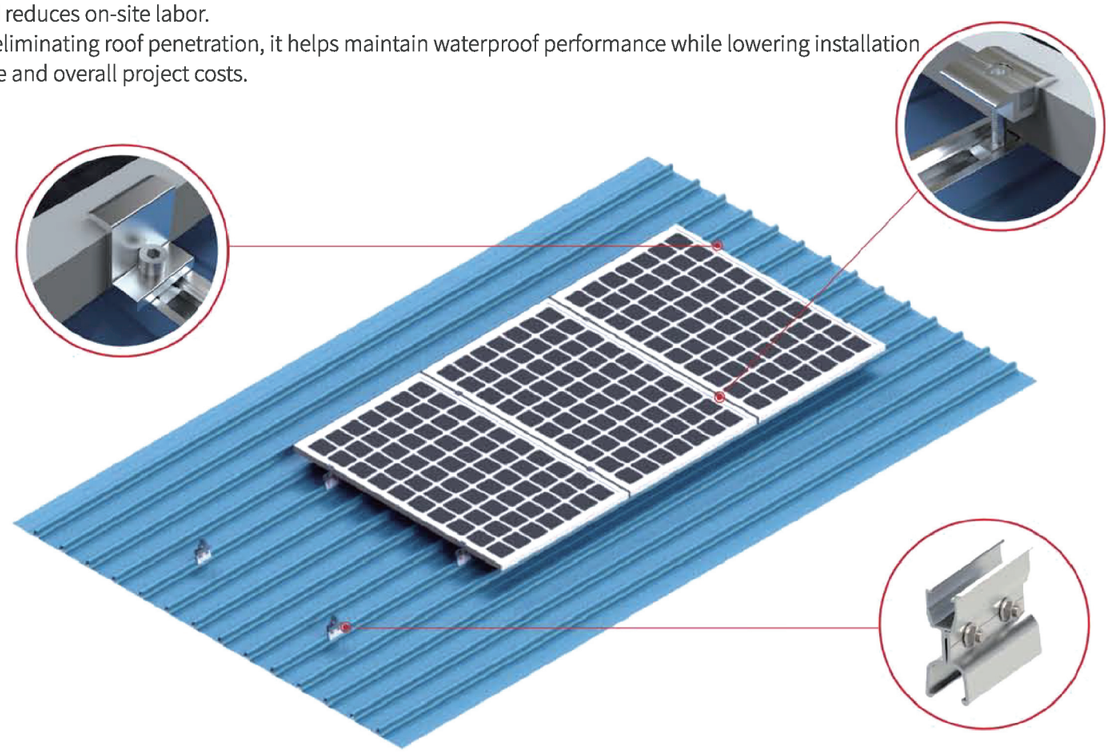




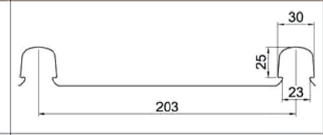
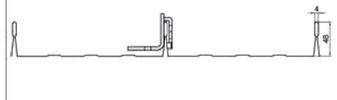
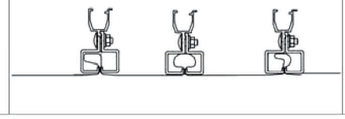
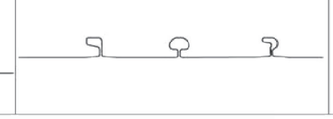




Standing Seam Roof Mounting is designed specifically for metal roofs, providing a non-penetrating mounting solution that preserves roof integrity.
Manufactured from lightweight aluminum, the system features a highly pre-assembled design that simplifies installation and reduces on-site labor.
By eliminating roof penetration, it helps maintain waterproof performance while lowering installation time and overall project costs.



Compatible Roof Profiles

Item No.	Installation Reference	Roof sheet Reference	Roof sheet Picture
TR-01(N)			
TR-03			
TR-04(N)			

Ballasted Mounting System

Ballasted Mounting System is designed for flat concrete roofs, providing a non-penetrating solution for projects with higher load and wind requirements compared to aluminum ballasted systems. The system uses rail-based support to securely mount modules without penetrating the roof surface and accommodates both landscape and portrait module orientations.



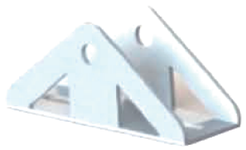
Components List





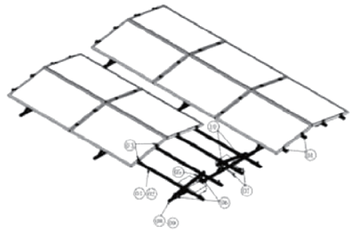








Advantages







1. Flexible panel orientation enables optimized solar exposure.
2.Non-penetrating design preserves roof integrity
3.Highly pre-assembled structure reduces installation time and labor costs.

Brief Installation Guide

1 Base C rail layout



2 Put foot base onto C rail



3 Fixed the ballasted support on foot base



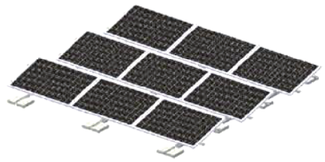
4 Fixed C rail on the ballasted support



5 Fixed the ballasted pan



6 Fixed panels with clamps on the rail



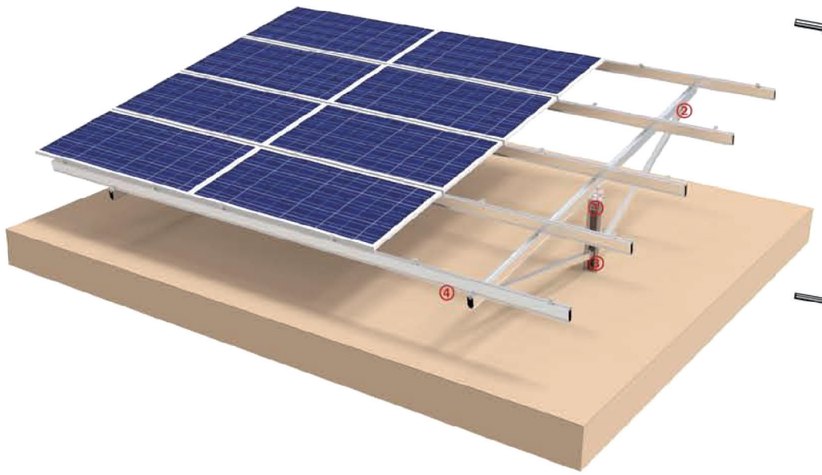
Packing



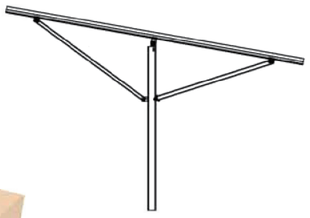


Pile Ground Mounting is designed for utility-scale solar projects, offering a cost -effective structure with fast and efficient installation.

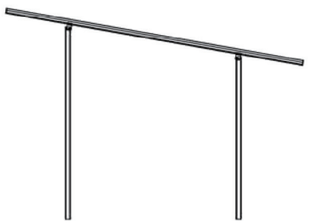
The system uses driven piles as the foundation, eliminating the need for ground screws or concrete footings while providing firm anchoring and long-term structural stability.



Single Pile type



Double post type



① Post with rack details



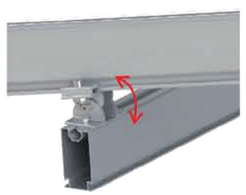
② Rack with bracing support details



③ Post with bracing support details

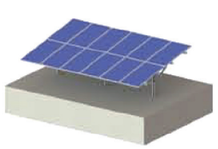


④ Racking and rail with adjustable connection

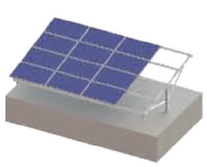


Advantages

1. More flexbile for panel layout

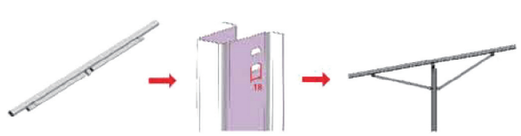


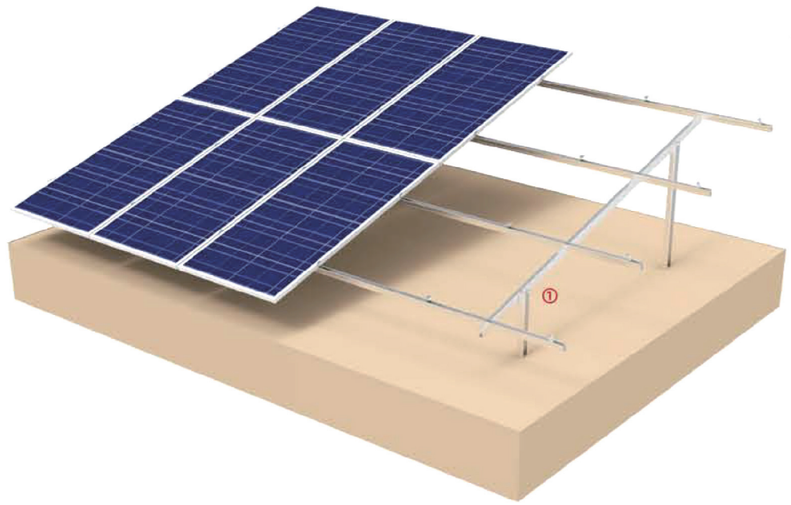
2 panels in portrait



4 panels in landscape

2. Pre-assembled structure makes the installation to be easier and lower cost.

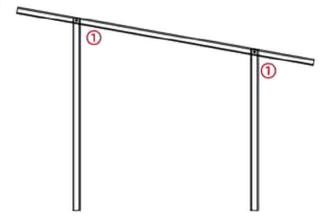




Single Pile type



Double post type



① Post with rack details



② Rack with bracing support detail for single post type

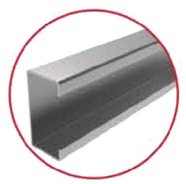


③ Post with bracing support detail for single post type



Advantages

1. High quality and durability materials are used.
2. Minimum material use and installation costs.
3. More flexible for the installation.



Material shape

Technical Data

Installation site :	Open field / Mountain
Module Angle :	0~45 degree
Max wind speed :	Up to 60m/s
Max snow load :	Up to 1.4KN/m2
Material :	Aluminum / Steel
Height:	Customized
Foundation :	Pile
Standard :	AS/NZS S1170 , JISC8955:2017, EU Standard

W-Type Steel Ground Mounting is designed for open-field ground-mounted solar installations. Constructed with a high-strength steel structure, the system provides robust structural support and long term durability for utility-scale and commercial solar projects.



Components List

Rail



Rail Connector



Support Beam



Leg



Connector



Foot Base



Mid Clamp



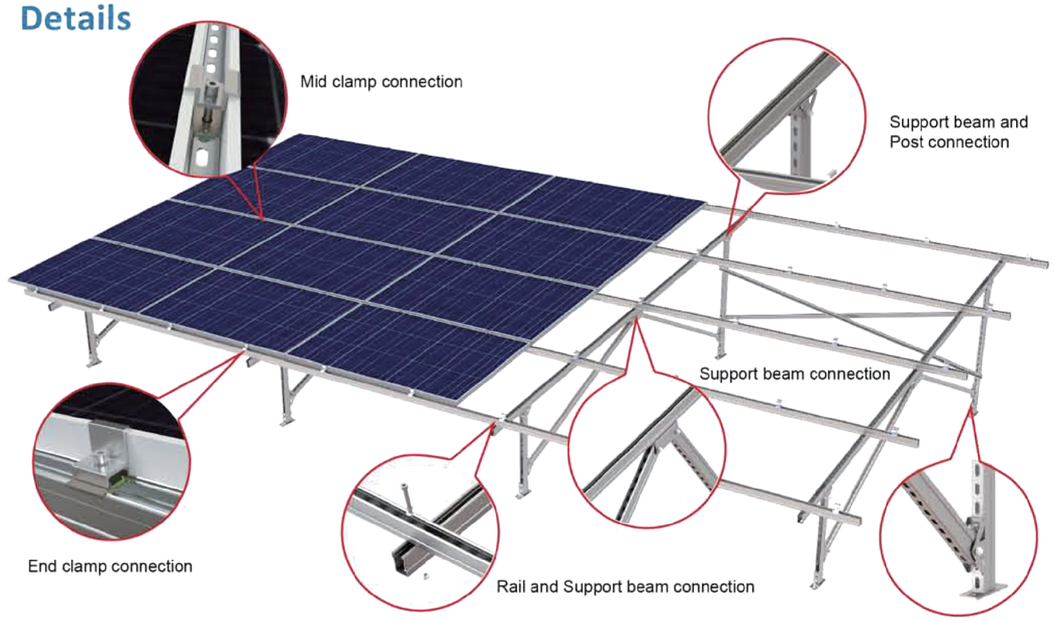
End Clamp



Technical Data

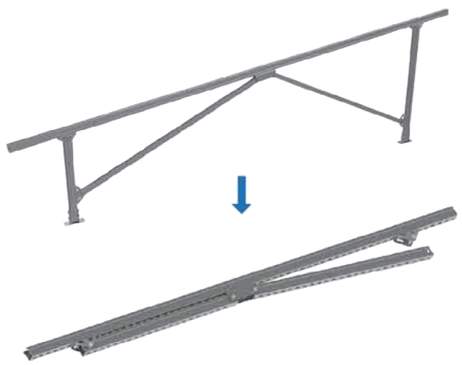
Mount type :	Ground Mounting Solar Panel Systems
Applicable site :	Open field
Applicable module :	Framed or frameless panel
Module orientation :	Landscape or portrait
Max wind load :	Up to130mph(60m/s)
Max snow load :	Up to 1.4KN/m2
Material :	S235 or ZAM & Stainless Steel 304
Tile angle :	0-60 degrees
Warranty :	10 years

Details



Packing Advantages

Support beams are pre-assembled prior to shipment, reducing on-site installation time and labor costs.





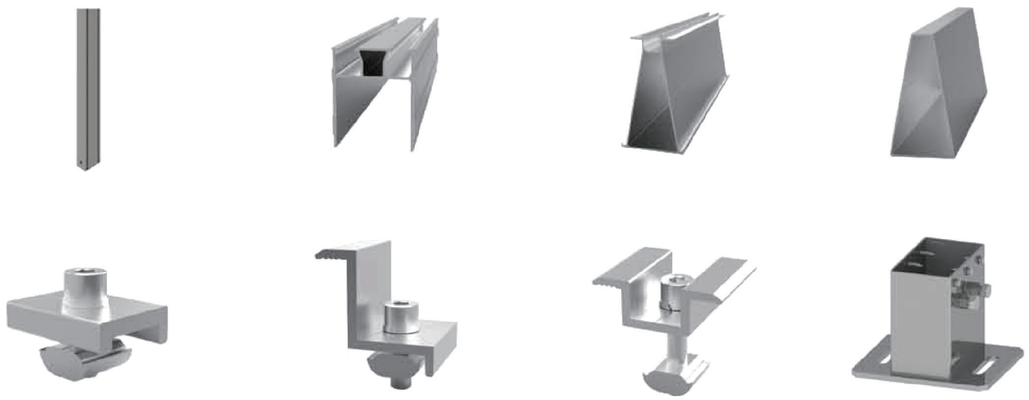
BIPV Waterproof Solar Carport System is a highly pre-assembled solution designed for residential and commercial applications.

Featuring an integrated waterproof structural design, the system provides reliable weather protection while enabling on-site solar power generation.

Constructed with aluminum structural components and stainless steel fasteners, it offers durable performance, corrosion resistance, and customizable capacity to meet project-specific requirements.



Components List

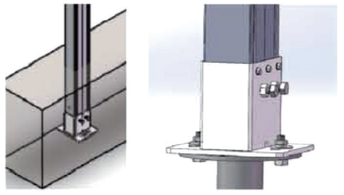


Waterproof drainage system



Connection Details

Pole and concrete/ground screw foundation



Pole and Beam

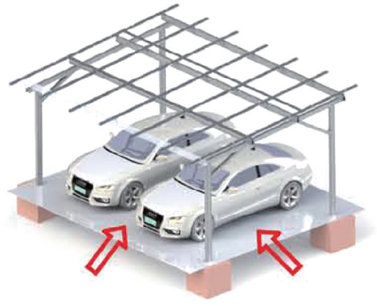


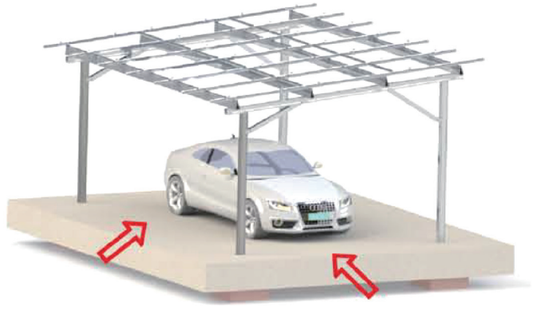
Beam and Rail



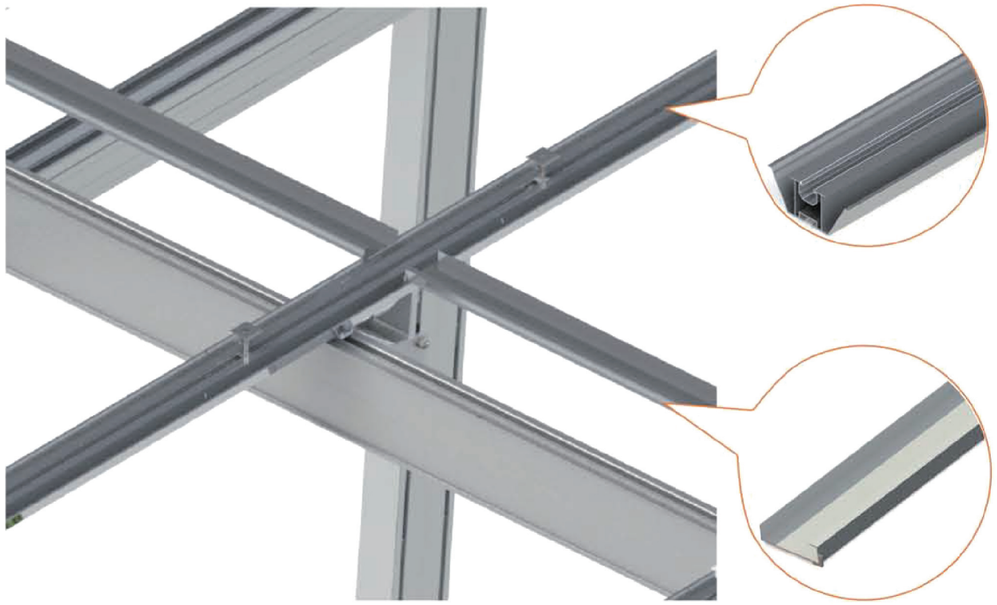
Features

Allow to park from all directions





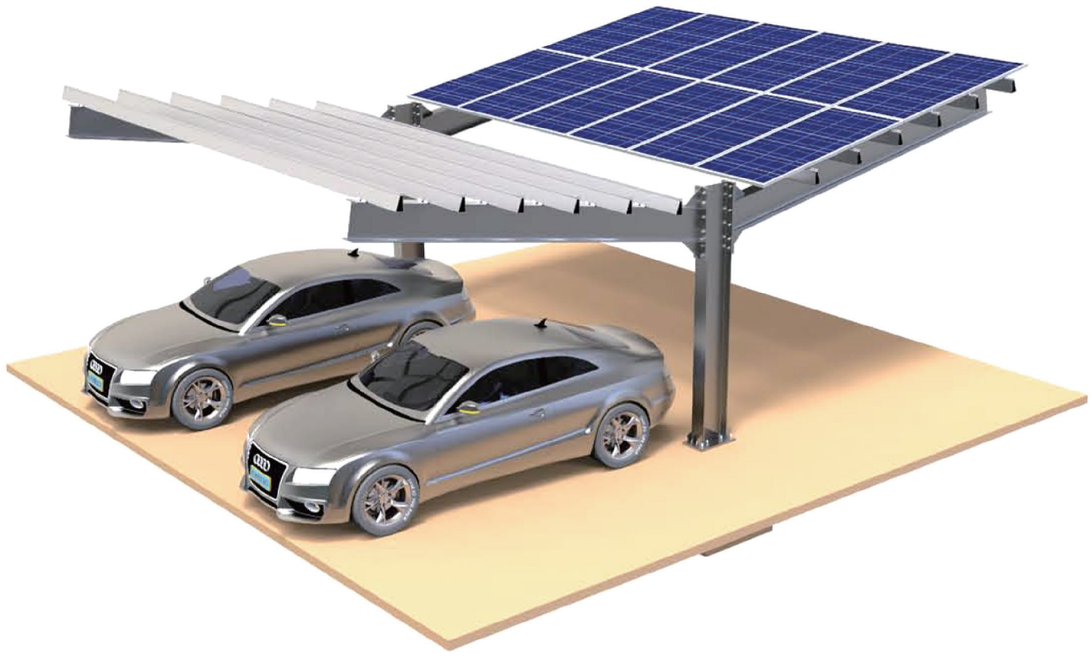
Waterproof solution



The integrated drainage and waterproof beam design allows the structure itself to be fully waterproof, eliminating the need for additional waterproof membranes.

single pole carport is designed for both commercial, utility and residential carport structures with easy installation and highly- preassembling. No welding and cutting are needed for the installation.

Advantage
1. Highly pre-assembled structure: It makes the installation easier and faster.
2. Easily parking: It allows you to park from any direction.
3. High strength: Its design and materials make the whole structure stronger.



Components List



Technical Features

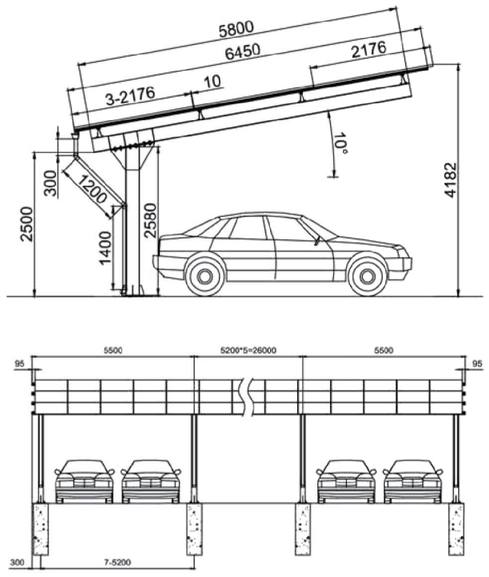
Panel orientation :	Landscape/Portrait
Foundation :	Concrete base
Panel tilt angles :	0-15degrees
Protection :	S235 Hot Dip Galvanized Steel

Different Types of Carport

1. One Side Carport



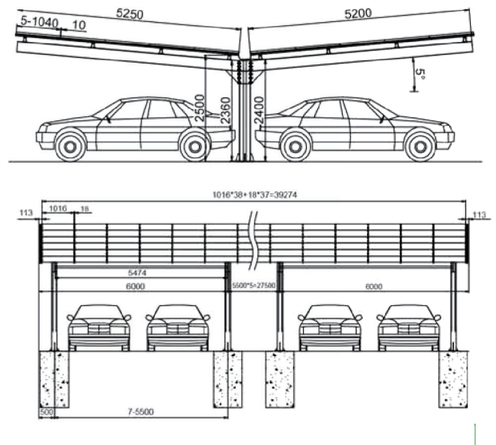
Technical drawing



2. Double-Sided Carport



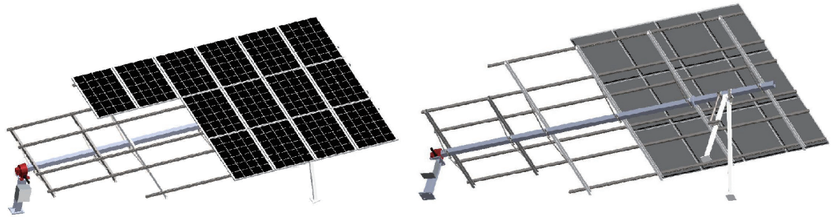
Technical drawing



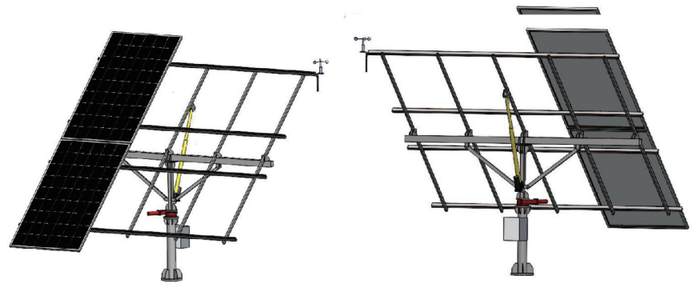


HYS:Dual Axis Solar Tracker
PV:Number Of Solar Panel
30:300w~375w
50:500w~570w
AB: A-YAxis Linear Drive
B-XAxis Slewing Drive

Model	Number of Solar Panel	Grid Area	Size Of Solar Panel	Wind Load	Altitude Tracking Range(°)	Control Algorithm	Protection Level
SZ-6PV-30-AS	6	10m²	≤1640*992*35	37m/s	(0°~60°) Max72°	Astronomical algorithm + position sensor cosed loop control	IP65
SZ-8PV-30-AS	8	13m²					
SZ-10PV-30-AS	10	16m²					
SZ-12PV-30-AS	12	20m²					
SZ-16PV-30-AS	16	26m²					
SZ-20PV-30-AS	20	32m²					
SZ-22PV-30-AS	22	35m²					
SZ-40PV-30-AS	40	64m²					

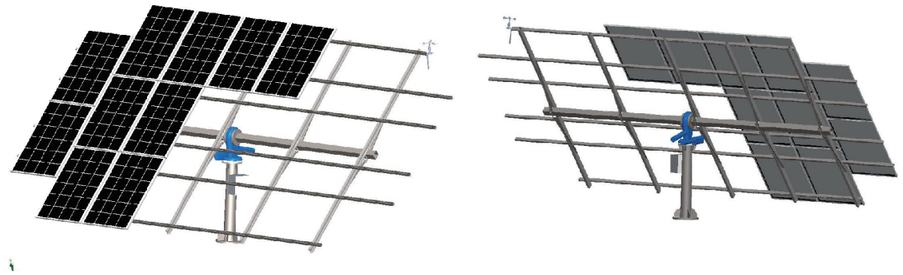


Model	Number of Solar Panel	Grid Area	Size Of Solar Panel	Wind Load	Altitude Tracking Range(°)	Control Algorithm	Protection Level
SZ-6PV-30-AS	6	19m²	≤2384*1303*35	37m/s	(0°~60°) Max72°	Astronomical algorithm + position sensor cosed loop control	IP65
SZ-8PV-50-AS	8	25m²					
SZ-10PV-50-AS	10	31m²					
SZ-12PV-50-AS	12	38m²					
SZ-16PV-50-AS	16	50m²					
SZ-19PV-50-AS	19	59m²					
SZ-22PV-50-AS	22	68m²					
SZ-40PV-50-AS	40	124m²					



HYS:Dual Axis Solar Tracker
PV:Number Of Solar Panel
30:300w~375w
50:500w~570w
AS: A-YAxis Linear Drive
S-×Axis Slewing Drive

Model	Number of Solar Panel	Grid Area	Size Of Solar Panel	Wind Load	Wind Azimuth Tracking Range(°)	Altitude Tracking Range(°)	Control Algorithm	Protection Level
SZ-6PV-30-AS	6	10m²	≤1640*992*35	37m/s	(-180°~+180°) Max360°	(0°~60°) Max72°	Astronomical algorithm + position sensor cosed loop control	IP65
SZ-8PV-30-AS	8	13m²						
SZ-10PV-30-AS	10	16m²						
SZ-12PV-30-AS	12	20m²						
SZ-6PV-50-AS	6	19m²	≤2384*1303*35					
SZ-8PV-50-AS	8	25m²						
SZ-10PV-50-AS	10	31m²						
SZ-12PV-50-AS	12	38m²						



Model	Number of Solar Panel	Grid Area	Size Of Solar Panel	Wind Load	Wind Azimuth Tracking Range(°)	Altitude Tracking Range(°)	Control Algorithm	Protection Level
SZ-16PV-30-AS	16	26m²	≤1640*992*35	37m/s	(-180°~+180°) Max360°	(0°~60°) Max72°	Astronomical algorithm + position sensor cosed loop control	IP65
SZ-20PV-30-AS	20	32m²						
SZ-22PV-30-AS	22	35m²						
SZ-28PV-30-AS	28	45m²						
SZ-16PV-50-AS	16	50m²	≤2384*1303*35					
SZ-20PV-50-AS	20	59m²						
SZ-22PV-50-AS	22	68m²						
SZ-28PV-50-AS	28	75m²						



ITEM NO.	MATERIAL	SPEC.	WEIGHT	SURFACE
R5	Al 6005-T5	Customized	-	Anodized



ITEM NO.	MATERIAL	SPEC.	WEIGHT	SURFACE
R5A	Al 6005-T5	Customized	-	Anodized



ITEM NO.	MATERIAL	SPEC.	WEIGHT	SURFACE
60#-70 60#-80	Al 6005-T5	Customized	-	Anodized



ITEM NO.	MATERIAL	SPEC.	WEIGHT	SURFACE
60#-85 60#-95	Al 6005-T5	Customized	-	Anodized



ITEM NO.	MATERIAL	SPEC.	WEIGHT	SURFACE
75-130	Al 6005-T5	Customized	-	Anodized



ITEM NO.	MATERIAL	SPEC.	WEIGHT	SURFACE
10-128	Al 6005-T5	Customized	-	Anodized



ITEM NO.	MATERIAL	SPEC.	WEIGHT	SURFACE
R11	Al 6005-T5	Customized	-	Anodized



ITEM NO.	MATERIAL	SPEC.	WEIGHT	SURFACE
R8	Al 6005-T5	Customized	-	Anodized



ITEM NO.	MATERIAL	SPEC.	WEIGHT	SURFACE
U	Steel	Customized	-	-



ITEM NO.	MATERIAL	SPEC.	WEIGHT	SURFACE
C	Steel	Customized	-	-



ITEM NO.	MATERIAL	SPEC.	SURFACE
IC4-30	Al 6005-T5	30 mm	Anodized
IC4-35	Al 6005-T5	35 mm	Anodized
IC4-40	Al 6005-T5	40 mm	Anodized
IC4-45	Al 6005-T5	45 mm	Anodized



ITEM NO.	MATERIAL	SPEC.	SURFACE
IC-III-30	Al 6005-T5	30 mm	Anodized
IC-III-35	Al 6005-T5	35 mm	Anodized
IC-III-40	Al 6005-T5	40 mm	Anodized
IC-III-45	Al 6005-T5	45 mm	Anodized



ITEM NO.	MATERIAL	SPEC.	SURFACE
EC III-30	Al 6005-T5	30 mm	Anodized
EC III-35	Al 6005-T5	35 mm	Anodized
EC III-40	Al 6005-T5	40 mm	Anodized
EC III-45	Al 6005-T5	45 mm	Anodized



ITEM NO.	MATERIAL	SPEC.	SURFACE
IC-ST2-30	Al 6005-T5	30 mm	Anodized
IC-ST2-35	Al 6005-T5	35 mm	Anodized
IC-ST2-40	Al 6005-T5	40 mm	Anodized
IC-ST2-45	Al 6005-T5	45 mm	Anodized



ITEM NO.	MATERIAL	SPEC.	SURFACE
EC-ST2-30	Al 6005-T5	30 mm	Anodized
EC-ST2-35	Al 6005-T5	35 mm	Anodized
EC-ST2-40	Al 6005-T5	40 mm	Anodized
EC-ST2-45	Al 6005-T5	45 mm	Anodized



ITEM NO.	MATERIAL	SPEC.	SURFACE
IC 5A-30	Al 6005-T5	30 mm	Anodized
IC 5A-32	Al 6005-T5	32 mm	Anodized
IC 5A-35	Al 6005-T5	35 mm	Anodized
IC 5A-40	Al 6005-T5	40 mm	Anodized



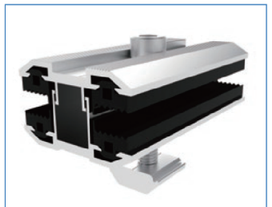
ITEM NO.	MATERIAL	SPEC.	SURFACE
EC 5A-30	Al 6005-T5	30 mm	Anodized
EC 5A-32	Al 6005-T5	32 mm	Anodized
EC 5A-35	Al 6005-T5	35 mm	Anodized
EC 5A-40	Al 6005-T5	40 mm	Anodized



Photovoltaic module mounting solutions



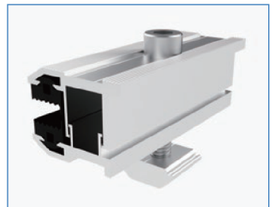
Product Name: Medium Pressure
Product Number: ING-SMC
Material: AL6005-T5
Product dimensions: 35mm x 30/32/35/38/40/45/50mm



Product Name:
Thin Film Medium Pressure
Product Number: ING-TMC
Material: AL6005-T5
Product size: 46mmx80mm



Product Name: Side Pressure
Product Number: ING-SEC
Material: AL6005-T5
Product dimensions: 35mm x 30/32/35/38/40/45/50mm



Product Name:
Thin Film Side Pressure
Product Number: ING-TEC
Material: AL6005-T5
Product size: 36mmx80mm

Frameless Module Clamp



Other supporting accessories for photovoltaic installation



Product name:
Standard slider nut (block)
Material: AL6005-T5
Product specifications: 20mmx23.7mm



Product Name:
Standard Guide Rail Connector
Material: AL6005-T5
Product specifications: Length 140mm



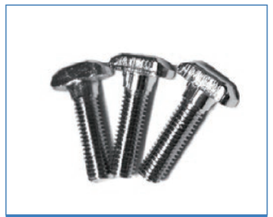
Product Name:
DC Switch Isolator Bracket
Material: SUS304
Product specifications: 10mmx24mm



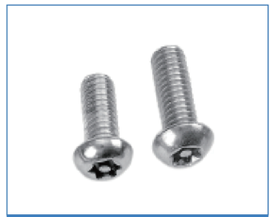
Product Name: Hexagon Bolt
Material: SUS304
Product specifications: M8x20-80



Product Name: Cart Bolt
Material: SUS304
Product specifications: M10x25, M10x30



Product Name: T-Bolt
Material: SUS304
Product specifications: M8x25-60



Product Name: Anti-theft Bolt
Material: SUS304
Product specifications: M8x20-60



Product Name: Expansion Screw
Material: SUS304
Product specifications: M6x60, M8x60



Product Name: Self-tapping Screw
Product Material: SUS410 or carbon steel
Product specifications: Φ5.5x19, Φ6.3x60, Φ6.3x65,Φ6.3x80



Product Name: Flange Nut
Material: SUS304
Product specifications: M6, M8, M10

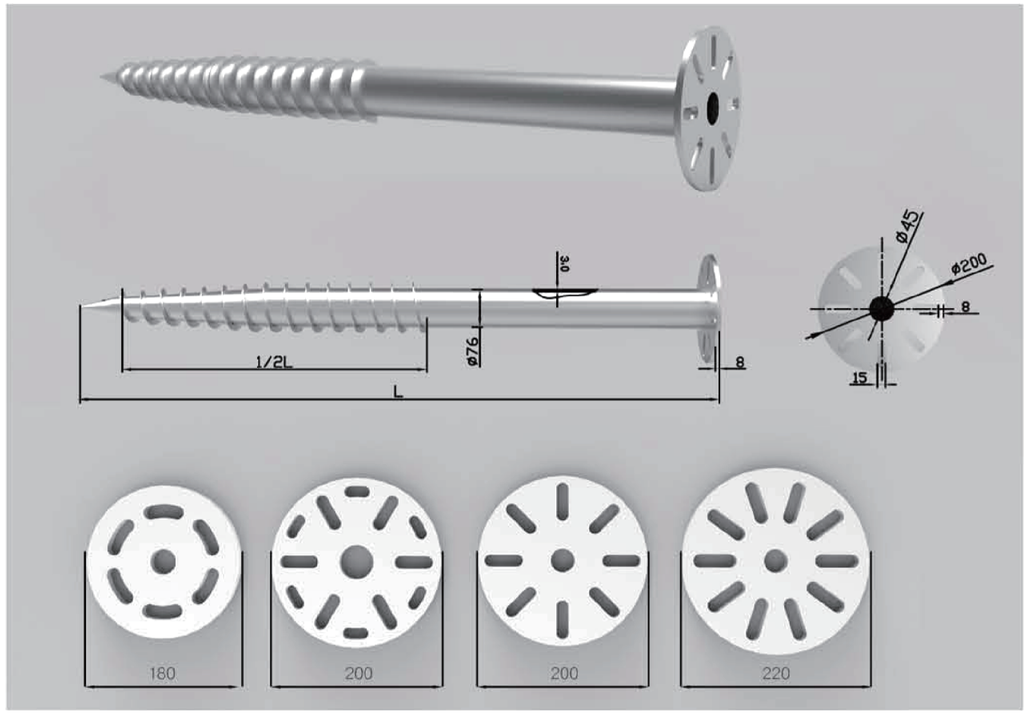


Product Name: Gasket
Material: SUS304
Product specifications: M6, M8



Product Name: Butterfly Gasket
Material: SUS304
Product specifications: M6, M8

Ground Screw is made of S235 material. We have flange top and tube top types with different specification. Our standard thickness is 2.75mm, 2.5mm and 3mm and length with 1200mm, 1600mm, 1800mm, 2000mm. The length and size could also be customized. It can be used for many kinds of application, like Timer-Frame Construction; Advertising and Traffic Systems; Urban, Garden and Landscape Consctruction; Hall and Container Construction; Fencing Systems, Solar Systems; Flag Poles & Banners etcs.



Brief Introduction

Material:S235
Surface:Hot Dip Galvanization
Thickness:3.0mm/2.75mm/2.5mm/3.5mm
Series:Flange Top, Tube Top

Salt spray test

Advantages

01 **Compatibility with all type of structures.**
Our technical department will adapt the head of our ground screw piles to whatever the customer need.

02 **Foundation solution concrete free**
No need of concrete base.

03 **Surrounding areas remains unspoiled**
The special configuration of our products allows the insertion without performing land preparation works, which allows a significant cost reduction.

04 **Easy removal, simple and easy to relocate**
One of the main advantages of our ground screw piles is the possibility of removing them, reducing the environmental impact and minimizing the removing costs.

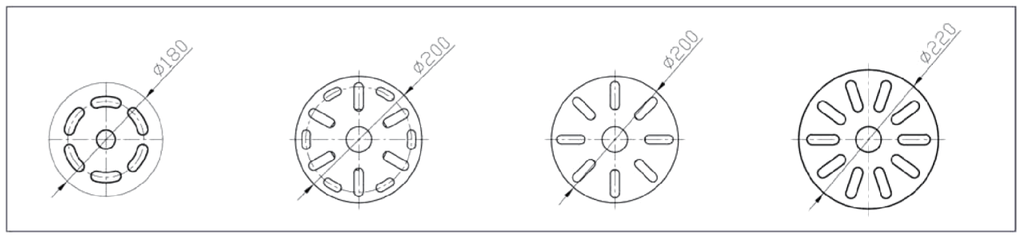
Ground Screw



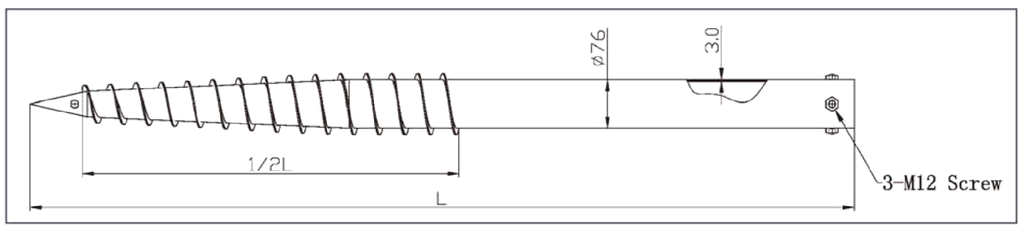
Specification

NO	Code1	Surface	Material	H(mm)	D(mm)	Galvanized Surface	Thickness
01	F76×L— 2	Hot Galvanized	S235	Customized	76	≥ 80 μm	3.5mm/ 2.75mm/ 2.5mm/ 3.0mm
02	F76×L— 4			Customized	76	≥ 80 μm	
03	F76×L			Customized	76	≥ 80 μm	
04	N76×L			Customized	76	≥ 80 μm	
05	F76×L— A			Customized	76	≥ 80 μm	

Flange Type



Tube Type





10MW in Mongalia



200KW in Qatar



400kw in Brazil



1MW in Botswana



1MW in Morocco



500kw in Saudi Arabia



2MW in Kenya



2MW in Indonesia



3MW in Saudi Arabia



3MW in Spain



6MW in Peru



5MW in Brazil



200kw in Dubai



700kw in Bangal



500kw in Oman



1MW in Spain