BRILLIANCE
CHINESE ALUMINUM EXPERT SINCE 2001

CONTRIBUTE TO

ZERO CARBON WORLD

BRILLIANCE GROUP

STRIVE TO BECOME YOUR TRUSWORTHY PARTNER

+86-757 8556 3891

info@aagintr.com

www.hhalum.com

Global Innovative

PV System
Solution Provider

BRILLIANCE
CHINESE ALUMINUM EXPERT SINCE 2001

As an Industry-Leading Service Provider and Supplier of Photovoltaic Intelligent Tracking Solutions, We are Committed to Sustainable Development and Fulfilling Social Responsibilities.

Provide High-quality Clean Energy for the Sustainable Development of Human Society

Contribute to Zero Carbon World

Environment-friendly Production

Reduce Scrap Rates, Reduce Energy Consumption and Waste Emissions;
Pass ESG Certification In 2022; ISO14067 (Carbon Label Standard) and ISO 14064 (Carbon Footprint Standard) In 2023

Empower the World Win-win Partnerships

Powerway has more than 400 Clients and Completed 1500+ Photovoltaic Power Projects Around the World;
Increasing Power Generation by 26% and Yield by 10-15%.

Technological Innovation

Powerway Participated in Drawing Up the Domestic Industry Standards. Built an International Standard R&D Laboratory and Contribute to the Innovation of Industry Technology.;
Continuously Devote to the PV Solution More Stable, More Energy-saving.

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About Us :

Guangdong Baosong Industry Technology Co., Ltd. founded in 2010.is a leading global solutions provider of solar mounting systems, with headquarter in Foshan city, Guang Dong province, China andbranch office in Czech/Japan/Malaysia/Philippines. With 14 years of commitment to innovation and reliability, our products meet international certification standards,such as BV,CE,IEC ,TUV and collaboration with CPP and RWDI. Specializing in utility-scale solar projects, our solutions are known for their outstanding economy, durability, and reliability. To date, we have delivered over 20GW of products and services in 80+ countries. contributing to clean, sustainable power and the decarbonization of society. continues to be a trustedname, with a strong global presence and strategic partnerships in the renewable energy industry.

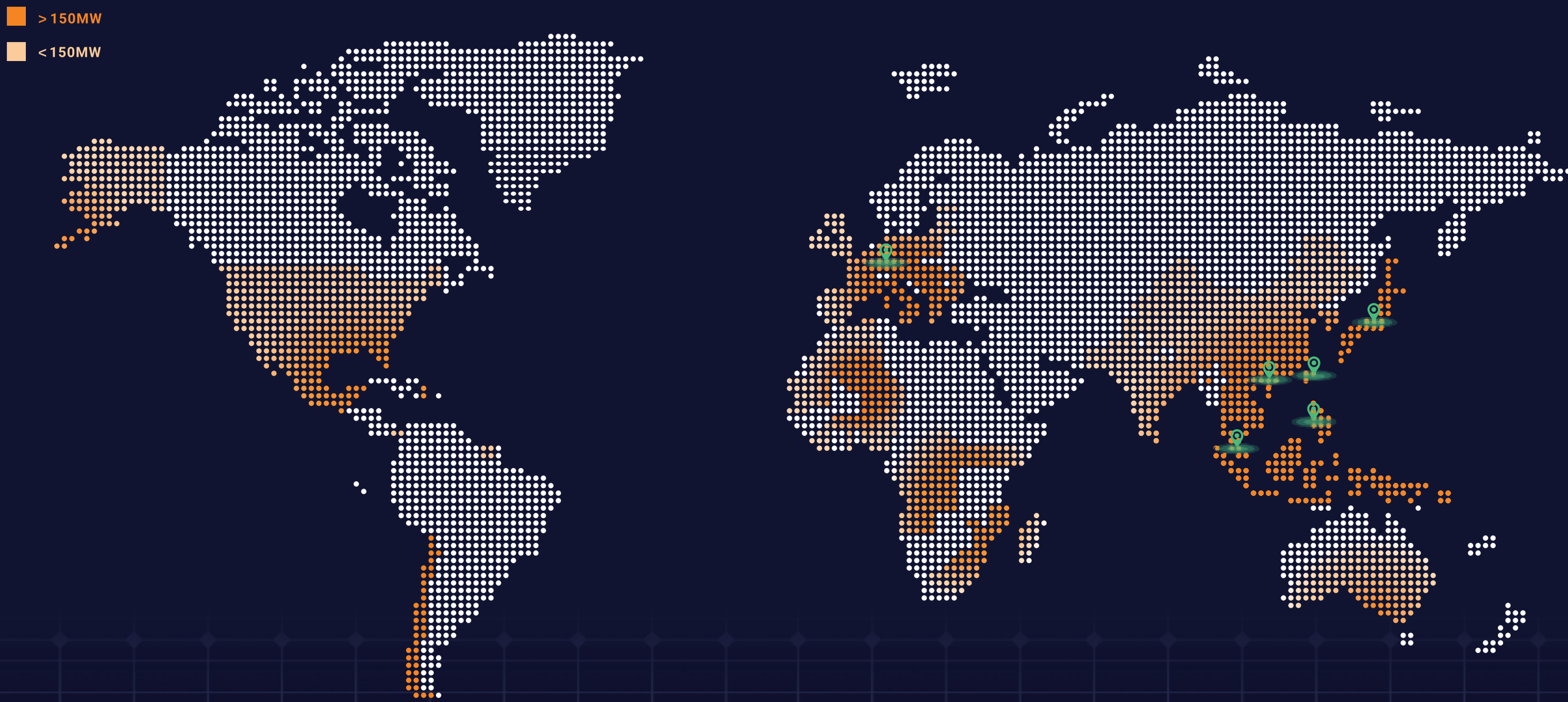
20 GW+
Cumulatively Installed

86
Countries and Regions

14
Years Specialized in PV Systems

110 +
Patents

6 GW+
Annual Production Capacity



The Cumulative Installed PV Power

20GW+

Global Subsidiaries & Branches

- **China** — Foshan
- **Czech Republic** — Prague
- **Japan** — Tokyo
- **Philippines** — Manila
- **Malaysia** — Kuala Lumpur
- **China** — Taiwan

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Powerway is committed to providing efficient clean energy solutions and continuously optimizing product performance.

- International Standardization Laboratory
- System Optimization Study
- Racking Performance Evaluation and Limiting Condition Test
- Scenario Adaptability Study
- System Application Lifetime Study

31+
Patent

82
Utility Model Patents

4
Design Patent

Professional Engineering Support

Structural Design
- Material Selection
- Framework Design
- Construction Method
- Mechanical Design

Foundation Design
- Pile Foundation Type Review
- Foundation Size and Bearing Capacity Design

Construction Design
- Layout Design, Installation Drawing

Accessories List
- Accessories and Consumables List
- Unloading and Construction Tool List

Technical Support
- Pre-project design and Basic Construction Guidance
- Construction Site Technical Support

After-sales Service
- Operation and Maintenance Guidance Documents
- Maintenance Recommendations

Turnkey Service for Every Project

- Construction Guidance
- Electrical Commissioning
- Maintenance Guidance

1500 +
Project Implementation Experience

60 +
Engineers for Design and Technical Support

24
On-line Service Support

48
Provide Customized Design Solutions

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Solar Tracking

System

This is the basic model of PowerFit. It is driven by the horizontal single axis and arranged modules in single portrait. PowerFit adapts monofacial and bifacial modules(include: Frameless module).The new design improves the performance of wind load and snow load while the high power modules were installed.

System Parameter

Capacity	44.2~53.1 kW/Tracker
Area	0.9~1.7 ha/MW

Mechanical Parameter

Drive System	Slew Drive, Geared DC Motor
Strings on Tracker	3 strings (182mm/210R, 545-600Wp) & 2 strings (210mm 600-670Wp)
Slope	North-South≤15%,up to 25% is Customized as Request
Module Type	Structure Adaptable to 166/182/210R/210 P/N Type Modules
Configuration	1P
Protection Wind Speed	18m/s, MRI=50
Survival Wind Speed	50m/s(ASCE 7-10), Higher Wind Load Available

Electrical Technical Parameter

Power Supply	L+N 90~260VAC (Wide Voltage Input), 37 VDC (Self-powered Module)

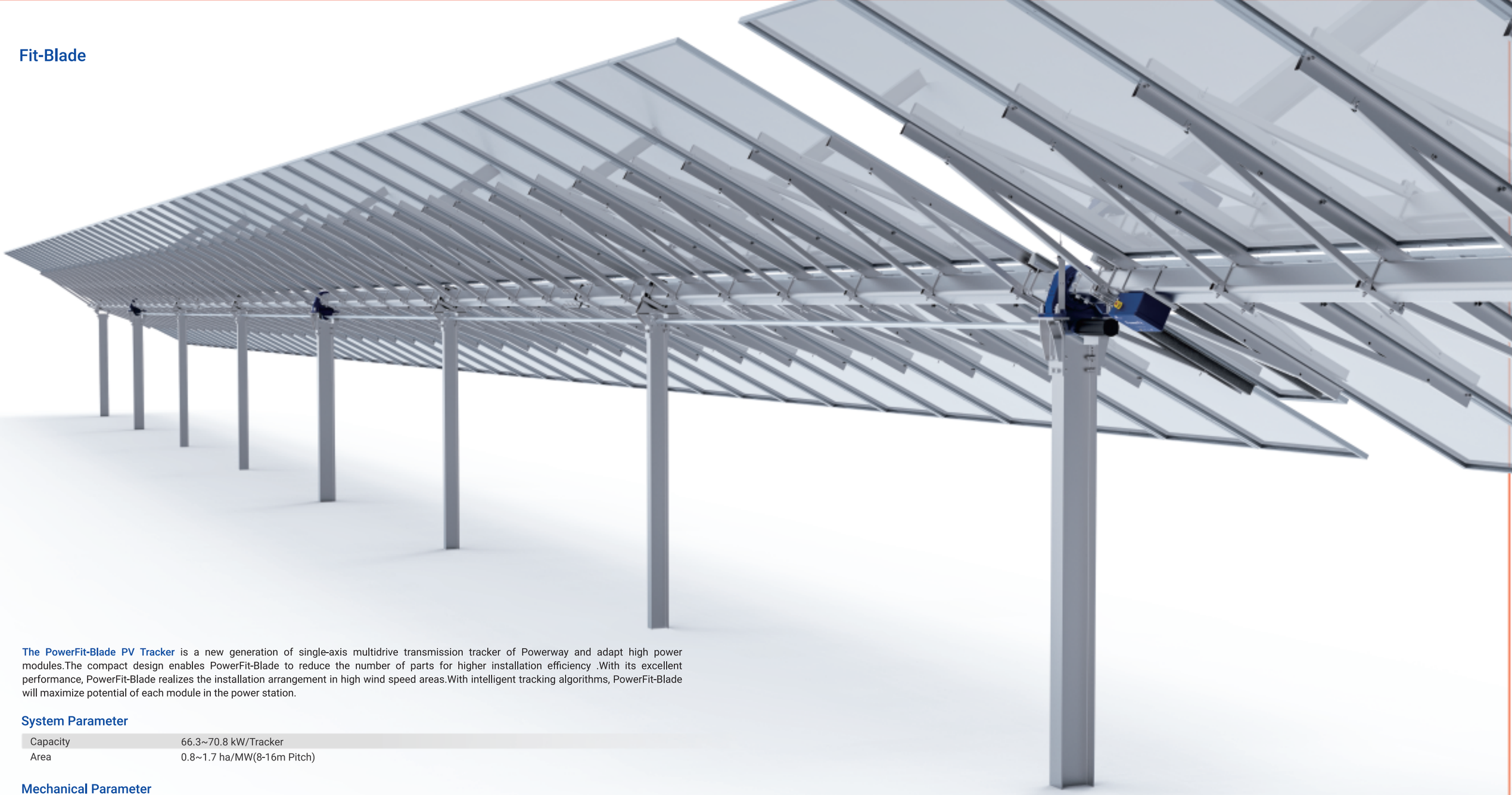
MCU（32bit）
Astronomical Algorithm
Tilt Sensor Close Loop

Intelligent Operation
and Maintenance

PowerSmart One
Backtracking
Astronomical Algorithm

SCADA

ZigBee、RS485
ZigBee+RS485



The PowerFit-Blade PV Tracker is a new generation of single-axis multidrive transmission tracker of Powerway and adapt high power modules.The compact design enables PowerFit-Blade to reduce the number of parts for higher installation efficiency .With its excellent performance, PowerFit-Blade realizes the installation arrangement in high wind speed areas.With intelligent tracking algorithms, PowerFit-Blade will maximize potential of each module in the power station.

System Parameter

Capacity	66.3~70.8 kW/Tracker
Area	0.8~1.7 ha/MW(8-16m Pitch)

Mechanical Parameter

Drive System	Distributed-drived Design, Slew Drive
Strings on Tracker	4 strings (182mm 545-580Wp) & 3 string (210mm 600-670Wp)
Slope	North-South≤15%,up to 25% is Customized as Request
Module Type	Structure Adaptable to 166/182/210R/210 P/N Type Modules
Configuration	2P
Protection Wind Speed	20m/s(ASCE 7-10)
Survival Wind Speed	47m/s, MRI=50, Higher Wind Load Available

Electrical Technical Parameter

Power Supply	L+N 90~260VAC (Wide Voltage Input), 37 VDC (Self-powered Module), 1000-1500VDC (PV String Power)

Independent Horizontal Single-axis

MCU（32bit）Astronomical Algorithm Tilt Sensor Close Loop

Intelligent Operation and Maintenance

PowerSmart One Backtracking Astronomical Algorithm

SCADA

The PowerFit-Agri PV Tracker is a groundbreaking solution merging solar PV with agriculture. With a unique rotation range, it provides new farming scenario during harvest season, boosting farming efficiency. This design not only maximizes energy use from fixed tilted mounting but also introduces solar tech to agriculture, offering a sustainable and efficient energy solution for farms.

System Parameter

Capacity	31.25~32 kW / Array
Area	0.6 ha/MW(6m Pitch)

Mechanical Parameter

Drive System	Slew Drive, Geared DC Motor
Strings on Tracker	1-2 Strings (Design For Aiko N-Type Abc Module)
Slope	North-South≤15%(Customizable), East-West 15%
Module Type	IKO-G-MCH72Dw 625wp-645wp
Configuration	1P
Protection Wind Speed	10 m/s
Survival Wind Speed	25 m/s

Electrical Technical Parameter

Power Supply	100-230 VAC, 37 VDC Self-Power Module, Including Battery

Vertical Rotation
Rotates up to 90 Degrees Enabling Harvest Activity

Reduced Height
Rational Design Reduces Overall Height, Minimizing Steel Use, Lowering Cost.

Environmentally Friendly
Eco-conscious Design Provides Clean, Sustainable Energy.

Versatile Applications
Offering a Flexible Energy Solution for Diverse Agricultural Scenarios.

Easy Installation
Simple Yet Robust Structure Ensures Easy Installation.

Intelligent Tracking Algorithm

Intelligent Operation
and Maintenance

- Dynamically Monitor The Operating Status Of The Bracket
- Real-Time Display Of Bracket Failure Alarms
- Storage Bracket Key Information Log

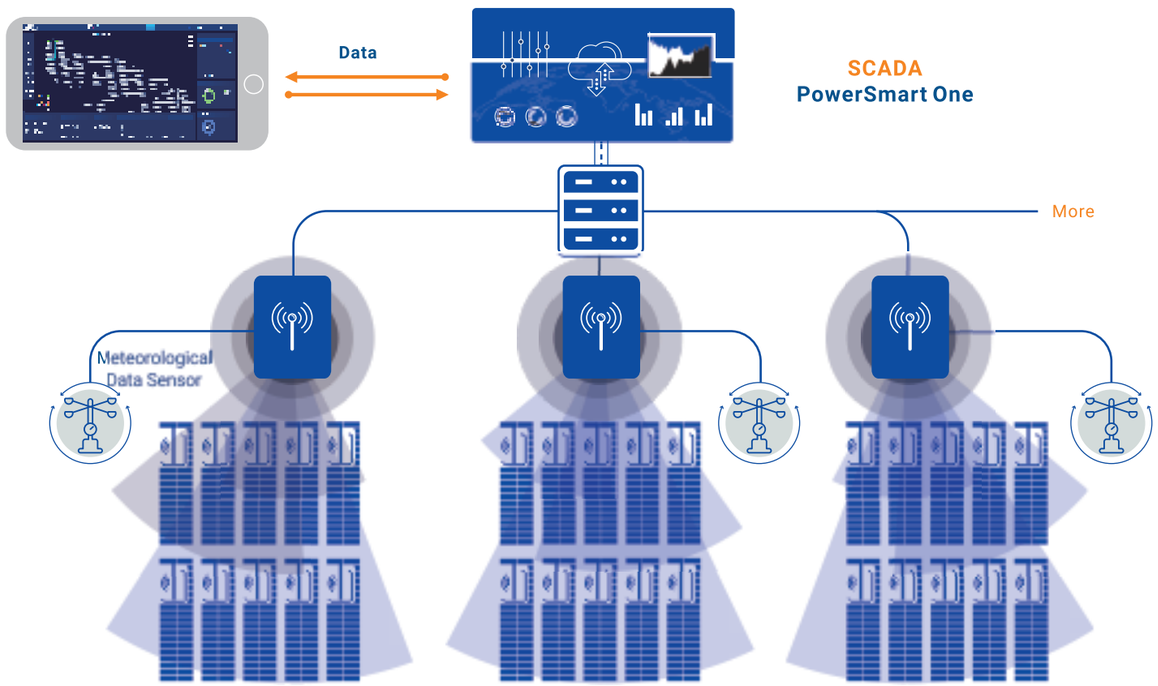
Improve Power
Generation Efficiency

- Control Bracket Operating Mode & Target Angle
- Set Stand Parameters Individually Or In Groups

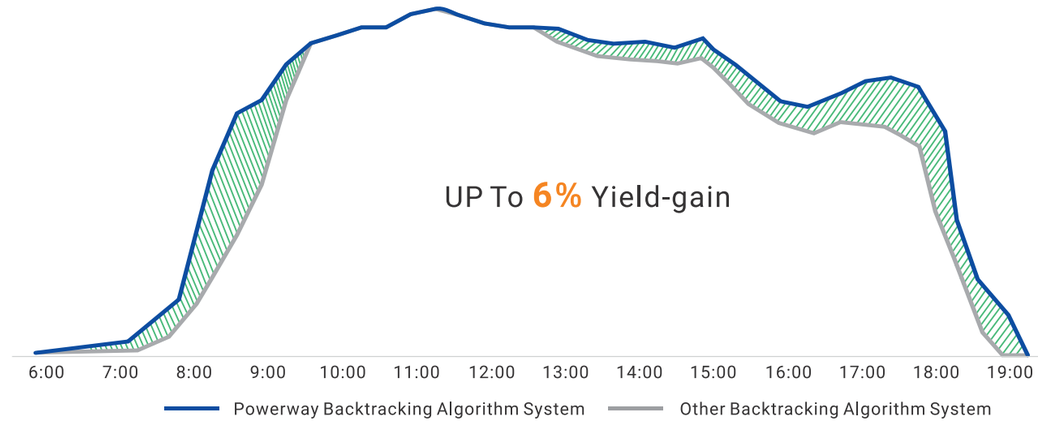
Cut Costs

Powerway Tracking Intelligent Solutions Include

tracking brackets, tracking bracket controllers, communication controllers, intelligent algorithms, and monitoring platforms. They can also be flexibly matched with other equipment such as power station side SCADA and inverters to create an integrated photovoltaic tracking system solution.

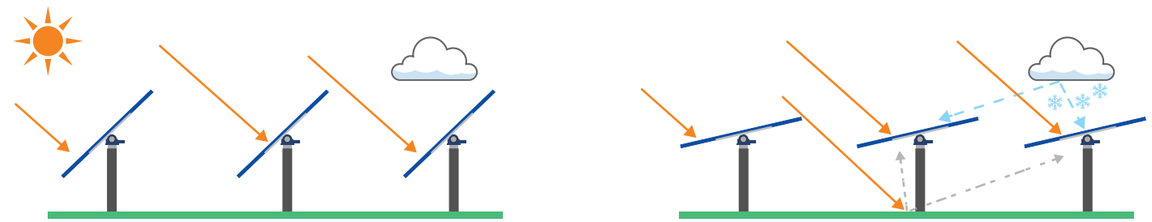


PowerSmart One Astronomical Algorithm



Part1 Intelligent Tracking Algorithm——
Increase Power Generation in Cloudy Weather and Other Weather Conditions

Based on meteorological and system operation data, the best tracking angle is dynamically optimized in real time to increase power generation in weather with high scattered radiation.

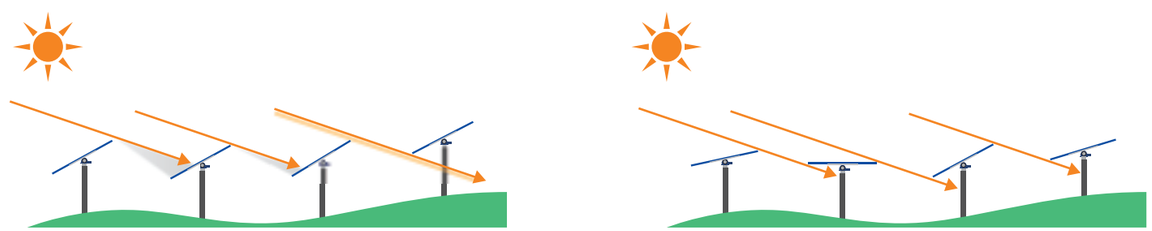


Conventional Tracking Algorithm → PowerSmart One Algorithm

- Multi-dimensional analysis to ensure optimal power generation throughout the cycle;
- Reduce the rotation of the bracket and effectively extend the service life of the motor and bracket.

Part 2 Intelligent Reverse Backtracking Algorithm——
Reduce the Loss of Power Generation Due to Shading in Complex Terrain

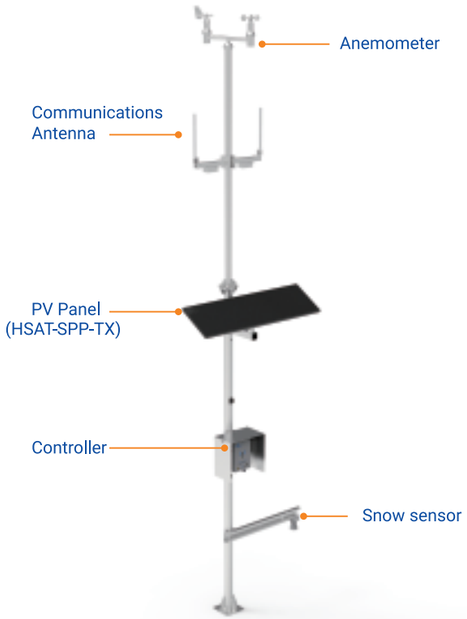
The system operating data is used to optimize disturbance training and sensing technology is used to identify occlusions to construct a three-dimensional terrain. Based on machine learning algorithms, iterative decisions are made to output the optimal reverse tracking angle group for overall power generation, effectively improving power generation during the reverse tracking phase.

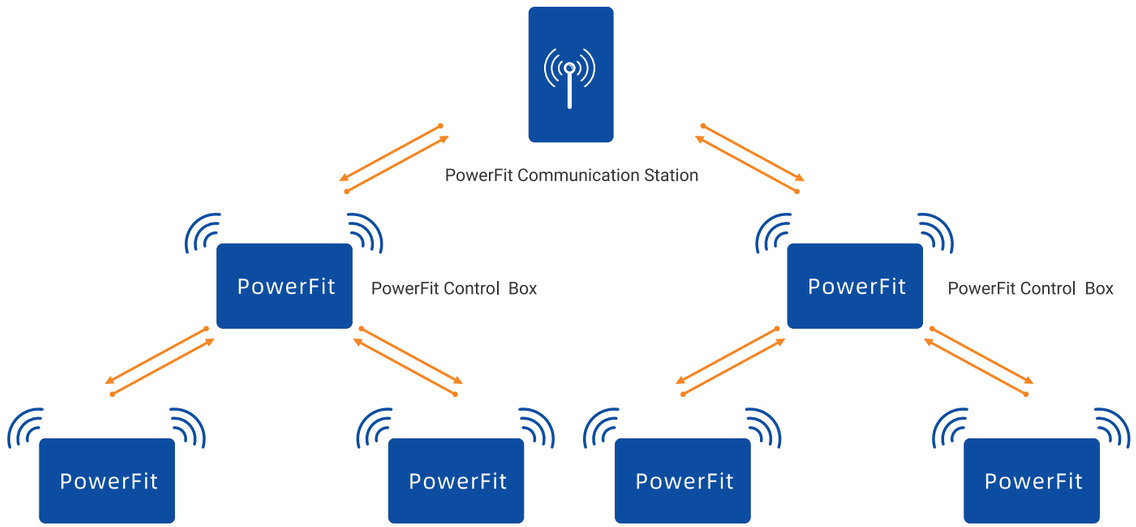


Conventional Tracking Algorithm → PowerSmart One Algorithm

- A variety of technologies intelligently identify real terrain;
- Automated tracking without human involvement;
- Precisely optimize the reverse tracking angle.

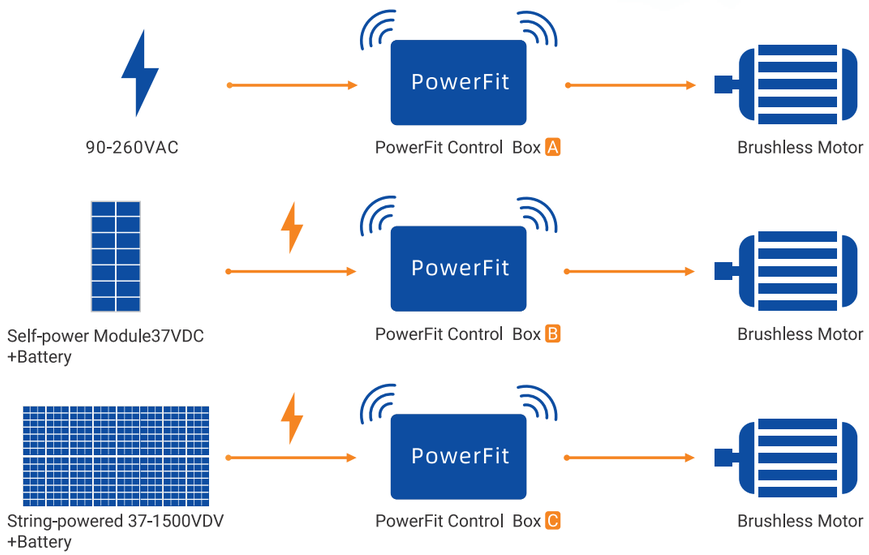
HSATP/PSO Intelligent Tracking System





Electrical Technical Parameter

Power Supply	L+N 90-240VAC | 37VDC+UPS
Overall Function	High-performance processor, OTA upgrade procedure
Battery management	Low consumption power station monitoring | Intelligent management of battery charge and discharge time
	Low temperature battery management system
Communication	Communication timeout strategy
Operating Temperature	Lowest to -40℃
Cabinet Characteristics	IP67, Anti-aging, antiflaming, C5-M 30-year



Electrical Technical Parameter

Power Supply	AC, Self-power Module37VDC+Battery, String-powered 300-1500VDV+Battery(Optional)
Overall Function	High-performance processor | OTA upgrade procedure
Motor	Motor software current limit protection/recovery, Motor inrush current limit start and stop
Battery management	Intelligent management of battery charge and discharge time
	Low temperature battery management system
Operating Temperature	Lowest to -40℃
Cabinet Characteristics	IP67, Anti-aging, antiflaming, C5-M 30-year
Reliability	Anti-thunder, Over current, Run Protect, Soft Start Power off, On Protect and Resume

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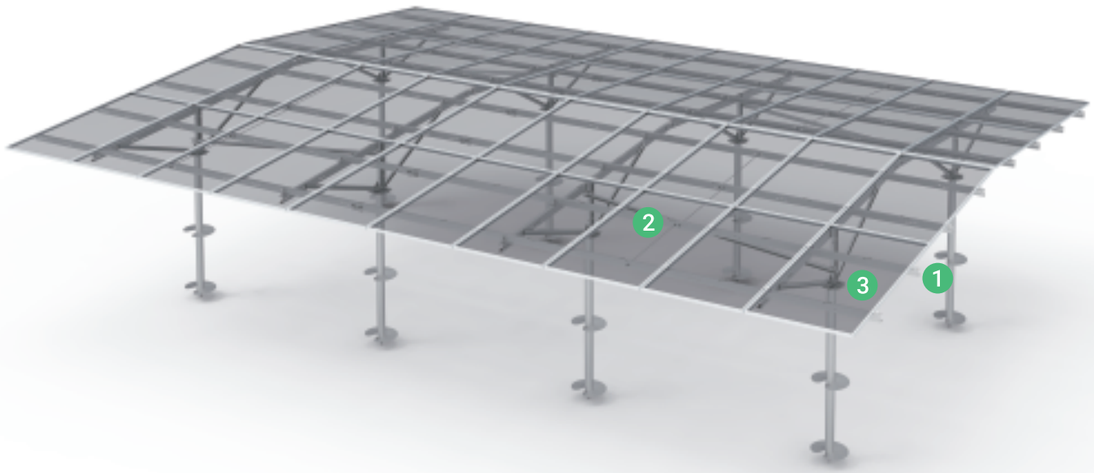
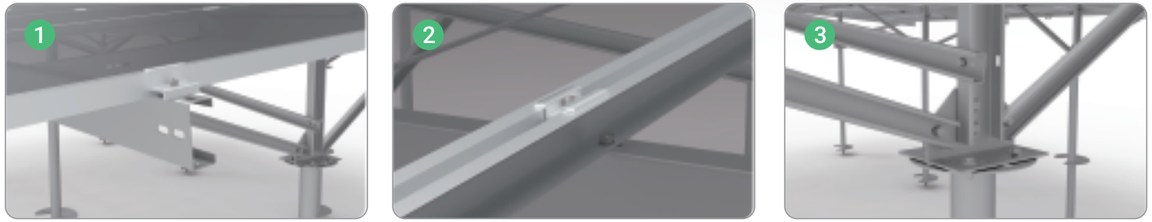
Solar Mounting
System

East-West Double Posts Mounting System





There are many advantage of the East-West double posts mounting system. Its structure is more stable and can support more solar panels, increasing the yield of power station. Compared with the same capacity power station system, less support materials are used. East-West double posts mounting system reduces the quantity of piles and installation time.

Technical Specifications

Foundation Type	Ground Screw, Concrete Foundation, Pile-rampost Integration
Material	Aluminum Alloy, HDG Steel, MAC steel
Mounting Angle	3°- 20°
Wind Load	Customizable
Layout	Customizable

Stable Structure
Easy Installation

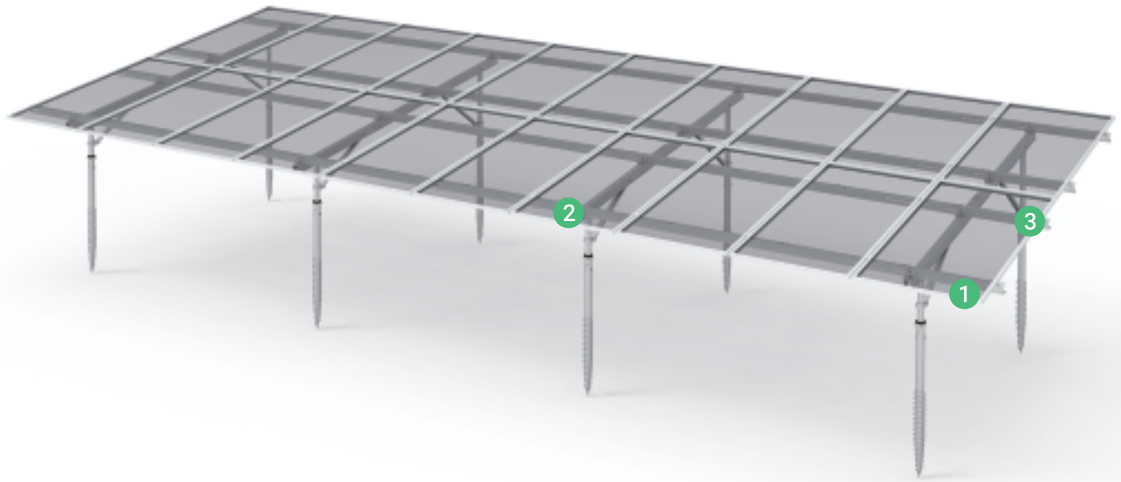
Diversified Pile
Foundation Types

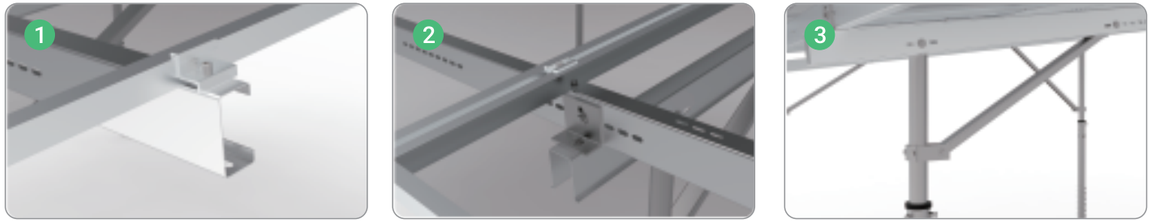
Component Installation Configuration
Flexibility to Meet Various Customer Needs

Adapt
to different environment and terrains

Product pre-installed
No Welding Required on Site

Double Post Fixed Structure System





The double-post fixed mounting system has a stable structure,different scenario adaptability, convenient installation and excellent anti-corrosion performance. The whole mounting system can be used in harsh outdoor environment for long time.

Technical Specifications

Foundation Type	Ground Screw, Concrete Foundation, Pile-rampost Integration
Material	Aluminum Alloy, HDG Steel, MAC steel
Mounting Angle	5°- 45°
Wind Load	Customizable
Layout	Customizable

Simple Structure
Easy Installation

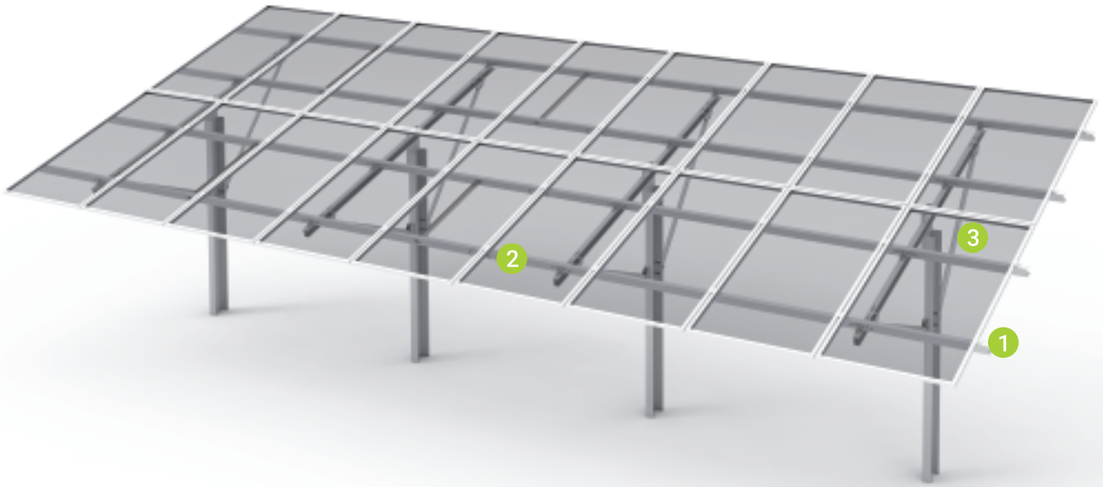
Diversified Pile
Foundation Types

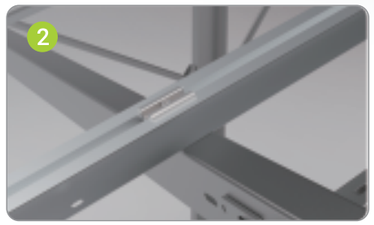
Component Installation Configuration
Flexibility to Meet Various Customer Needs

Adapt
to different environment and terrains

Product pre-installed
No Welding Required on Site

Single Post Fixed Structure System





The single post fixed mounting system is specially designed for quick installation. Its unique adjustable connection design make the whole structure adapt to different kinds of terrains flexibly.

Technical Specifications

Foundation Type	C-shaped Steel, H-shaped Steel, Concrete Foundation, Ω-shaped Steel, PHC Pile
Material	Aluminum Alloy, HDG Steel, MAC steel
Mounting Angle	5°- 45°
Wind Load	Customizable
Layout	Customizable

Simple Structure
Easy Installation

Diversified Pile
Foundation Types

Component Installation Configuration
Flexibility to Meet Various Customer Needs

Adapt
to different environment and terrains

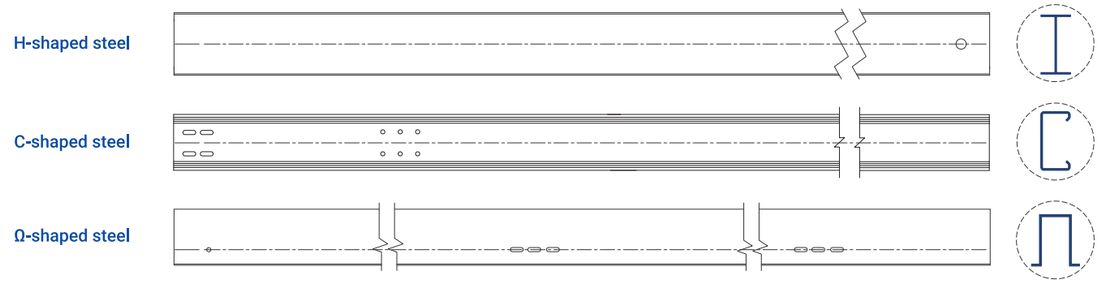
Product pre-installed
No Welding Required on Site

Foundation Series

The product features an integrated pile design and a simple structure to provide effective protection against winds and snow, and can be easily installed. The section steel surface has undergone galvanizing to ensure it remains corrosion-proof. The section steel pile can be quickly driven to the underground by a pile driver, after which the support structure and briquettes can be assembled into a rack system, which can be easily installed and thus offers significant savings in time and labor costs for the implementation of large photovoltaic projects.

Technical Specifications

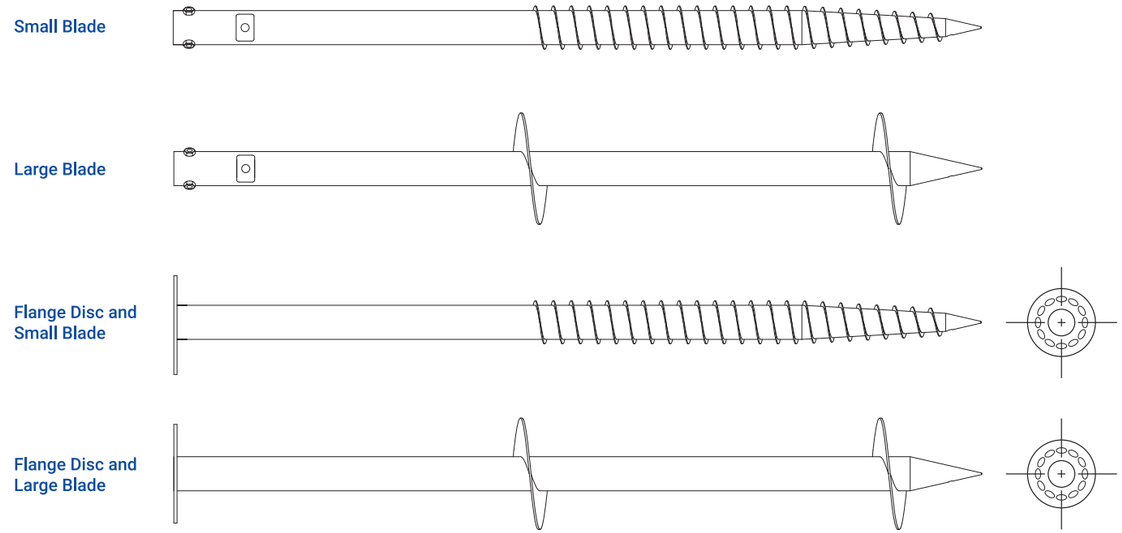
Pile Types	C-shaped Steel, H-shaped Steel, Ω-shaped Steel
Pile Diameter	Customization Available
Pile Lengths	2000~5000mm
Material Quality	Q235B; Q355B
Application Scope	Applicable to Various Types of Non-rock Soil



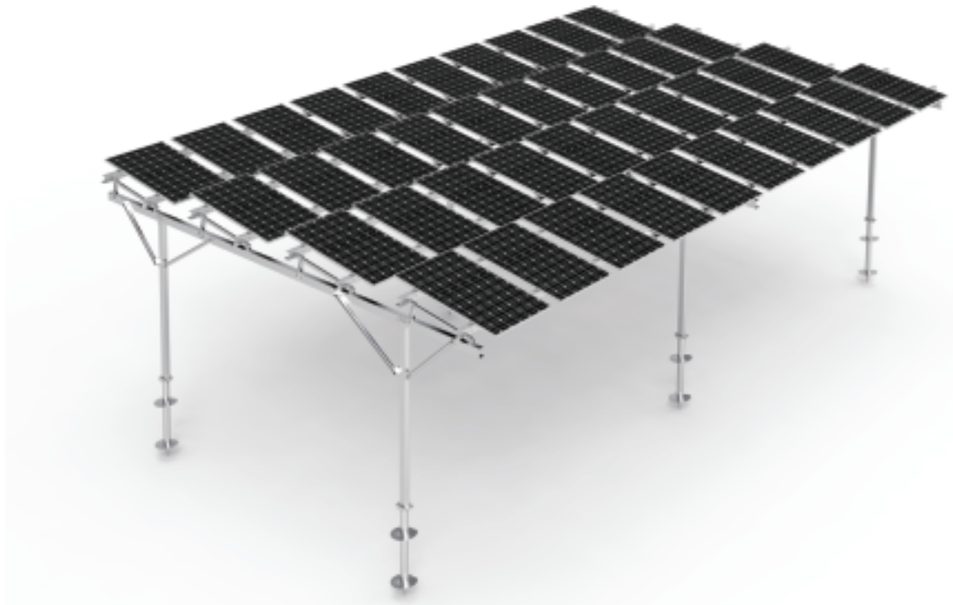
The Powerway Screw Pile Foundation System is suitable for use in the photovoltaic, wind energy, and construction industries. It is very popular both inside and outside the industry thanks to its excellent bearing capacity, stability, sedimentation-resistance, and strain resistance. Since the system uses a Q235B/Q355B steel section, the foundation can be installed without the need for digging or pouring cement. Thus, it meets different bearing requirements in various geographical environments to ensure the stability of the foundation. In response to different market requirements, Powerway has a ground anchor production line and a special design team that provides key customers with customized designs in terms of form and practical standards.

Technical Specifications

External Diameter	76mm
Wall Thickness	3.0-4.0mm
Flange diameter	3-M12EQC; **Large Blade:** Customizable
Material	Hot-Dip Galvanizing



Greenhouse Solar System



Powerway Agricultural Greenhouse Power Station System is a highly pre-installed agricultural power station system suitable for agricultural greenhouse vegetable cultivation and photovoltaic power generation. The patented architecture and clamp greatly improve installation efficiency and reduce labor costs. The modules are easy to be assembled and unassembled, and are designed to facilitate the adjustment of light transmittance in order to meet the growth need of crops. The material is highly resistant to soil acid corrosion and the structure height can be adjusted to adapt to complicated terrains. The system life and power station operation time can be guaranteed. The system is the best choice for agricultural photovoltaic greenhouse power stations.

Simple Structure
Installation is Easier

Diversified Pile
Foundation Types

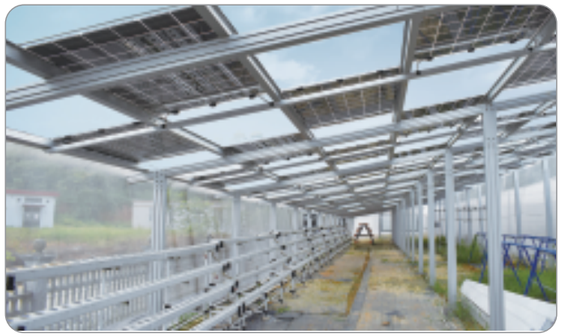
Component Installation Configuration
Flexibility to Meet Various Customer Needs

Friendly
Environment and Terrain

Product pre-installed
No Welding Required on Site

Agricultural Photovoltaic Greenhouse System

·On the basis of agricultural greenhouse, it has been upgraded to Agricultural Photovoltaic Greenhouse, which provides high yield electricity while ensuring the healthy growth of crops.
·The arrangement of solar modules can be spaced or overall arranged. Spacing arrangement can increase the transmittance of light, suitable for planting light-favored crops, the aesthetic extent is also improved therewith.The overall arrangement is suitable for planting shade-favored crops.
·The scale of the Agricultural Photovoltaic Greenhouse can be customized according to the actual demand, in order not to damage the farmland, or affect the growth of crops, while achieve the maximum benefit of the Agricultural Photovoltaic Greenhouse.



Simple Structure
Installation is Easier

High Cost Performance
High Comprehensive Economic Rate of Return

Component Installation Configuration
Flexibility to Meet Various Customer Needs

Friendly
Environment and Terrain

Product pre-installed
No Welding Required on Site

Vertical Mounting System

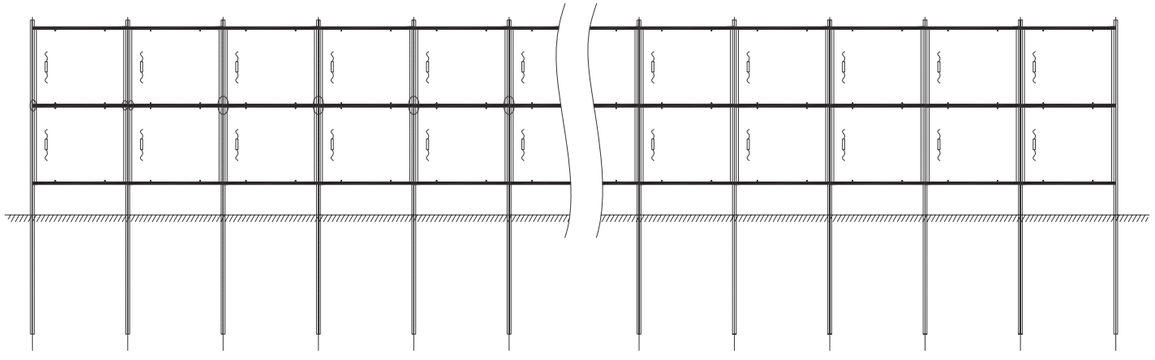
Thevertical mounting system enables new approaches for the utilization of solar energy especially in agricultural areas. The solid steel construction consists of mullions and cross beams. Two mullions and three crossbeams hold vertically bifacial modules.

Added value for the nature

The linear structures and the low level of overbuilding create valuable natural grass areas, in which additional specific habitat structures can be established. In addition to agricultural usage, the broad distances between the rows also offer room for agri-environmental measures or compensation areas.

Highest profitability

In the system construction kit, there are numerous adaption possibilities. Glass-glass modules and the mounting system both have a long life-cycle. With the nearly shade-free mounting system for bifacial modules, a technical additional yield of 20% is reached.

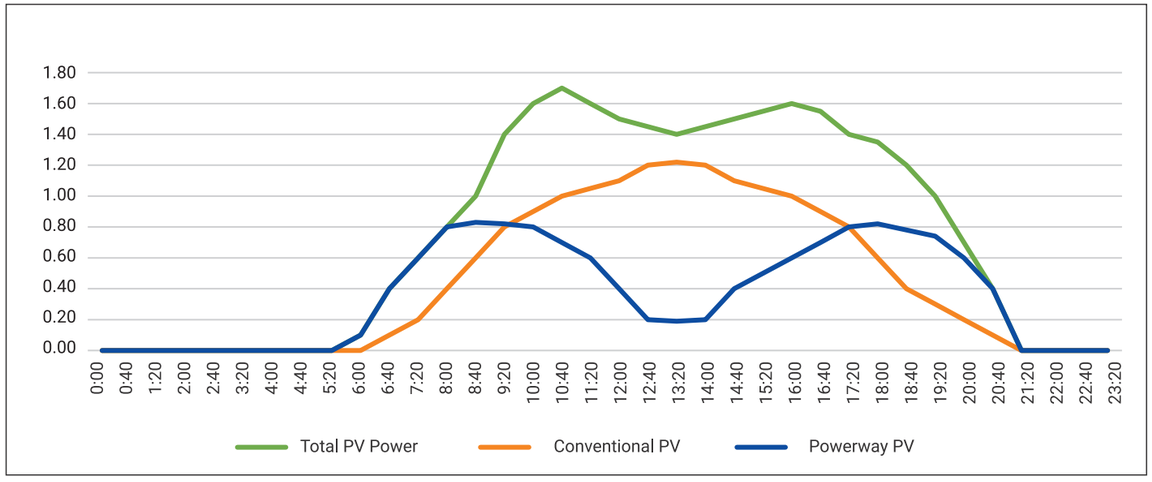


Flexibility in Purpose and Design

Outstanding adjustment to the terrain
Few components

Technical Specifications

Material	MAC steel S350/S420
Construction	Mullion and crossbeam construction with tension-free clamping
	Construction components that can be levelled for adjustment to the terrain conditions
Module connector	Module connection type
	A2-70 stainless steel fastener



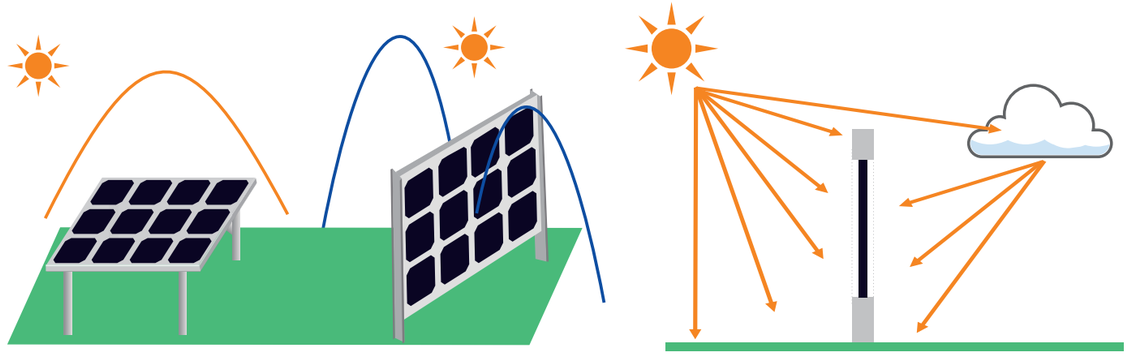
Combination of east-west-oriented vertical bifacial Agro-PV and conventional south oriented PV supports the grid integration by abroad and stable electricity

N2S Vertical bificial Agro-PV system support the PV grid integration by its electricity production profile

Conventional flat-mounted PV systems with south orientation
Powerway systems with east-west orientation

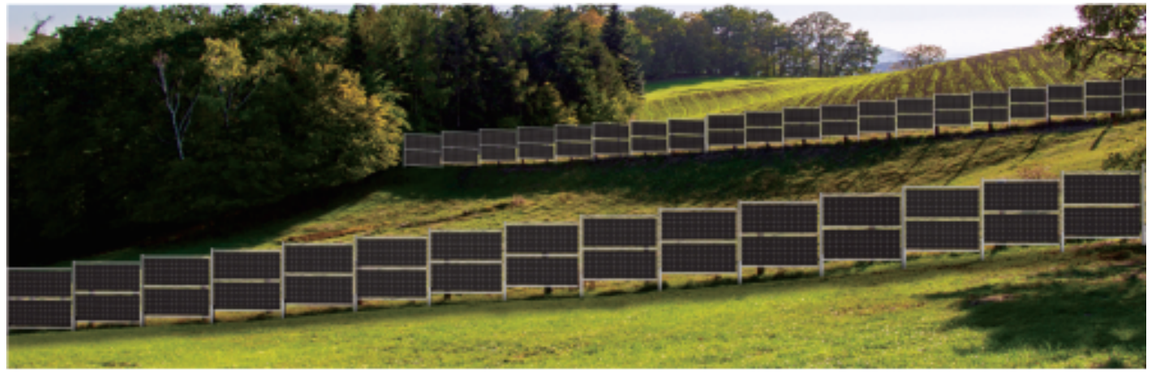
Extra energy yield thanks to indirect radiation

Vertical Bifacial PV can have extra energy yiele when compared to tilted systems,up tp 15%



Beneficial production profile with peak production in the morning and in the evening hours

Mapping of energy supply and demand more efficient than storage
Production profile of N2S vertical bifacial Agro-PV-System nearer to electricity demand



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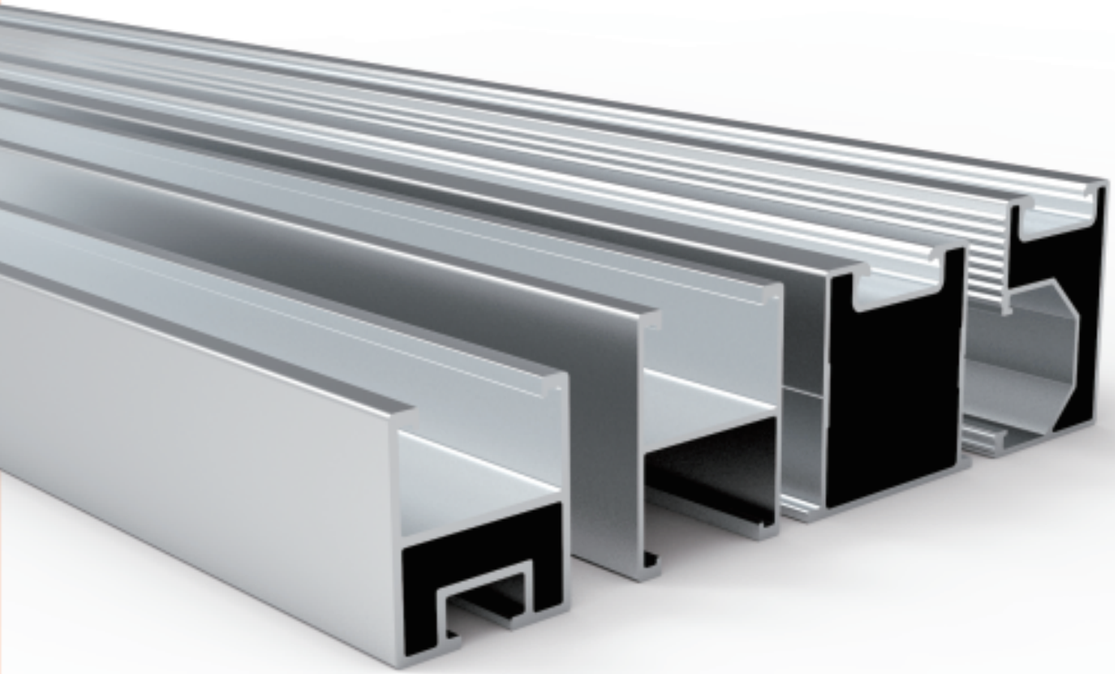
Roof Mounting
System

Roof-top Aluminum Rail Series



Rail-01

Model: G11042
Height: 45 mm
Width: 30 mm
Wx: 2478 mm³
Wy: 1707 mm³

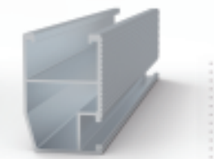
Rail-02

Model: G11043
Height: 50 mm
Width: 30 mm
Wx: 2908 mm³
Wy: 1896 mm³

Rail-03

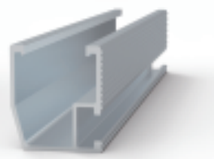
Model: G11044
Height: 45 mm
Width: 30 mm
Wx: 2431 mm³
Wy: 1666 mm³

Rail-04



Model: G11045
Height: 45 mm
Width: 30 mm
Wx: 2020 mm³
Wy: 1980 mm³

Rail-05



Model: G11038
Height: 35 mm
Width: 30 mm
Wx: 1351 mm³
Wy: 1556 mm³

Rail-06

Model: G11039
Height: 40 mm
Width: 23 mm
Wx: 1664 mm³
Wy: 1058 mm³

Rail-07

Model: G11040
Height: 40 mm
Width: 23 mm
Wx: 1653 mm³
Wy: 1016 mm³

Rail-08

Model: G11041
Height: 35 mm
Width: 23 mm
Wx: 1330 mm³
Wy: 904 mm³

Rail-09

Model: G11025
Height: 55 mm
Width: 30 mm
Wx: 2664 mm³
Wy: 2656 mm³

Rail-10

Model: G11008
Height: 35 mm
Width: 30 mm
Wx: 1248 mm³
Wy: 2003 mm³

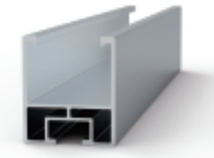
Rail-11

Model: G11022
Height: 40 mm
Width: 30 mm
Wx: 1317 mm³
Wy: 1836 mm³

Rail-12

Model: G11037
Height: 40 mm
Width: 30 mm
Wx: 1464 mm³
Wy: 1845 mm³

Rail-13

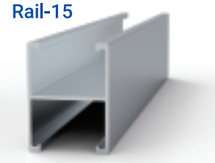


Model: G11004
Height: 35 mm
Width: 30 mm
Wx: 1076 mm³
Wy: 1700 mm³

Rail-14

Model: G11033
Height: 35 mm
Width: 30 mm
Wx: 1080 mm³
Wy: 1615 mm³

Rail-15



Model: G11046
Height: 40 mm
Width: 30 mm
Wx: 1330 mm³
Wy: 2080 mm³

Rail-16

Model: G11031
Height: 40 mm
Width: 30 mm
Wx: 1223 mm³
Wy: 1844 mm³

Rail-17

Model: G11030
Height: 40 mm
Width: 30 mm
Wx: 1184 mm³
Wy: 1746 mm³

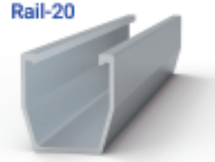
Rail-18

Model: G11024
Height: 40 mm
Width: 60 mm
Wx: 2771 mm³
Wy: 2365 mm³

Rail-19

Model: G11036
Height: 41 mm
Width: 40 mm
Wx: 1948 mm³
Wy: 2248 mm³

Rail-20

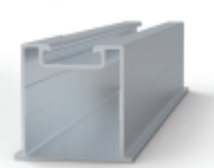


Model: G11032
Height: 32 mm
Width: 30 mm
Wx: 1108 mm³
Wy: 1421 mm³

Rail-21

Model: G11007
Height: 32 mm
Width: 30 mm
Wx: 1157 mm³
Wy: 1677 mm³

Rail-22



Model: G11098
Height: 40 mm
Width: 35 mm
Wx: 2551 mm³
Wy: 2102 mm³

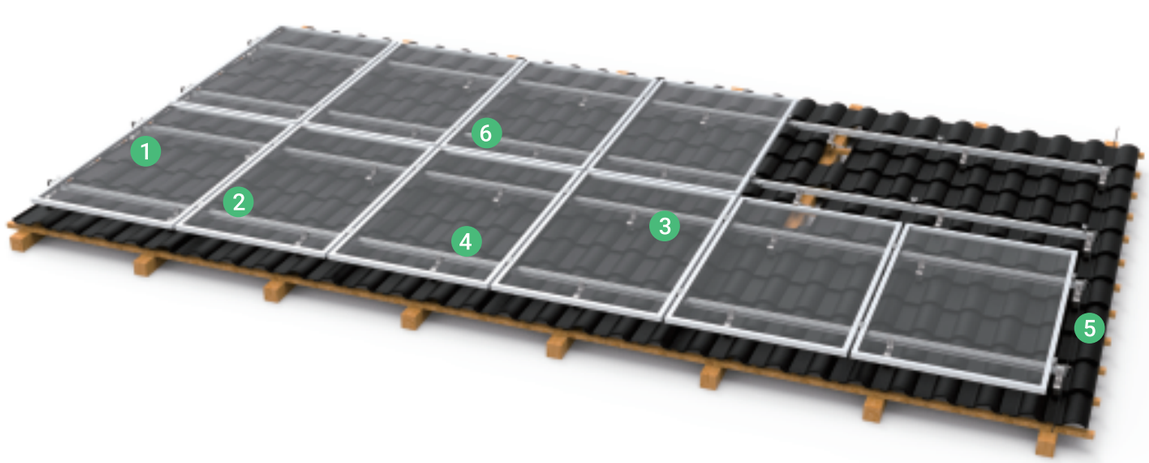
Rail-23

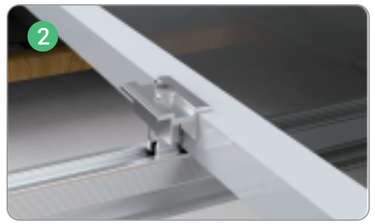
Model: G11057
Height: 40 mm
Width: 30 mm
Wx: 2258 mm³
Wy: 1801 mm³

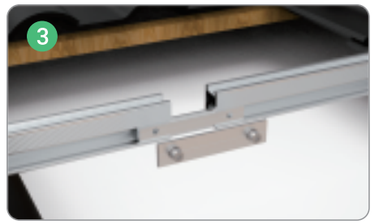
Note:

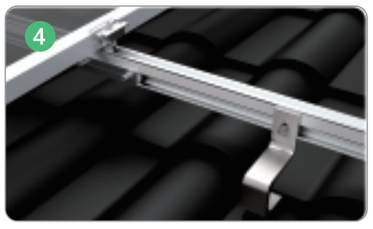
The above rails can be applied to various forms of roofs through different connection methods. The length of the rail can be customized.
The material of the guide rail is generally 6005T5 or 6063T6, etc. The surface treatment can be wool, Anodizing or electrophoretic Anodizing.
The color can be original or customized black, etc.
Wx(mm³)&Wy(mm³)are parameters that characterizes mechanical properties.

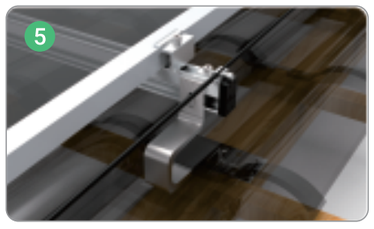
Pitched Tile Roof Mounting System Type A

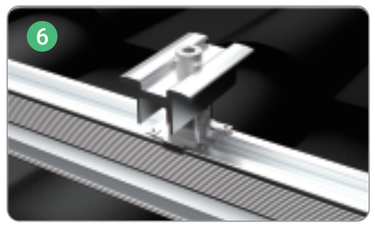












Powerful, Stable And Flexible

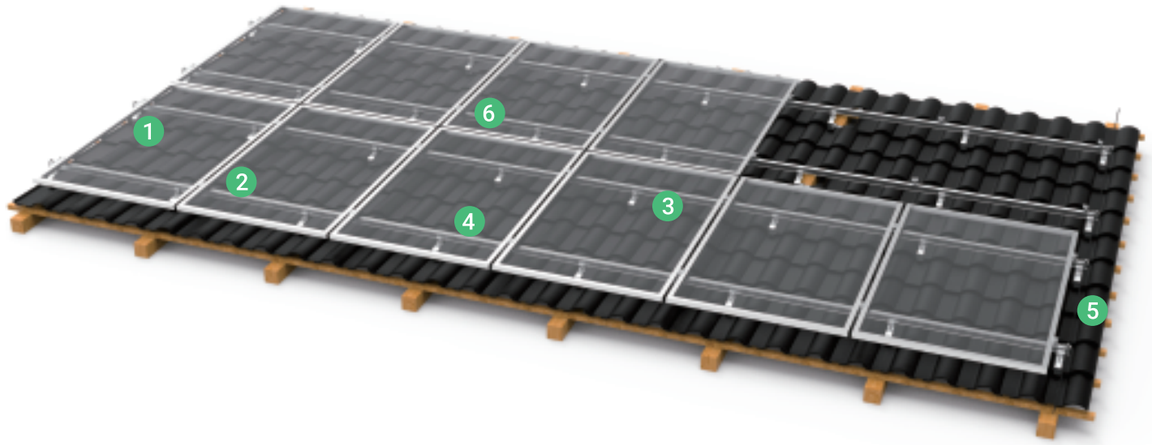
- Components Usable Across Different Roof Types
- Adjustable Roof Hook to Level out Uneven Roofs, For Different Tile Strenghts and Shapes
- Quick Mounting From Above With Easily Graspable Components
- Rails and Clamps Available In Silver Anodized and Black Anodized

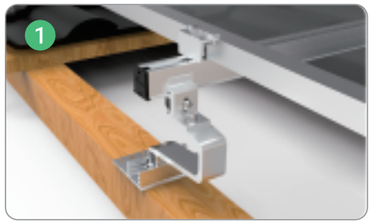
Technical Specifications

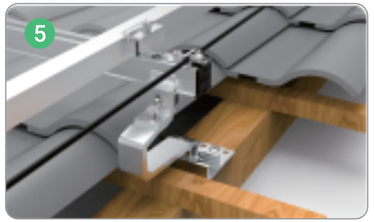
Roof Angle	5°-50°
Wind Load	0~0.5kN/m² or -1.2kN/m²~0
Snow Load	0~1.6kN/m²
Applicable Solar Module	Frame
Panel Layout	Portrait
Design Standard	AS/NZS 1170, DIN 1055, JIS C 8955: 2017 IBC 2009, EN 1991-1, California Building Code CBC 2010
Stand Material	AL6005-T5
Fastener Material	SUS304
Surface Treatment	AL6005-T5: AA10μm,
Color	Natural Silver or Black
Warranty	10 Years

Number		Component Code	Designation	4 Panel	6 Panel	8 Panel	10 Panel	12 Panel
1		PW-RA01-2.4	Rail 2400mm	4	6	8	10	12
2		PW-SP-RA	Rail Connector	2	4	6	8	10
3		PW-EC-RA	End Clamp	4	4	4	4	4
4		PW-MC-RA	Mid Clamp	6	10	14	18	22
5		PW-HA01/RA	Aluminum Hook	*10-14	*14-20	*16-26	*20-32	*24-38
			*Adjust the quantity based on the spacing between wooden beams (0.8-1.4m)					
6		PW-IS-GL/RA	Ground Lug	4	4	4	4	4
7		PW-IS-EC/RA	Earth Clip	3	5	7	9	11
8		PW-IS-CC	Cable Clip	2	2	2	2	2
9		PW-IS-RC	End Cap	4	4	4	4	4

Pitched Tile Roof Mounting System Type B







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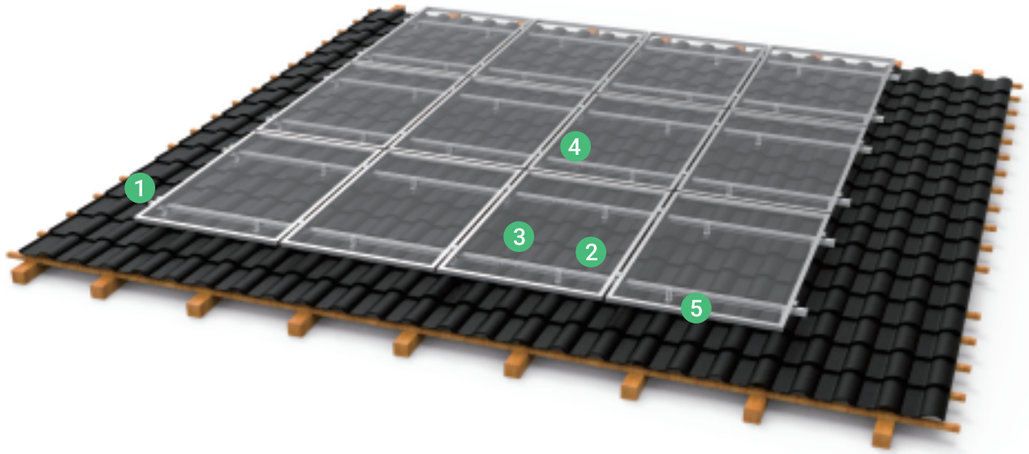
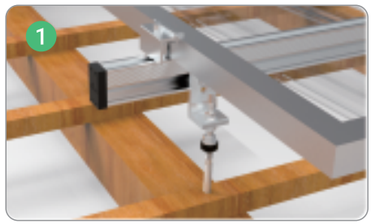
Technical Specifications

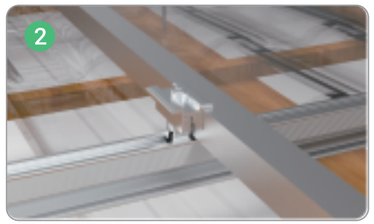
Roof Angle	5°-50°
Wind Load	0~0.5kN/m² or -1.2kN/m²~0
Snow Load	0~1.6kN/m²
Applicable Solar Module	Frame
Panel Layout	Landscape or Portrait
Design Standard	AS/NZS 1170, DIN 1055, JIS C 8955: 2017 IBC 2009, EN 1991-1, California Building Code CBC 2010
Stand Material	AL6005-T5
Fastener Material	SUS304 or 10B21
Surface Treatment	AL6005-T5: AA10μm,
Color	Natural Silver or Black
Warranty	10 Years

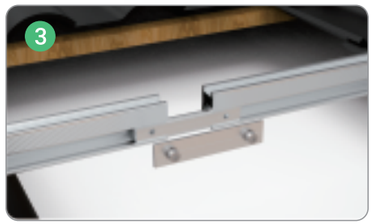
Number	Component Code	Designation	Specification
1	PW-RA22-2.4	Rail	40x41 AL6005-T5
2	PW-SP-RA	Rail Connector	L=200mm AL6005-T5 SUS304
3	PW-EC-RA	End Clamp	L=50~80mm & Spring & Spring Washer & Clamp Aluminum Nut
4	PW-MC-RA	Mid Clamp	L=50~80mm & Spring & Spring Washer & Clamp Aluminum Nut
5	PW-HA02/RA	Aluminum Hook	L=110mm AL6005-T5 SUS304 & Spring & Flat Washer & Spring Washer
6	PW-IS-EC/RA	Ground Lug	L=30mm SUS304 M8x12
7	PW-IS-EC2/RA	Earth Clip	SUS304 38*49*0.3
8	PW-IS-CC	Cable Clip	SUS304 10x0.6
9	PW-IS-RC2	End Cap	PA6+GF20%+UV0.5% 40x41x21

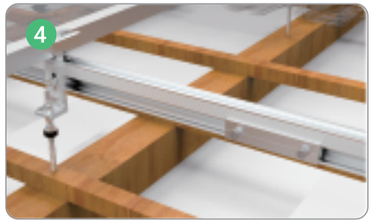
Pitched Tile Roof Mounting System Type C

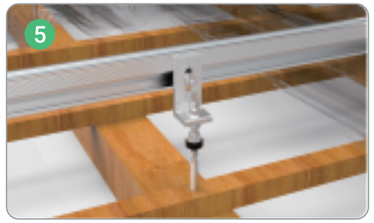












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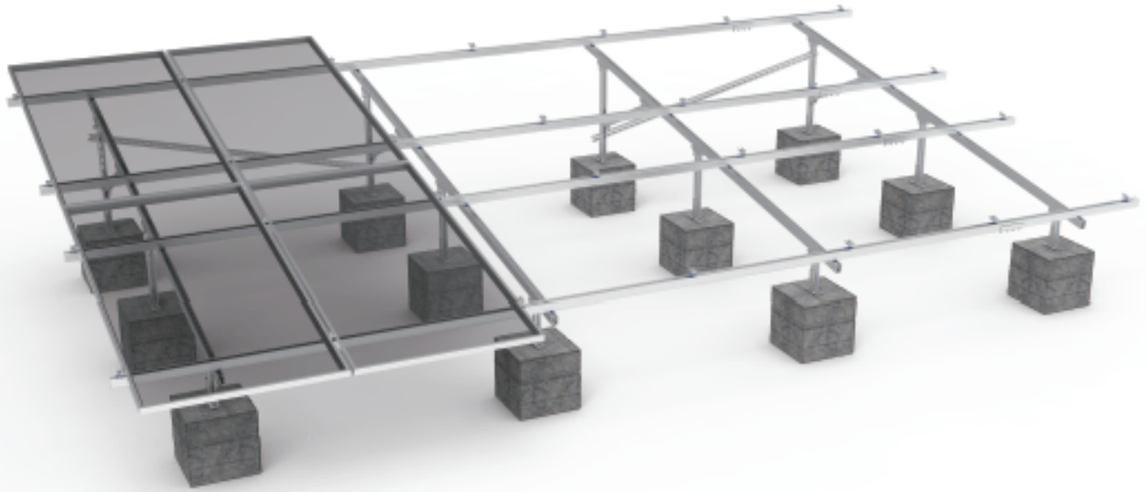
- Quick Mounting From Above With Easily Graspable Components
- Rails and Clamps Available In Silver Anodized and Black Anodized

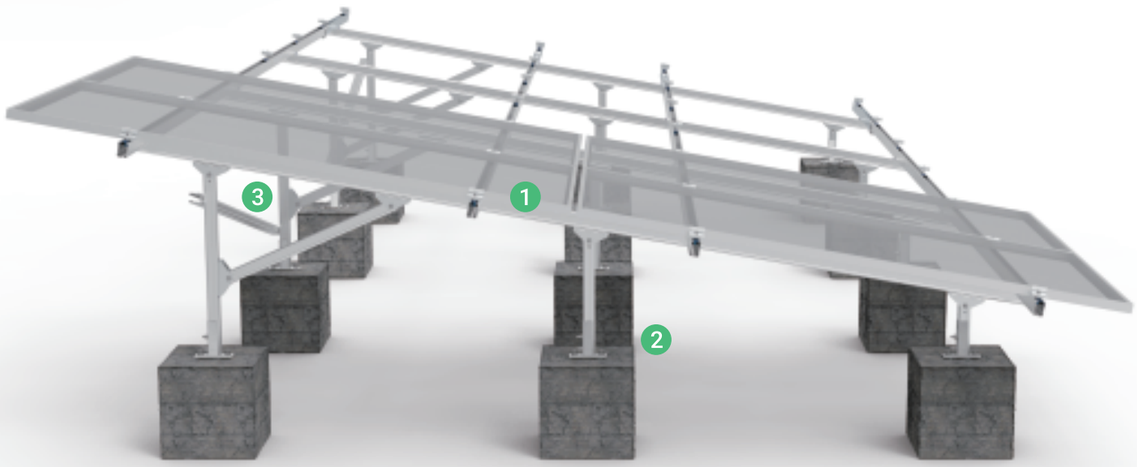
Technical Specifications

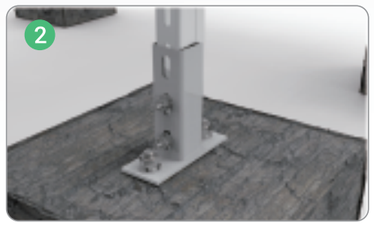
Mounting Angle	Parallel to roof surface
Wind Load	Customised
Snow Load	Customised
Applicable Solar Module	Frame
Module orientation	Landscape or Portrait
Stand Material	AL6005-T5
Fastener Material	SUS304 or SUS410
Surface Treatment	Anodized: no Less than 10μm, Excluding Machined Surfaces
Color	Natural Silver or Black
Warranty	10 Years

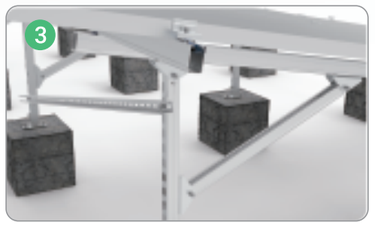
Number	Component Code	Designation	Specification
1	PW-RA01	Rail	30x50 AL6005-T5
2	PW-SP-RA	Rail Connector	L=140mm & 2x Hex Bolt M8x25 & 2x Flat Washer & 2x Spring Washer
3	PW-EC-RA	End Clamp	L=50~80mm & Hex Bolt M8x35 & Spring Washer & Clamp Aluminum Nut & Spring
4	PW-MC-RA	Mid Clamp	L=50~80mm & Hex Bolt M8x35 & Spring Washer & Clamp Aluminum Nut & Spring
5	PW-LF01/RA	Rail Support Parts	L=40mm L Sheet & M10X200 & Hex Bolt M8x25 & 2x Flat Washer & Spring Washer & Flange Nut & Clamp Aluminum Nut & Waterproof Rubber Pad
6	PW-IS-RC2	End Cap	31.8*51.4*11 EPDM

Flat Roof Cement Foundation Mounting System





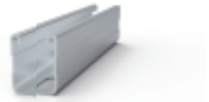




Technical Specifications

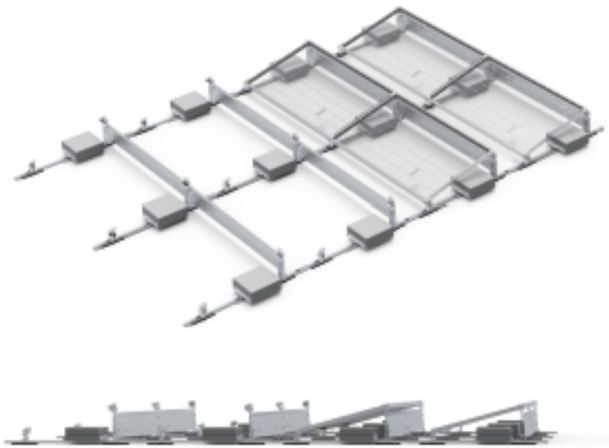
Module Orientation	Portrait, Landscape,
PV Module	Framed or Unframed
Wind Load	Customised
Snow Load	Customised
Application	Roof top, Ground
Inclination Angle	5~60°
Material	Main Structure: MAC Steel Clamp: Aluminum AL6005-T5 Fasteners: Carbon steel & SUS304
Certification	TUV, CE
Standard	AS/NZS 1170 , DIN 1055 , JIS C 8955: 2017, IBC 2009
Warranty	10 Years

Note: The cement foundation is provided by the builder

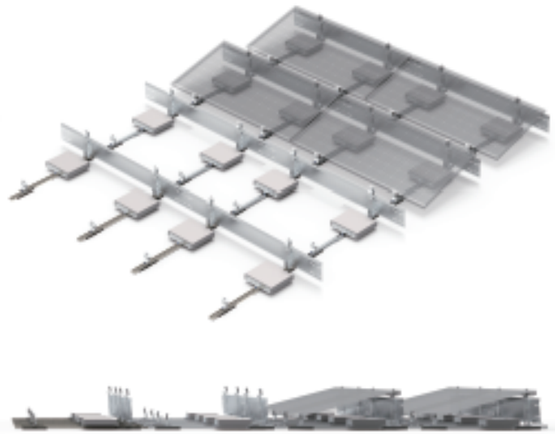
Number		Designation	Specification
1		Rail / Post / Strut	U41*41 / U41*52 / U41*62 / U41*73 Mac Steel
2		Rail Connector	Mac Steel
3		Post/Strut Connector	Mac Steel
4		Base	Carbon Steel ≥HDG 65μm
5		Anchor Bolt	M12 Grade 8.8 HDG 50μm
6		End Clamp	Aluminum ≥AA10
7		Mid Clamp	Aluminum ≥AA10

Flat Roof Ballasted Mounting System

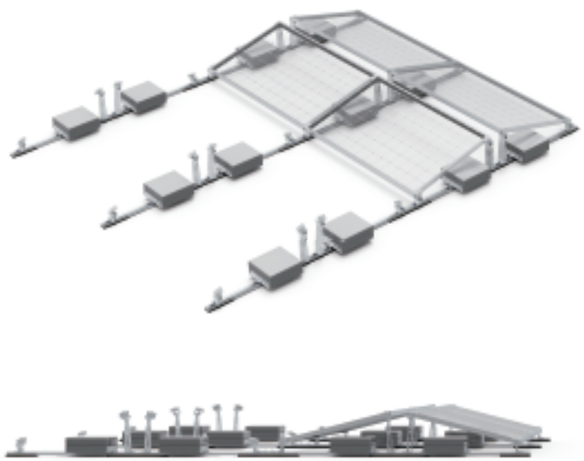
South-Short
side



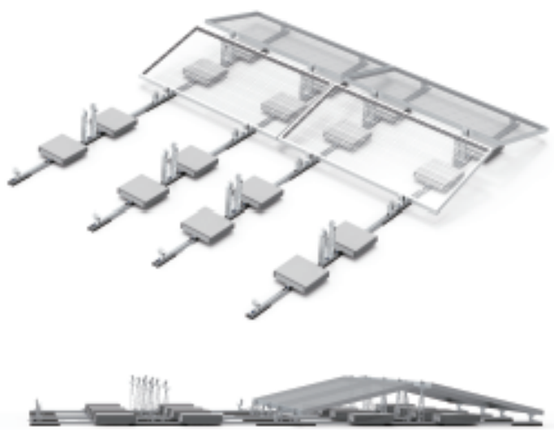
South-Long
side



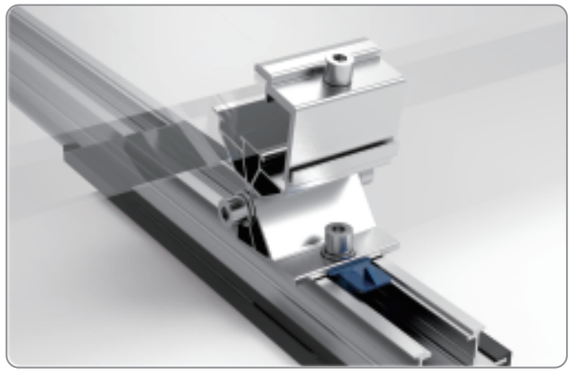
East/West-Short
side

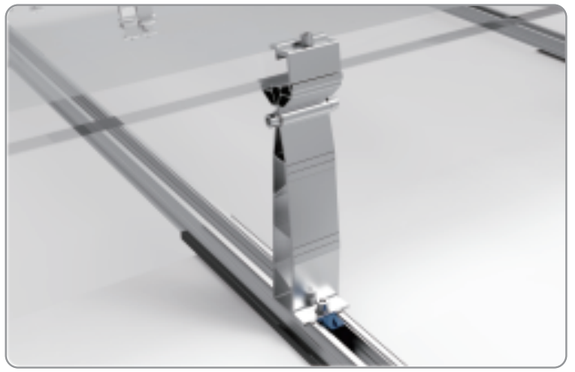


East/West-Long
side



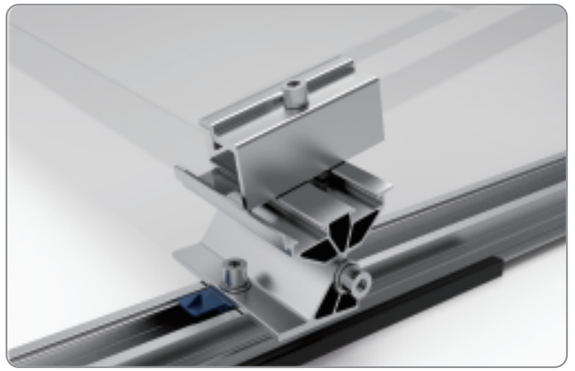
Long-Side Clamping





For mounting on the long module side
High loads: Wind Load up to 40m/s; Snow Load up to 5.4 kN/m2 (depending on the system variation and PV modules used)
Modules: up to 2384x1303mm.

Short-Side Clamping



For mounting on the Short module side
In the event of moderate snow loads, the PV modules can be clamped on the short side, saving material.

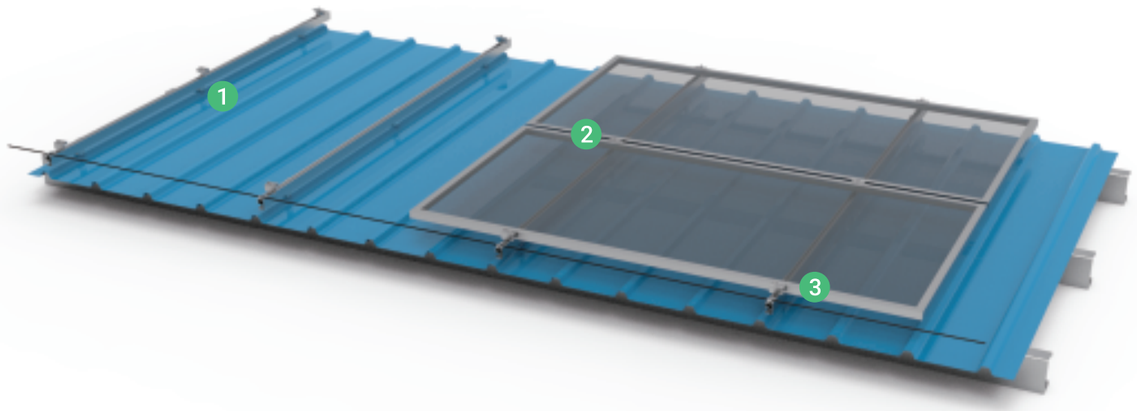
Technical Specifications

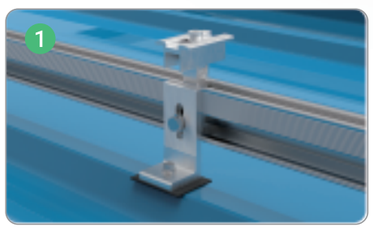
Mounting Angle	5°, 10°(May Vary Slightly Depending on Module Width)
Clamping Options	Long-side Clamping; Short-Side Clamping
Module Orientation	East / West-facing; South-facing
Wind Load	Up to 40m/s(South-facing); Up to 69.5m/s(East/West-facing)
Snow Load	Up to 5.4 kPa for Long Side; Up to 2.4 kPa for Short Side
Applicable Solar Module	950~1303 mm x 1550~2384 mm (Width x Length)
Stand Material	AL6005-T5
Fastener Material	SUS304 or SUS410
Ballast Size / Quantity	400*400*50mm (19.2kg) / Base on Wind Load(Detail in Installation Manual)
Surface Treatment	AA10μm / Customized
Color	Natural Silver or Customized
Warranty	10 Years

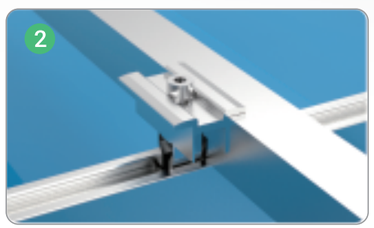
Number	Component Code	Designation	Specification
1	PW-BR-01	70mmx22mmxL L=2600mm(For East/West-facing) L=1620mm(For South-facing) AL6005-T5 Natural Silver or Customized	Base Rail
2	PW-FP-01	L=50~100mm L=50mm(For Long-Side Clamping) L=100mm(For Short-Side Clamping) Main Structure:AL6005-T5 Fastener Material:SUS304 Natural Silver or Customized	Front Pedestal Pedestal & Hex Bolt 3-M8x25 & 3x Flat Washer & 3x Spring Washer & 1x Nut Sleeve & 1x Aluminum Nut
3	PW-BP-01(10°) PW-BP-02(5°)	L=50~100mm L=50mm(For Long-Side Clamping) L=100mm(For Short-Side Clamping) Main Structure:AL6005-T5 Fastener Material:SUS304 Natural Silver or Customized	Back Pedestal Pedestal & Hex Bolt 3-M8x25 & 3x Flat Washer & 3x Spring Washer & 1x Nut Sleeve & 1x Aluminum Nut
4	PW-SP-BR-01	46x15x2.5 L=120mm AL6005-T5 Natural Silver or Customized	Base Rail Connector & Hex Bolt 2-M8x25 & 2x Flat Washer & 2x Spring Washer & 2x Nut Sleeve & 2x Aluminum Nut
5	PW-EC-RA	L=50 Main Structure:AL6005-T5 Fastener Material:SUS304 Natural Silver or Customized	End Clamp & Hex Bolt M8x35 & Spring Washer & Spring & Clamp Aluminum Nut
6	PW-MC-RA	L=50mm(For Short-Side Clamping) Main Structure:AL6005-T5 Fastener Material:SUS304 Natural Silver or Customized	Mid Clamp & Hex Bolt M8x35 & Spring Washer & Spring & Clamp Aluminum Nut

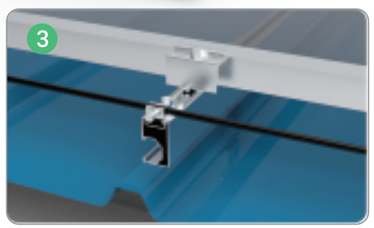
Number	Component Code	Designation	Specification
1	PW-BB-01	42x40x2.0 L=350mm AL6005-T5 Natural Silver or Customized	Ballast Bar
2	PW-BBC-01	38x9 L=40mm AL6005-T5 Natural Silver or Customized	Ballast Bar Connector
3	PW-RP-01	79x12 L=300mm EPDM	Rubber Pad
4	PW-WD-01	For South-Long Side/South-Short Side L=1945mm(For Module length:1650-1850mm) L=2145mm(For Module length:1851-2050mm) L=2395mm(For Module length:2051-2300mm) Main Structure:Zn-Mg-Al Alloy Coating Steel Fastener Material:SUS410 Natural Silver or Customized	Wind Deflector Tapping Screw 4x ST6.3*25
5	PW-IS-EC/RA	36x31.6x0.3 SUS304 Natural Silver	Earth Clip
6	PW-IS-CC	6 Square 2 Lines SUS304 Natural Silver	Cable Clip
7	PW-IS-GL/RA	6 Square Line Main Structure:AL6005-T5 Fastener Material:SUS304 Natural Silver or Customized	Ground Lug

Trapezoidal Sheet Metal Roof Mounting System Type A









Technical Specifications

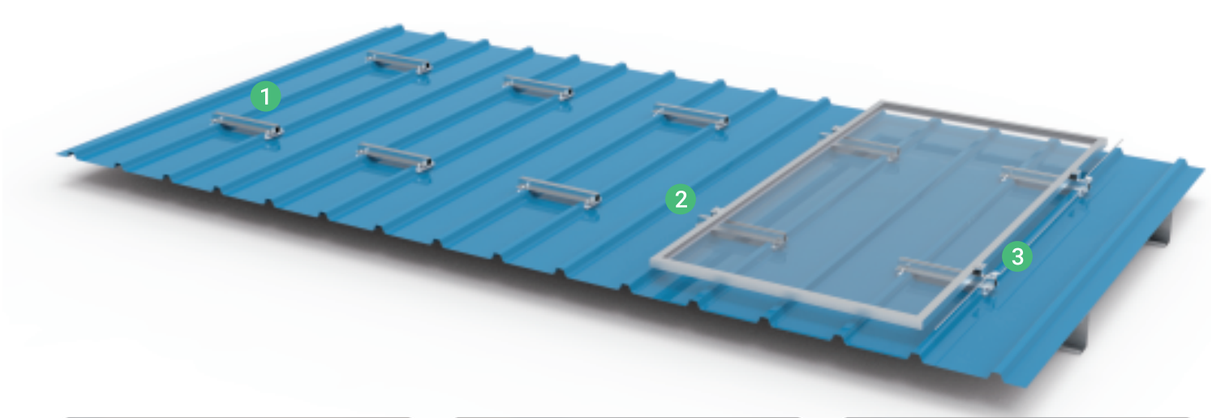
Mounting Angle	Parallel to Roof Surface
Wind Load	Customised
Snow Load	Customised
Applicable Solar Module	Frame
Module Orientation	Landscape

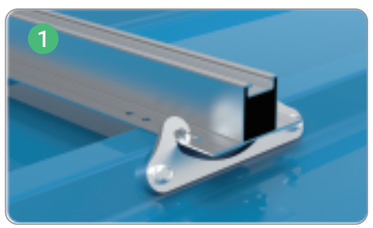
Stand Material	Stainless Steel or AL6005-T5
Fastener Material	SUS304 or 410
Surface Treatment	Anodized: No Less than 10μm,
Color	Natural Silver or Customized
Warranty	10 Years

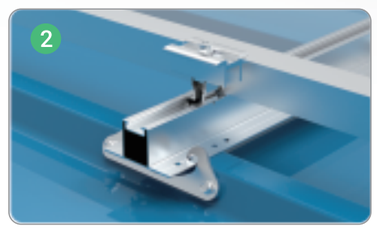
	Designation	Specification
	Rail	L=2100/4100mm 30x45x1.2 AL6005-T5
	L-Feet	L=30-60mm 40x85x8.0 AL6005-T5
	Sealing Gasket	45x60x1.5 EPDM
	Rail Connector	L=140mm & 2x Hex Bolt M8*25 & 2x Flat Washe & 2x Spring Washer
	End Clamp	L=50-80mm & Hex Bolt M8x35 & Spring Washer & Clamp Aluminum Nut
	Mid Clamp	L=50-80mm & Hex Bolt M8x35 & Spring Washer & Clamp Aluminum Nut

	Designation	Specification
	Ground Lug	L=20mm & Hex Bolt M8*12 & Hex Bolt M6*12 & Spring & Aluminum Nut
	Earth Clip	36*31.6*0.3 SUS304
	Cable Clip	10x0.6 SUS304
	Rail & T Sheet Connector	L=30mm & Hex Bolt M8x25 & Flat Washer & Spring Washer & Aluminum Nut
	Self-tapping Screw	ST6.3x100 410

Trapezoidal Sheet Metal Roof Mounting System Type B







Technical Specifications

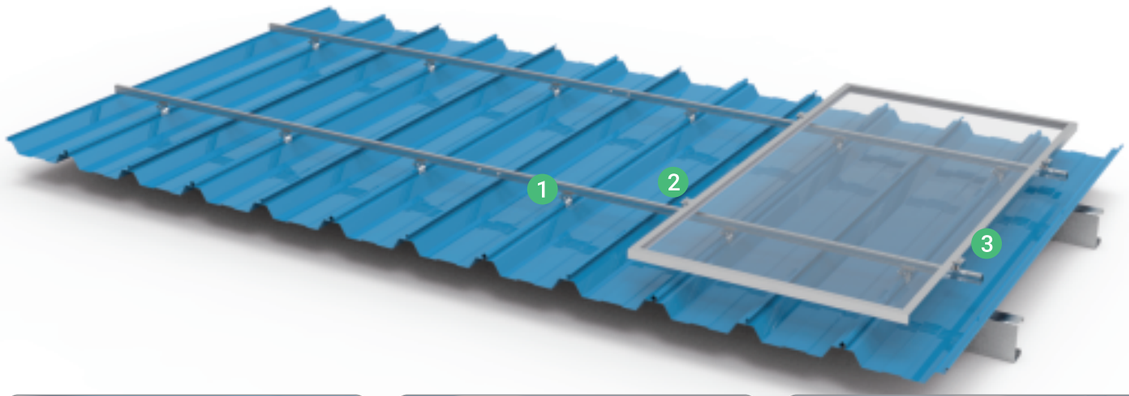
Mounting Angle	Parallel to Roof Surface
Wind Load	Customised
Snow Load	Customised
Applicable Solar Module	Frame
Module Orientation	Portrait

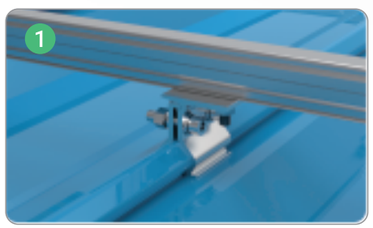
Stand Material	Stainless Steel or AL6005-T5
Fastener Material	SUS304 or SUS410
Surface Treatment	Anodized: No Less than 10μm, Excluding Machined Surfaces
Color	Natural Silver or Customized
Warranty	10 Years

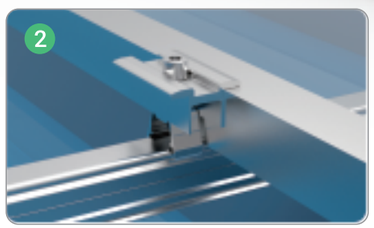
	Designation	Specification
	Rail	L=400mm 35x75x1.2 AL6005-T5
	Hook	38x131x3.5 SUS304 & Waterproof Pad
	End Clamp	L=50-80mm & Hex Bolt M8x35 & Spring Washer & Clamp Aluminum Nut
	Mid Clamp	L=50-80mm & Hex Bolt M8x35 & Spring Washer & Clamp Aluminum Nut

	Designation	Specification
	Ground Lug	L=20mm & Hex Bolt M8*12 & Hex Bolt M6*12 & Spring & Aluminum Nut
	Earth Clip	36*31.6*0.3 SUS304
	Cable Clip	10x0.6 SUS304
	Self-tapping Screw	ST5.5x19 SUS410

Corrugated Sheet Metal Roof Mounting System Type A







Technical Specifications

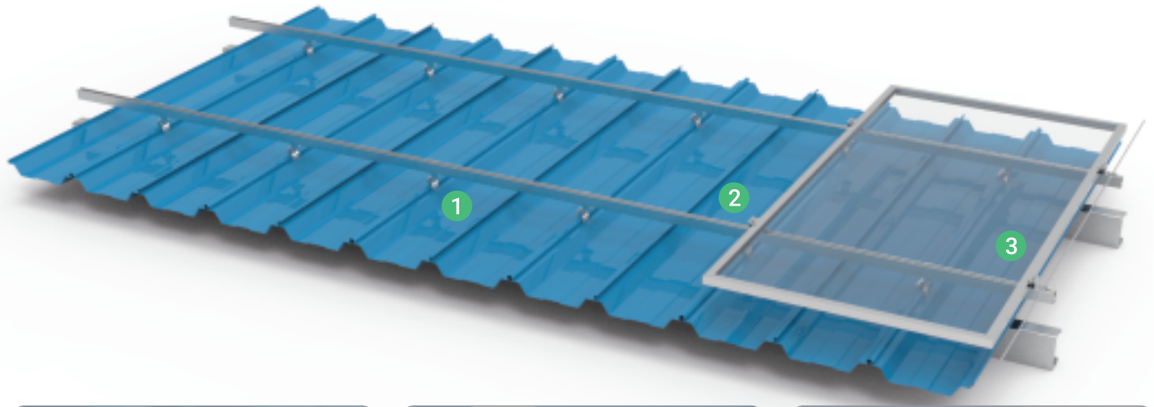
Mounting Angle	Parallel to Roof Surface
Wind Load	Customised
Snow Load	Customised
Applicable Solar Module	Frame
Module Orientation	Landscape or Portrait

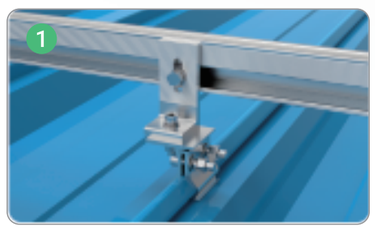
Stand Material	Stainless Steel or AL6005-T5
Fastener Material	SUS304 or SUS410
Surface Treatment	Anodized: No Less than 10μm, Excluding Machined Surfaces
Color	Natural Silver or Customized
Warranty	10 Years

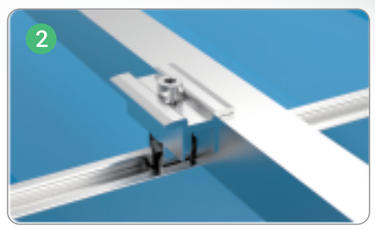
	Designation	Specification
	Rail	AL6005-T5
	Rib-Roof Clamp	L=50-80mm & Hex Bolt 2-M8x30 & Hex Bolt M8x25 & 5x Flat Washer & 3x Spring Washer & 3x Hex Nut
	Rail Connector	L=100mm AL6005-T5
	End Clamp	L=50-80mm & Hex Bolt M8x35 & Spring Washer & Clamp Aluminum Nut
	Mid Clamp	L=50-80mm & Hex Bolt M8x35 & Spring Washer & Clamp Aluminum Nut

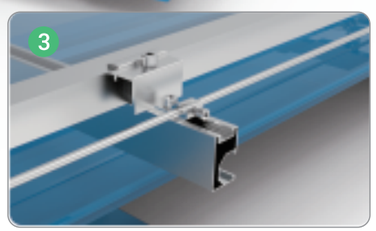
	Designation	Specification
	Earth Clip	38x49x0.3 SUS304
	Cable Clip	10x0.6 SUS304
	Self-tapping Screw	ST5.5x19 SUS410

Corrugated Sheet Metal Roof Mounting System Type B









Technical Specifications

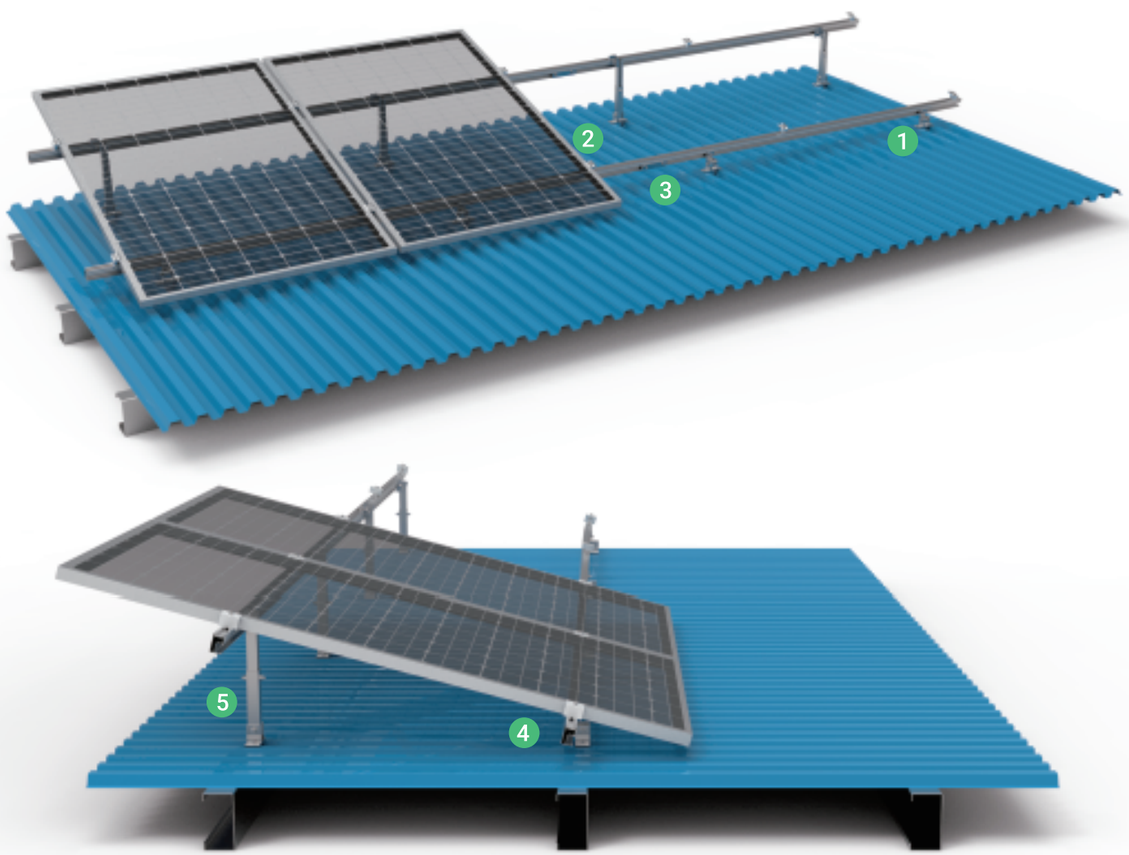
Mounting Angle	Parallel to Roof Surface
Wind Load	Customised
Snow Load	Customised
Applicable Solar Module	Frame
Module Orientation	Landscape or Portrait

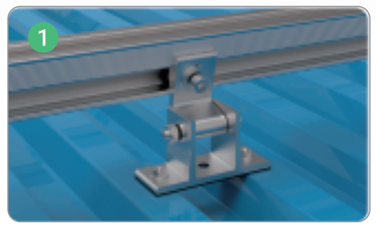
Stand Material	Stainless Steel or AL6005-T5
Fastener Material	SUS304 or SUS410
Surface Treatment	Anodized: No Less than 10μm, Excluding Machined Surfaces
Color	Natural Silver or Customized
Warranty	10 Years

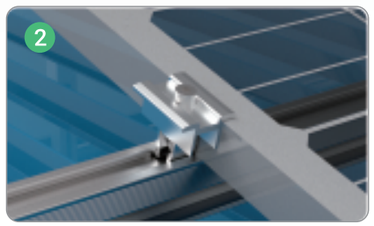
	Designation	Specification
	Rail	L=2100/4200mm 30x45x1.2 AL6005-T5
	L-Feet	L=30-60mm 40x85x8.0 AL6005-T5
	Rail Connector	L=140mm & 2x Hex Bolt M8*25 & 2x Flat Washe & 2x Spring Washer
	Rib-Roof Clamp	L=50-80mm & 2x Hex Bolt M8x35 & 2x Spring Washer & 2x Clamp Aluminum Nut
	End Clamp	L=50-80mm & Hex Bolt M8x35 & Spring Washer & Clamp Aluminum Nut
	Mid Clamp	L=50-80mm & Hex Bolt M8x35 & Spring Washer & Clamp Aluminum Nut

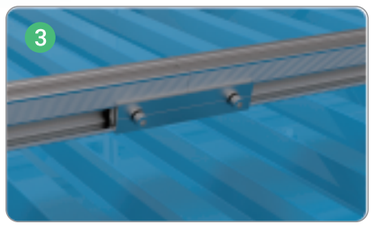
	Designation	Specification
	Ground Lug	L=20mm & Hex Bolt M8*12 & Hex Bolt M6*12 & Spring & Aluminum Nut
	Earth Clip	36*31.6*0.3 SUS304
	Cable Clip	10x0.6 SUS304
	Rail & T Sheet Connector	L=30mm & Hex Bolt M8x25 & Flat Washer & Spring Washer & Aluminum Nut

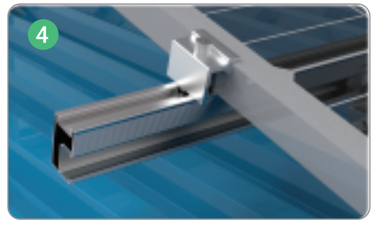
Adjustable Tilt Roof Mounting System

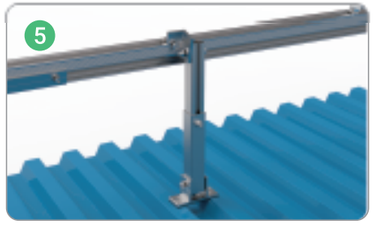












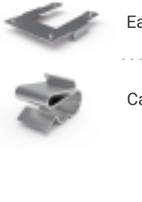
Powerful, Stable and Flexible

- Flexible tilt angle choices: 5°Fixed; 10-15°Adjustable; 15-30°Adjustable; 30-45°Adjustable
- Structural stability: The telescopic rod adopts a closed section design, locked by double-sided bolts.
- Operational protection: The tail of the telescopic rod is designed with an anti-out-of-exit limit structure to prevent installation misoperation

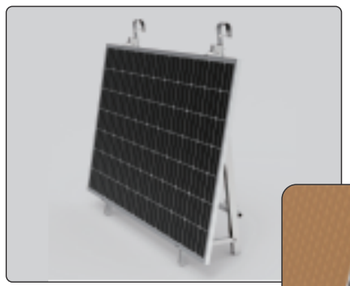
Technical Specifications

Application	Sheet Metal Roof/Concrete Roof	Warranty	10 Years
Tilt Angle	5°Fixed; 10-45°Adjustable	Max wind Speed	60m/s
Applicable Solar Module	Frame	Max Snow Load	1.0KN/m²
Material	Main Structure: AL6005-T5;	Surface Treatment	Anodized:No Less than 10um,
	Fasteners:SUS304&SUS410		Excluding Machined Surfaces
Module Orientation	Landscape or Portrait	Color	Natural Silver or Black
Design Standard	AS/NZS 1170, DIN 1055, JIS C8955: 2017, EN 1991-1, IBC 2009		

	Designation	Specification
	Rail	L=2250/4500mm 30x50x1.2~1.6 AL6005-T5
	Rail Connector	L=140mm & 2x Hex Bolt M8x20 & 2x Flat Washer & 2x Spring Washer & 2x Hex Nut
	End Clamp	L=50-80mm & Hex Bolt M8x35 & Spring Washer & Clamp Aluminum Nut
	Mid Clamp	L=50-80mm & Hex Bolt M8x35 & Spring Washer & Clamp Aluminum Nut
	Front Legs	L=40mm & Hex Bolt M8x60 & Hex Bolt M8x25 & 3x Flat Washer & 2x Spring Washer & 1x Hex nut & 1x Aluminum Nut & 2x Tapping Screw ST6.3*80 & 1x Sealing Gasket
	5°Fixed Tilt Legs (Options)	L=100mm & 2x Hex Bolt M8x60 & Hex Bolt M8x25 & 5x Flat Washer & 3x Spring Washer & 2x Hex Nut & 1x Aluminum Nut & 2x Tapping Screw ST6.3*80 & 1x Sealing Gasket
	Expansion Bolts (Options,for Concrete Foundation)	Expansion bolt M8x70 & Flat Washer & Spring Washer & Hex Nut

	Designation	Specification
	10-15°Adjustable Tilt Legs (Options)	L=220~330mm & Hex Bolt M8x60 & Hex Bolt M8x55 & Hex Bolt M8x25 & 5x Flat Washer & 3x Spring Washer & 2x Hex Nut & 1x Aluminum Nut & 2x Tapping Screw ST6.3*80 & 1x Sealing Gasket
	15-30°Adjustable Tilt Legs (Options)	L=380~635mm & Hex Bolt M8x60 & Hex Bolt M8x55 & Hex Bolt M8x25 & 5x Flat Washer & 3x Spring Washer & 2x Hex Nut & 1x Aluminum Nut & 2x Tapping Screw ST6.3*80 & 1x Sealing Gasket
	30-45°Adjustable Tilt Legs (Options)	L=380~635mm & Hex Bolt M8x60 & Hex Bolt M8x55 & Hex Bolt M8x25 & 5x Flat Washer & 3x Spring Washer & 2x Hex Nut & 1x Aluminum Nut & 2x Tapping Screw ST6.3*80 & 1x Sealing Gasket
	Ground Lug	L=20mm & Hex Bolt M8*12 & Hex Bolt M6*12 & Spring & Aluminum Nut
	Earth Clip	36*31.6*0.3 SUS304
	Cable Clip	10x0.6 SUS304

Balcony Mounting System type A - Common Edition



Installed on the Ground

Installed on Wall with Expansion Bolts

Technical Specifications

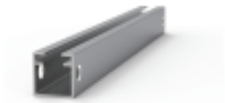
Application	Ground/Roof/Balcony/Guardrail
Tilt Angle	0°, 10°-30° Adjustable
Material	AL6005-T5,Steel,SUS304
Panel Layout	Landscape (Horizontal)
Max Panel width	1150mm
Design Standard	AS/NZS 1170, DIN 1055,JIS C8955: 2017,
	EN 1991-1, IBC 2000
Warranty	10 Years
Max wind Speed	35m/s
Max Snow Load	1.0KN/m²
Color	Natural Silver or Black

System Components

Main Column
33.5*50*1.5, L=1300mm

Auxiliary Column
29.5*39*1.1, L=1300mm

Cross Brace
30*30*1.5, L=310mm



Cross Brace
26*25*1.5, L=290mm

Railing Horizontal Support
30*30*1.5, L=1150mm

Hoop
35*135*2.0 (SUS304)

Hook
230*70*45*1.5 (SUS304)

End Clamps
L=50mm

Balcony Mounting System type B - Standard Edition

Installed on the Balcony 20°-30°

Installed on the Balcony 0°

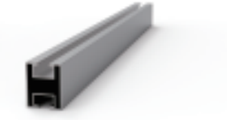
Installed on the Ground

Technical Specifications

Application	Ground/Balcony/Guardrail
Tilt Angle	0°, 20°-30° Adjustable
Material	AL6005-T5,Steel,SUS304
Panel Layout	Landscape (Horizontal)
Max Panel width	1150mm
Design Standard	AS/NZS 1170, DIN 1055,JIS C8955: 2017,
	EN 1991-1, IBC 2000
Warranty	10 Years
Max wind Speed	35m/s
Max Snow Load	1.0KN/m²
Color	Natural Silver or Black

System Components

Main Column
26*29*1.1, L=1300mm



Railing Horizontal Support
26*29*1.1, L=280mm

Cross Brace
26*26*1.5, L=400mm

Pedestal
95*45*3.5, L=30

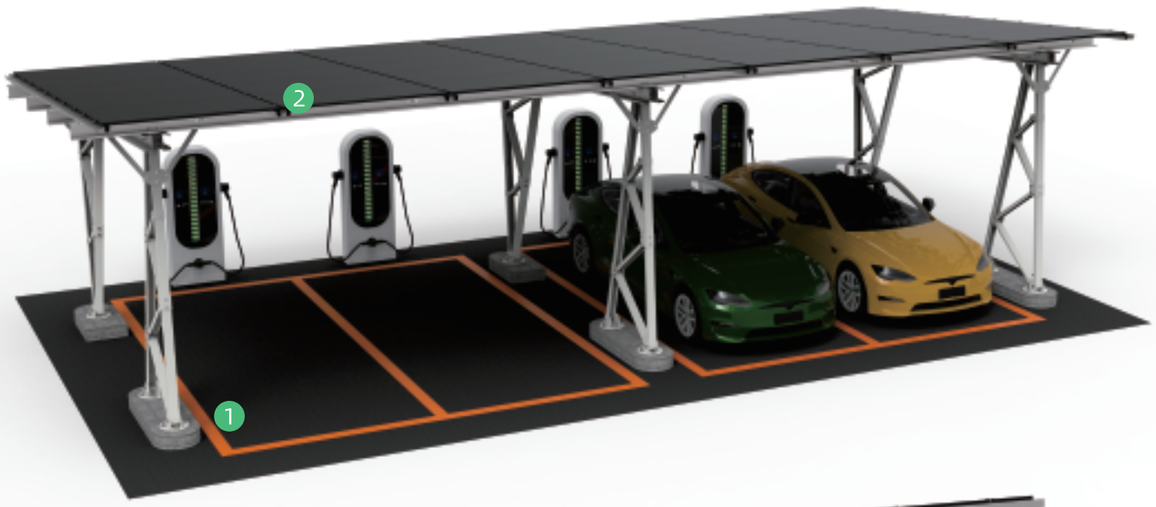
Hinge
32*57*2.0(SUS304)

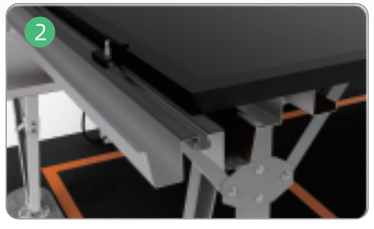
Hoop
35*12*2.0(SUS304)

Hook
190*70*40*2.0(SUS304)

End Clamps
L=50mm

Steel Carport PV Mounting System Type A





Carport Structure Characteristics

1. New style waterproof structure, solving the the water seepage through equipped water channel and waterproof adhesive strip.
2. The truss structure provides a strong guarantee for the overall structural stability and can resist the strong winds and snow, while reducing the requirements of the foundation fabrication.
3. The entire frame of the system is designed with cold-formed C-shaped steel, with a lightweight structure, fast installation, and short delivery time.
4.Lower maintenance cost and longer lifetime.

Technical Specifications

Module Orientation	Portrait or Landscape
PV Module	Framed
Wind Load	32m/s(10 min) or Customized
Snow Load	0.85kN/m2 or Customized
Parking space	Single Side Parking/Double Side Parking
Foundation	Concrete foundation
Waterproofness	Roof Structural Waterproof
Inclination Angle	5~10°
Material	Main structure: Cold Formed Steel
Color	Natural or White or Customer Requirement
Standard	AS/NZS 1170, DIN 1055, JIS C 89552017, IBC 2009, EN 1991, Building CodeCBC 2010
Warranty	10 Years

Carport Functions

Parking Space Size	Width 2.6m; Length 5.3m; Span 5.5m
Cars / Span	Two
Ground Clearance	3.0m
Door Opening	Non-barrier

Component

Pedestal

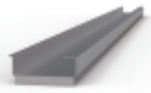
Strut Connector 1

Strut connector 2

Brace Connector 1

Post-C100*60*15*2.5
Strut-C100*40*15*2.0
Beam-C160*80*25*2.0
Purlin-C160*80*25*2.0

Longitudinal
Water Channel



Transverse
Water Channel

Water Channel Clamp

M10 Bar

D25*2.0 Sleeve

C Rail Connector

Brace

BRILLIANCE
CHINESE ALUMINUM EXPERT SINCE 2001

References

PowerFit Chile PMGD Portfolio Projects 300 MW

PowerFit Poland 27 MW

PowerFit Romania 10.5 MW

PowerFit Estonia 8 MW

PowerFit-Plus Lithuania 3 MW

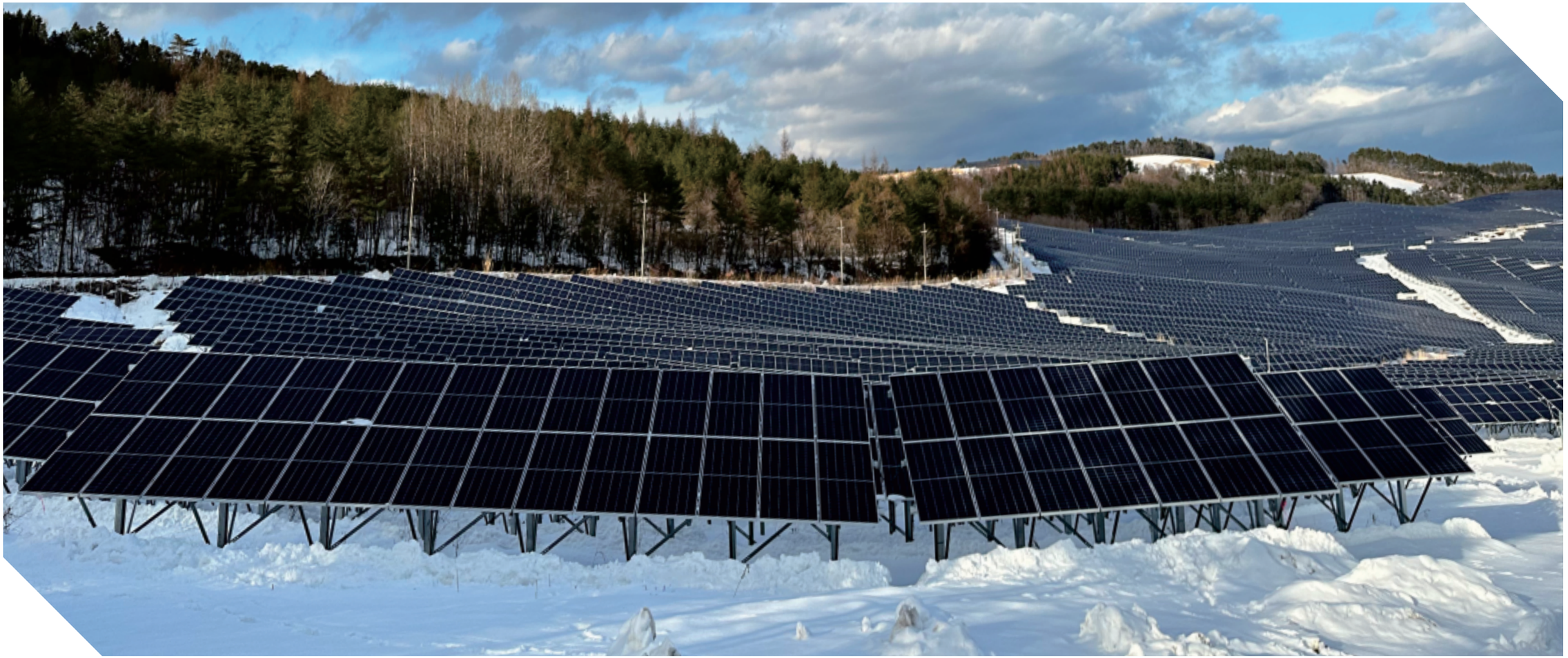
PowerFit-Plus Malaysia 75 MW

PowerFit Malaysia 45 MW

PowerFit-Plus Malaysia 43 MW

PowerFit-Blade China 24 MW

PowerFit-Blade Iraq 3 MW



DuraPower Japan 100 MW

DuraPower Hungary 54 MW

MACPower Japan 38 MW

DuraPower Japan 12 MW

DuraPower Japan 2 MW

MACPower Philippines 120 MW

MACPower Malaysia 155 MW

DuraPower Guam 88 MW

MACPower China 60 MW

MACPower China 40 MW

BRILLIANCE
CHINESE ALUMINUM EXPERT SINCE 2001

DuraPower Japan 140 MW

UniPower Japan 53 MW

DuraPower Japan 42 MW

DuraPower China 30 MW

DuraPower Philippines 27 MW

MACPower Chile 480 MW

DuraPower Algeria 120 MW

DuraPower Pakistan 100 MW

MACPower China 40 MW

MACPower Madagascar 8 MW

BRILLIANCE
CHINESE ALUMINUM EXPERT SINCE 2001

MACPower Vietnam 250 MW

MACPower Malaysia 137 MW

MACPower Bengal 134 MW

DuraPower Hungary 80 MW

MACPower Philippines 44 MW

BRILLIANCE
CHINESE ALUMINUM EXPERT SINCE 2001

Flat Roof Cement Foundation China 7.8 MW

Sheet Metal Roof China 5.6 MW

Sheet Metal Roof China 4.83 MW

Sheet Metal Roof China 3. 5 MW

Carport PV Malaysia 1.2 MW