Renewable Energy
POWERWAY

Powerway--Empower your solar farm!

- Excellent slope adaptability
- Quick installation
- Low construction costs
- Low transportation costs

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POWERWAY

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Project Demostration

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www.pvpowerway.com/en

Contents

Powerway Renewable Energy Co., Ltd, located in Foshan City, Guangdong Province, has branches in Japan. Adhering to innovative design concepts and operating ideas, POWERWAY is committed to providing economic and securing solutions for the global photovoltaic power plant as well as quality photovoltaic products. Power Mounting system, PowerRoof, PowerTracker, fixed tilt structure for commercial ends, Powerway Carport Pics, Rampost, Single Column Ground Support System are all provided by Powerway. At the meantime, the full set of the products have won ISO Certification, and striving to obtain BV TUV and BV Certificates.
With its capability of research and development, Powerway has utilized the automatic seamless welding process, in which takes into all-round inspection to ensure perfect production. Up to date, POWERWAY has provided specialized products and value-added services to PV power plants over 28 countries and regions, and also established strategic partnership with many well-recognized PV companies at home and abroad.It is a convincing brand in PV industry.

Innovation & Accreditation

POWERWAY is self-motivated for research and development through continual innovation. Over years, our design team has committed to progressive product upgrading, and many of our products have been globally accredited. The effort by our R&D team is well recognized by proudly bringing on 65 patents to POWERWAY all these years. Among them, 11 patents are for invention, 2 patents filed in Japan and 4 by PCT.

- Product Line accredited by First Solar
- Professional dual-glass modular solutions
- All-Aluminum Poly-Stand System Accredited by TüV
- Spiral Pile System Accredited by TüV

Patents

Quality

– Assurance for a 20-year Healthy Lifecycle on PV Plant

Choice of Material

Strict quality control on raw material

Scientific Lab Test Guarantees Product Properties

·Hardness Test	·Film Thickness Test	·Dyeing Scope Test
·Tensile Test	·Adhesion Test	·2.5D Test
·Torque Test	·Salt Spray Test	

Adequate laboratory testing means ensure the safety and reliability of the design of structures. All process inspection comes from the raw material to the finished products. The chemical composition & mechanical properties of raw material and surface treatment of products are strictly controlled according to the national standard.

Automated Seamless Welding

In Spiral Piling application, Automated Seamless Welding is performed by equipment that, by executing programmed or defined operation procedures, auto-controls, auto-adjusts, auto-detects and fabricates. Such application is not only able to meet production capacity, but also precludes common defects caused by conventional approach; thus it works to enhance quality, reduce cost and labor intensity, at the same time it secures production safety.

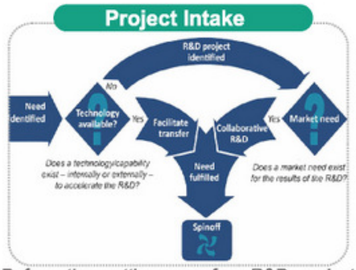
Surface Treatment on Parts/Component Exceeding State Standards

For the general area, the surface treatment of the steel parts is strictly treated according to the national standard [GB/T 13912 (equivalent to ISO1461)]. For the high salt area, the quality is controlled in accordance with the national standard [GB/T 13912 (equivalent to ISO1461)] to meet the corrosion tolerance time of the products under different natural conditions. Each product is checked through strict factory inspection to ensure the normal operation of the whole life cycle of the solar mounting system.

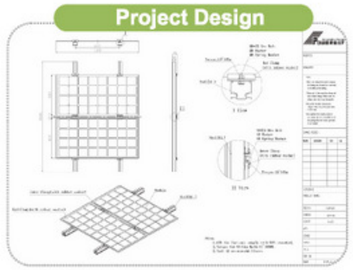
Instant After-Sales Service Responding System

The implement of after-sale-service emergency response mechanism ensures quick response to customer demands when product problems occur, leaving limited affection on the progress of project construction or commissioning.

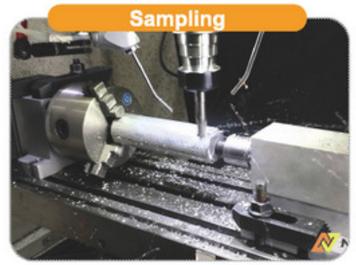
Product Development Flow Chart



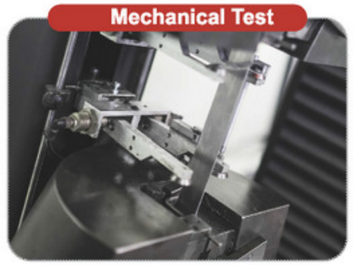
Before the setting up of a R&D project, Powerway's Sales Engineer collect market demand & customer needs, investigate competitors' product design & cost status, and evaluate project in details.



Approval reached on Initial Structure, Case Outline and Initial Costing by both Project Intake Team and Decision Makers.



Product Testing on Corrosion-Resistance, Installation Reliability and Rationality, Product/Design Function Attainability.



1 Simulated Installation and Tensile Testing on structures or system by R&D
2 Evaluation on Initial Funding by Supply Chain and Decision Makers, e.g. Tooling cost

Evaluate the feasibility of product manufacturing through small batch trial production, improve and optimize product design by coordinating with manufacturing department.

Move over for Final Production Run

Process Optimization

Project kickoff ➡ Solution optimization ➡ Testing and verification ➡ Import in small batches ➡ Complete import

Strong Design Team

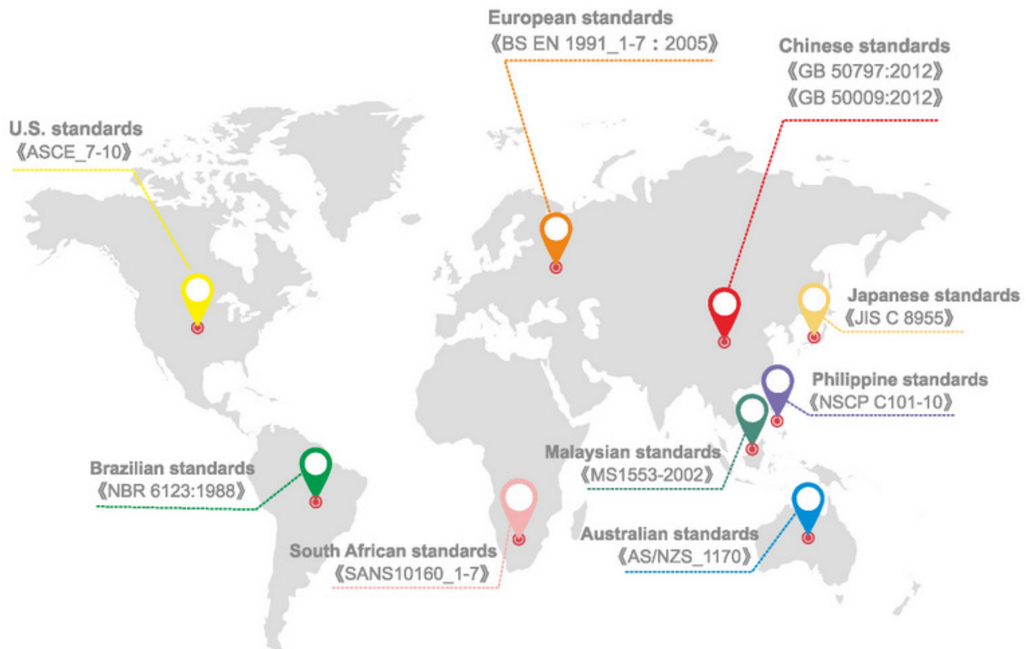
1 Members

Mechanics engineer
Mechanical engineer
Electrical engineer
Installation engineer

2 Standard Products and Service

Standard products and services
Presales technical consulting
One-stop total solutions
Photovoltaic rack system
Photovoltaic tracker system
Power station construction project
Construction and installation guide
O&M (operations & maintenance)

3 Standards & specifications



Perfect packing solutions

Carton & pallet

Accessories and hardware items, such as clamps, coupling tubes, and bolts.

•Advantages

Low-cost packing, excellent protection, easy handling, easy waste disposal.

•Precautionary measures for safe transportation

Cargo is fixed with string, rope, or tape to prevent it from shifting during transport.

•Testing and verification

Transportation testing for steel carton packing

Iron frame & rack

Steel tubes, section steel, and special packing, such as rampost inclined strut and U-shaped keel.

•Advantages

Stable structure, excellent bearing capacity, low damage rate, convenient loading, long lifecycle.

•Precautionary measures for safe transportation

Cargo is fixed with string, rope, or tape to prevent it from shifting during transport.

•Testing and verification

Transport testing for U-shaped keel iron frame packing

Wooden frame & wooden crate

Aluminum section, section steel, and special packing, such as aluminum keel tubes, U-shaped steel, and samples.

•Advantages

The packing materials help ensure a low damage rate, excellent shock resistance, low-cost transportation, and easy waste disposal.

•Precautionary measures for safe transportation

For shipments using aluminum sections, the cracks in the container are stuffed with cardboard to prevent the goods from moving; steel cargo is fixed with string, rope, or tape to prevent cargo from shifting during transport.

•Testing and verification

Aluminum crane loading testing;
Board-added optimization testing for aluminum keel packing belts;
Wooden corner-added crane loading testing for aluminum keel packing.

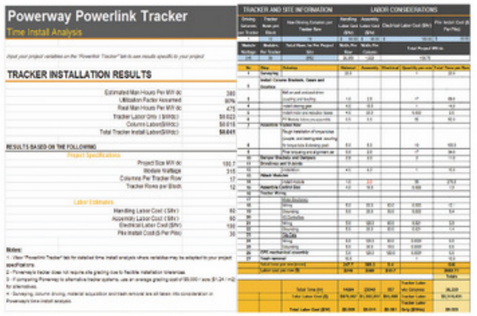
*Note that packing solutions can be customized to meet special customer requirements.

Our perfect logistics network best serves your solar power station.

·Our global logistics partnerships can satisfy all manner of customer requirements;
·We provide a complete set of logistics services, ranging from towing to loading and transportation, customs clearance, and destination port entry.

Installation Guide

1. Professional analysis of installation man-hours required to clarify installation costs;



2. Professional advice in terms of tools, machinery, and HR arrangements to ensure that preliminary preparations are easy and efficient;

3. With our experience in building photovoltaic power stations, we offer professional onsite installation guidance to ensure success.

PowerTracker Seytem

PowerLink
PowerMax
PowerFit

Double-sided PERC Solar Module
Independent Single-axis & Dual-portrait-row Tracking System

High ROI
low CAPEX
Highly intelligent

Non-welded & highly pre-assembled
Simple components and parts
Save Time

Non-push-rod single row structure
Improve installation efficiency
Save Cost

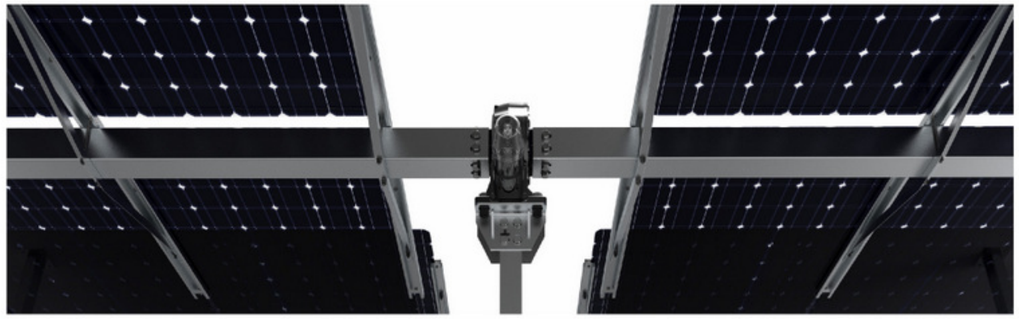
Higher yield rate
20% ~ 43%

Strong Terrain Adaptability
Self-protection against gust
Automatic cleaning function
Automatic snow removing function
Optimized back tracking for shade avoidance

Independent single-row driving device

• Solution of Independent Single-axis & Dual-portrait-row Tracking System + Double-sided PERC Solar Module

The perfect integration of Independent Single-axis & Dual-portrait-row Tracking System + Double-sided PERC Solar Module greatly increases the photovoltaic efficiency and increases the electricity yield by 20%~43%. It has become a new generation leader of high ROI solar power station system.



Electrical Data	
Control algorithm	Active tracking closed-loop control
Control system	MCU
Communication interface	Wired / wireless Network (RS485)
Self-protection against gust	yes
Automatic leveling mode at night	yes
Rotation spacing limit	yes (soft-spacing and hard-spacing, over-flow and overload protection)
Back tracking	yes
Raining and snowing mode	yes
Motor parameter	24VDC 85W
Wired / wireless Network	Zigbee/RS485
Working Temperature	-30°—70°

Mechanical Data	
Tracking Style	Single-axis Horizontal
Capacity per set (kw/set)	81—97.2KW
Set quantity per MW(MW/set)	12-14
Requirement of Power Supply	L+N (2ph input) 90-550VAC (wide voltage input)
E-W & S-N table dimensions	according to location and module specifications
Module supported	Mono/Crystalline/Thin Film /Double-sided/Double-glass
Space required	24mu/MW (1mu=0.0667 hectares)
Tracking Range of Motion	-45° ~ 45°
Working wind speed	<20m/s
survival wind speed	40m/s( )
Tracking accuracy	±2° or customized
Module per row	per row Max 90 modules
Material	Q235B/Q345B (Hot-dip galvanizing)

• Comparison of electricity yield

Comparing to Independent Single-axis Tracking System and Fixed-tilt Mounting Structure, the Independent Single-axis & Dual-portrait-row Tracking System increases the electricity yield by 20%-43%.

Comparison of electricity yield	
Independent Single-axis & Dual-portrait-row Tracking System + Double-sided PERC Solar Module Independent Flat-single-axis Single-row Tracking System + Single-glass Single-sided Mono-crystalline Silicon Module	36%
Fixed-tilt Mounting Structure + Double-glass Double-sided PERC Solar Module Fixed-tilt Mounting Structure + Single-glass Single-sided Mono-crystalline Silicon Module	31%
Independent Single-axis & Dual-portrait-row Tracking System + Double-sided PERC Solar Module Fixed-tilt Mounting Structure + Double-glass Double-sided PERC Solar Module	26%
Independent Flat-single-axis Single-row Tracking System + Double-glass Double-sided PERC Solar Module Fixed-tilt Mounting Structure + Double-glass Double-sided PERC Solar Module	22%
Independent Single-axis & Dual-portrait-row Tracking System + Double-sided PERC Solar Module Independent Flat-single-axis Single-row Tracking System + Double-glass Double-sided PERC Solar Module	14%

The Independent Flat-single-axis Double-vertical-rows Tracking System combines the high ROI system solution of the Double-sided PERC Solar Module. With only an increase of 5% - 8% investment, the system can increase the electricity yield by 20%~43% (depending on the project site), bringing high ROI (return of

PowerTracker

Powerway single-axis tracking system (PowerTracker) is the best solution for the projects in low latitude area.

PowerTracker has great advantages as following:

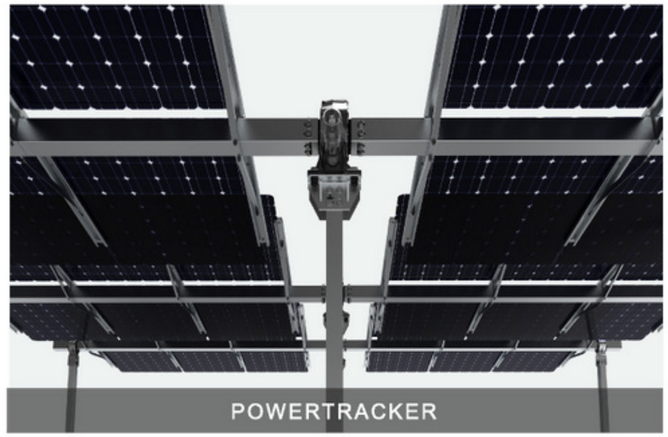
1.One set of drive device and control system can drive the entire array to achieve automatic tracking;

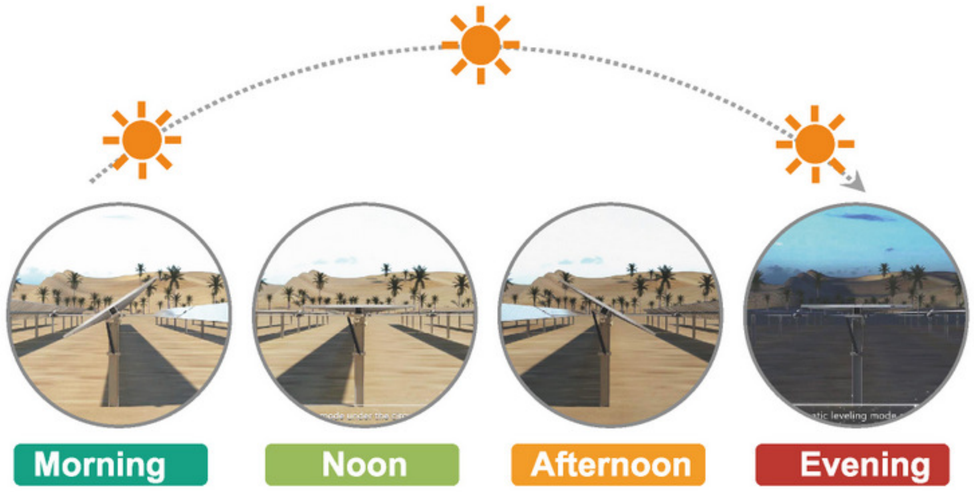
2.Unique linkage structure and maintenance-free rotary bearing guarantees the system stability and reliability;

3.Low failure rate and low maintenance costs;

4.±60° tracking range generates 1%-2% more power than normal trackers;

Compared with the traditional fixed system, Powerway's single axis tracking system can increase 10% -25% more power generation, which is the best solution to help the investors/developers to maximize their return.





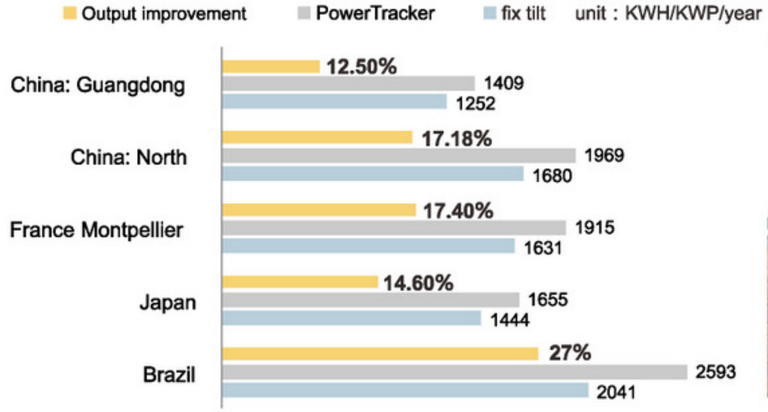
• Independent Single-axis & Dual-portrait-row Tracking System + Double-sided PERC Solar Module improve the yield of electricity by 43% at maximum.

• Ordinary Mono-crystalline Silicon Module + Smart Tracker improve the yield of electricity by 25%.

·±60° tracking, which helps increase power-generating capacity by 1-2%compared with an ordinary tracker.

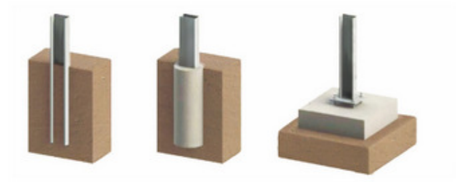
High ROI ,Lower CAPEX

·Analysis of single axis tracker system power generation



The single axis tracker system is suitable for areas of low and middle latitudes, and boosts power generation by more than 10% compared with a fixed tracker system.

· Its balanced design can directly reduce the use of pile foundation by 25% - 35%



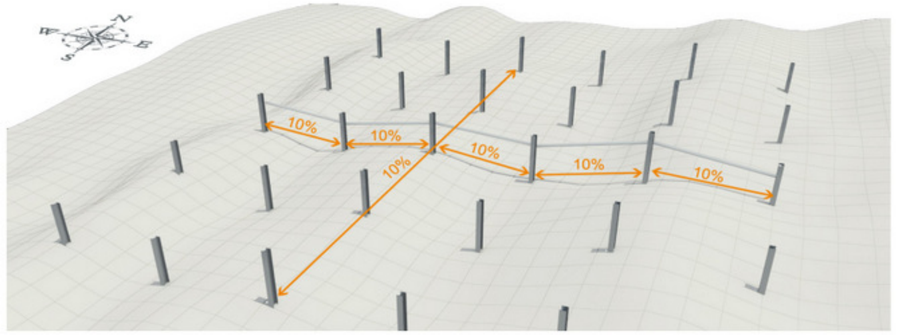
For every 100MW installed:
- About 10,000 piles can be saved;
- About 900 tons of steel or aluminum can be saved;
- Two cents worth of installation costs can be saved for every kilowatt.

•Savings on installation costs:

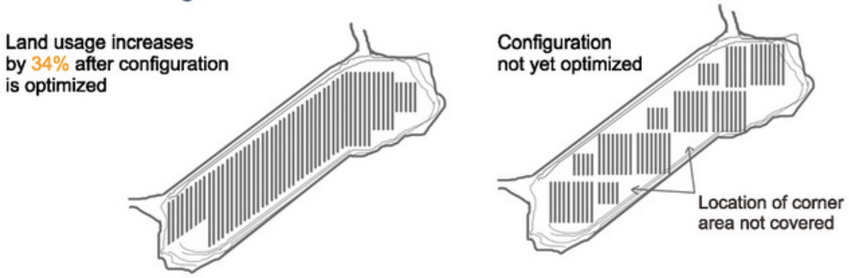
No onsite soldering required
Quick clamping
Quick and easy to install
No large machinery required

Better adaptability to different terrains

· Description and illustration of adaptability to different terrains



· Better land usage



· The Powerway single axis tracker system easily adapts to various types of soil.

Safe and reliable

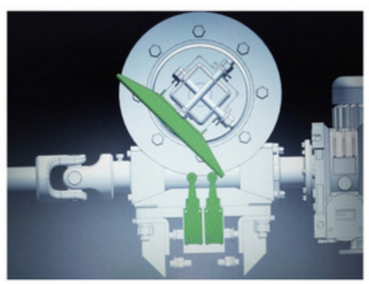
② Reverse self-locking
——Slewing reducer

Reverse self-locking happens in the case of external interference (such as strong winds)

③ Lightning protection
—— surge suppressor

A protective device in case the system is struck by lightning, ensuring that the equipment remains free from damage.

· Multilayered limit protection system in the Powerway tracker



Circuit protection

Mechanical protection

The circuit and mechanical protection systems provide double protection to limit the range of angles at which the solar tracker can rotate; if the motor is stuck, they can quickly make it stop rotating.

Component Quality Control

· **Main components** are sourced from top brands in China, Europe and the U.S., UL certified;
· Components used are all industrial components that can function in a wide range of temperatures.

Powerway tracker motor
UL certified, equivalent to European wind and solar motors in terms of quality

Powerway tracker cabinet
· Rigorous materials selection
· Special materials coating
· Resistance to acid rain and corrosion

· Standard industrial plug with error proofing function; easy to install;

· Industrial communication interface, able to form a monitoring network for convenient centralized control;

· All external interfaces feature optoelectronic isolation measures, giving excellent anti-interference performance and operating stability.

Testing and verification

Testing thestrength of the rack structure under different conditions

Wind tunnel testing

Repeatedly verifying the accuracy of theoretically calculated data

Static load testing

Lifecycle testing

Conducting reliability tests on the core components: including load, impact load, accelerated aging operation, low/high temperatures, IP level, and UV impact.

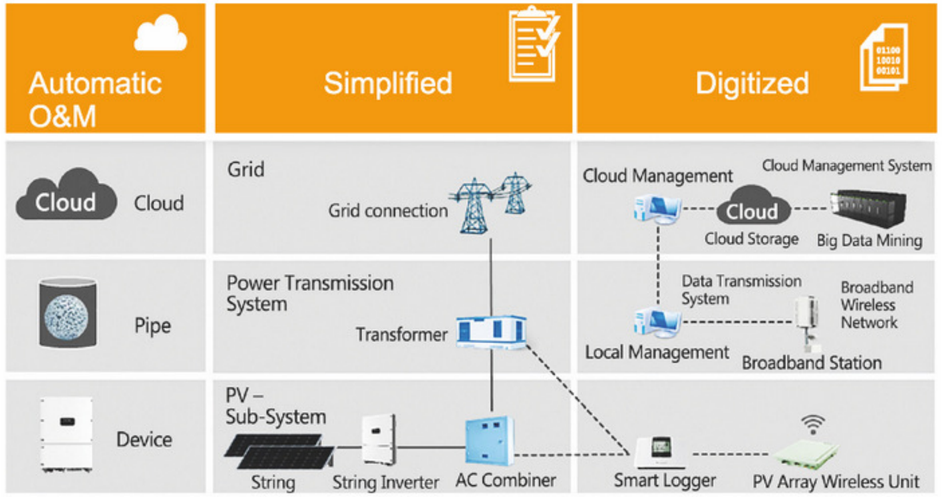
Installation, operation, and verification of the whole system

Ensuring the normal and reliable operation of the product

Smart product /low O&M costs

· What is smart pv plant

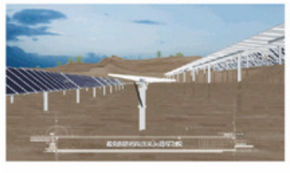
PowerTracker applies big data, cloud and remote control features and technology, for your smart PV plant.



Operating modes for various scenarios

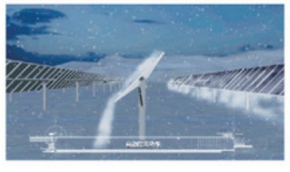
Accurate sun tracking guaranteed 10%-25% more yield

The Tracker is auto-switched to Level Patter mode as soon as wind load reaches 72km/h, and this mode can withhold up to the max load of 144km/h



Optimized back tracking for shade avoidance

Automatic leveling mode at night



Automatic snow removing function

Automatic cleaning function

· Powerway photovoltaic tracker monitoring system

· Visible at various layers, cascaded monitoring, direct management of each motor

Distribution of power stations and their operating status

Providing tracker-based real-time monitoring for quick identification of faults;

Real-time graphical monitoring based on the equipment's physical location, logical topology, and electrical wiring schematics;

Operating status displayed through tables and charts;

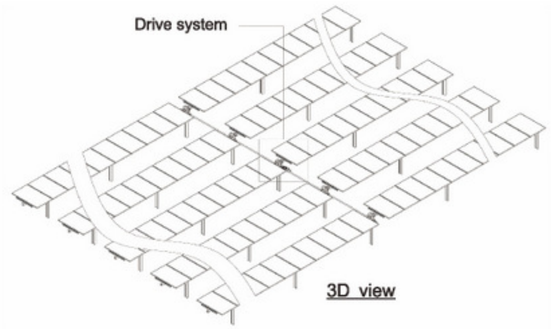
Accuracy level down to the status parameters of each individual component.

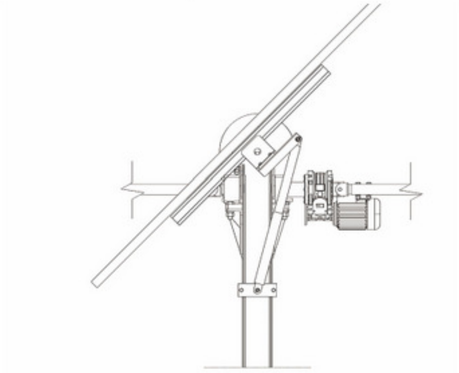
The whole matrix has only one motor, resulting in fewer points of failure, ease of maintenance, and less power consumption during operation;
Adaptable to various component configurations, including diagonal configuration.

Specification	
System	Powerlink
Tracking Style	Single-axis Horizontal
Capacity(DC)	100~400kW
Max system voltage	1000V/1500V
Tracking Range of Motion	±45°/±60°
Extra ouput(v.s. fixed tilt)	10%~25% (Powerway's Terms and Conditions applied)
Mechanical Data	
Drive mode	Universal couple
Material	Hot dip galvanized steel + aluminium alloy
Max rows	24
Module per row	per row Max 90 modules
E-W slope	<10%
N-S slope	<10%
Mechanical size	subject to module dimension and quantity
Module supported	Mono/Crystalline/Thin Film
Module Layout	Portrait/Landscape
Ground clearance	>400mm
Foundation	Rampost/Concrete
Max wind speed	144km/h or customized
Stow wind speed	<72km/h
Time to stow position	<5 minutes
Electrical Data	
Power voltage	3W+PE 380/480VAC L+N+PE 110/220VAC
Power frequency	50/60HZ
Nominal power	2.2kW
Motor type	AC motor
Control system	MCU
Control algorithm	Active tracking closed-loop control
Tracking accuracy	±2° or customized
Automatic leveling mode at night	Yes
Back tracking	Yes
Automatic rain cleaning	Yes
Automatic snow cleaning	Yes
Working Temperature	-30° ~ 65°
IP protection	Ip65
Communication interface	RS485/Modbus

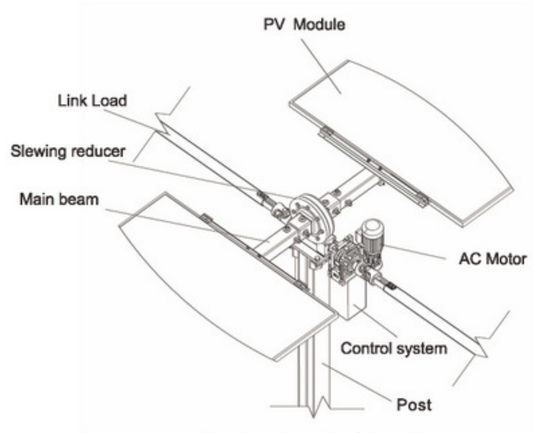
• PowerLink

Strong Terrain Adaptability
No installation issues for slopes less than 10%.





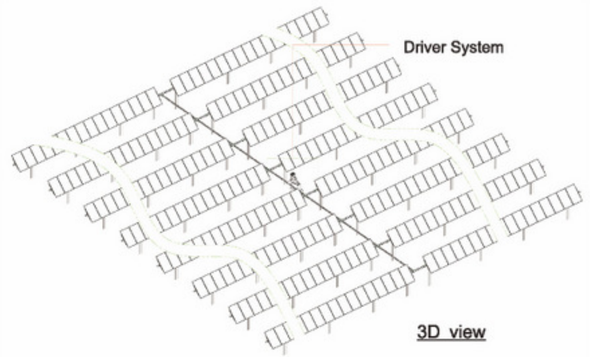
Detailed diagram of the system



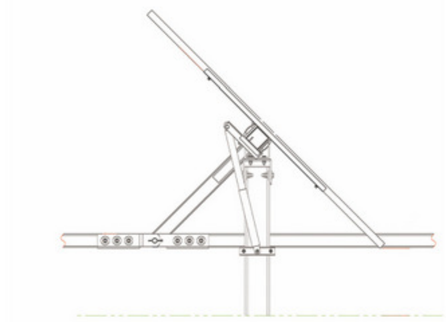
Detailed diagram of the drive

• PowerMax

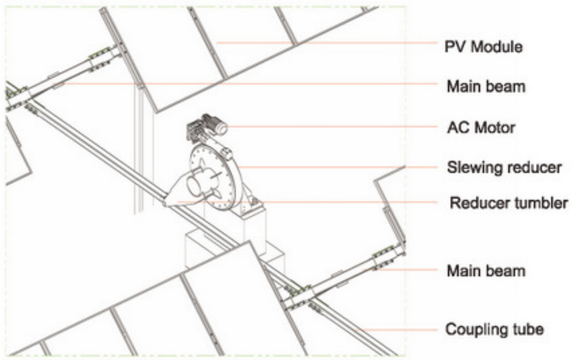
Cost-effective
Centralized drive system to improve maintenance efficiency



3D view



Detailed diagram of the system



Detailed diagram of the drive

The whole matrix has only one motor, resulting in fewer points of failure, ease of maintenance, and less power consumption during operation;
A centralized multi-row link drive and control methodology is used to ensure efficient O&M.

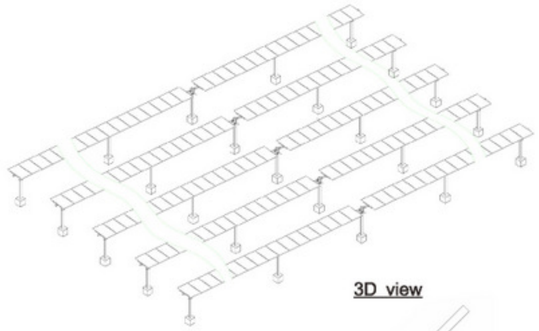
Specification	
System	Powermax
Tracking Style	Single-axis Horizontal
Capacity(DC)	100~250kW
Max system voltage	1000V/1500V
Tracking Range of Motion	±45°/±60°
Extra ouput(v.s. fixed tilt)	10%~25% (Powerway's Terms and Conditions applied)
Mechanical Data	
Drive mode	Linkrod
Material	Hot dip galvanized steel + aluminium alloy
Max rows	24
Module per row	Max 64
E-W slope	<5%
N-S slope	<10%
Mechanical size	subject to module dimension and quantity
Module supported	Mono/Crystalline/Thin Film
Module Layout	Portrait/Landscape
Ground clearance	>400mm
Foundation	Rampost/Concrete
Max wind speed	144km/h or customized
Stow wind speed	<72km/h
Time to stow position	<5 minutes
Electrical Data	
Power voltage	3W+PE 380/480VAC L+N+PE 110/220VAC
Power frequency	50/60HZ
Nominal power	2.2kW
Motor type	AC motor
Control system	MCU
Control algorithm	Active tracking closed-loop control
Tracking accuracy	±2° or customized
Automatic leveling mode at night	Yes
Back tracking	Yes
Automatic rain cleaning	Yes
Automatic snow cleaning	Yes
Working Temperature	-30° ~ 65°
IP protection	Ip65
Communication interface	RS485/Modbus

• PowerFit

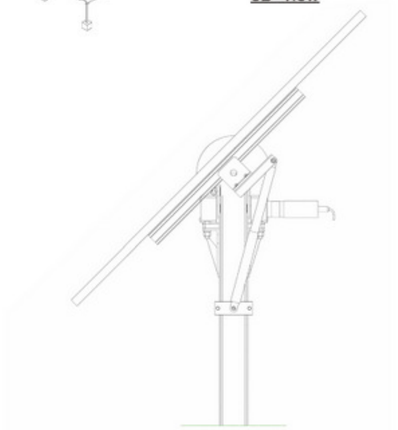
Most flexible for any Array Layout
Best Land Utilization

An independent driving method is used to reduce the impact of failures in a single drive system, remove the risk of massive systematic failure, and achieve energy efficiency during operation;
An efficient S-shaped cleaning module can be formed between matrices as there is no lateral block between coupling tubes.

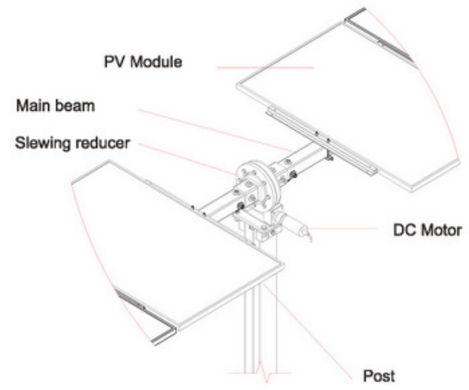
Specification	
System	Powerfit
Tracking Style	Single-axis Horizontal
Capacity(DC)	25~30kW
Max system voltage	1000V/1500V
Tracking Range of Motion	±45°/±60°
Extra ouput(v.s. fixed tilt)	10%~25% (Powerway's Terms and Conditions applied)
Mechanical Data	
Drive mode	Self drive
Material	Hot dip galvanized steel + aluminium alloy
Max rows	/
Module per row	Max 90
E-W slope	No limit
N-S slope	<10%
Mechanical size	subject to module dimension and quantity
Module supported	Mono/Crystalline/Thin Film
Module Layout	Portrait/Landscape
Ground clearance	>400mm
Foundation	Rampost/Concrete
Max wind speed	144km/h or customized
Stow wind speed	<72km/h
Time to stow position	<5 minutes
Electrical Data	
Power voltage	24VDC
Power frequency	/
Nominal power	85W
Motor type	DC motor
Control system	MCU
Control algorithm	Active tracking closed-loop control
Tracking accuracy	±2° or customized
Automatic leveling mode at night	Yes
Back tracking	Yes
Automatic rain cleaning	Yes
Automatic snow cleaning	Yes
Working Temperature	-30° ~ 65°
IP protection	Ip65
Communication interface	RS485/Modbus



3D view

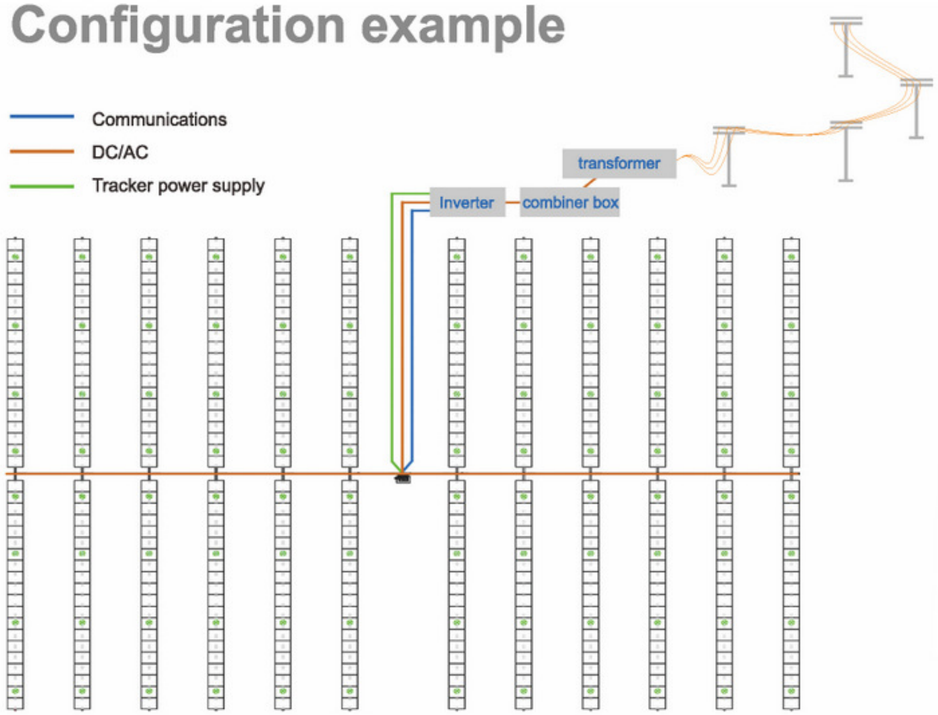


Detailed diagram of the system



Detailed diagram of the drive

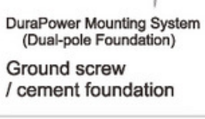
PowerTracker
Configuration example



Ground product series

·DuraPower Mounting System (Mono-pole Foundation, Steel Series);
·UniPower Mounting System (Mono-pole Foundation, Steel+Aluminum Series)
·DuraPower Mounting System (Dual-pole Foundation, Steel Series)
·AlumPower Mounting System (Dual-pole Foundation, Aluminum Series)
·UniPower Mounting System (Dual-pole Foundation, Steel+Aluminum Series)
·Multi-functional Solar Shelter (Aluminum Series)

Basic system types

Foundation type	Material	Wind load	Snow load	Advantages
 DuraPower Mounting System (Mono-pole Foundation) C/H-shaped steel (static pressure pile) /cement foundation	Carbon steel Q235B /Q345B	38m/s (can be designed according to specific customer requirements)	/	1,Pile-rampost integrated design to facilitate construction; 2,Highly pre-assembled,, Ensuring easy installation and lower labor costs ; 3,Highly adaptable to ground installation; 4,Steel material design -durable for outdoor use.
 UniPower Mounting System (Mono-pole Foundation) C/H-shaped steel (static pressure pile) /cement foundation	Carbon steel Q235B /Q345B /AL6005-T5	38m/s (can be designed according to specific customer requirements)	/	1,Pile-rampost integrated design to facilitate construction; 2,Highly pre-assembled, Ensuring easy installation and lower labor costs ; 3,Highly adaptable to ground installation; 4,Aluminum secondary keel design - easy to install for quickonsite construction.
 DuraPower Mounting System (Dual-pole Foundation) Ground screw / cement foundation	Carbon steel Q235B /Q345B	38m/s (can be designed according to specific customer requirements)	60CM	1,Foundation for quick and efficient installation ; 2,Height and angle can be adjusted in a certain range; 3,Steel material design -durable for outdoor use.
 AlumPower Mounting System (Dual-pole Foundation) Ground screw / cement foundation	AL6005-T5	38m/s (can be designed according to specific customer requirements)	60CM	1,Stainless steel, aesthetic and elegant; 2,Lightweight material, convenient for transportation and installation; 3,Ensuring easy installation and lower labor costs; 4,Recyclable and “value retention".
 UniPower Mounting System (Dual-pole Foundation) Ground screw / cement foundation	Carbon steel Q235B /Q345B /AL6005-T5	38m/s (can be designed according to specific customer requirements)	60CM	1,Foundation for quick and efficient installation ; 2,Height and angle can be adjusted in a certain range; 3,Aluminum secondary keel design - easy to install for quickonsite construction.
 Multi-functional Solar Shelter Ground screw / cement foundation	AL6005-T5	38m/s (can be designed according to specific customer requirements)	/	1,It can be used as: Agricultural Photovoltaic Greenhouse, Sunlight Carport, Sunlight Room, etc. 2,The maximum span of the rail is 6m, no post needed in space of 32㎡; 3,Reasonable structural design, high stability.

Analysis of installation man-hours

Mono-pole Foundation:

Mounting Structure Type	Steel Series	Steel&Aluminium Series
Capacity	1MW	1MW
Module Type	250W	250W
Modules Layout of Every Single Table	4*6	4*6
Number of Fundations in Every Single Table	1*4	1*4
Number of Tables in 1MW	167	167
Installation Efficiency (hour per table) (Rampost & Structure)	3.5	4.1
Labor Hour	684.7	584.5
Labor Day	73.1	85.6

Dual-pole Foundation:

Mounting Structure Type	Steel Series	Aluminium Series		Steel&Aluminium Series	
Capacity	1MW	1MW		1MW	
Module Type	250W	250W		250W	
Modules Layout of Every Single Table	2*7	4*4	4*7	4*2	4*4	4*6
Number of Fundations in Every Single Table	2*3	2*3	2*5	2*2	2*3	2*4
Number of Tables in 1MW	286	250	143	500	250	167
Installation Efficiency (hour per table) (Ground Screw & Structure)	4.5	3.36	5.7	2.02	3.36	4.69
Labor Hour	1286	840	814	1010	840	782
Labor Day	161	105	102	126	105	98

Remark:
Mono-pole Foundation: - section steel pile foundation + rack;
Dual-pole Foundation: - Ground screw+ rack.

Conclusion on data analysis

·The multiple rampost all-aluminum system can reduce installation time by 36.7% compared to a multiple upright all-steel system in terms of man-hours;
·The multiple rampost steel-aluminum system can reduce installation time by 21.4%~39.2%compared with a multiple upright all-steel system in terms of man-hours;
·Comparison with single rampost all-steel supporting system, single rampost aluminum-steel supporting system can save 14,6% of installation hours.
*Note that the above analytical data is based on a typical scenario, and is subject to the actual situation of a project.

·DuraPower Mounting System (Mono-pole Foundation,Steel Series)

The Powerway single rampost all-steel mounting system is designed using section steel, making it very cost-efficient. The simple structural design greatly improves installation efficiency and reduces installation costs, while its hot-dip galvanizing surface treatment ensures that the system has a long lifecycle even when installed in a hostile environment. Using the special module clamp adapter, the system is suitable for both horizontal and vertical installation, thus significantly improving flexibility.

Its high material efficiency and ability to increase spacing between ramposts according to the terrain make it more popular for large projects.

Advantages

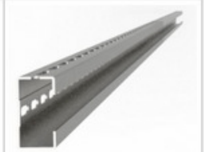
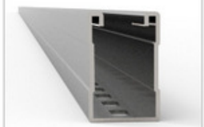
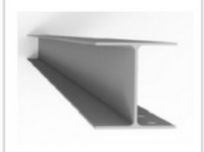
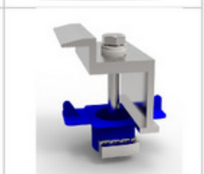
1,Pile-rampost integrated design to facilitate construction;
2,Highly pre-assembled, Ensuring easy installation and lower labor costs ;
3,Angle can be adjusted in a certain range;
4,Steel material design -durable for outdoor use.

Foundation type:

C/H-shaped steel (static pressure pile) /cement foundation

Materials

Carbon steel Q235B / Q345B

main rail	
Sub-rail	
Strut	
column	
Column connector	
strut connection	
Pre-assemble middle clamp	
Pre-assemble side clamp	

·UniPower Mounting System (Mono-pole Foundation, Steel+Aluminum Series)

The Powerway single rampost steel-aluminum mounting system incorporates the dimensions of standard modules available on the market, and has a professional structural design to ensure that the materials are cost-efficient. This series of products uses a pile galvanizing section steel foundation with special structural design in order to facilitate site maintenance and the future use of the site.

This system is preinstalled, so it takes just a few steps to mount the preinstalled components to the foundation. This ensures quick and efficient onsite commissioning.

Advantages

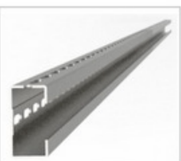
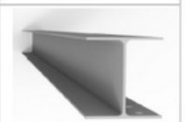
1,Pile-rampost integrated design to facilitate construction;
2,Highly pre-assembled, Ensuring easy installation and lower labor costs ;
3,Highly adaptable to ground installation;
4,Aluminum secondary keel design - easy to install for quick onsite construction.

Foundation type:

C/H-shaped steel (static pressure pile) /cement foundation

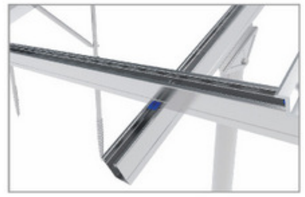
Materials

Carbon steel Q235B / Q345B

main rail	
Sub-rail	
Strut	
Rail nut	
column	
Column connector	
strut connection	
Nut block	
Pre-assemble middle clamp	
Pre-assemble side clamp	

·DuraPower Mounting System (Dual-pole Foundation, Steel Series)

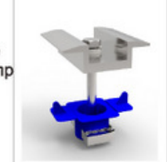
The Powerway multiple column all-aluminum mounting system is designed using aluminum alloy; thanks to the 85μm hot-dip galvanizing process, it has excellent anti-corrosive properties; its professionally designed structure and structural optimization help customers realize significant cost savings. The folding pre-installed design guarantees efficiency for onsite installation, while the multiple column design improves system stability, ensuring that the system has a long lifecycle even when operating in hostile environments.



Advantages:
1,Ensuring easy installation;
2,Height and angle can be adjusted in a certain range ;
3,Steel material design -durable for outdoor use.

Foundation type:
Ground screw
Cement foundation

Material:
Carbon steel Q235B/Q345B

main rail	
Sub-rail	
Ground screw	
column	
Strut	
Pre-assemble middle clamp	
Pre-assemble side clamp	
Hinged base	
Double-screw Connector	

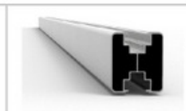
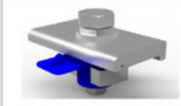
·AlumPower Mounting System (Dual-pole Foundation, Aluminum Series)

The Powerway multiple column all-aluminum mounting system is designed using aluminum alloy, giving it an aesthetic and elegant appearance; lightweight materials and a slot keel design make it easy to install, and lead to significant savings in terms of onsite installation costs. A 15μm anodizing of the surface ensures high anti-corrosive performance; it is height-adjustable, thus flexible for use in various complex terrains; an 80% recycling rate of the aluminum allows the power station to effectively "retain value".

Advantages:
1,Stainless steel, aesthetic and elegant;
2,Lightweight material, convenient for transportation and installation;
3,Ensuring easy installation and lower labor costs;
4,Recyclable and "value retention".

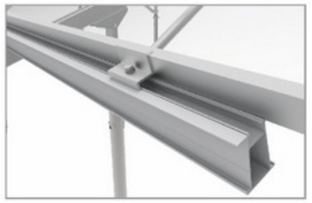
Foundation type:
Ground screw
Cement foundation

Material:
Al 6005-T5

main rail	
Sub-rail	
Rail nut	
Ground screw	
column	
Strut	
Nut block	
Pre-assemble middle clamp	
Pre-assemble side clamp	
Hinged base	
Double-screw Connector	

·UniPower Mounting System
(Dual-pole Foundation, Steel+Aluminum Series)

Carbon steel is used in the design of the column section and the support of the Powerway upright steel-aluminum mounting system. The primary and secondary keels feature aluminum alloy, providing solar power stations with a strong, stable load-bearing structure; meanwhile, the intensity and complexity of system installation is significantly reduced. The column is height-adjustable, hence highly adaptable to various complex terrains.

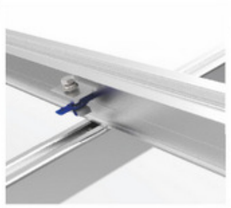


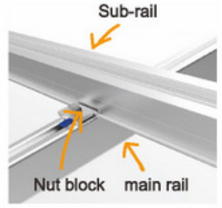
Advantages:

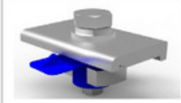
1,Foundation for quick and efficient installation ;
2,Height and angle can be adjusted in a certain range;
3,Aluminum secondary keel design - easy to install for quickonsite construction.

Foundation type:
Ground screw
Cement foundation

Material:
Carbon steel Q235B/Q345B/Al 6005-T5





main rail	
Sub-rail	
Rail connector	
Ground screw	
column	
Strut	
Nut block	
Pre-assemble middle clamp	
Pre-assemble side clamp	
Hinged base	
Connection with 2 nuts	

Multi-functional Solar Shelter

- Sunlight **Carport**

- The Sunlight **Carport** provides the continuous power supply while fully utilizing the original site and having the basic functions of shelter from wind and rain.
- A variety of parking lot arrangements meet with various needs, horizontally extension available.
- The heat absorption characteristics of Solar Module and mounting structure absorb the heat for cars, protect cars as well as effectively create a cool environment.

• Agricultural Photovoltaic Greenhouse

- 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.

• Sunlight Room

- The maximum span of the rail is 6m, no post needed in space of 32㎡;
- The rail and the sub-rail have super large section, the installation is more stable, and the system is safer.
- The surface of Alu-Power structure is anodized. The protection by oxide film can prevent structure from corrosion and rust, practical and artistic.
- Ensure a cool and comfortable environment on the basis of adequate light source, shelter from wind and rain.

PowerRoof

Gravity Mounting System
(All-aluminum)

Color Steel Rooftop Mounting System

Concrete Foundation Rooftop
Mounting System

Induction

Foundation type		Material	wind load	snow load	Advantages
 Gravity Mounting System	Concrete block	AL6063-T6	38m/s (Or to be customized)	60CM	1.Highly pre-assembled, easy installation; 2.Adaptable to different loading requirements; 3.Modules of different specifications can be preinstalled; 4.Waterproof structure to prevent damage to rooftop.
 Color Steel Rooftop Mounting System	Clamp	AL 6063-T6 /AL 6005-T5	38m/s (Or to be customized)	60CM	1.Reduces indoor temperatures for increased energy efficiency; -Efficient and densely populated modules, increasing installed capacity; -Modules of different specifications can be preinstalled; -Waterproof structure to prevent damage to rooftop.
 Concrete Foundation Rooftop Mounting System	Concrete block	Carbon steel Q235B /Q345B	38m/s (Or to be customized)	60CM	1.Stable structure; 2.Angle adjustable to optimize power-generating capacity. 3.Modules of different specifications can be preinstalled; 4.Waterproof structure to prevent damage to rooftop.

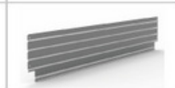
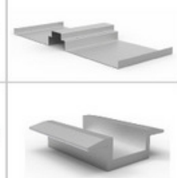
Gravity Mounting System (All-aluminum)

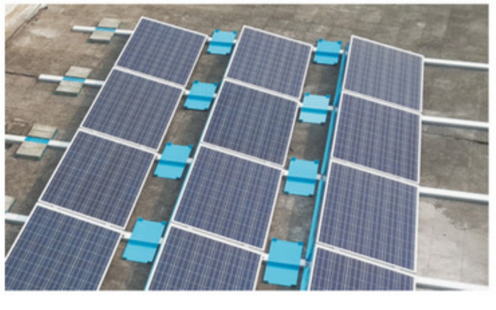
This preinstalled rack structure helps to ensure quick and easy installation. A lightweight rack system greatly reduces the impact of the rack's gravity on the rooftop bearing capacity. Its high-strength anti-corrosion aluminum alloy ensures the long-term reliable operation of the power station. It is designed so that it can be installed and dismantled anytime anywhere; it also features a waterproof design to prevent damage to the rooftop.
Suitable for flat rooftops.

Advantages:
-Quick and easy to install;
-Standard design; uniform components and parts;
-Adaptable to different loading requirements;
-Modules of different specifications can be preinstalled;
-Waterproof structure to prevent damage to rooftop.

Foundation types:
Concrete block

Material:
AL6063-T6

tripod preassemble	
Back windshield	
Straight support	
End plate	
Intermediate plate	
Middle clamp	
Side clamp	
tripod	



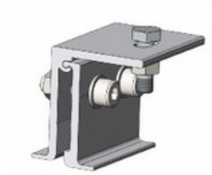
Color Steel Rooftop Mounting System

The simple yet strong rack structure enables it to make the best of the existing color steel stile rooftop. Effective and densely populated modules greatly increase the installed capacity. The innovative clamping method ensures the waterproof performance of the rooftop, whileeffectively reducing indoor temperatures, thus achieving true energy efficiency.

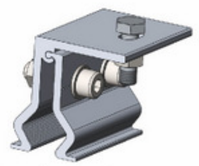
Suitable for color steel rooftops

Advantages:
-Quick and easy to install;
-Reduces indoor temperatures for increased energy efficiency;
-Efficient and densely populated modules, increasing installed capacity;
-Modules of different specifications can be preinstalled;
-Waterproof structure to prevent damage to rooftop.

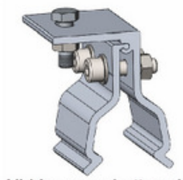
Material
AL 6063-T6 / AL 6005-T5



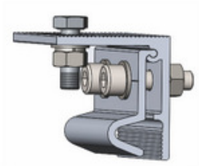
Butler clamp



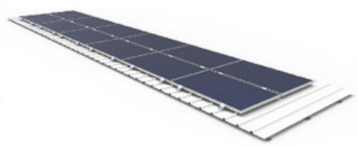
Angle clamp



Hidden snap button clamp



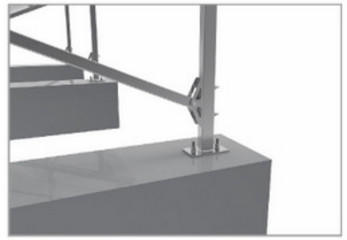
Upright over-lock clamp



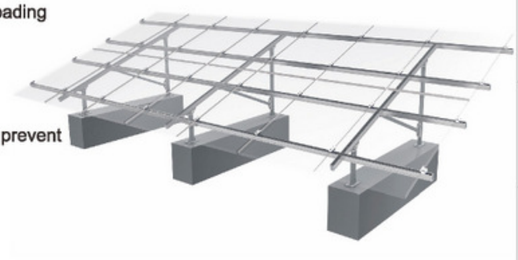
Staircase color steel solutions

Concrete Foundation Rooftop Mounting System

This specialized foundation form ensures the rack system is safe and reliable and that no damage is done to the waterproof structure.
Adjustable angles to optimize power-generating capacity.
Standardized component design, ensuring quick, straightforward installation and transportation.
Suitable for installation on rooftops.



Advantages:
- Stable structure;
-Angle adjustable to optimize power-generating capacity.
-Adaptable to different loading requirements;
-Modules of different specifications can be preinstalled;
-Waterproof structure to prevent damage to rooftop.



Foundation types:
Concrete block

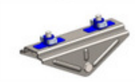
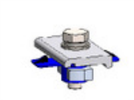
Material
Carbon steel
Q235B
/Q345B

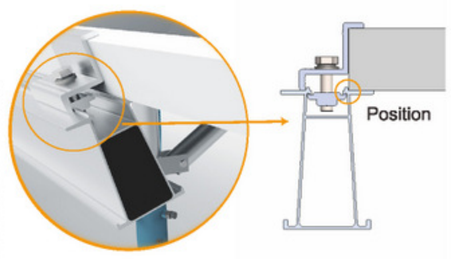
Pre-assemble main-rail	
Sub-rail	
Pre-assemble stand	
Strut	
Side clamp	
Middle clamp	

Agro-photovoltaic Supplementary Mounting System

Brand-new farming greenhouse system /critical advantages

- Light transmittance can be adjusted according to crop growth requirements;
- Excellent resistance to corrosion ensures that machinery-based construction requirements for modern agriculture are met;
- The system is height-adjustable, thus able to adapt to various complicated terrains.

Pre-assembled ground screw	
column	
Strut	
Double-screw Connector	
Pre-assembled hinged base	
Main-rail	
Pre-assembled nut block	
Sub-rail	
Rail nut	
Pre-assembled 40 middle clamp	
Pre-assembled 40 side clamp	



Design detail: Sub-rail in horizontal designed,adding salient point on track section to limit the modules position.

Key design points: steel rampost integrated design, resulting in excellent construction precision and efficient installation

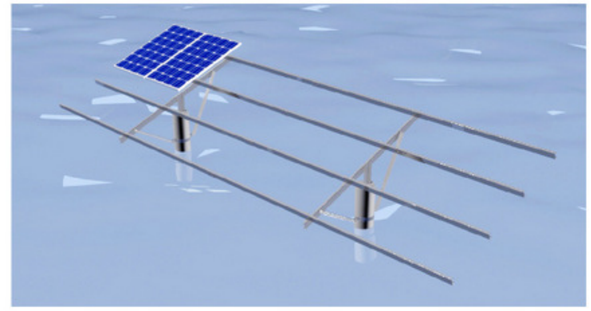
High-strength aluminum alloy secondary keel design - easy to install, recyclable, and eco-friendly

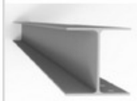
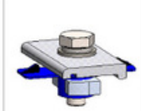
Mid and side clamps use special blocks, allowing for easy and efficient installation, so that modules can be installed anywhere.

Fishery-solar Hybrid Structure

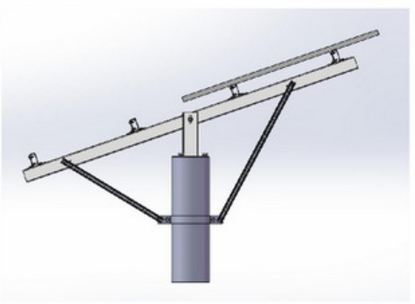
On-water PV System, new advantages

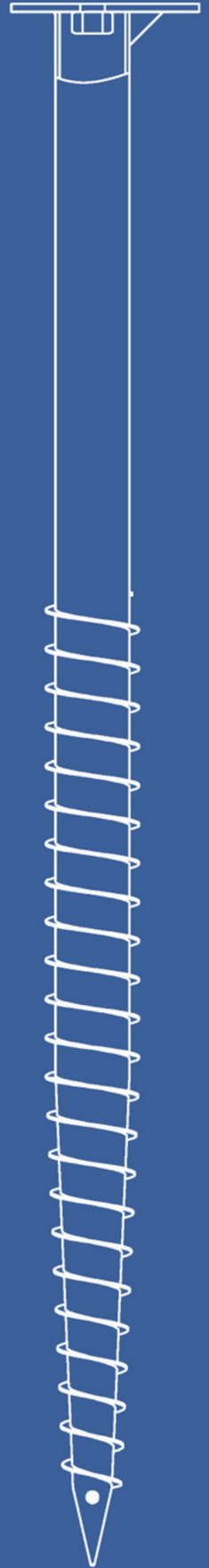
- Transmittance of light can be adjusted according to demand to meet the living conditions.
- High corrosion resistance, long term use;
- Ensure that the post and column can be rowed through;
- The height of the system is adjustable, and neither of aquaculture & maintenance will be



column	
Main-rail	
Sub-rail	
Pre-assembled nut block	
Pre-assembled 40 middle clamp	
Pre-assembled 40 side clam	

Pile & post integration design, pre-stressed pipe-pile foundation is adopted to meet the requirements of horizontal bearing capacity and vertical pressure bearing capacity. Quick installation, no soil excavation required, small impact on the environment, favorable for soil and water conservation, and the pile foundation quality is guaranteed. More advantages in tidal-flat area, fish pond, water immersed area, soft soil and area with high-leveled groundwater.





Mounting System Foundation Series

Ground	Foundation type
Soft soil ; soil without gravel	Ground screw
Hard rock near to the surface; Block weathering zone	Casting pile
Hard rock; Ground with a small bearing capacity; Ground covered with gravel; Wasteland with a steel-concrete interface .	Concrete foundation
Ground suitable for piling (planting and filling)	Concrete foundation

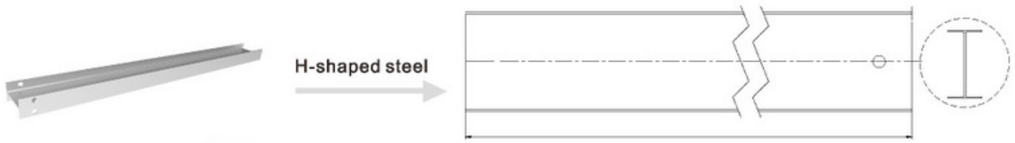
Pile-rampost Integration

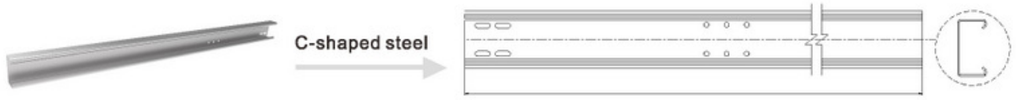
1) Application scope
Applicable to various types of non-fossil soil

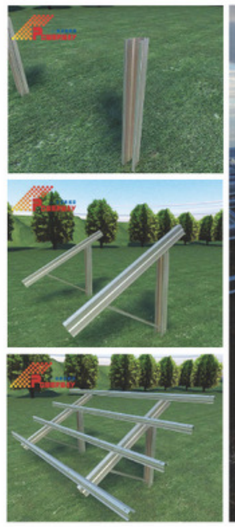
2) Product characteristics and installation method:
The product features an integrated pile design and a simple structure to provide effective protection against winds and snow, and can be easily installed. The section steel surface has undergone galvanizing to ensure it remains corrosion-proof. The 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.

3) Technical parameters and basic section types:

Pile types: C-shaped steel, H-shaped steel;
Pile diameter: customization available;
Pile lengths: 800~2000mm;
Material quality: Q235B. Q345B







Ground screw

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 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.

Product characteristics

1,Made of Q235B steel tube.

2,Typically 1200-2000mm in height and 50-130mm in diameter.

3,Steel tubes of different thicknesses selected according to different loading and anti-corrosion requirements.

4,Patented processing technology used to press the steel tube and form a conical tube.

5,One-off continuous pressing without soldering.

6,Thicker material used for overload.

7,TIG or MIG used for screw blades.

8,Supports the patented Powerway flange disc and Powerway rack system

9,The screw pile surface has undergone anti-corrosion processing in compliance with ISO 1461:1999.

Advantages of the system

■ **High quality**
Powerway does not use any recycled steel and selects different material qualities as required by both the environment and customers, in compliance with the hot-dip galvanization described in ISO 1461:1999– it implements a rigorous quality control system in order to ensure the best quality.

■ **Professionally designed**
Products undergoing stress tests through mechanical checking and software simulation, as well as by third-party certification, to ensure its mechanical performance.

■ **Experimental data**
Static loading tests, compression tests, strain tests, and lateral pressure tests conducted under strict guidelines in order to assess the product in terms of pressure resistance, stability, and durability.

■ **Structural compatibility**
Different screw piles are used to satisfy different customer requirements.

■ **No damage to the environment**
No need to dig or pour cement; instead, the screw is directly driven into the ground, thus greatly reducing costs.

■ **100% eco-friendly and recyclable**
The product is environmentally friendly in that it does not corrode; the costs for waste disposal are zero.

■ **Simple and quick migration**
It can be moved anywhere at any time, thus reducing its impact on the environment and minimizing migration costs.

■ **Adaptability to all types of soil**
A suitable screw pile is always available for any type of soil (from clay to rock).

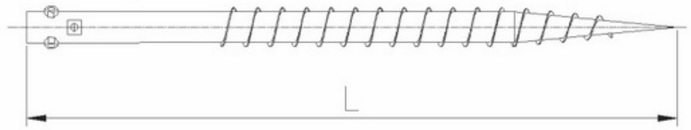
■ **Best price-performance ratio**
aesthetic and practical, with guaranteed quality

■ **Quick and easy to install**
A machine can install up to 350 screw piles per day in the right terrain, with no onsite soldering or processing required.

■ **Precise positioning**
Precise positioning of the pile can be ensured so that the pile can be vertically driven into the ground. Horizontal location precision is in the range of1-2cm, and height positioning is about 2cm; in this way, it can satisfy the positioning precision requirements for the foundations of photovoltaic racks.

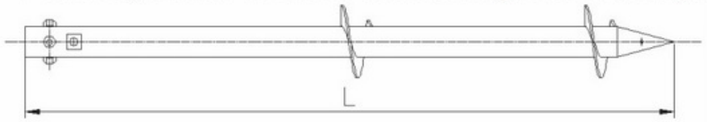
Basic Types of Powerway Screw Piles

Powerway Screw Pile Series without Flange Disc and Small Blade



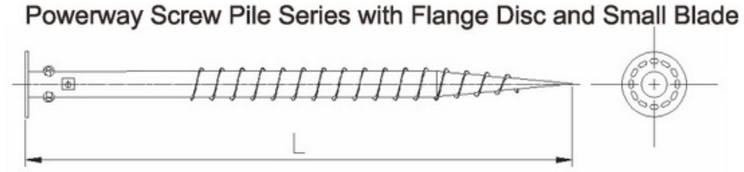
External Diameter	Wall Thickness	Nut Hole Diameter	Material
76mm	3.0-4.0mm	3-M12 EQC	Hot-dip galvanizing

Powerway Screw Pile Series without Flange Disc and Large Blade



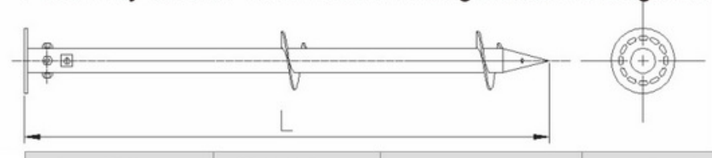
External Diameter	Wall Thickness	Nut Hole Diameter	Material
76mm	3.0-4.0mm	3-M12 EQC	Hot-dip galvanizing

Powerway Screw Pile Series with Flange Disc and Small Blade



External Diameter	Wall Thickness	Flange diameter	Material
76mm	3.0-4.0mm	Customizable	Hot-dip galvanizing

Powerway Screw Pile Series with Flange Disc and Large Blade



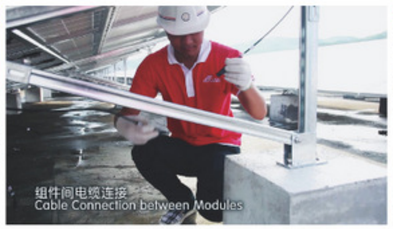
External Diameter	Wall Thickness	Flange diameter	Material
76mm	3.0-4.0mm	Customizable	Hot-dip galvanizing

Concrete Foundation

1) Application scope
Suitable for various underground water levels and soil, except for liquid plastic, soft plastic, and loose soil.

2) Product characteristics and installation method:
Concrete can be poured, or bonded rebar made on the existing concrete, thus giving a broad scope of applicability. This only requires a small amount of earth excavation and engineering, and is therefore cost-efficient.

3) Technical parameters and basic section types:
square, conical, and polygon. Basic dimensions: differ in accordance with project design conditions.

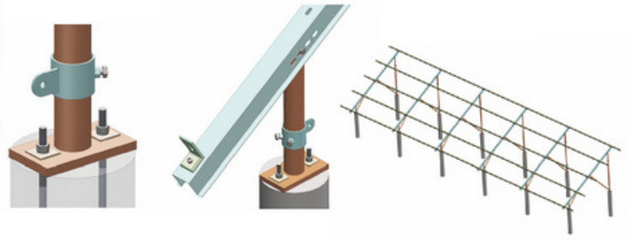


Casting pile

1) Application scope
1) Suitable for various underground water levels and soil, except for liquid plastic, soft plastic, and loose soil.

2) Product characteristics and installation method: Suitable for deep foundations, since the product features an excellent bearing capacity and ease of use. Technically, the pile diameter and length can be adjusted in line with different bearing capacity requirements. In terms of quality, the product can thoroughly remove loose soil at the bottom and can be used for pouring pile core concrete through batch feeding and manual vibration, thus quickly meeting the design requirements. Economically speaking, concrete made in this way is inexpensive. It is obviously advantageous during construction, as the drilling machine is easy to use and suitable for a narrow ground, while allowing for the simultaneous drilling of multiple holes and shortening overall construction period.

3) Technical parameters and basic section types: Pile diameter: ≧150mm; Pile length: ≧1300mm



Project References

2010 Coastal Project

2010 Lingao,Hainan 20MW Ground power plant

The 2010 20MW ground-mounted PV Plant situated in LingGao, Hainan is the first PV Project in the Province. It was co-developed by Hainan TianNeng Electric Co.,Ltd, HaiNan Hydro & Electric Group Co.,Ltd, and YinLi Holdings Ltd. The project had a collection of all types of on-the-market tracks, including spiral piling, cement injection, roof-top, BIPV, which serves as a show-case project for the industry.

Actual Performance of Protection against a Force 16 Hurricane

On Aug 25, 2015, Typhoon 15 made its landing in Kyushu, Japan. Innumerable PV plants were inflicted and damaged by the mother nature, which paralyzed the massive power network in the area.

Track systems supplied by Powerway stood out unaffected and supported normal operation for the PV plant. Powerway products has stood the test, as product design is defined by science, while production and quality are dictated by JIS standards.

Stand-alone 132.5MW Project on Windy Coastal Line

In 2015, A 132.5MW ground-mounted PV Station was commissioned in the Philippines.

The 132.5MW project is located on the Negros Island, located 3 kilometers from the coastal line. It was designed to withstand wind speed up to 56m/s. It was constructed using 310 Wp modules by JA Solar configured in a huge 4x21 array layout. It was a system that had set higher demand on track stability and put the track design reliability and the realization of cost optimization on test.

PowerTracker

Project Site	shaanxi
System	PowerTracking System
Capacity	30MW
Solution	PowerLink
Installation time	2017

Special environment	windy and sandy environment, frozen soil area and sandy soil
Design wind	self-protection wind speed 20m/s; survival wind speed 40m/s
Average altitude	1390m

Project Site	Australia
System	PowerTracking System
Capacity	3MW
Solution	PowerFit
Installation time	2018

Project Site	Guangdong·China
System	PowerTracking System
Capacity	2.9MW
Solution	PoweLink
Installation time	2016.12

Project Site Guangdong·China
System PowerTracking System
Capacity 2MW
Solution PoweLink+PowerMax
Installation time 2015~2016

Project Site Philippines
System PowerTracking System
Capacity 1MW
Solution PowerFit
Installation time 2017.12

Project Site Stion,America
System PowerTracking System
Capacity 1.4MW
Solution PowerMax
Installation time 2016.10

Project Site JIT DE Pitiers, France
System PowerTracking System
Capacity 1.2MW
Solution PowerMax
Installation time 2016.10

Overseas Project

Project Site Philippines
System Ground power plant
Capacity 63MW
Solution Steel mounting system
Installation time 2016

Project Site Algeria
System Ground power plant
Capacity 120MW
Solution Ground mounting system
Installation time 2014

Project Site Pakistan
System Ground power plant
Capacity 100MW
Solution Power screw & Power mounting system
Installation time 2014

Project Site South Africa de Alcala
System Ground power plant
Capacity 94.5MW
Solution Ground mounting system
Installation time 2013

Project Site Malaysia
System Ground power plant
Capacity 38MW
Solution Ground mounting system
Installation time 2018

Project Site Thailand
System Ground power plant
Capacity 30MW
Solution Ground mounting system
Installation time 2013

Project Site South Africa Chile
System Ground power plant
Capacity 3MW
Solution Powerscrew & Powermount system
Installation time 2013

Project Site Papua New Guinea.
System Ground power plant
Capacity 1MW
Solution Powerscrew & Powermount system
Installation time 2018.02

Project Site chiba,Japan
System Ground power plant
Special environment windy environment

Capacity 42MW
Solution AlumPower Mounting System
Installation time 2018

Project Site fukushima,Japan
System Ground power plant
Capacity 34MW
Solution Steel mounting system
Installation time 2017

Project Site iwate,Japan
System Ground power plant
Capacity 20MW
Solution Steel mounting system
Installation time 2017

Project Site Sendai,Japan
System Ground power plant
Capacity 12MW
Solution Steel mounting system
Installation time 2017

Project Site Ebetsu,Japan
System Ground power plant
Capacity 2MW
Solution Steel mounting system
Installation time 2017

Project Site Hokkaido,Japan
System Ground power plant
Special environment snowy area

Capacity 2MW
Solution Steel mounting system
Installation time 2017

Project Site Yamaguchi, Japan
System Ground power plant
Capacity 1. 913MW
Solution Powerscrew & Powermount system
Installation time 2014.01

Project Site Tottori, Japan
System Ground power plant
Capacity 0.994MW
Solution Powerscrew & Powermount system
Installation time 2014.02

Project Site ouchi,saga,Japan
System Ground power plant
Capacity 2.10MW
Solution Powerscrew & Powermount system
Installation time 2013.4

Project Site Munakata shi,Fukuoka,Japan
System Ground power plant
Capacity 1.86MW
Solution Powerscrew & Powermount system
Installation time 2013.3

Project Site	Miyoshi shi, Hiroshima,Japan
System	Ground power plant
Capacity	1. 886MW
Solution	Powerscrew & Powermount system
Installation time	2013.10

Project Site	Inabe shi,Mie,Japan
System	Ground power plant
Capacity	1.38MW
Solution	Powerscrew & Powermount system
Installation time	2013.5

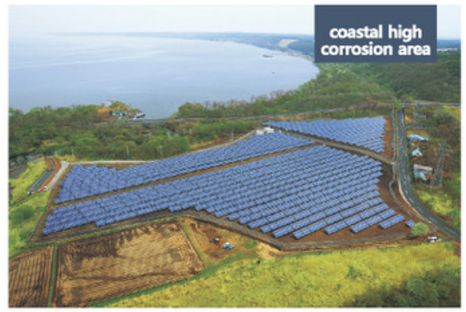
Project Site	Nagasaki,Japan
System	Ground power plant
Capacity	1.15MW
Solution	Powerscrew & Powermount system
Installation time	2013.4

Project Site	kawara machi,Fukuoka,Japan
System	Ground power plant
Capacity	1.99MW
Solution	Powerscrew & Powermount system
Installation time	2012.12

Project Site	Kotake-machi,Fukuoka,Japan
System	Ground power plant
Capacity	2.03MW
Solution	Powerscrew & Powermount system
Installation time	2012.11

Project Site	Kobayashi-shi,Miyazaki,Japan
System	Ground power plant
Capacity	2.1MW
Solution	Powerscrew & Powermount system
Installation time	2012.11

Project Site	kitahatamura,saga,Japan
System	Ground power plant
Capacity	1.90MW
Solution	Powerscrew & Powermount system
Installation time	2012.11



Project Site	Misawa shi,Aomori,Japan
System	Ground power plant
Capacity	1.95MW
Solution	Powerscrew & Powermount system
Installation time	2012.10

Project Site	Yoshika cho,Shimane ken,Japan
System	Ground power plant
Capacity	1.37MW
Solution	Powerscrew & Powermount system
Installation time	2012.9

Project Site	Shunan-shi,Yamaguchi,Japan
System	Ground power plant
Capacity	1MW
Solution	Powerscrew & Powermount system
Installation time	2012.9

Project Site	Niigata,Japan
System	Ground power plant
Capacity	1.5MW
Solution	Powerscrew & Powermount system
Installation time	2012.6

Project Site	Shirakawa shi,Fukushima,Japan
System	Ground power plant
Capacity	1.18MW
Solution	Powerscrew & Powermount system
Installation time	2012.8

Domestic Project

Project Site	Liangshan, Sichuan,China
System	Ground power plant
Capacity	30MW
Solution	Powerway Cast-in-place System
Installation time	2014.10

Project Site	Bailshi ridge,Yangxi
System	Solar Farm
Capacity	30MW
Solution	Ground mounting system
Installation time	2015.12

Project Site	Kaipin, Guangdong province, China
System	Metal sheet rooftop power plant
Capacity	10MW
Solution	PW Color Steel Tile +Cement Roof-Top
Installation time	2013.8

Project Site	Guangdong,China
System	Roof-Mounted
Capacity	10MW
Solution	PW Color Steel Tile
Installation time	2014

Project Site	Doulan,Qinhai,China
System	Ground power plant
Capacity	30MW
Solution	Powerscrew & Powermount system
Installation time	2011.10

Project Site	Guangdong,China
System	Ground power plant
Capacity	2MW
Solution	Powerscrew & Powermount system
Installation time	2015

Project Site	zhanjiang,Guangdong,China
System	Roof-Mounted
Capacity	5MW
Solution	Cement Roof-Top
Installation time	2017

Project Site	Dongguan,Guangdong,China
System	Roof-Mounted
Capacity	2.8MW
Solution	PW Color Steel Tile
Installation time	2017

Project Site	Yulin, Guangxi province,China
System	Roof-Mounted
Capacity	30MW
Solution	PW Color Steel Tile
Installation time	2012.6

Project Site	Liansu group, China
System	Roof-Mounted
Capacity	21.8MW
Solution	Cement Roof-Top
Installation time	2015.12

Project Site	Hainan,China
System	Roof-Mounted
Capacity	2.35MW
Solution	PW Color Steel Tile
Installation time	2017

Project Site	Guangdong,China
System	Roof-Mounted
Capacity	2MW
Solution	PW Color Steel Tile
Installation time	2017