EXPERT IN GREEN SMART MANUFACTURING AND
ALL-SCENARIO PV MOUNTING SYSTEM SOLUTIONS

Product Brochure

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About
ESET SOLAR

E Energy
Energy

S Smart
Smart

E Efficient
Efficient

T Trustworthy
Trustworthy

Founded in 2021, ESET is a global leader in green smart manufacturing and all-scenario PV mounting solutions. Currently, the company boasts six major manufacturing bases in Xuzhou (Jiangsu), Qingdao (Shandong), Tianjin, Kunming(Yunnan), Jeddah (Saudi Arabia) etc., along with 12 smart factories, totaling an annual solar mounting production capacity of over 30GW.

Leveraging its vertically integrated manufacturing capabilities and comprehensive industrial chain support system with a global footprint, ESET ensures end-to-end quality control of solar mountings—from raw materials to finished products. It responds to the needs of customers across China and around the globe, delivering smart, efficient, and reliable products and services.

2008–2020

Incubation period for green processes and industrial capabilities

- 2008 Pioneered the domestic green and eco-friendly hot-dip galvanizing technology, laying the foundation for metal surface treatment and anti-corrosion processes.
- 2009 Entered the power metal structure sector, acquired transmission tower design capabilities, and became a core supplier to State Grid, Huawei, and other major clients, accumulating extensive experience in large-scale power infrastructure structural engineering.
- 2017 Independently developed intelligent coating equipment and applied for over 300 patents, providing technical support for intelligent equipment manufacturing.
- 2019 Expanded offerings in high-frequency welded pipe and industrial protection systems, while further strengthening advanced material processing capabilities.

2021–2022

Shaping a green energy strategic ecosystem

- Leveraging three core strengths – material galvanizing, power structure design, and intelligent equipment manufacturing–ESET was established.
- The company focuses on PV mounting systems, delivering intelligent green manufacturing and full-scenario energy solutions. With production bases in Xuzhou and Qingdao, the initial planned capacity is 30 GW.

2023–2025

Global presence building a sustainable future together

- Commissioned a zinc-aluminum-magnesium coil production line, ensuring extended service life of mounting systems with high-value corrosion-resistant materials.
- Expanded business footprint with the opening of marketing centers in Beijing and Shanghai.
- Launched intelligent tracking system products and secured a patent for full-range self-locking technology.
- Obtained international certifications including TÜV, UL, and SBP. Global deliveries exceeded 50GW+, covering 50+ countries worldwide.

2026-Future

Shaping a green energy strategic ecosystem

- Completed construction and started production at the Jeddah plant in Saudi Arabia, establishing a dual-manufacturing hub between China and Saudi Arabia to serve the Eurasian, Asian and African markets.
- Established marketing centers in Spain and Saudi Arabia to strengthen localized service capabilities and reinforce global market reach.



6 Production Bases

12 Smart Factories

30GW+ Annual Production Capacity

50GW+ Global Cumulative Shipments

50+ Countries with Business Presence

600+ Project Cases

Marketing Center

China Marketing Center
Saudi Arabia Marketing Center
Brazil Marketing Center
Spain Marketing Center

Production Base

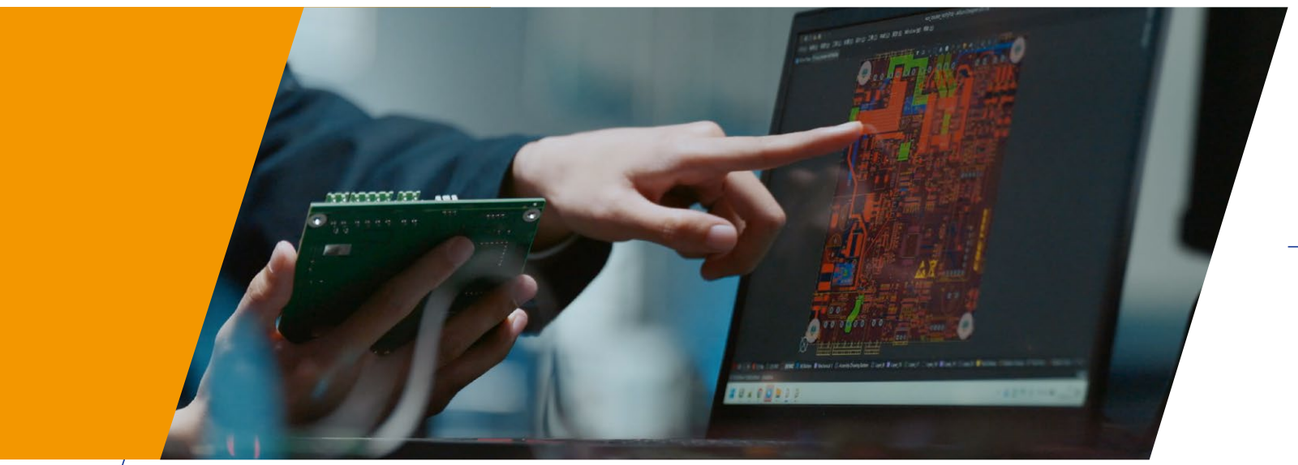
Production Base, Xuzhou, China
Production Base, Qingdao, China
Production Base, Jeddah, Saudi Arabia
Production Base, Tianjin, China
Production Base, Yunnan, China
Production Base, Xinjiang, China

Office

Vietnam Office
India Office
Dubai Office
Philippines Office
Hungary Office
Mexico Office

Export Destination

Saudi Arabia Germany Canada Colombia
Australia South Africa Brazil Philippines
United Arab Emirates Malaysia Colombia
United States Chile France New Zealand
Italy Japan Jordan Israel Mexico Spain

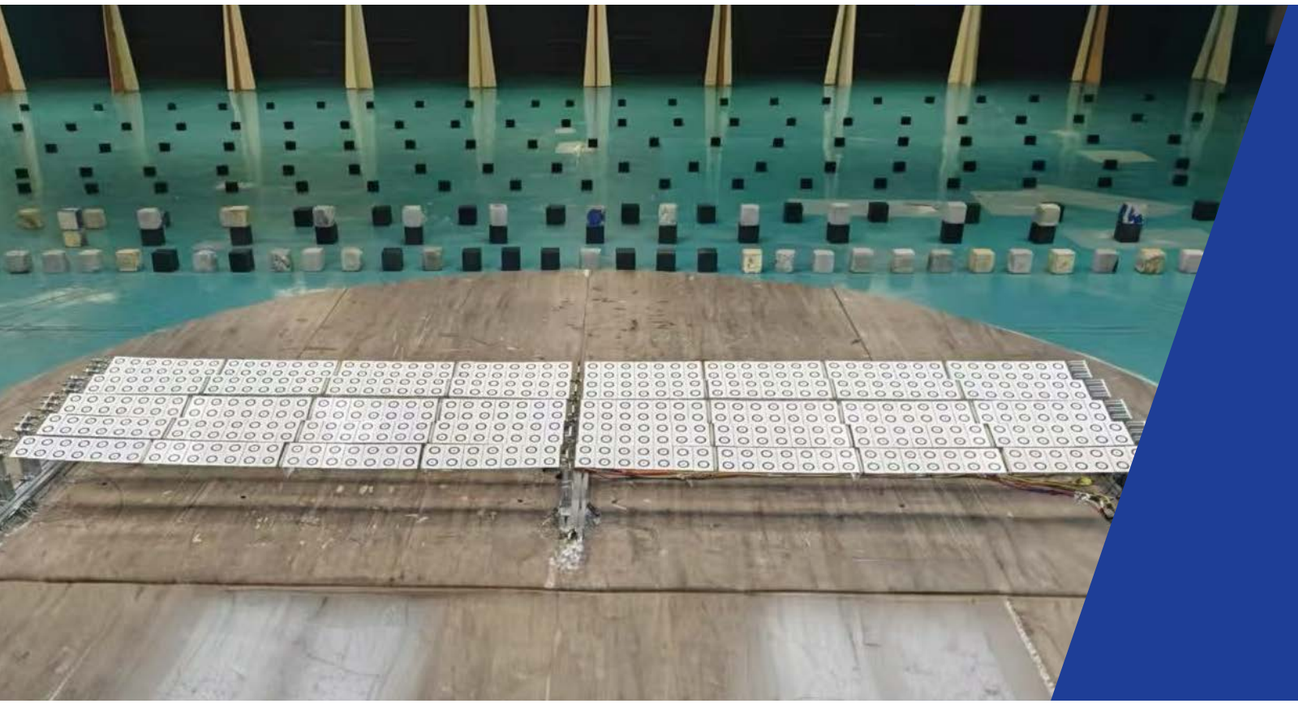


Talent-Driven, Full-Scenario Coverage

With a current R&D team of over 100 professionals—where over 30% hold master's or doctoral degrees and over 40% possess intermediate or senior professional titles—our expertise spans wind engineering, civil engineering, mechanical automation, power electronics, and artificial intelligence. Backed by an international R&D system and rapid response capabilities, we deliver one-stop comprehensive solutions to our customers.

In-House Laboratory & Global Standard Verification

The company has established test rigs for single-point drive and multi-point synchronized electrical coordination of trackers, capable of independently conducting static loading and endurance loading tests. It is equipped with over 50 sets of controller testing instruments, covering a full range of test items including environmental, electrostatic, insulation withstand voltage, lightning surge, and electro-magnetic compatibility (EMC). At the same time, we collaborate deeply with authoritative foreign wind engineering institutions, domestic university wind tunnel laboratories, and international certification bodies to conduct wind engineering research and product standardization certification.



Intellectual Property Portfolio and International Certifications

As of the first half of 2026, the company has accumulated over 98 intellectual property rights. Its products have fully passed international authoritative certifications including TÜV, CE, UL, DNV, and SBP. The tracking system has also completed the rigid-model pressure wind-tunnel test at CPP in the United States. With these solid capabilities, we help enhance the energy yield of PV power plants worldwide.

R&D and Innovation



SMART
EFFICIENT
TRUSTWORTHY

Reliable Support
Sustainable Future

Global Leading Manufacturing Bases

Global Supply and Delivery Network

Self-Developed Advanced Automated Production Lines

Vertically Integrated Global Industrial Chain

Intelligent Manufacturing

Leveraging smart equipment and digital systems, ESET has built an integrated intelligent manufacturing system that covers the entire value chain – from raw materials, hot-dip galvanizing, and smart processing, to overseas assembly. We use high-grade zinc-aluminum-magnesium steel to ensure source quality, and our in-house galvanizing process is strictly controlled for corrosion protection. ESET has achieved end-to-end refined quality management from raw material procurement and production to finished-product dispatch, giving us the ability to respond quickly to international markets and consistently deliver high-quality products.

Full-Process Smart Control, Reliable Delivery

ESET is fully certified under the ISO 9001 quality management system, with quality control embedded throughout the entire process – from raw material inspection, in-process control, to final product testing. Each production step is backed by strict inspection criteria and operating procedures, with quality control checkpoints at critical stages to ensure full data traceability and process control. With a standardized quality management system as our cornerstone, we consistently provide customers with stable, reliable, and high-quality PV mounting systems.

Quality Planning

Procurement Quality Management

Raw/Auxiliary Material Incoming Inspection

First Article Inspection

In-Process Inspection

Finished Product Inspection

Ex-factory Inspection

Shipment



ESET SOLAR Tracker System Solutions

ESEEK-Anchor Anchor type global self-locking, 1P SAT

Whatever the environment, we adapt to change with change — anchoring securely against wind and waves, and redefining safety boundaries across all scenarios and throughout the entire life cycle. This system is designed for centralized power plants in complex environments. It follows the design philosophy of safer high-wind stow, more convenient installation and O&M, and more stable processes and technologies, and is committed to meeting customers' high-efficiency power generation needs throughout the full life cycle. A single row can carry up to 6 strings, with a maximum length of over 200 m, delivering excellent load-bearing capacity and site adaptability. In terms of drive, the product utilizes a high-speed worm-gear slewing reducer and incorporates a triple protection mechanism of anchor-type full-range self-locking + combined large and small protection angles + zero-gravity drive, delivering fast response and high system reliability.



Dual Protection – Safe from Wind and Snow

Our patented anchor-style full-angle lock engages instantly in heavy storms and snow, while bi-directional wind protection responds to gusts coming from both front and rear directions. Under severe conditions, the system resets in just 3 minutes – providing comprehensive protection against extreme weather events.

Adapts to Heat and Cold, Withstands Wind and Sand

The system relieves thermal stress and withstands sandstorms, extreme heat, and severe cold, seamlessly adapting to harsh climates.

Low-load, quick-install cost control

The self-balancing drive with near-zero gravity reduces motor load and power consumption on ultra-long spans. Quick-in-stall purlin clamps simplify installation and maintenance, while dedicated cable channels minimize cable material usage – all of which help reduce project costs from multiple angles.

Triple-Core Smart Control – Intelligent and Convenient

Intelligent full-site interconnectivity is delivered through a triple-core control architecture consisting of NCU, TCU, and SCADA, augmented by AI-driven gain optimization algorithms and OTA remote upgrade capabilities. This ensures ultra-fast response, while making commissioning, operation, and maintenance simpler and more efficient.

System Parameters

Tracking Type	Independent Single-Axis Tracking System (HSAT)
Tracking Range	±60°
Drive Unit / Quantity	Slewing reducer (single point)
Protection Strategy	Large angle + small angle + full-range self-locking
Modules per Tracking System	≤180 modules
Pile Type	Driven pile / Concrete pile / High-strength pre-cast concrete pile
Structural Materials	Hot-dip galvanized steel / Zinc-aluminum-magnesium high-strength steel
Daily System Energy Consumption	Approx. 0.03 kWh/day
Maximum Wind Speed	Customized per customer requirements, up to 70 m/s
Module Type	Compatible with all modules
Operating Ambient Temperature	-40 to 85℃
Terrain Adaptability	North–south slope ≤20%, east–west unlimited

Control Parameters

Control Algorithm / Controller	Astronomical algorithm + closed-loop control with tilt sensor
Tracking Accuracy	≤ 1°
Backtracking	Yes
Communication Design	Wireless communication (LoRa, ZigBee)
Other Special Modes	Heavy snow mode, flood mode, hail protection, and overcast-sky optimization
Power Supply Method	≤25 V (powered by module), ≤1,500 V (powered by string)

ESEEK-Climber Terrain following, 1P SAT

Seamless Terrain Adaptation - Empowering Steep Slopes with Solar Powe.This system is specifically designed for complex hilly and mountainous landscapes.,The innovative G-type bearing system features a built-in adjustment margin that automatically accommodates terrain variations, giving the tracker excellent slope-conforming capability.

It adapts smoothly to rolling hills, mountains, and other undulating landscapes, reducing site-leveling work and enabling flexible deployment on challenging sites. combined large and small protectionangles + zero-gravity drive, delivering fast response and high system reliability.



Terrain-Adaptive – Optimized for Hilly Ground

The innovative G-type bearing system features a built-in adjustment margin that automatically accommodates terrain variations, giving the tracker excellent slope-conforming capability. It adapts smoothly to rolling hills, mountains, and other undulating landscapes, reducing site-leveling work and enabling flexible deployment on challenging sites.

Dual Protection – Safe from Wind and Snow

Our patented anchor-style full-range self-lock at any angle engages instantly in heavy storms and snow, while bi-directional wind protection responds to gusts coming from both front and rear directions. Under severe conditions, the system resets in just 3 minutes – providing comprehensive protection against extreme weather events.

Single Drive, Long Span – Lower Cost, Higher Efficiency

The zero-gravity self-balancing system features a single motor driving an ultra-long tracker, with physical-mechanical balance reducing load and wear. This single-drive design supports over 6 strings across 200+ meters, making it ideal for large-scale centralized power stations. By optimizing system scale, it helps lower construction cost through better cost distribution.

Adapts to Heat and Cold, Withstands Wind and Sand

The system relieves thermal stress and withstands sandstorms, extreme heat, and severe cold, seamlessly adapting to harsh climates.

Triple-Core Smart Control – Intelligent and Convenient

Intelligent full-site interconnectivity is delivered through a triple-core control architecture consisting of NCU, TCU, and SCADA, augmented by AI-driven gain optimization algorithms and OTA remote upgrade capabilities. This ensures ultra-fast response, while making commissioning, operation, and maintenance simpler and more efficient.

System Parameters

Tracking Type	Independent Single-Axis Tracking System (HSAT)
Tracking Range	±60°
Drive Unit / Quantity	Slewing reducer (single point)
Protection Strategy	Large angle + small angle + full-range self-locking
Modules per Tracking System	≤180 modules
Pile Type	Driven pile / Concrete pile / High-strength pre-cast concrete pile
Structural Materials	Hot-dip galvanized steel / Zinc-aluminum-magnesium high-strength steel
Daily System Energy Consumption	Approx. 0.03 kWh/day
Maximum Wind Speed	Customized per customer requirements, up to 70 m/s
Module Type	Compatible with all modules
Operating Ambient Temperature	-40 to 85℃
Terrain Adaptability	North–south slope ≤20%, east–west unlimited

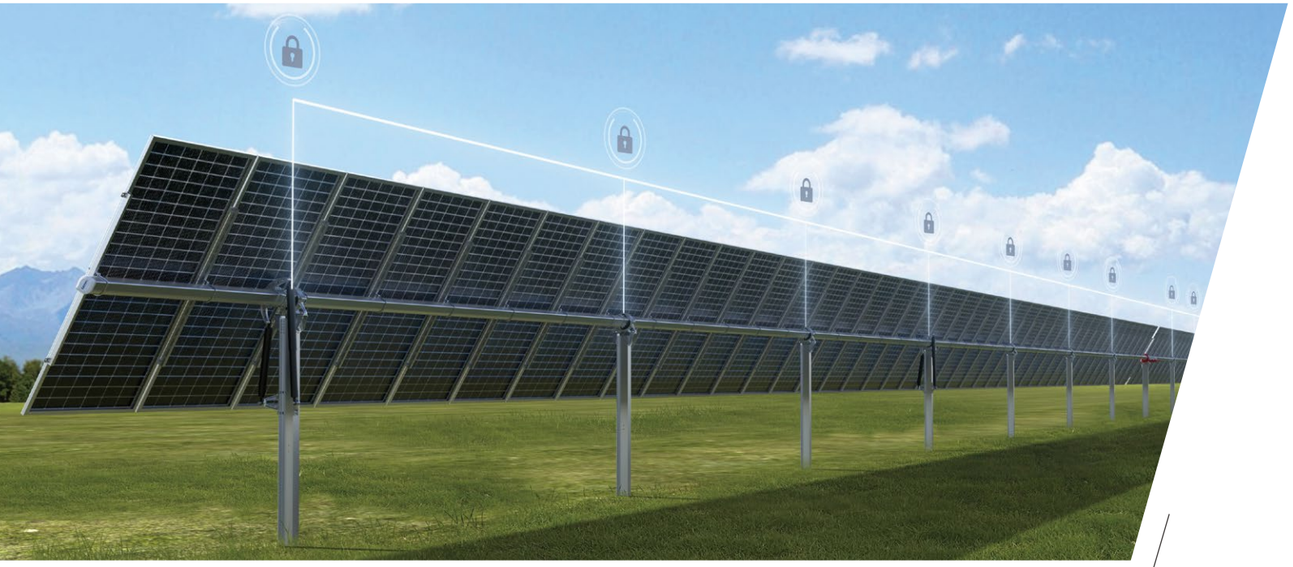
Control Parameters

Control Algorithm / Controller	Astronomical algorithm + closed-loop control with tilt sensor
Tracking Accuracy	≤ 1°
Backtracking	Yes
Communication Design	Wireless communication (LoRa, ZigBee)
Other Special Modes	Heavy snow mode, flood mode, hail protection, and overcast-sky optimization
Power Supply Method	≤25 V (powered by module), ≤1,500 V (powered by string)

ESEEK-Steady

Diamond-shaped torque tube with large stow angle protection, 1P SAT

The ESEEK-Steady tracker is a next-generation solution engineered around three core principles: safer high-wind stow, more convenient installation and O&M, and more stable processes and technologies, committed to meeting customers' high-efficiency power generation needs throughout the full life cycle. A single row can accommodate up to 4 strings and reach a length of over 140 meters. Driven by a high-speed worm-gear slew drive, the structure features dual protection with full-range self-locking and axisymmetric damping, enabling fast protection activation and significantly enhancing overall system safety.



Ultimate Safety – Comprehensive Protection, Worry-Free in High Winds

Full-range structural self-locking function, axisymmetric damping design, and a large-angle wind-stow strategy to minimize the wind-load torque coefficient and reduce the risk of flutter or vortex-induced vibration.
CPP Wind Tunnel Test Certified

Cost-effective • Easy Installation, Time and Labor Saving

The bearing base is integrally cast as a single piece, the main beam uses reduced-diameter connections, and the purlin system is designed for quick installation.

Stability & Reliability – Proven Craftsmanship, Robust Structure

Diamond-shaped locking main beam, open-cover bearing system, stable manufacturing processes, and carriage bolt connections for enhanced fatigue resistance.

Ultimate Efficiency – Smart Commissioning, Saving Time and Effort

Mobile APP for tracking system commissioning, smart tracking algorithms, and redundant power/communication backup.

System Parameters

Tracking Type	Independent Single-Axis Tracking System (HSAT)
Tracking Range	±60°
Drive Unit / Quantity	Slew drive (1~2 points)
Protection Strategy	60° Large angle + Full-range self-locking
Modules per Tracking System	≤120 modules
Pile Type	Driven pile / Concrete pile / High-strength pre-cast concrete pile
Structural Materials	Hot-dip galvanized steel / Zinc-aluminum-magnesium high-strength steel
Daily System Energy Consumption	Approx. 0.03 kWh/day
Wind resistance design	Maximum design wind speed: up to 70m/s
Module Type	Compatible with all modules
Operating Ambient Temperature	-40~60℃ (ultra-low temperature battery optional for environments below -25℃).
Terrain Adaptability	≤ 15° in both north-south and east-west directions
Warranty	10 years for structural components; 5 years for drive and electrical control components

Control Parameters

Control Algorithm / Controller	Astronomical algorithm + closed-loop control with tilt sensor
Tracking Accuracy	≤ 1°
Backtracking	Yes
Communication Design	Wireless communication (LoRa, ZigBee)
Other Special Modes	Heavy snow mode, flood mode, hail protection, and overcast-sky optimization
Power Supply Method	≤25 V (powered by module), ≤1,500 V (powered by string)

ESEEK-Twins Dual-row diamond-shaped torque tube, 1P SAT

Developed on the principle of "optimal safety and cost-efficiency," this 1P dual-row linked PV tracking system features omni-directional adaptability and hassle-free installation, making it fully compatible with complex terrains and harsh climatic conditions. Integrating patented technologies such as multi-point drive and full-range self-locking, the system delivers exceptional stability, high efficiency, and flexible terrain adaptation, ensuring long-term safe and efficient power plant operation.



Hassle-free installation with omni-directional adjustment

The universal-joint drive shaft allows ±15° adjustment in both forward/backward and left/right directions. The main beam connection features a diameter-reduction process, and a quick-install purlin system is used for fast assembly.

Ultimate Safety – Comprehensive Protection, Worry-Free in High Winds

Full-range structural self-locking function, axisymmetric damping design, and a large-angle wind-stow strategy to minimize the wind-load torque coefficient and reduce the risk of flutter or vortex-induced vibration.
CPP Wind Tunnel Test Certified

Stability & Reliability – Proven Craftsmanship, Robust Structure

Diamond-shaped locking main beam, open-cover bearing system, stable manufacturing processes, and carriage bolt connections for enhanced fatigue resistance.

Ultimate Efficiency – Smart Commissioning, Saving Time and Effort

Mobile APP for tracking system commissioning, smart tracking algorithms, and redundant power/communication backup.

System Parameters

Tracking Type	SAT Dual-row
Tracking Range	±60°
Drive Unit / Quantity	Slewing reducer (single point)
Protection Strategy	60° Large angle + Full-range self-locking
Modules per Tracking System	≤60 modules
Pile Type	Driven pile / Concrete pile / High-strength pre-cast concrete pile
Structural Materials	Hot-dip galvanized steel / Zinc-aluminum-magnesium high-strength steel
Daily System Energy Consumption	Approx. 0.03 kWh/day
Wind resistance design	Maximum design wind speed: up to 70m/s
Module Type	Compatible with all modules
Operating Ambient Temperature	-40~60℃ (ultra-low temperature battery optional for environments below -25℃).
Terrain Adaptability	≤ 15° in both north-south and east-west directions
Warranty	10 years for structural components; 5 years for drive and electrical control components

Control Parameters

Control Algorithm / Controller	Astronomical algorithm + closed-loop control with tilt sensor
Tracking Accuracy	≤ 1°
Backtracking	Yes
Communication Design	Wireless communication (LoRa, ZigBee)
Other Special Modes	Heavy snow mode, flood mode, hail protection, and overcast-sky optimization
Power Supply Method	≤25 V (powered by module), ≤1,500 V (powered by string)

EXCEED Octo torque tube with multi-drive, 2P SAT

EXCEED is a 2P horizontal single-axis tracking system that operates with multi-point synchronized electrical linkage, developed around the core concept of “Double the load capacity, performance redefined.” Through an innovative multi-point linkage structure and synchronized drive technology, the system significantly increases the installed capacity per tracker while reducing the number of foundations and the amount of steel structures required – delivering system-level cost savings and efficiency gains. Furthermore, the multi-point drive technology overcomes the aerodynamic stability challenges of long-span structures under high-wind conditions, providing power plants with enhanced safety and more convenient O&M support, and bringing customers better ROI and a more reliable operational experience.



Stable Structure – Proprietary Main Beam, Bending and Torsional Resistance

The innovative polygonal main beam delivers excellent bending and torsional resistance, providing a reliable foundation for dual-row module mounting.

Synchronous Control · Synchronous Drive and Accurate Locking

Smart multi-point electrical coordination ensures synchronized drive and locking, improving system stability and reliability.

Flexible Configuration · Flexible Strings and Easy Expansion

Flexible string configuration and strong scalability; compatible with double-row module layouts to enhance design freedom.

Smart O&M · Wireless Transmission and APP Commissioning

Integrates LoRa wireless communication and APP-based commissioning for easy networking, enabling rapid array commissioning and O&M

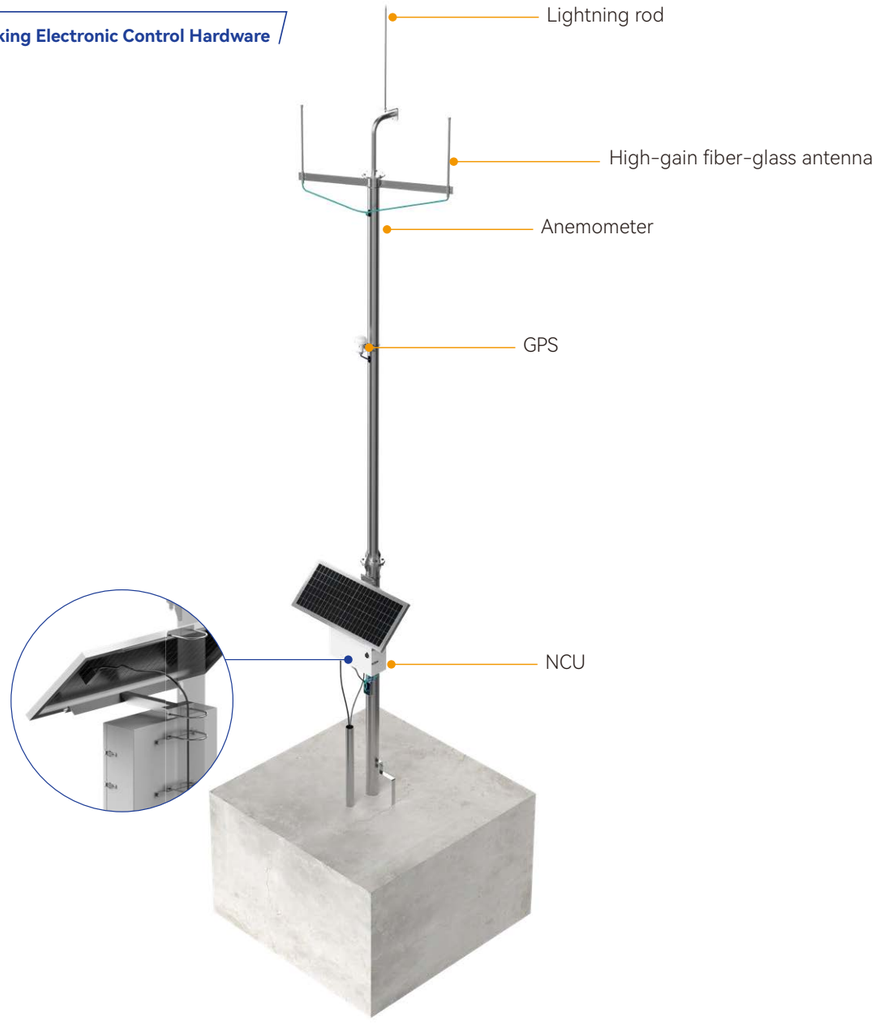
System Parameters

Tracking Type	Independent Single-Axis Tracking System (HSAT)
Tracking Range	±60°
Drive Unit / Quantity	Slew drive (multi-point)
Protection Strategy	0° Stow Protection
Number of Installable Module Strings	Supports 2~6 strings
Pile Type	Driven pile / Concrete pile / High-strength pre-cast concrete pile
Structural Materials	Hot-dip galvanized steel / Zinc-aluminum-magnesium high-strength steel
Daily System Energy Consumption	0.05~0.08 kWh / day
Wind resistance design	Maximum design wind speed: up to 70m/s
Module Compatibility	Compatible with all mainstream modules
Operating Ambient Temperature	-40 to 85℃
Terrain Adaptability	≤ 15° in both north-south and east-west directions
Ingress Protection Rating	IP65
Warranty	10 years for structural components; 5 years for drive and electrical control components

Control Parameters

Control Algorithm / Controller	Astronomical algorithm + closed-loop control with tilt sensor
Tracking Accuracy	≤ 1°
Backtracking	Yes
Communication Design	Wireless communication (LoRa, ZigBee)
Other Special Modes	Heavy snow mode, flood mode, hail protection, and overcast-sky optimization
Power Supply Method	≤25 V (powered by module), ≤1,500 V (powered by string)
Manual Mode	Manually control tracker rotation

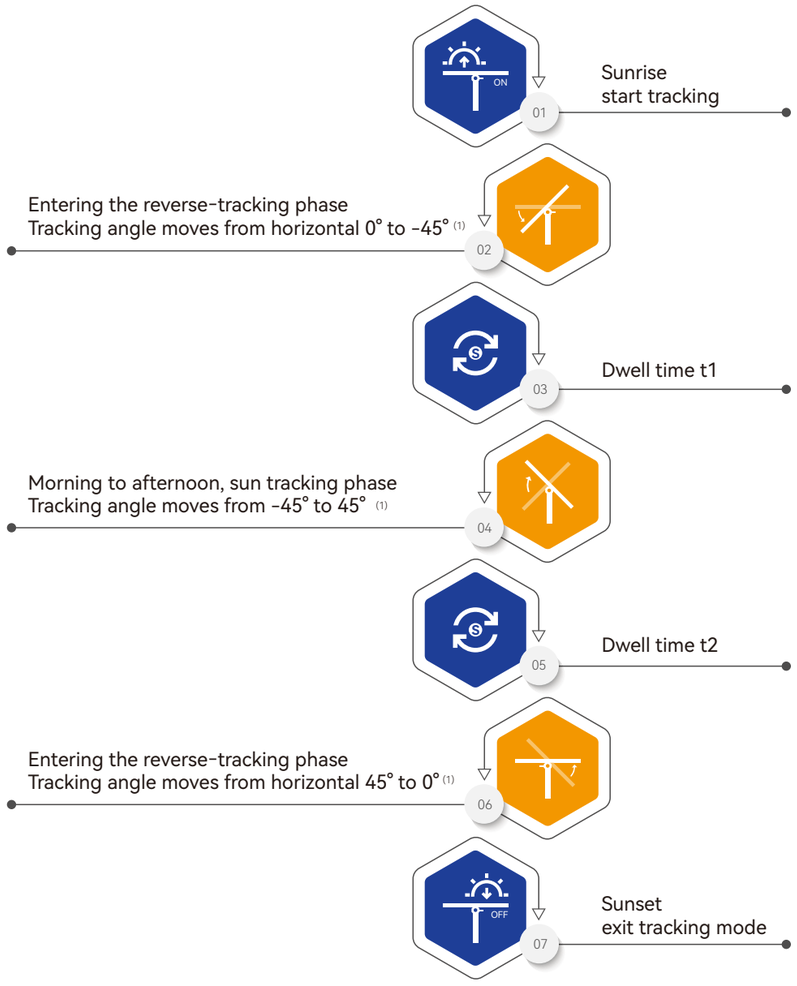
Intelligent Tracking Electronic Control Hardware



System Parameters

Core monitoring equipment	Wind speed and direction sensor, GPS timing module, snow depth sensor (optional)
Monitoring parameters	Instantaneous wind speed, gust speed, wind direction; ambient temperature (optional); snow depth (optional)
Communication connection	RS485 connection to NCU concentrator
Time synchronization	High-precision GPS time synchronization , unifying the timing of all trackers across the site
Protection coordination	Wind speed threshold triggers the tracker high-wind stow (flat-position) protection strategy
Ancillary installation	Monitoring masts, lightning rods, high-gain fiber-glass communication antenna, surge protection components

Intelligent Tracking Algorithm—Astronomical Algorithm



Full-Site Data Collection

All-Device Unified Data Acquisition
Power Plant Operation Status
Real-time Visualization

Instant Fault Warning

Real-Time Anomaly Alerts
Precise Fault Locating
Reduced O&M Downtime

Astronomical Precision Tracking

High-Precision Sun-Tracking Algorithm
All-Day Optimal Sunlight Capture
Boost Power Generation Yield

Smart Remote Control

Cloud-Based Command Dispatch
Multi-Scenario
Automatic Tracker Strategy Switching

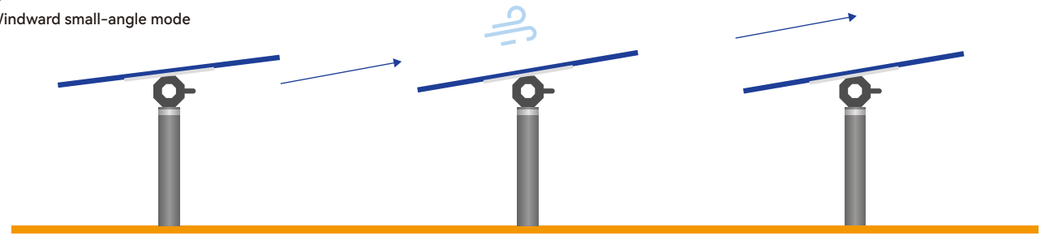
Dual-Redundancy O&M Safety

Local Autonomous Protection in Network-Outage
Data Analysis for Wear Reduction
Extended Service Life

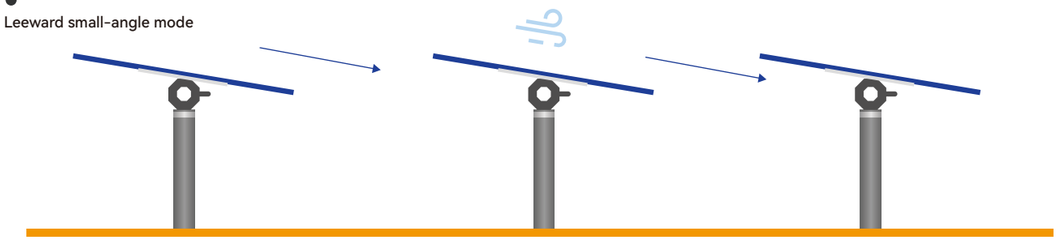
*1 For applications beyond the recommended operating conditions, please consult ESET.

High Wind Protection Strategy

- Windward small-angle mode

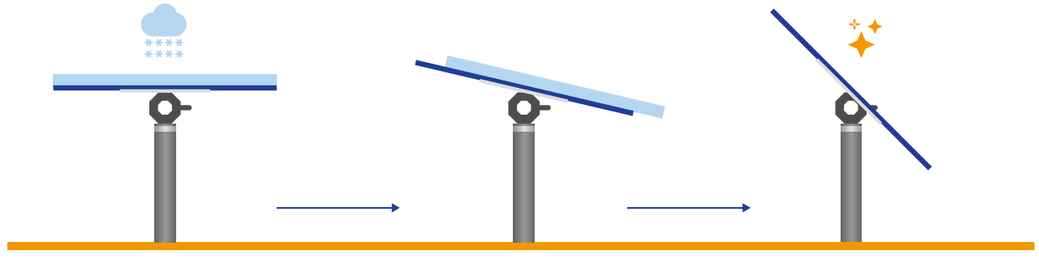


- Leeward small-angle mode



High Wind Mode: When triggered, the tracker switches to a wind stow position to withstand wind pressure and protect equipment structural integrity.

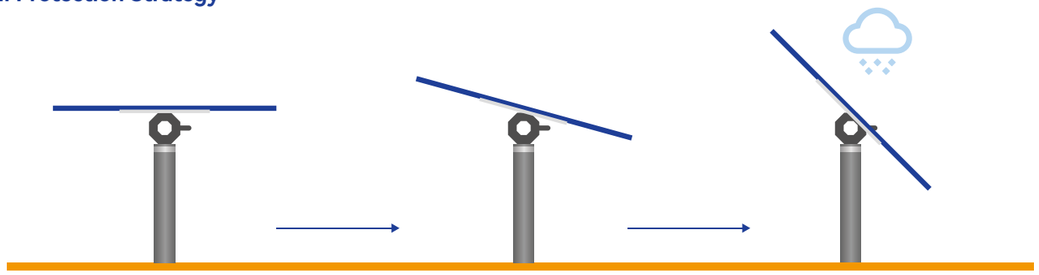
Heavy Snow Protection Strategy



Heavy Snow Mode: When triggered, the tracker adjusts to a steep tilt angle, allowing snow to slide off by gravity and reducing structural load. Normal operation resumes after the snow event ends.

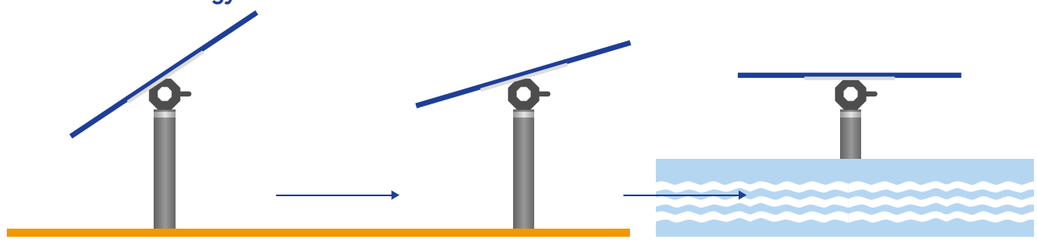
※ Displayed in accordance with the ESEEK-Anchor product protection policy. For more product details, please contact ESET SOLAR.

Hail Protection Strategy



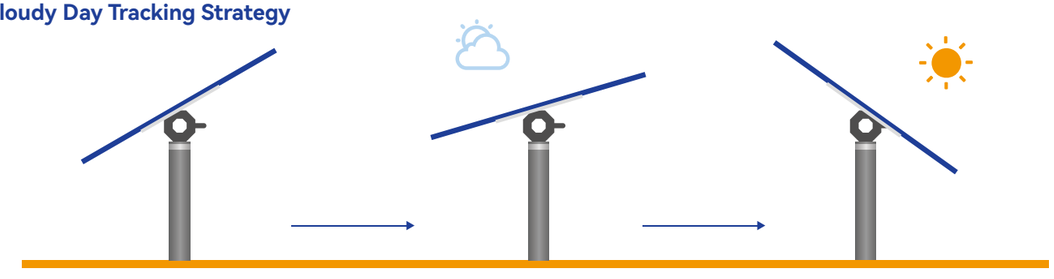
Hail Mode: The mounting structure shifts to a steep-angle position to reduce direct hail impact and protect the photovoltaic modules.

Flood Protection Strategy

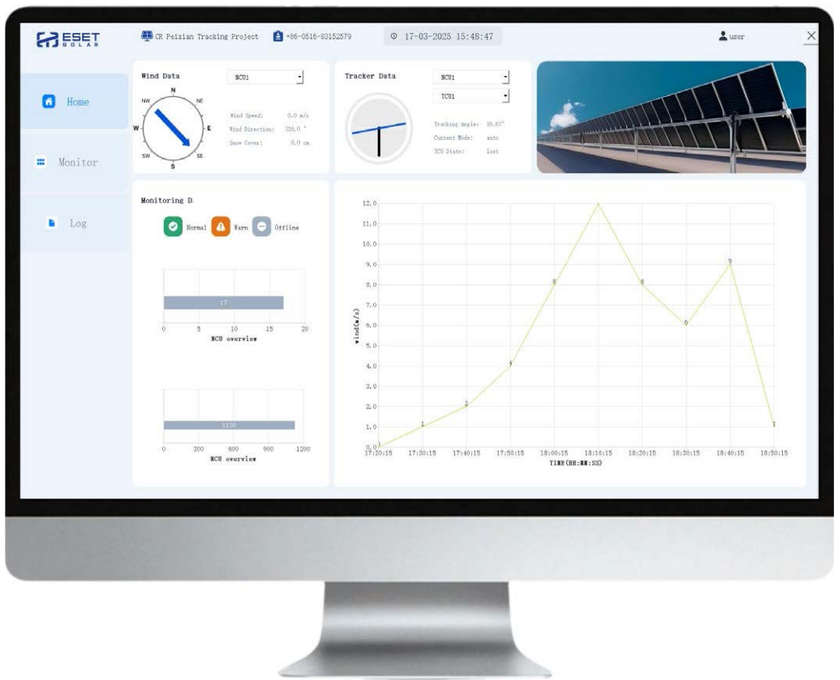


Flood Mode: When triggered, the tracker is raised to the highest limit position, raising the modules to prevent floodwater from submerging critical equipment.

Cloudy Day Tracking Strategy



Cloudy Day Algorithm: In low-light conditions, the system switches to an optimal fixed tilt angle to minimize motor cycling and reduce power consumption, thereby increasing the net energy yield.



Comprehensive Real-Time Data Acquisition

Seamlessly collect all operational parameters, including irradiance, power output and fault status, from every device across the plant. Full data visibility gives you a complete real-time picture, enabling informed operational decisions.

Remote Intelligent Centralized Control

Control commands are dispatched visually from any location. Adaptive algorithms automatically adjust tracker orientation to suit different site conditions, steadily boosting energy yield and overall revenue.

Accurate Fault Early Warning and Diagnosis

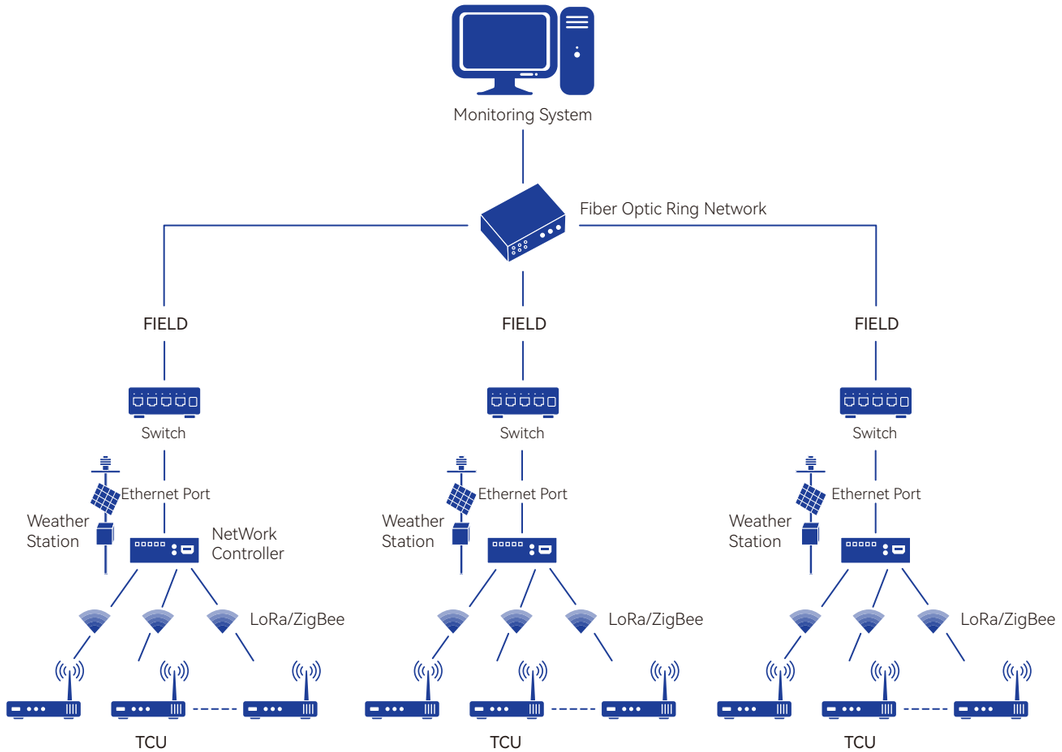
Real-time alerts are pushed instantly when any anomaly occurs. Detailed fault logs allow rapid pinpointing and troubleshooting, minimizing downtime and reducing power generation losses.

Local Dual Redundancy Protection

In the event of a network outage, the system continues to execute its protection logic independently on-site. This dual-architecture design provides a fail-safe backup, ensuring full-time safety for the mounting structure.

Full-Lifecycle O&M for Loss Reduction and Efficiency Enhancement

We retain and analyze extensive operational data to continuously refine control logic. This eliminates unnecessary tracker movements, reduces mechanical wear, and ultimately extends the service life of the mounting system.



System Parameters

System Architecture	NCU+TCU+SCADA Hierarchical Wireless Network Architecture
Communication Method	LoRa/ZigBee Wireless Communication
Host System Interaction	Mobile App Monitoring and Control
Communication Protocol	Modbus TCP
Synchronization Method	GPS/NTP Time Synchronization
Protection Logic	Wind stow, limit protection, local autonomous operation on communication failure
Data Capability	Real-time collection of tilt angle, equipment status, fault alarms, etc.



Dedicated Windows-based device firmware upgrade tool, designed for tracker controller firmware iteration, bug fixes and feature enhancements. It supports single-point or remote batch upgrades, ensuring standardized and normalized iteration of device firmware

Core Functions

- **Convenient upgrades:** Local serial-port-based upgrades.
- **Firmware verification:** CRC check
- **Version management:** Automatic version identification, comparison of old and new versions
- **Log traceability:** Full upgrade status logging with support for fault retry and recovery



This on-site mobile commissioning tool is designed for PV tracking systems. It supports LoRa communication via an OTG cable and is Android-compatible. Built for rapid field commissioning, operation & maintenance, and repair, it replaces traditional wired host computers and fits all scenarios, including plant construction, inspection, calibration, and troubleshooting.

Core Functions

- **Device binding:** Quickly connect to the tracker controller.
- **Status monitoring:** displays real-time tilt angle, voltage, current, temperature, and fault codes.
- **Parameter configuration:** Quickly set and send tracking thresholds, limits, and protection parameters
- **Manual/automatic commissioning:** Tracker attitude calibration and automatic tracking function verification

Dedicated Windows-based communication test tool, designed to detect the two-way communication stability and integrity of the tracker controller, suitable for factory acceptance testing, on-site communication troubleshooting, and protocol adaptation verification.

Core Functions

- Bidirectional testing: sends downlink commands and monitors/collects uplink data.
- Data validation: performs frame integrity checks, calculates packet loss rate, and measures communication latency.
- Automated testing: supports cyclic command testing and automatic anomaly alerting with tagging.
- Report generation: saves test logs and generates acceptance reports.

Simplified Operation

Device wiring and power-on → Configure communication parameters and connect → Issue control commands → Monitor uploaded data → Verify communication quality → Save test report





ESET SOLAR Flexible Mounting System Solutions

Flexible Mounting System - Honsine- 2 Cable



The system features an innovative two-cable self-balancing design, in which pre-stressed cables and the main steel frame work together as a collaborative load-bearing structure. This effectively overcomes construction and application constraints posed by steep slopes, deserts, ponds, and other challenging terrains. It significantly reduces the number of foundations needed, reduces land preparation requirements, and boosts both the installed capacity per unit area and project ROI, making it a highly efficient technical solution for complex mountain PV and Aquaculture-PV scenarios.

- Robust Stability
- Economic Choice
- Effortless Terrain Conformity
- Multi-Domain Adaptability

System Parameters

Structural form	Single-layer cable structure
Module tilt angle range	0°~50°
Single span	Not greater than 25m
Pile type	Bored cast-in-place piles, pre-stressed pipe piles, anchor foundations, independent foundations
Structural Materials	Hot-dip galvanized steel, zinc-aluminum-magnesium high-strength steel
Wind resistance design	Maximum design wind speed 40m/s
Terrain adaptability	≤ 60° in both north-south and east-west directions
Operating temperature range	-40℃~85℃
Module compatibility	Compatible with all modules
Maximum module load capacity	≤500kg/m²
Warranty period	1-3 years
Warranty coverage	Main structure, connecting components

Optimal Application Scenarios

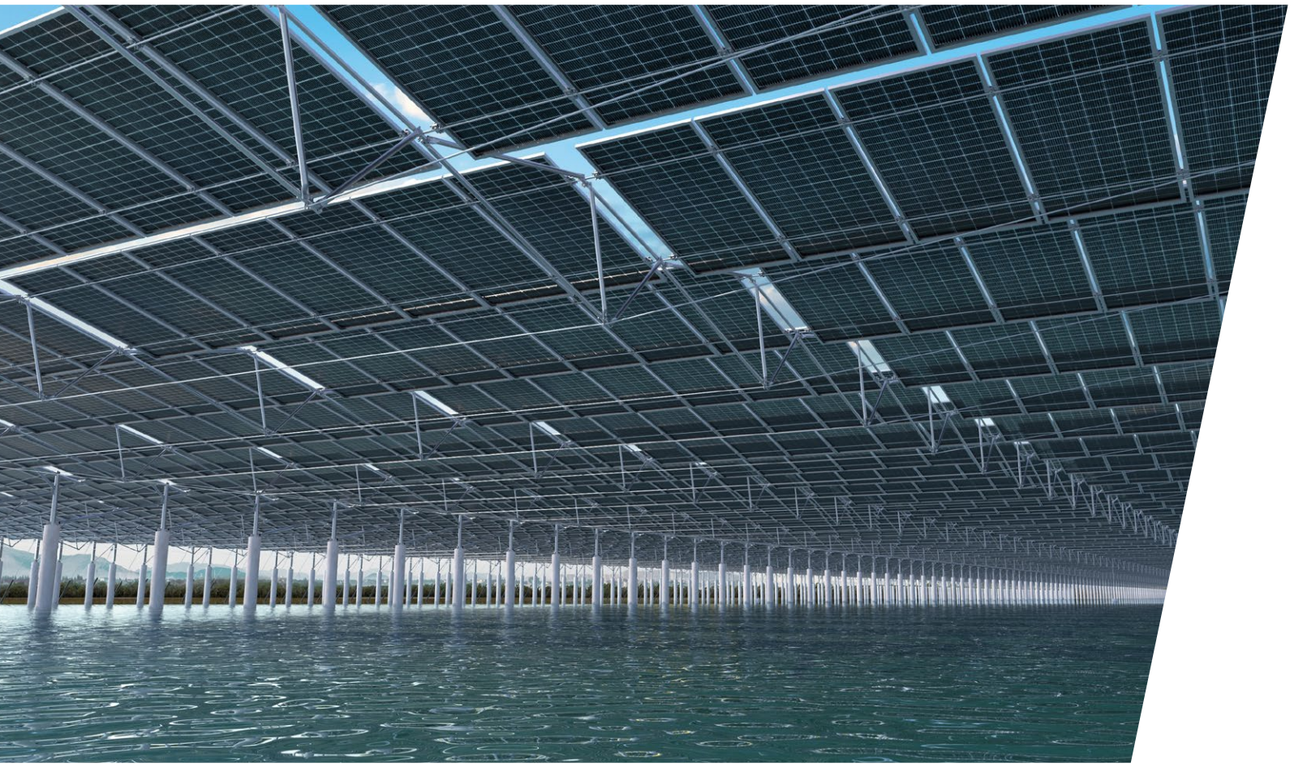








Flexible Mounting System - Honsine- 3 Cable



This mounting system adopts an innovative tensioning layout of double upper cables and a curved lower cable, combined with triangular support members and a multi-stage damping and vibration suppression system, constructing a high-rigidity self-balancing load-bearing structure. The product features excellent structural stability and wind resistance under large-span and high-clearance conditions, making it widely adaptable to special PV scenarios such as fishery-solar projects, deserts, Gobi regions, and rooftop retrofits on factory buildings. It not only effectively improves site space utilization and significantly reduces foundation construction costs, but also delivers a better overall return on investment for projects.

- High stability and wind resistance
- Highly efficient and compact
- Full-scenario adaptability
- Safety and durability

System Parameters

Structural form	Double-layer cable structure
Module tilt angle range	0°~40°
Applicable span	30m~45m
Pile type	Bored cast-in-place piles, pre-stressed pipe piles, anchor foundations, independent foundations
Structural Materials	Hot-dip galvanized steel, zinc-aluminum-magnesium high-strength steel
Wind resistance design	Maximum design wind speed 55m/s
Operating temperature range	-40℃~85℃
Module compatibility	Compatible with all modules
Application scenarios	Aquaculture-PV, pasture-PV, factory building retrofits, large-span ravines, etc.
Warranty period	1-3 years
Warranty coverage	Main structure, connecting components

Optimal Application Scenarios









Flexible Mounting System - Honsine- 4 Cable



Engineered to push the boundaries of structural spans, this premium system is custom-designed for ultra-wide spans and high-clearance applications. It utilizes a dual-layercabling configuration (twin upper and twin lower cables) coupled with a 3D truss/supportsystem to form a two-way, self-balancing network. Integrated with advanced wind-resistancedesigns and multi-stage damping systems, it effectively controls cable deformation andenhances overall structural rigidity, ensuring rock-solid stability even in high-clearanceinstallations.

By leveraging self-balancing load paths and superior wind suppression, the systemeliminates intermediate pillars to maximize open space. It is the ideal solution for complexPV applications, including fishery-solar hybrids, heavy-duty truck carports, and industrialrooftop retrofits. Additionally, it optimizes foundation layouts and slashes civil constructioncosts, significantly boosting spatial utilization and project ROI.

- Large-Span Stable Structure
- High stability and wind resistance
- Full-scenario adaptability
- Safety and durability

System Parameters

Structural form	Cable net structure
Module tilt angle range	0°~40°
Applicable span	40m~60m
Pile type	Bored cast-in-place piles, pre-stressed pipe piles, anchor foundations, independent foundations
Structural Materials	Hot-dip galvanized steel, zinc-aluminum-magnesium high-strength steel
Wind resistance design	Maximum design wind speed 55m/s
Operating temperature range	-40℃~85℃
Module compatibility	Compatible with all modules
Application scenarios	Aquaculture-PV, pasture-PV, factory building retrofits, large-span ravines, etc.
Warranty period	1-3 years
Warranty coverage	Main structure, connecting components

Optimal Application Scenarios













Mountain scenario

Fewer Piles, Rapid Construction
The large-span cable structure significantly reduces the number of piles, lowers foundation costs, and shortens construction time.

Large-Span Stable Structure
The flexible mounting system easily spans ravines and steep slopes, adapting to complex terrains and eliminating structural risks caused by uneven settlement.

Flexible-Rigid Hybrid for More Capacity
Combining flexible cable nets with rigid steel supports, this design makes better use of land. It breaks free from the rigid column spacing constraints of all-steel structures, adapts to rolling terrain, and allows flexible layouts — boosting installed capacity on the same land area.

Water Surface Scenario

Fewer Piles, Pond Protection
Uses only two-thirds the pile quantity of conventional solutions, reducing the risks of in-water piling and minimizing damage to geomembranes — preserving the anti-seepage layer, speeding up construction, and giving you better schedule control.

High Clearance, Fishery-Friendly
With spans of 30–60 m and generous overhead clearance, the structure fits various pond shapes and aquaculture operations. The cable system dissipates wind loads, minimizes underwater components to mitigate corrosion from the source— lowering O&M costs over the entire life cycle.

Shading for Higher Yields
Power from the Panels, Aquaculture Beneath Them Moderate shading reduces evaporation and stabilizes water temperature, while gaps between panels let in enough light to promote plankton growth — creating a balanced aquatic ecosystem and delivering dual returns from clean energy and fisheries.

Desert Scenario

Minimized Foundations for Cost Reduction
Cable-based long-span design reduces foundation construction, lowering both initial investment and LCOE

Robust and Disaster-Resistant
Flexible self-accommodation avoids wind-induced resonance; widely adaptable to sandy and saline-alkali terrains.

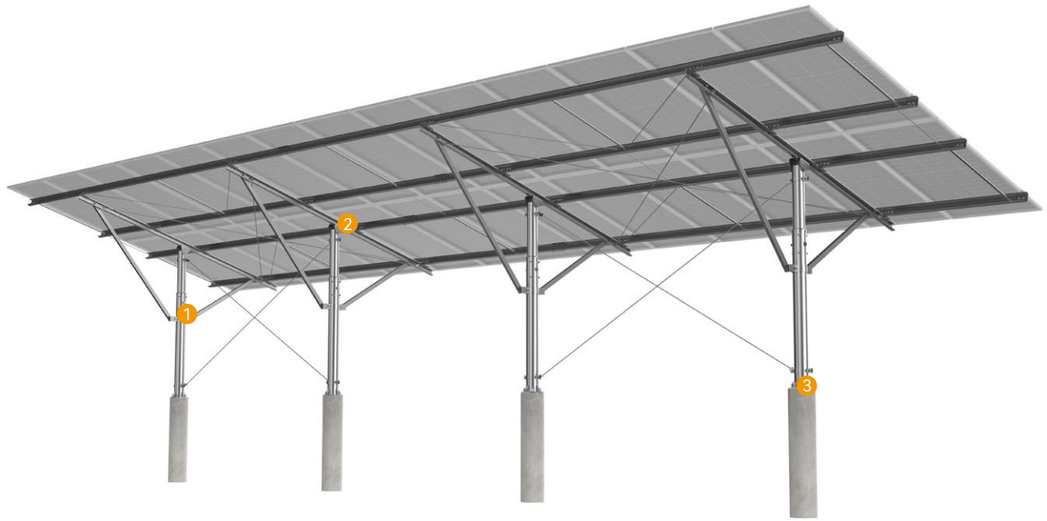
Sand Stabilization & Better Returns
Power from the Panels, Sand Stabilization Beneath Them， Reduces windblown sand and dust accumulation, combining ecological restoration with profitable power generation.



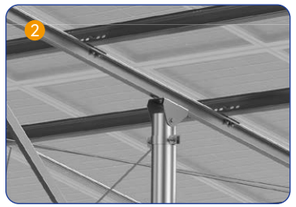


ESET SOLAR Fixed Mounting System Solutions

Single-column Mounting System









Technical Specifications

Foundation Type	Helical piles, driven piles, micropiles
Materials	Zinc-aluminum-magnesium coated steel, hot-dip galvanized steel, aluminum alloy
Installation Angle	> 0°
Wind Load	Based on local codes or wind tunnel test results
Layout	Based on electrical layout
Module Orientation	Horizontal or vertical mounting

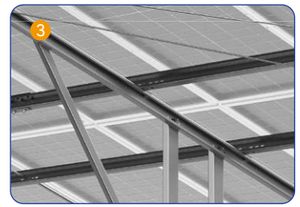
- Simple structure for easy installation
- Convenient on-site transfer
- Fewer piles
- High Terrain Adaptability
- Modular Installation
- Compatible with multiple foundation types
- Compatible with multiple modules
- Customized design
- High Power Generation Efficiency
- Stable and reliable structure

Single-Pile (Precast) Dual-column Mounting System







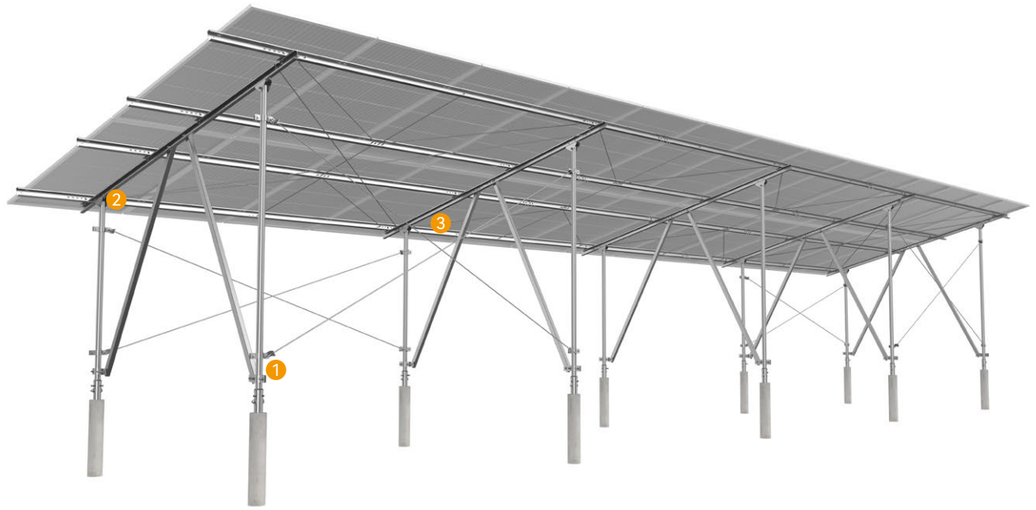


Technical Specifications

Foundation Type	Precast Piles
Materials	Zinc-aluminum-magnesium coated steel, hot-dip galvanized steel, aluminum alloy
Installation Angle	> 0°
Wind Load	Based on local codes or wind tunnel test results
Layout	Based on electrical layout
Module Orientation	Horizontal or vertical mounting

- Simple structure for easy installation
- Convenient on-site transfer
- Fewer piles
- Floating PV
- Modular Installation
- High-clearance Agri-PV
- Compatible with multiple modules
- Customized design
- High Power Generation Efficiency
- Stable and reliable structure

Dual-column Mounting System







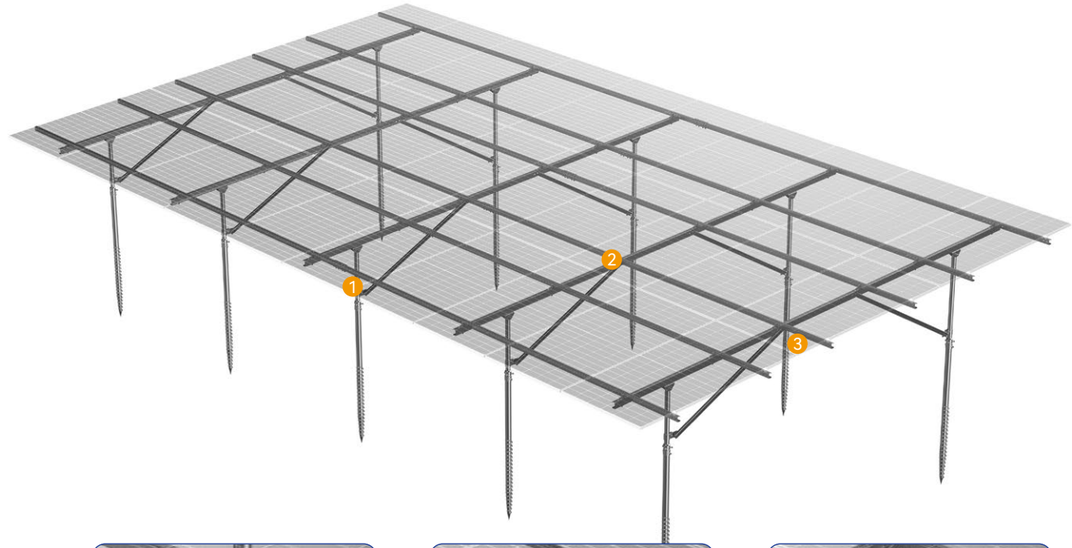


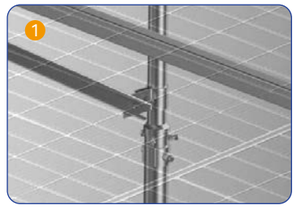
Technical Specifications

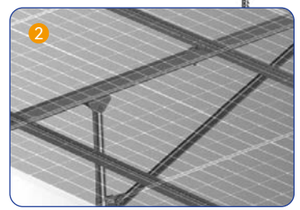
Foundation Type	Helical piles, driven piles, micropiles, strip footings
Materials	Zinc-aluminum-magnesium coated steel, hot-dip galvanized steel, aluminum alloy
Installation Angle	> 0°
Wind Load	Based on local codes or wind tunnel test results
Layout	Based on electrical layout
Module Orientation	Horizontal or vertical mounting

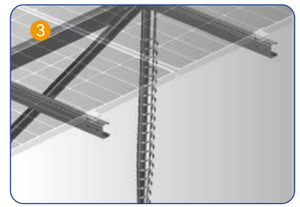
- Simple structure for easy installation
- Convenient on-site transfer
- Strong Wind Resistance
- High Terrain Adaptability
- Modular Installation
- Compatible with multiple foundation types
- Compatible with multiple modules
- Customized design
- High Power Generation Efficiency
- Stable and reliable structure

Dual-column Mounting System (Multi-Row)







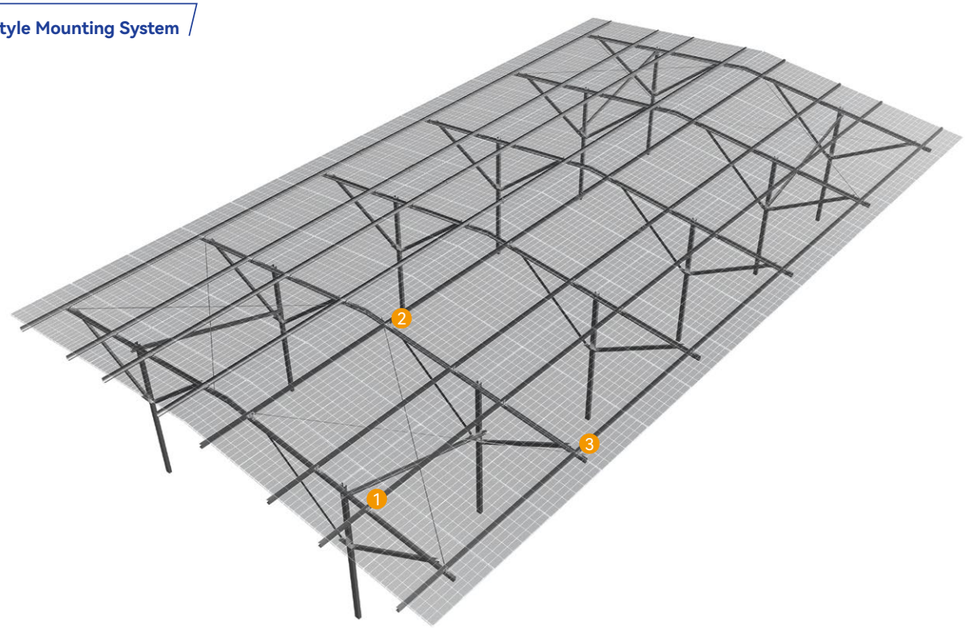


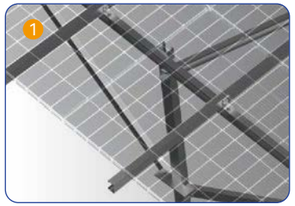
Technical Specifications

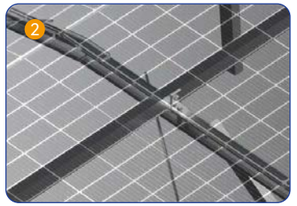
Foundation Type	Helical piles, driven piles, micropiles, strip footings
Materials	Zinc-aluminum-magnesium coated steel, hot-dip galvanized steel, aluminum alloy
Installation Angle	> 0°
Wind Load	Based on local codes or wind tunnel test results
Layout	Based on electrical layout
Module Orientation	Horizontal or vertical mounting

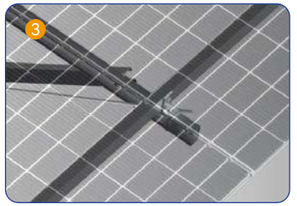
- Simple structure for easy installation
- Convenient on-site transfer
- Fewer piles
- Strong Wind Resistance
- Modular Installation
- Compatible with multiple foundation types
- Compatible with multiple modules
- Customized design
- High Power Generation Efficiency
- Stable and reliable structure

Gable-style Mounting System







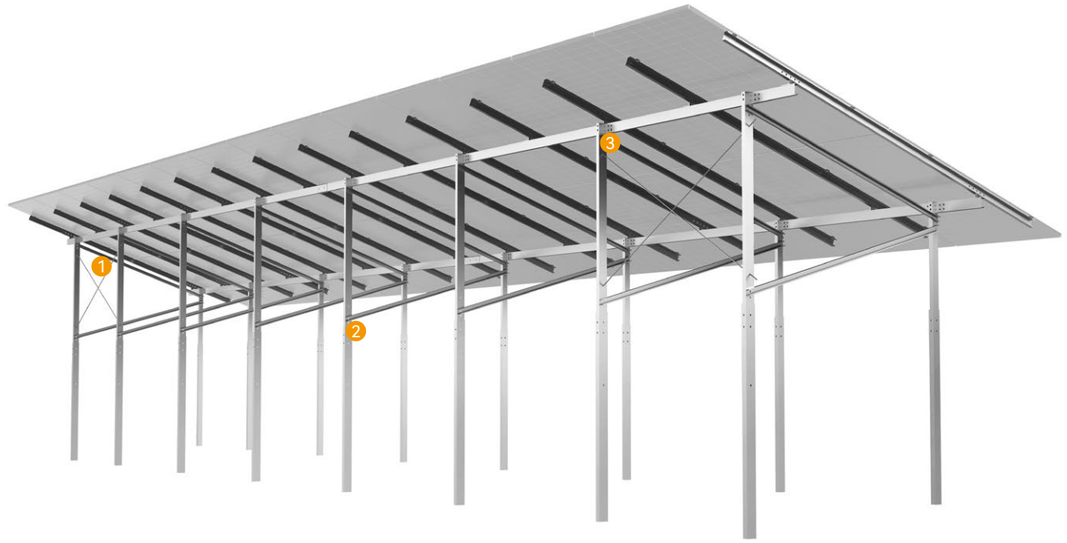


Technical Specifications

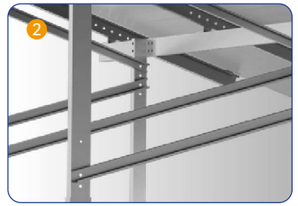
Foundation Type	Helical piles, driven piles, micropiles, strip footings
Materials	Zinc-aluminum-magnesium coated steel, hot-dip galvanized steel, aluminum alloy
Installation Angle	> 0°
Wind Load	Based on local codes or wind tunnel test results
Layout	Based on electrical layout
Module Orientation	Horizontal or vertical mounting

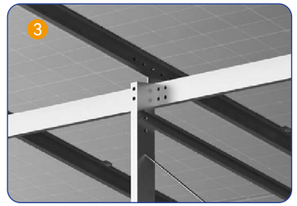
- Simple structure for easy installation
- Convenient on-site transfer
- Fewer piles
- Strong Wind Resistance
- Modular Installation
- Compatible with multiple foundation types
- Compatible with multiple modules
- Customized design
- High Power Generation Efficiency
- Stable and reliable structure

Bifacial Module Mounting System





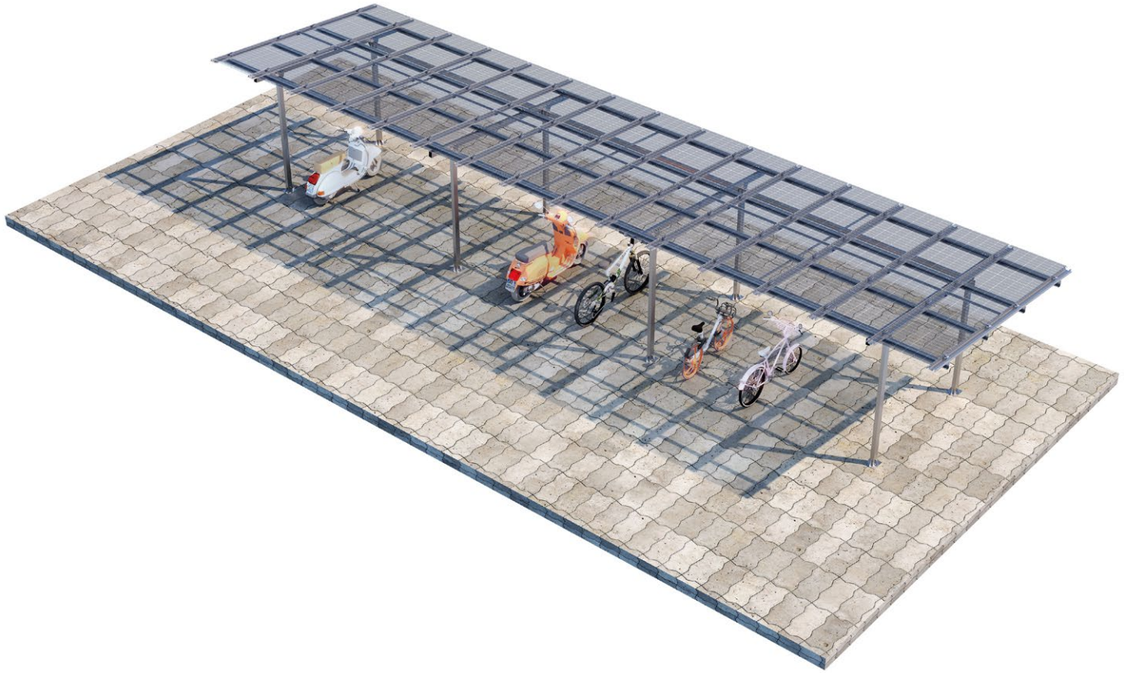




Technical Specifications

Foundation Type	Helical piles, driven piles, micropiles, strip footings
Materials	Zinc-aluminum-magnesium coated steel, hot-dip galvanized steel, aluminum alloy
Installation Angle	> 0°
Wind Load	Based on local codes or wind tunnel test results
Layout	Based on electrical layout
Module Orientation	Horizontal or vertical mounting

- Simple structure for easy installation
- Convenient on-site transfer
- Strong Wind Resistance
- Bifacial Power Generation
- Modular Installation
- Compatible with multiple foundation types
- Compatible with multiple modules
- Customized design
- High Power Generation Efficiency
- Stable and reliable structure



Applicable Conditions

Module Dimensions	Unlimited, customized design
Module Orientation	Horizontal or vertical mounting
Wind Load	Based on local codes or wind tunnel test results
Snow Load	Based on local codes

Technical Specifications

Installation Angle	> 0°
Drainage Area	Customized
Surface Treatment	Paint coating, hot-dip galvanizing, zinc-aluminum-magnesium
Design Codes	GB/ASCE 7/AISC 360/EN 1991~1999/AS-NZS 1170/NSCP/ISO/...
Warranty Period	10 years
Compatible Vehicle Types	Compact cars, bicycles, electric vehicles, motorcycles, etc.; fully customizable

Advantages

Space Advantages	High site utilization, suitable for small spaces
Greater Installed Capacity	Capacity-maximizing design
Cost-Effective Installation	Lightweight design, no on-site welding, and easy installation
Other Advantages	Green, low-carbon, and eco-friendly with customizable appearance and color



Applicable Conditions

Module Dimensions	Unlimited, customized design
Module Orientation	Horizontal or vertical mounting
Wind Load	Based on local codes or wind tunnel test results
Snow Load	Based on local codes

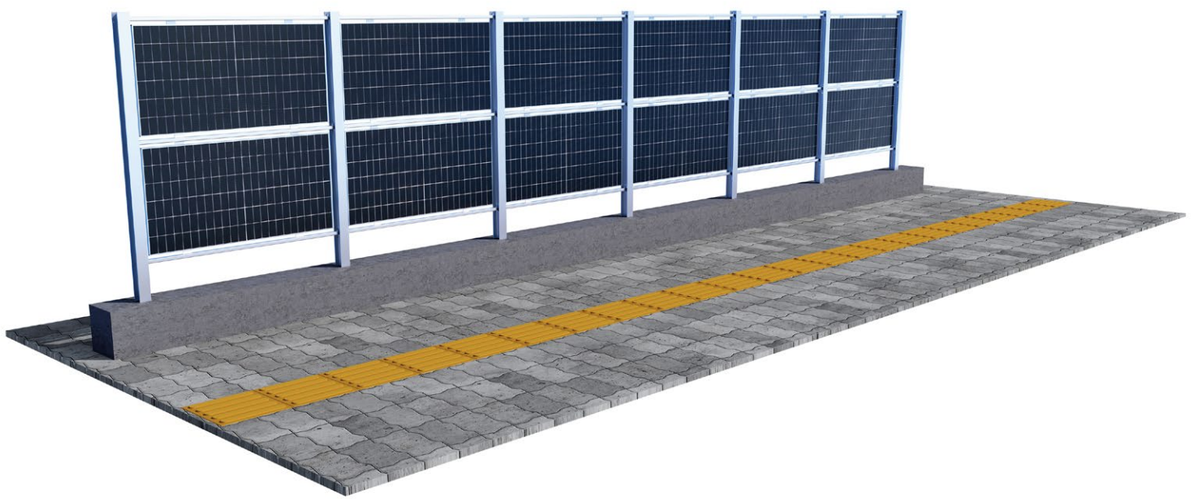
Technical Specifications

Installation Angle	> 0°
Drainage Area	Customized
Surface Treatment	Paint coating, hot-dip galvanizing, zinc-aluminum-magnesium
Design Codes	GB/ASCE 7/AISC 360/EN 1991~1999/AS-NZS 1170/NSCP/ISO/...
Warranty Period	10 years
Compatible Vehicle Types	Compact cars, mid-to-large buses, heavy trucks, etc.; fully customizable

Advantages

Space Advantages	High site utilization, more parking spaces
Greater Installed Capacity	Capacity-maximizing design
Cost-Effective Installation	Fewer foundations, no on-site welding, and easy installation
Other Advantages	Green, low-carbon, and eco-friendly with customizable appearance and color

Vertical Module Support



Technical Specifications

Foundation Type	Helical piles, driven piles, micropiles, strip footings
Materials	Zinc-aluminum-magnesium coated steel, hot-dip galvanized steel, aluminum alloy
Installation Angle	90°
Wind Load	Based on local codes or wind tunnel test results
Layout	Based on electrical layout
Module Orientation	Horizontal or vertical mounting

- Simple structure for easy installation
- Convenient on-site transfer
- Fewer piles
- High site utilization
- Modular Installation
- Compatible with multiple foundation types
- Compatible with multiple modules
- Customized design
- Simple and aesthetically pleasing
- Stable and reliable structure

PV Corridor



Applicable Conditions

Module Dimensions	Unlimited, customized design
Module Orientation	Horizontal or vertical mounting
Wind Load	Based on local codes or wind tunnel test results
Snow Load	Based on local codes

Technical Specifications

Installation Angle	> 0°
Drainage Area	Customized
Surface Treatment	Paint coating, hot-dip galvanizing, zinc-aluminum-magnesium
Design Codes	GB/ASCE 7/AISC 360/EN 1991~1999/AS-NZS 1170/NSCP/ISO/...
Warranty Period	10 years
Passage Clearance	Fully customizable

Advantages

Space Advantages	High site utilization, flexible road width
Greater Installed Capacity	Capacity-maximizing design
Cost-Effective Installation	Lightweight design, no on-site welding, and easy installation
Other Advantages	Green, low-carbon, and eco-friendly with customizable appearance and color



ESET SOLAR Project Cases



603MW

Dalate Economic Development Zone – Incremental Distribution Network Green Power Supply Project



1200MW

Jinghe Industrial Park Low-Carbon Transformation PV Project



500MW

Kubuqi Desert Southern New Energy Base PV Pilot Project



700MW

Philippines PV Power Project



429MW

Yongshan Songlin PV Power Project (China Three Gorges)



770MW

Jiayuguan Jiaxi PV Power Project



100MW

Guangxi Wuzhou Teng County Taohua Flexible PV Mounting System



170MW

Binzhou Flexible Mounting PV Project



100MW

Tianzhen County PV Power+Energy Storage PV Project



188MW

Heizhiguo Township Agri-PV Flexible Mounting PV Project



100MW

Jishan County CNNP HuiNeng PV Project



30MW

Longyuan Animal Husbandry Rooftop Distributed PV Power Project in Fengrun District, Tangshan City



700MW

Huanghe Solar Fushan (Gonghe) Source-Grid-Load-Storage Integrated PV Project



587MW

Saudi Arabia Tracker PV Power Plant Project



331MW

South Africa Solar Tracker PV Power Project



150MW

Laos Solar Tracker PV Power Project



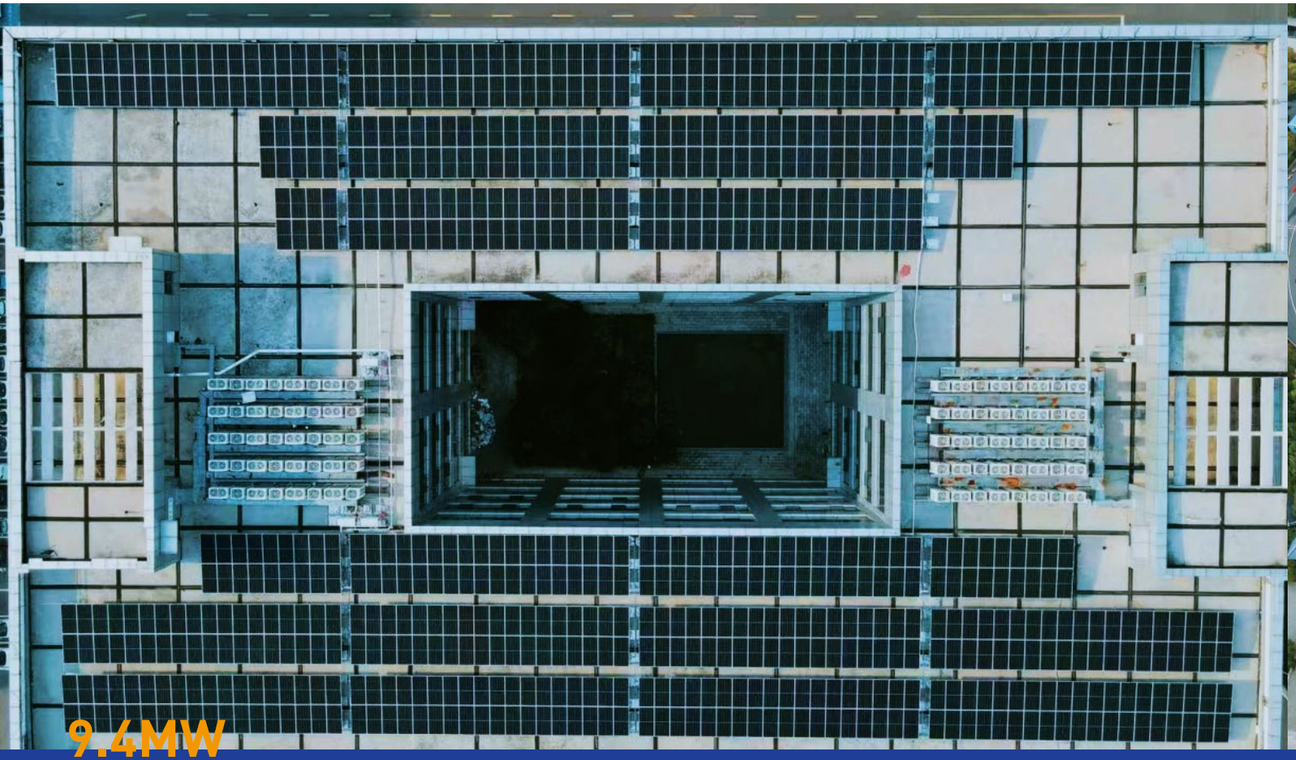
716MW

Mexico Tracker PV Power Plant Project



30MW

Brazil Tracker PV Power Plant Project



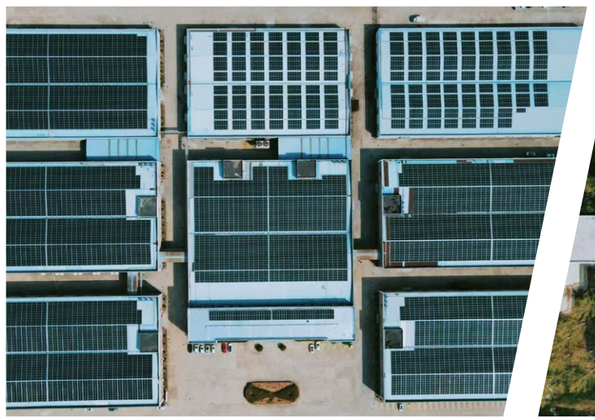
9.4MW

EPC general contracting of distributed photovoltaic project in China Resources High tech Zone



7.3MW

Jingzhou Fantawild Distributed Photovoltaic Power Generation Project EPC General Contracting



6MW

Huai'an Zhongzhe Industrial Roof Photovoltaic Power Generation Project EPC General Contracting



4.8MW

Jining Fantawild Distributed Storage Project EPC General Contracting



4.8MW

China Resources Yibao Roof Distributed Photovoltaic Project EPC General Contracting



450KW

Jiangsu Baohua Photovoltaic Shed Power Generation Project EPC General Contracting