

 Haitai Solar



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 **Haitai Solar**



Haitai
Mounting System

Tangshan Haitai Intelligent Equipment Co., Ltd

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Group Introduction

Haitai Solar was founded in 2006 and operates in nine major business sectors: photovoltaic modules, photovoltaic power plants, photovoltaic mounting systems, energy storage systems, hydrogen energy, graphite electrodes/carbon electrode, battery swapping, wind energy and solar cells. It began with the manufacturing of PV modules and achieved significant development by successfully listing on the Beijing Stock Exchange (Northbound Trading) on August 8, 2022. The company has grown in other sectors of the new energy industry, such as photovoltaic power plants, photovoltaic mounting systems, and energy storage systems. Both the photovoltaic mounting systems and energy storage have achieved integration of R&D, production, and sales.

Haitai solar (920985)
is a comprehensive new energy enterprise based in
China with a global presence.

2006

Haitai solar was established in 2006

9

9 business sections

100+

The business covers countries/regions.

500

Global Top 500 New Energy Enterprises

2000+

Global employee count



COMPANY PROFILE

2008

· Haitai solar was established.

2008

· Mature R&D and technological capabilities, Full entry into the photovoltaic industry

2011

· Officially Launched 600MW Solar Module Production Line
· Co-established the "Haitai Solar Cell R&D Center" with the Institute of Electrical Engineering, Chinese Academy of Sciences.

2013

· Listed in the Ministry of Industry and Information Technology's PV manufacturing access list.
· Established partnerships with Sharp and BYD, fully expanding into the Japanese market.

2016

· Successfully Listed on the New Third Board, Entering the Capital Market
· Obtained the "Pioneer" power degradation certification in the first year.

2017

Entered into the photovoltaic power plant sector.

2024

· Established a National-Level CNAS Laboratory
· Recognized as a National-Level Intelligent Photovoltaic Pilot Demonstration Enterprise

2023

· Establishment of a third-party verified base.
· Intelligent Manufacturing Pilot Demonstration Project National-level Excellent Scenario.
· Entered the Photovoltaic Cell, Battery Swapping, and Graphite Electrodes/Carbon Electrode Sectors.

2022

Listed on the Beijing Stock Exchange.
Entered into the wind energy sector.
Included in the sixth batch of green supply chains.

2021

Entered into the fields of photovoltaic mounting systems, energy storage, and hydrogen energy.
Ranked as the champion enterprise in the manufacturing sector in Hebei Province.

2020

Tier 1 module manufacturer.



COMPANY PROFILE

Tangshan Haitai New Energy Technology Co., Ltd. (stock code: 835985) is a high-tech enterprise that was one of the first batch of photovoltaic enterprises approved by the Ministry of Industry and Information Technology of the People's Republic of China in 2014. It is a leading photovoltaic module supplier in the world, which mainly engages in the production and sales of ingots, chips, batteries, and modules, as well as the development and construction of photovoltaic power stations and distributed photovoltaic power generation systems. Relying on the global photovoltaic industry layout of the parent company, the Solar Mounting System was established, which focuses on the research and development, design, manufacturing and sales of solar mounting systems. The annual production capacity reaches 100,000 tons, and 4GW modules can be installed. Relying on industrial diversification, we provide customers with the most professional solutions. There are professional photovoltaic support solutions such as "solar modules + solar carports" and "solar modules + solar agriculture". It is a leading provider of integrated solutions combining photovoltaic modules with various photovoltaic support systems in China.

It has domestic production bases located in Tangshan, Shuozhou, Tianjin, Shandong, and Yangzhou, and overseas production bases located in Vietnam, which can provide timely and convenient supply services for global partners. The layout of Shanghai Global Marketing Center, Japan Branch, Vietnam Branch, Europe Branch, Brazil Office, Australia Office, etc. can provide the most professional localization technical service and sales support for global customers!



1 Advantages of the industrial chain - carbon steel mounting

Roof mounting system, galvanized aluminum magnesium ground mounting system, carport mounting system, clothing shed mounting system, fishery-PV complementary mounting system

Complete production process

Steel processing—Cold rolling—Punching—Galvanizing—Processing—Packing—Transportation

Advantages of raw materials

Our production base is located in Hebei Province, at the source of steel supply chain, and the raw materials cost is reduced through scale and supply chain management.

2 Advantages of the industrial chain - aluminum alloy mounting

Carport shed mounting system, clothing shed mounting system, roof mounting system, aluminum alloy ground mounting system

Complete industrial chain

Casting—Mold—Extrusion—Timeliness—Oxidation—Finishing—Packing—Transportation

Strict quality control

Introduce advanced quality management methods and tools, conduct regular quality training, correct errors in time, and build preventive thinking.

QUALITY ASSURANCE



01

Mechanical properties test of raw materials: tensile strength, yield strength, elongation after fracture, bending elongation



02

Check whether the mechanical and anti-corrosion properties of raw materials have changed under extreme conditions



03

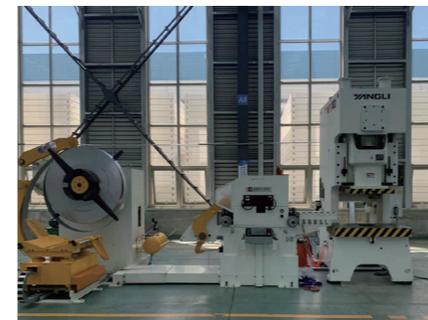
Anti-aging performance of raw materials under strong ultraviolet and rain environment



04

Artificially simulate the natural environment to test whether the corrosion resistance of raw materials meets customer requirements

ON SITE PROCESS



INTRODUCTION TO RAW MATERIALS



Specifications: U41*21
 Features:
 High pressure resistance, easy installation, self-healing of scratched coating, strong anti-corrosion ability. Mainly used for inter-column support of solar photovoltaic panels etc.



Specifications: U41*41
 Features:
 High pressure resistance, easy installation, self-healing of scratched coating, strong anti-corrosion ability. Mainly used for purlins and diagonal braces of solar photovoltaic panels.



Specifications: U41*52
 Features:
 High pressure resistance, easy installation, self-healing of scratched coating, strong anti-corrosion ability. Mainly used for columns, tracks, load-bearing beams, etc. of solar photovoltaic panels.



Specifications: U41*62
 Features:
 High pressure resistance, easy installation, self-healing of scratched coating, strong anti-corrosion ability. Mainly used for columns, tracks, load-bearing beams, etc. of solar photovoltaic panels.



Specifications: C60*40
 Features:
 Effective anti-slip, anti-impact, anti-shear, convenient on-site installation and processing, self-healing of scratched coating, strong anti-corrosion ability, and the hole position can be customized according to the actual situation of customer needs. Mainly used for front and rear columns, inclined beams, front and rear diagonal braces, purlins, etc. of solar photovoltaic panels.



Specifications: C100*50
 Features:
 Effective anti-slip, anti-impact, anti-shear, convenient on-site installation and processing, self-healing of scratched coating, strong anti-corrosion ability, and the hole position can be customized according to the actual situation of customer needs. Mainly used for front and rear columns, diagonal beams, front and rear diagonal braces, purlins, etc. of solar photovoltaic panels.

INTRODUCTION TO RAW MATERIALS



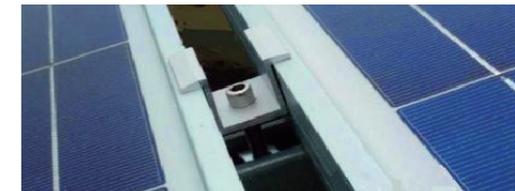
Straight connectors, triangular connectors

Features:
 Easy and convenient connection and adjustment, self-healing of scratched coating, strong anti-corrosion ability. Mainly used for connecting purlins, rails and diagonal braces of solar photovoltaic panels.



Middle pressure block, side pressure block

Features:
 Flexible, simple and convenient installation, self-healing of scratched coating, strong anti-corrosion ability. Mainly used for fixed connection of solar photovoltaic panels to enhance the stability and wind resistance of the entire photovoltaic power station.



HTGM Series

Galvanized Aluminum Magnesium Ground Mounting System

Ground mounting solutions suitable for flat, mountainous, and highly corrosive environments

Haitai galvanized aluminum magnesium mounting system is a new type of material photovoltaic mounting system, suitable for high corrosive environments such as coastal areas.

【Main features】

1. New materials with strong corrosion resistance

Galvanized aluminum magnesium material is a new type of material with high corrosion resistance, which is suitable for high corrosion environments.

2. Strong self-rehabilitation ability

Galvanized aluminum-magnesium mounting surface has a strong self-rehabilitation ability to reduce maintenance costs in the later stage.

3. Low cost and high cost-effectiveness

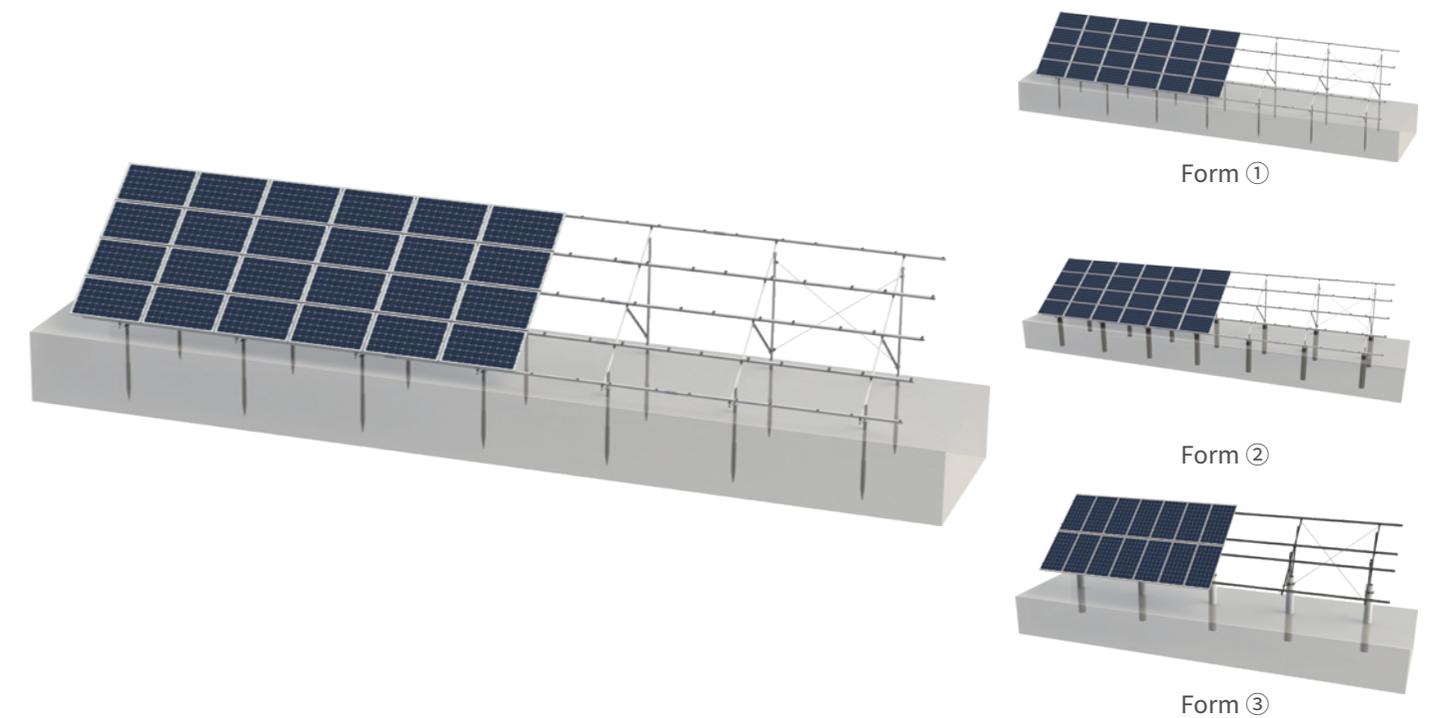
Galvanized aluminum magnesium mounting has the characteristics of low cost and high quality.

4. Customizable

Customized solutions can be provided according to customer needs and actual project conditions.

【Technical parameters】

Applicable scenario	Flat ground
Wind velocity	80m/s
Snow pressure	150cm
Module type	Modules with/without borders, and double-sided modules
Module arrangement	Horizontal and vertical placement
Angle recommendation	5° and 10°
Material	Galvanized aluminum magnesium carbon steel or stainless steel
Design standard	JIS C 8955:2017, AS/NZS1170, and national standards
Others	None



HTGM Series

Hot Dip Galvanized Carbon Steel Ground Mounting System

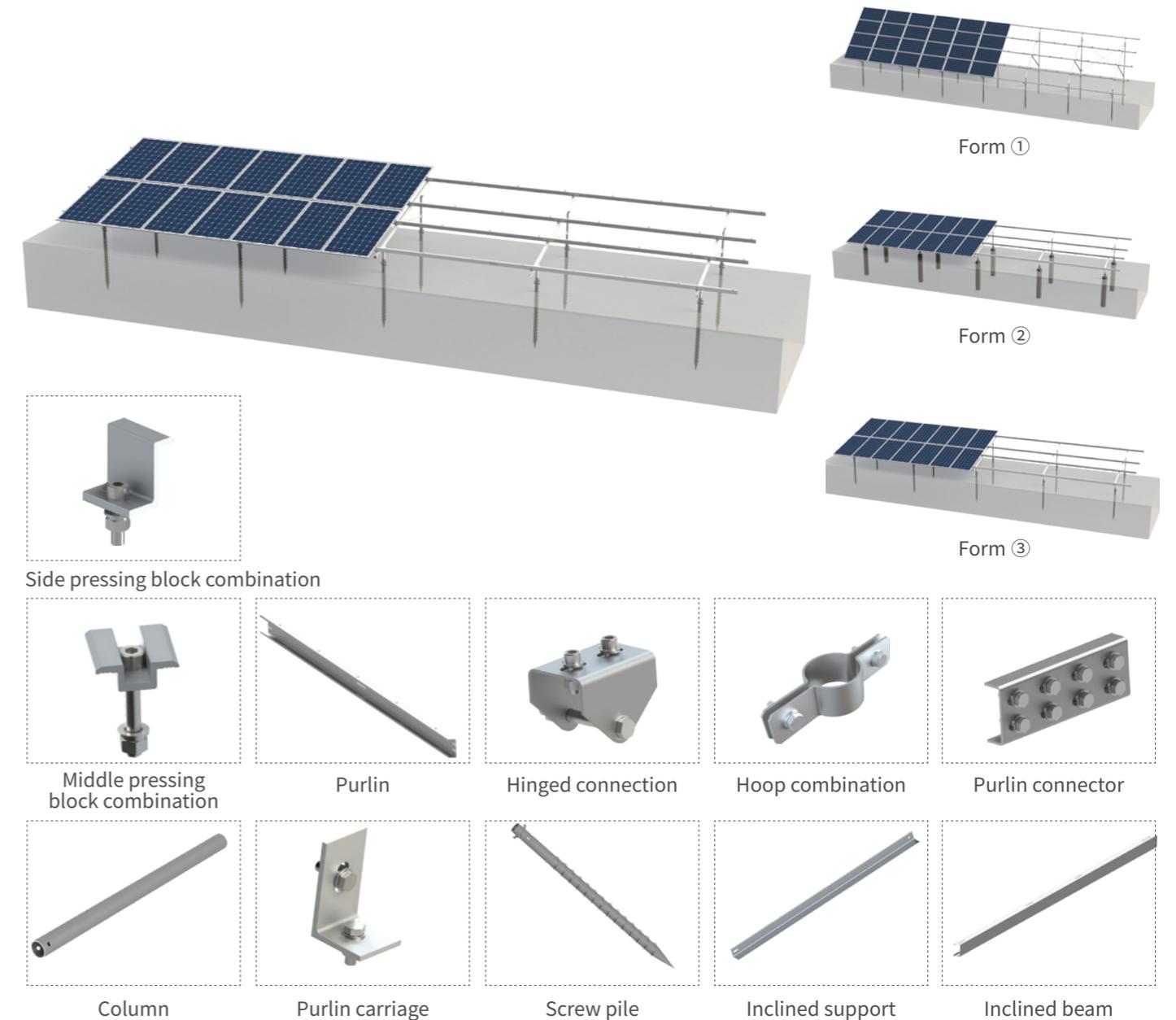
Large ground mounting solutions suitable for flat and mountain

Haitai hot-dip galvanized carbon steel ground mounting system, with a main body designed with carbon steel and a surface of 85µm hot dip galvanizing treatment, which is effective in corrosion prevention and can be used in the outdoor environment for a long time.

【Main features】

1. The material selected is high-quality carbon steel with high strength performance;
2. Hot dip galvanizing treatment is applied to the surface of carbon steel to effectively prevent corrosion;
3. Low cost, suitable for large-scale ground power station projects.

Applicable scenario	Flat ground and mountain
Wind velocity	80m/s
Snow pressure	100cm
Module type	Modules with/without borders, and double-sided modules
Module arrangement	Horizontal and vertical placement
Angle range	≤ 60°
Material	Hot dip galvanized carbon steel or stainless steel
Design standard	JIS C 8955:2017, AS/NZS1170, and national standards
Others	None



HTGM Series

Aluminum Alloy Ground Mounting System

Ground mounting solutions suitable for flat, mountainous, and highly corrosive environments

Haitai aluminum alloy ground mounting system is a traditional and popular mounting system suitable for highly corrosive environments such as coastal areas.

【Main features】

1.Strong corrosion resistance

Aluminum alloy has strong corrosion resistance and high self-rehabilitation ability

2.Highly pre-assembled

Main beam and column are highly pre-assembled, greatly saving construction and labor costs

3.Recyclable

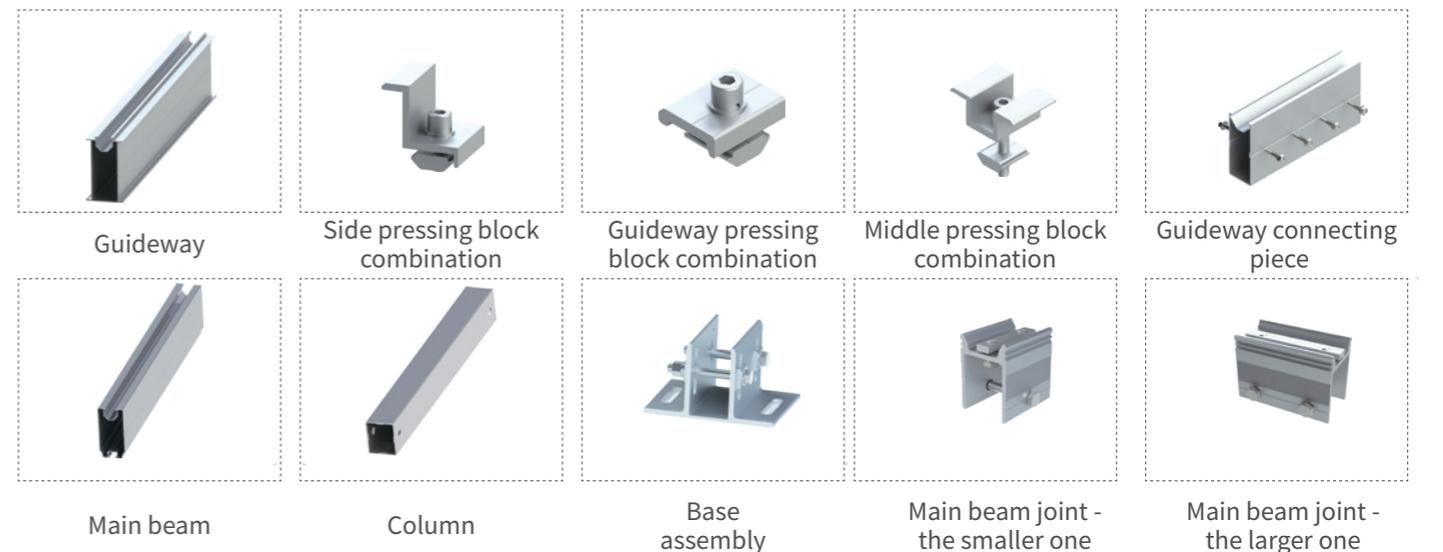
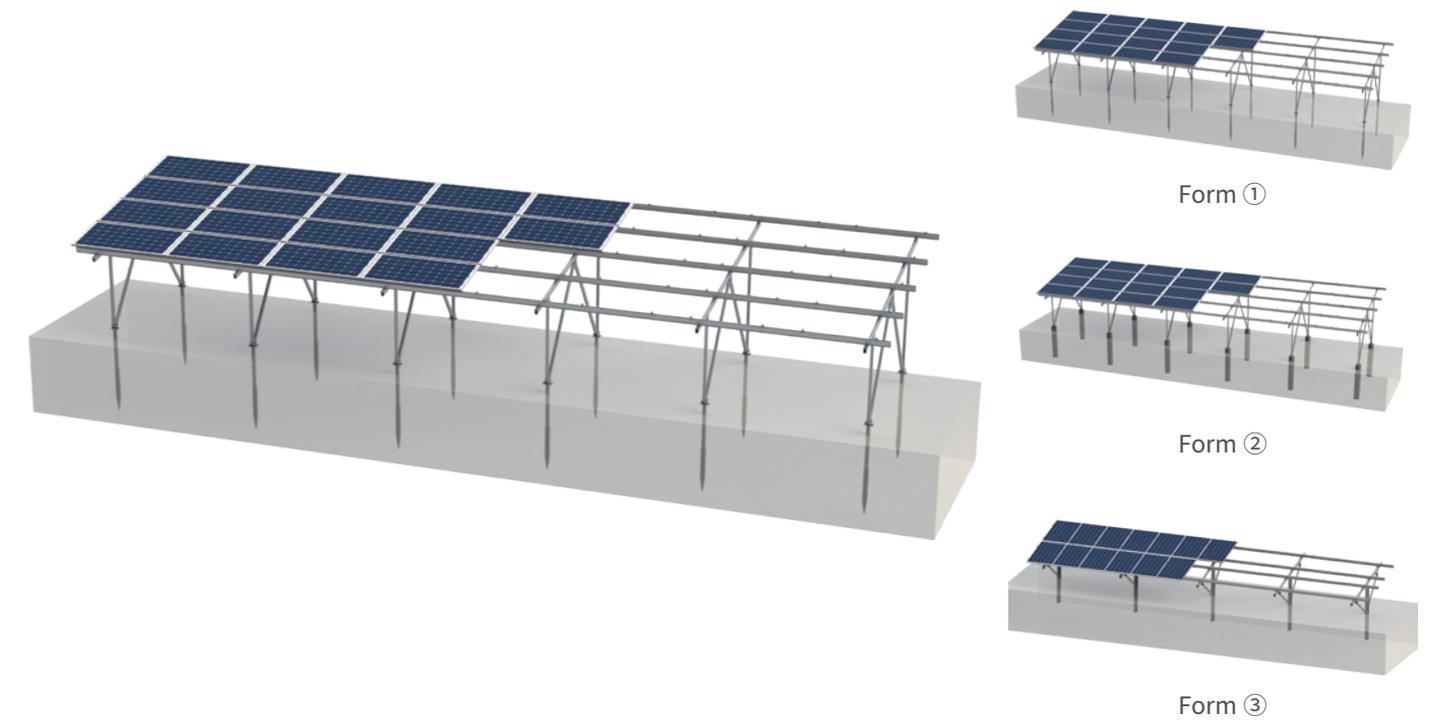
Aluminum alloy can be recycled and reused after 25 years of use

4.Suitable for complex terrains such as sloping terrain and mountainous terrain

Structural components can be adjusted according to the actual situation of the project site to meet the needs of sloping mountainous areas, etc.

【Technical parameters】

Applicable scenario	Flat ground and mountain
Wind velocity	80m/s
Snow pressure	100cm
Module type	Modules with/without borders, and double-sided modules
Module arrangement	Horizontal and vertical placement
Angle range	≤ 60°
Material	Aluminum alloy or stainless steel
Design standard	JIS C 8955:2017, AS/NZS1170, and national standards
Surface treatment	Anodizing



HTcarport Series

Photovoltaic Carport Mounting System

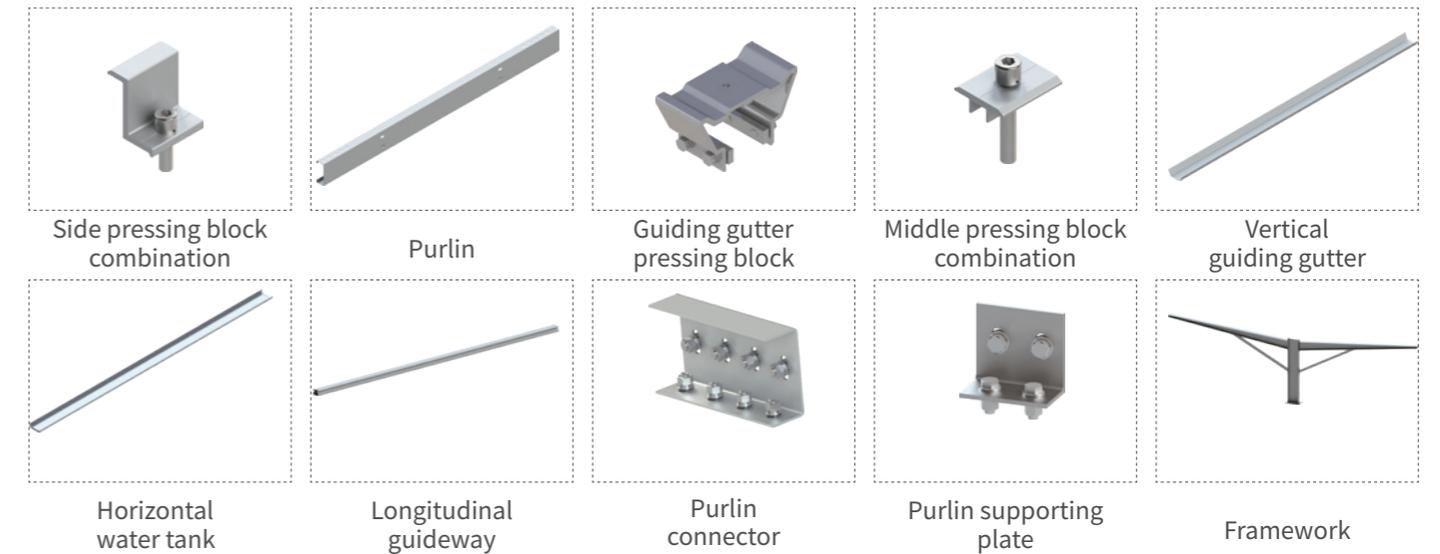
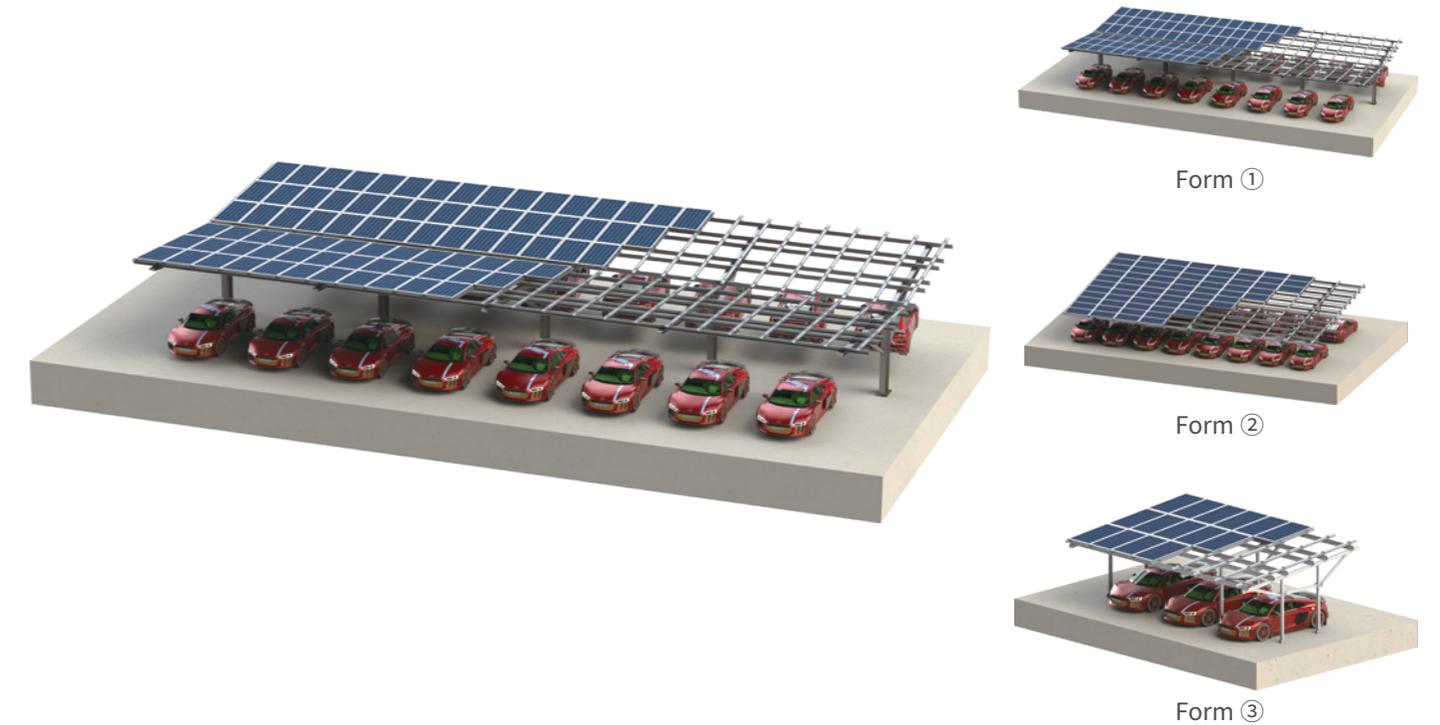
Haitai photovoltaic carport mounting system is a new type of building-integrated photovoltaic waterproof carport mounting system.

【Main features】

- 1.Structural waterproofing, greatly improving waterproofing effectiveness;
- 2.Reasonable design according to the location, effectively improving space utilization rate;
- 3.Various forms to meet different customer needs;
- 4.Strong system stability with high strength protection against heavy snow.

【Technical parameters】

Applicable scenario	Flat ground
Wind velocity	80m/s
Snow pressure	150cm
Module type	Modules with/without borders, and double-sided modules
Module arrangement	Horizontal and vertical placement
Angle recommendation	5° and 10°
Material	Carbon steel, aluminum alloy, and stainless steel
Design standard	JIS C 8955:2017, AS/NZS1170, and national standards
Others	None



HTFarmland Series

Agricultural Shed Mounting System

Suitable for agricultural, fishery and other agriculture-photovoltaic mounting solutions

Haitai agricultural shed mounting system is a mounting system that combines agriculture and photovoltaic systems.

【Main features】

1. Agriculture-Photovoltaic complementary

Realize photovoltaic power generation effect without affecting agricultural operations

2. Suitable for areas with scarce land resources

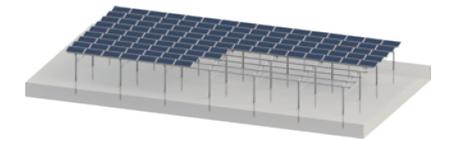
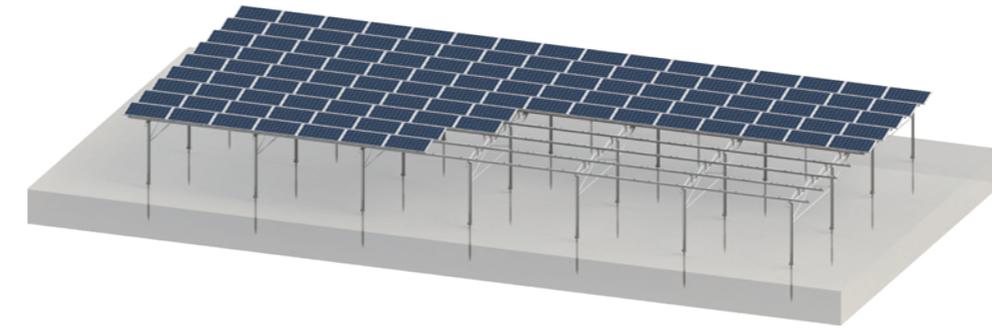
The construction of agricultural shed photovoltaic systems does not affect agricultural planting and can effectively improve land use efficiency

3. Customizable

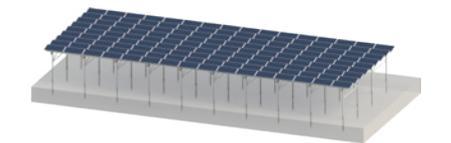
Customized solutions can be provided according to customer needs and actual project conditions

【Technical parameters】

Applicable scenario	Flat ground
Wind velocity	80m/s
Snow pressure	100cm
Module type	Modules with/without borders, and double-sided modules
Module arrangement	Horizontal and vertical placement
Angle range	≤ 60°
Material	Carbon steel, aluminum alloy, and stainless steel
Design standard	JIS C 8955:2017, AS/NZS1170, and national standards
Others	None



Form ① : Carbon steel scheme



Form ② : Aluminum alloy scheme



Side pressing block combination



Middle pressing block combination



Main beam and purlin



Connector



Tripod



Cross rod



Purlin supporting plate



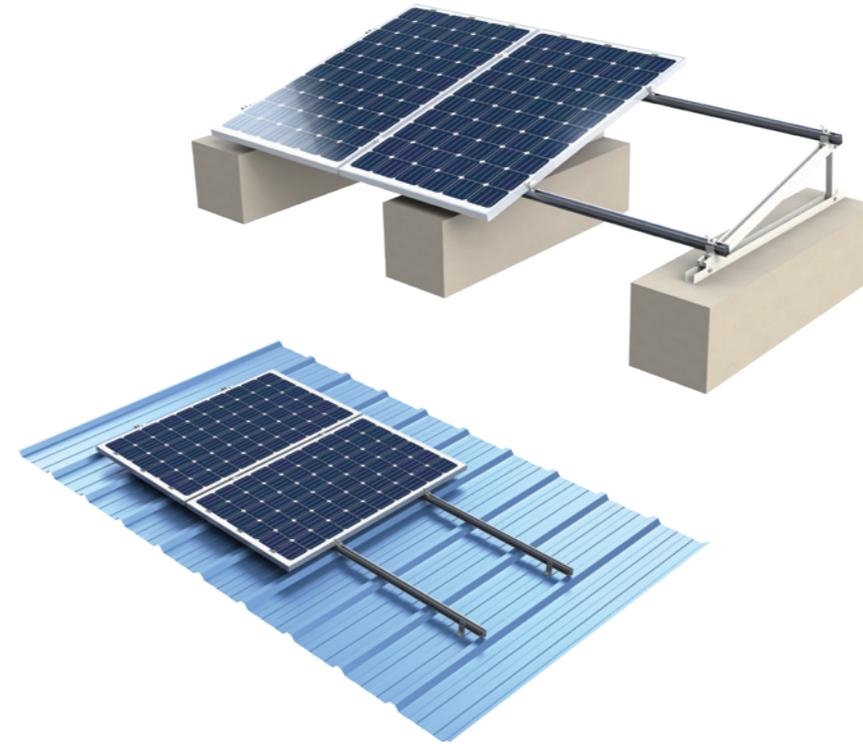
Column

HTRM Series

Roof Mounting System

Suitable for industrial, commercial, and household roof mounting solutions

Haitai roof mounting system is a multi-style photovoltaic mounting system, suitable for different roof uses.



【Main features】

1. Diverse types, meeting different roof use
2. Lightweight design, convenient installation, and time-saving
3. High quality alloy material, high-strength and corrosion-resistant

【Technical parameters】

Applicable scenario	Iron roof, tile roof, cement flat roof, etc.
Wind velocity	80m/s
Snow pressure	100cm
Module type	Modules with/without borders, and double-sided modules
Module arrangement	Horizontal and vertical placement
Angle range	≤ 60°
Material	Carbon steel, aluminum alloy, and stainless steel
Design standard	JIS C 8955:2017, AS/NZS1170, and national standards
Others	None



406 fixture

700 fixture



L leg combination

Diaphragm side pressing block



Diaphragm middle pressing block

Side pressing block combination



Hanger bolt



Hook combination



Guideway connecting piece



Aluminum alloy guideway



Galvanized aluminum magnesium profile steel



Grounding block



Grounding strap



Trapezoidal fixture



Wire clamp



Middle pressing block combination



System Series

Integrated System

Haitai integrated system is a one-stop solution for mountings, modules, and photovoltaic accessories.

Haitai integrated system integrates three core products: efficient modules, mountings, and system accessories, and innovatively integrates solutions for customers.

For example, professional photovoltaic mounting solutions such as "photovoltaic modules + photovoltaic mountings" and "photovoltaic modules + photovoltaic carports".

【Main features】

1. One-stop service

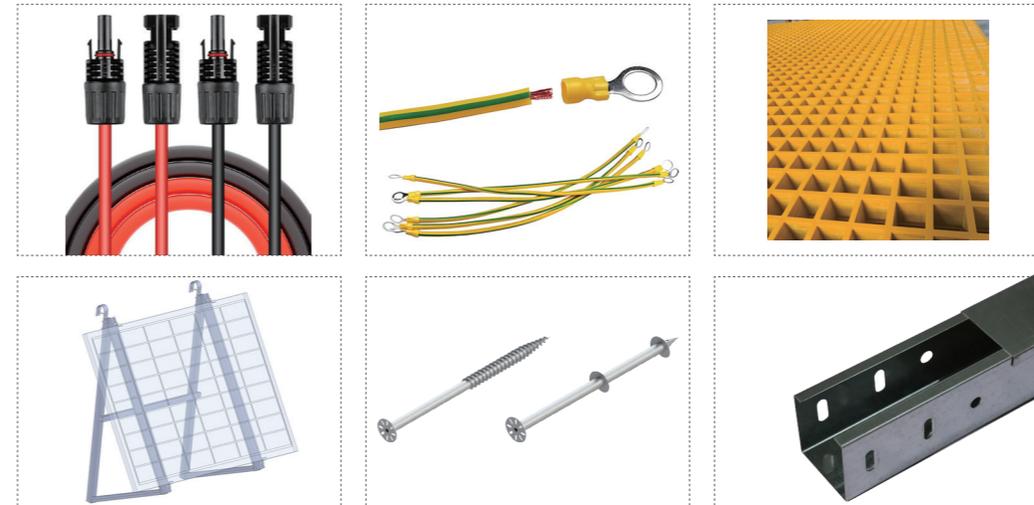
"Photovoltaic module + photovoltaic mounting", "photovoltaic mounting + accessories" and other professional photovoltaic system solutions.

2. Cost savings

Provide customers with more convenient procurement services and more favorable prices by the integrated system supply of modules, mountings, and accessories.

3. Efficiency improvement

Provide one-stop services to improve work and communication efficiency.



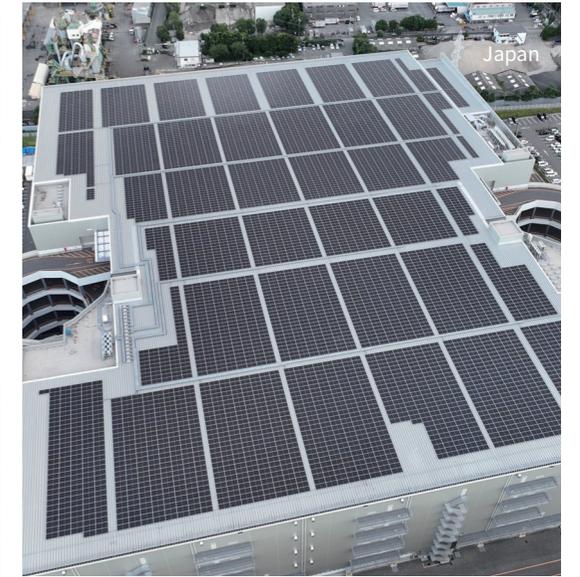
Ground-based power plants

Haitai Solar has introduced a range of high-efficiency photovoltaic modules specifically designed for large ground-based power plant projects. These modules have a maximum power output of up to 720W. Among them, the Taihe bifacial photovoltaic modules offer additional rear-side power generation benefits, enhancing the overall power generation capacity of the power plant and increasing project revenue for users.



Industrial and commercial sector

With the advancement of the dual carbon goals, the capacity of the distributed photovoltaic market in industrial and commercial sectors, such as factory roofs and office building roofs, has been fully unleashed. Haitai New Energy starts from the product design end to enrich the product portfolio and meet the product demands in different application scenarios. The product specifications cover 166, 182, and 210, with a maximum power output of up to 700W. Additionally, by combining Taiji single-sided modules with Taihe bifacial modules, the product range is diversified to meet the diverse product needs of users. In various types of industrial and commercial distributed applications, such as cement roofs and color steel tile roofs, the advantages of different module specifications are utilized to flexibly develop product solutions tailored to specific application scenarios. This approach maximizes the reduction of installation restrictions for photovoltaics, thereby promoting the development of distributed photovoltaics in the industrial and commercial sectors.



Residential distributed generation

In response to the dual carbon goals and the promotion of energy structure reform, new energy sources, led by photovoltaics, are gradually making their way from remote deserts and farms to households. Building photovoltaic power projects on residential rooftops not only meets the household's own electricity needs but also enables grid-connected benefits. In recent years, residential distributed photovoltaic projects have become increasingly popular in the field of new energy. Haitai New Energy has gained the favor of global residential customers due to its excellent product quality and comprehensive after-sales service.

