



Horay Project,
Czech Republic **4.5MW**

H **Hopeful**
Horay Solar is committed to global expansion, backed by strong technical support, efficient production, and rigorous quality control.

O **Outstanding**
Our products stand out for their high output power and excellent adaptability to harsh environments.

R **Responsible**
Horay Solar is dedicated to fulfilling its social responsibility and strives to become a leading photovoltaic company focused on quality.

A **Aspiring**
Our team is driven by a shared ambition to create cleaner, more efficient solar panels.

Y **Youthful**
Our team is vibrant, full of energy and youthful spirit.

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Diversified Layout



Add: Wuxi, Jiangsu, China

Global Presence

Production Base



Global Headquarters

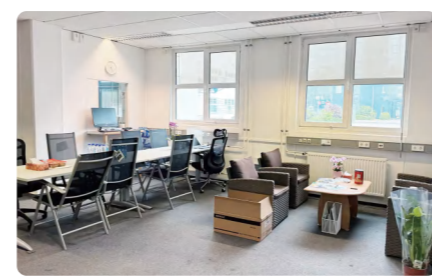


Wuxi Branch, China

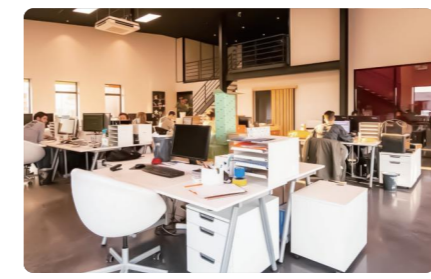


Malaysian Factory

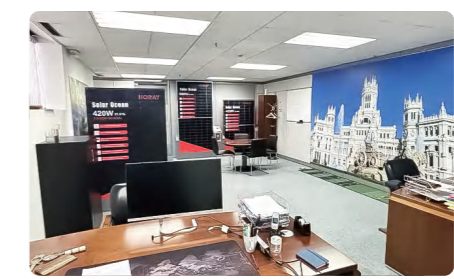
Global marketing and customer center



Germany



America



Spain



Ukraine

Global Warehouse



Germany



Spain



The Netherlands



America



Ukraine

Development History

2010

HORAY SOLAR Founded
(CHINA)
Solar module factory

2018

HORAY SOLAR
Netherlands Warehouse
Stock for European market

2020

HORAY SOLAR
Headquarter (CHINA)

2021

HORAY SOLAR (MALAYSIA)
A Horay Group wholly-owned
subsidiaries for USA market

2021

HORAY SOLAR (GERMANY)
Europe marketing and customer
service center

2022

HORAY SOLAR (USA)
Serving the North America marketing
and customer service center

2022

HORAY SOLAR USA Warehouse
Stock for North American market

2023

HORAY SOLAR Spain Warehouse
Stock for Spanish market

2024

HORAY SOLAR New Factory
Capacity 2 GW
Total can reach 2.5 GW

2024

HORAY SOLAR (Ukraine)
Ukraine marketing center
and warehouse

2024

HORAY SOLAR
Germany Warehouse
Stock for Germany market

About Horay

Founded in 2010, HORAY GROUP is a high-tech leader in solar energy, specializing in PV modules and offering a one-stop service with products like junction boxes, frames, and installation solutions. With operations across Europe, the Americas, and Southeast Asia, HORAY provides efficient local support. Expanding its portfolio from production to power station construction, HORAY is committed to advancing clean energy and supporting global carbon neutrality.

15 Years
In Solar Industry

5
PV Module Production

2.5 GW
Capacity

3
Raw Material Factories

16 Bases
Throughout The World

50+
ODM Partners

Corporate Culture

Values People-oriented, quality-first, innovation-driven, customer-first.

Mission Gathering the power of sunshine, empowering green life, and creating a zero-carbon world.

Vision Lead the green energy revolution, let every ray of sunshine become the power of sustainable development.

Spirit Enterprising, never stop, integrity-based, win-win co-operation.



Honors

Horay has gained support from the government and society, winning numerous honors that drive its continued growth.



- Capability Maturity Model Manufacturing Certification
- Intelligent Manufacturing Demonstration Workshop in Jiangsu Province
- Wuxi Enterprise Technology Center Certification
- High-Tech Enterprise Certification
- Wuxi Engineering Technology Research Center Certification
- Internationally Recognized Brand in Jiangsu Province
- High-Quality PV Module Enterprise
- Outstanding PV Enterprise
- Construction Enterprise Qualification Certificate
- Tender and Bidding Integrity Certificate
- China Electric Power Industry Credit Certificate
- Permit for Installation (Maintenance, Testing) of Power Facilities
- Work Safety Certification

Multiple Quality Guarantees

Horay products excel in performance, having received multiple certifications globally. The "Horay" "Horay Solar" brand is registered worldwide, and products are sold globally.

- TÜV Rheinland Standard
- Lloyd's Ariel Re Solar Performance Insurance
- ISO9001: 2015 Quality Management System
- ISO14001 Environmental Management System
- CE: Europe Standard
- Japan JP-AC
- CQC





HORAY has partnered with globally renowned insurers Lloyd's of London Ariel Re and Ping An of China to offer power loss liability insurance. This customized coverage protects clients' product usage rights, facilitates project financing, and enhances overall customer benefits.

Nine Product Characteristics



Excellent waterproof and dustproof performance, with an IP68 protection rating for the entire module.



High resistance to salt mist and ammonia gas corrosion.



Maximum system voltage of 1500V.



Cells use non-destructive cutting technology to reduce microcrack risk.



Wide operating temperature range: -40°C to 85°C.



High PID-resistant encapsulation materials mitigate output decline in high-temperature, high-humidity environments due to high-voltage stress.



High structural reliability, with a front load capacity of 5400Pa and rear load capacity of 2400Pa.



Quality Assurance: 12-year product warranty, 30-year power warranty. Initial degradation is ≤2%, with annual degradation ≤0.45%, ensuring 30-year power output of ≥85%.



The series offers market-leading power output, with SMBB G12-210 cells reaching over 700W.

Scientific design, advanced technology, and strict inspections ensure Horay product quality.

6

Six Advantages

Experienced R&D team, advanced equipment, and strict inspections ensure quality.

Production Advantage

Awards: "Provincial-level Intelligent Workshop"
Expertise: Over 15 years production experience.
Efficient: Smart workshop ensures productivity.

Product Advantage

Quality: Top5x global materials.
Flexibility: Customizable to diverse needs.
Cost-effective: Competitive price, valuable.

Global Presence

Locations: 5 factories, 5 marketing centers, 6 warehouses worldwide.
Efficient Logistics: Prompt DDP delivery.

Talent Advantage

Professional Team: Highly skilled, enough industry experience.
Innovation: Industry-leading products.
Service: Exclusive customized service.

Project Experience

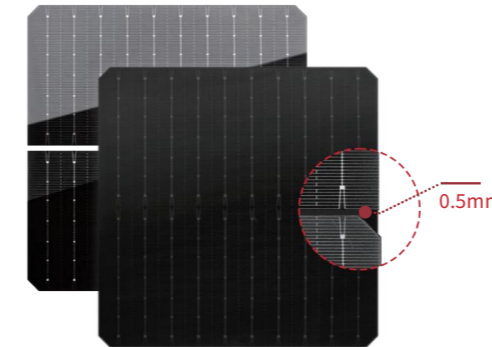
Portfolio: Nearly 1,000 global projects.
Support: Installation, commissioning, and maintenance services.

Value-added Services

Assurance: 12/15year product warranty and 25/30-year power warranty.
Support: Timely, after-sales services.
Risk Management: MES and Lloyd's Assurance.

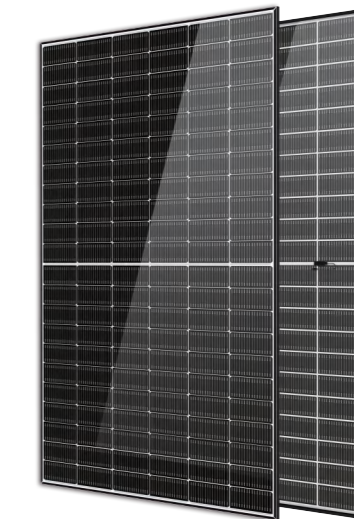
Technology

PERC Technology



- **High Efficiency**
 - Enlarged cell area
- **Half-Cut Technology**
 - High-precision laser cutting
 - Lower internal power loss
- **SMBB Technology**
 - Reduced micro-cracking risk
 - Increased active working area
- **Minimized Cell Gap**
 - High-density encapsulation

N-Type Technology

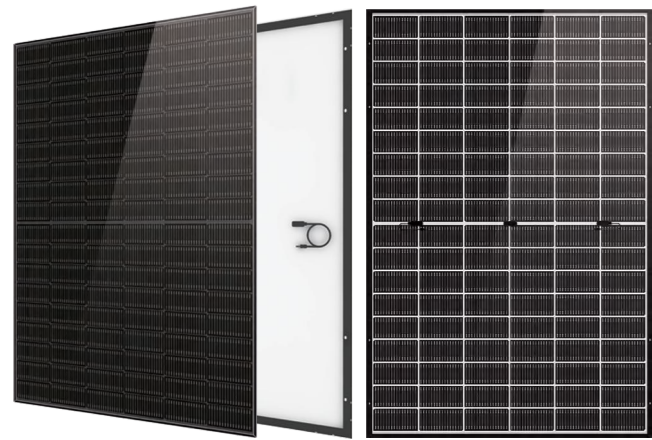


- **Advanced Cell Technology**
 - Selective passivation contact
 - SMBB Design
- **Bifacial Power Gain**
 - Significant backside power generation from reflected light.
 - High intensity encapsulation
 - Superior load capacity

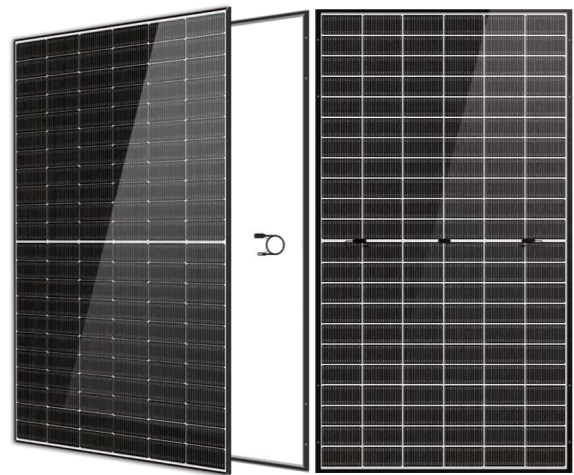
Diversified Layout Core and Multiple Industries

PV Modules

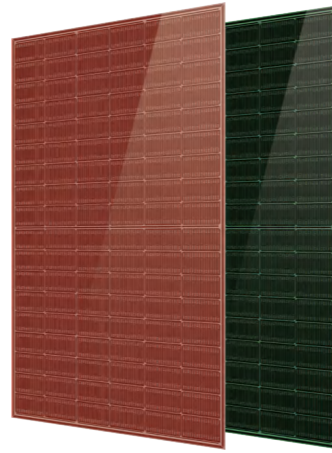
Cairun offers a variety of PV module products in different specifications and power ratings to meet diverse application needs. Customized design and production services are also available, providing comprehensive solutions for all scenarios.



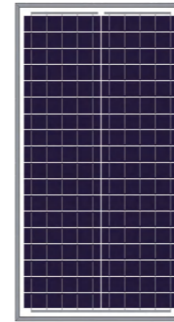
Solar Ocean Series
420-590W



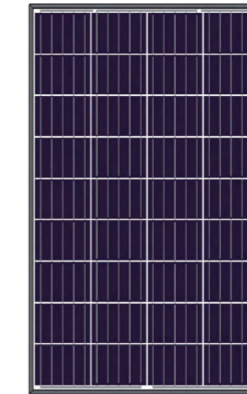
Solar Galaxy Series
510-700W



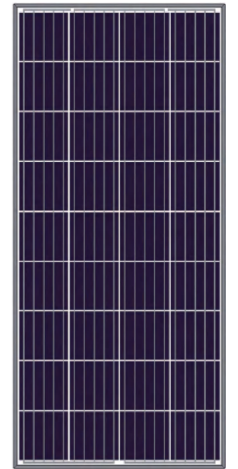
Colored Solar Modules
330-380W



Solar Creek
30W



Solar Creek
100W



Solar Creek
200W

Customized modules

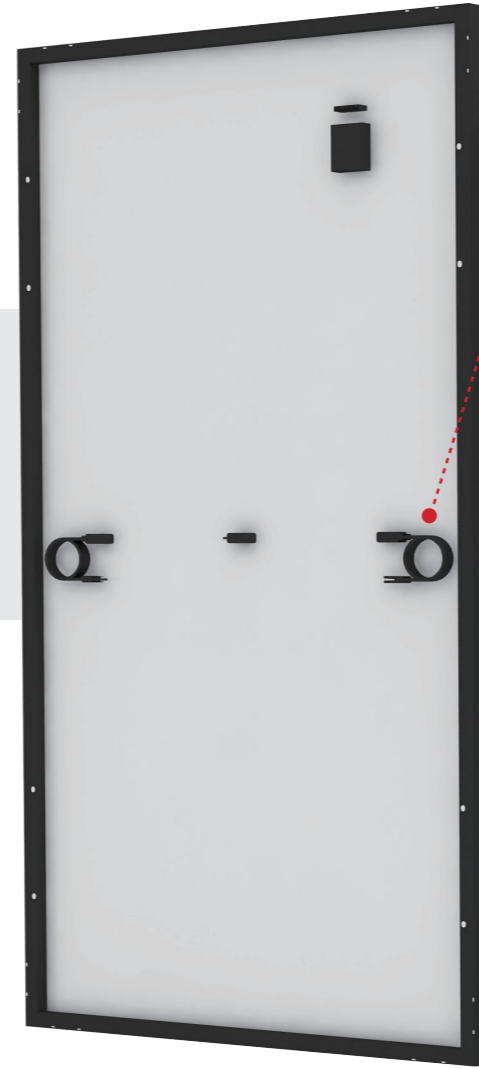
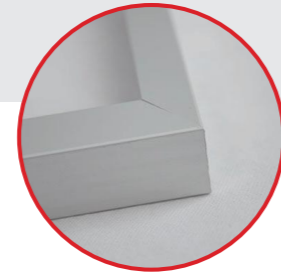
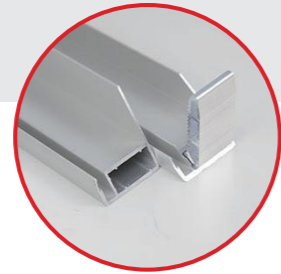
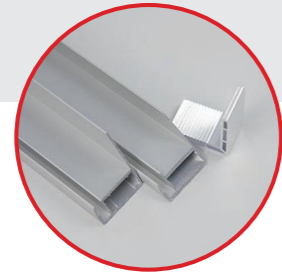
Suitable for outdoor solar systems, solar street lights, RVs, and more, offering flexible tailored solutions.

*Only a selection of products is listed; please consult sales or service representatives for further information.



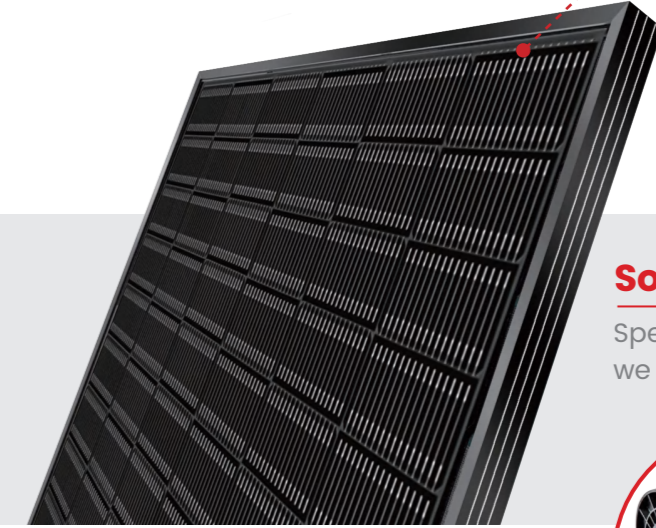
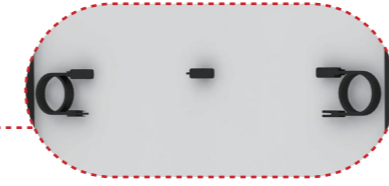
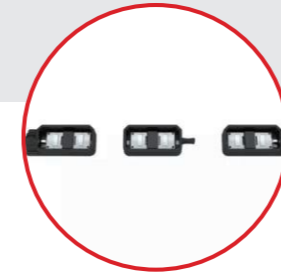
Frames

Premium frames produced with a variety of specifications and customizable production services available.



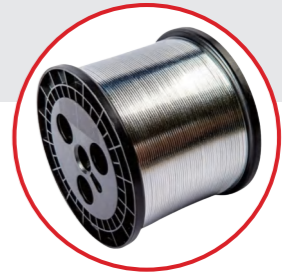
Junction Boxes

High-quality junction boxes for PV modules that optimize costs while enhancing product competitiveness.



Soldering Strips

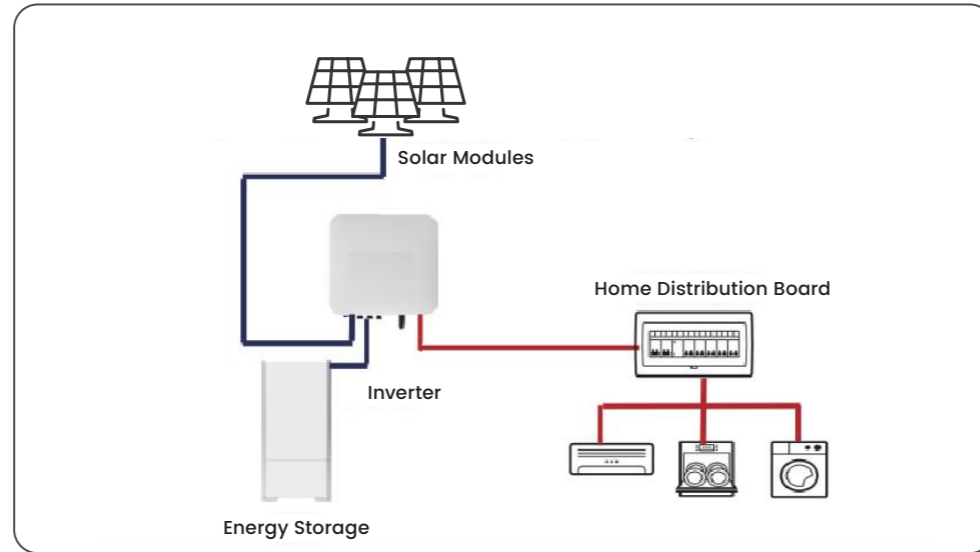
Specializing in high-precision soldering strips, we offer customized solutions.



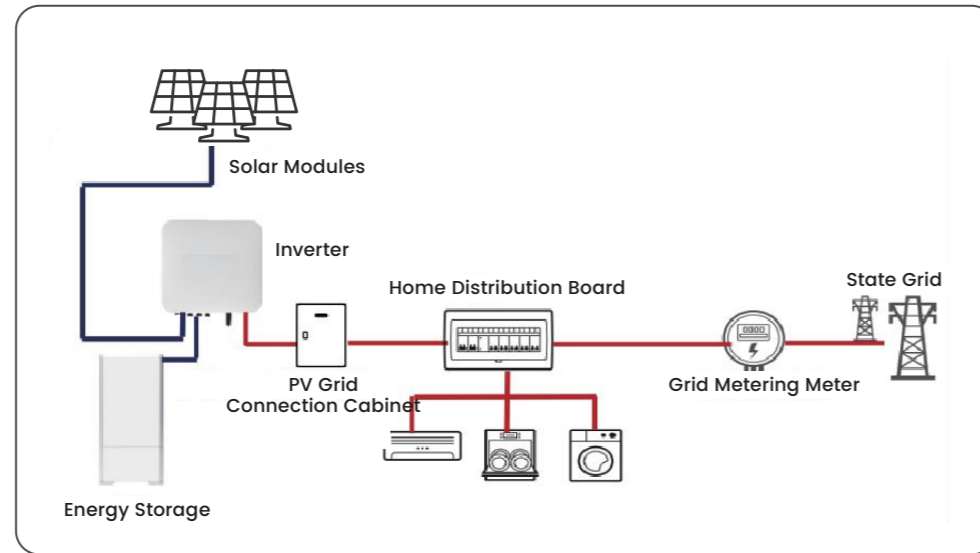


All In One Supplier

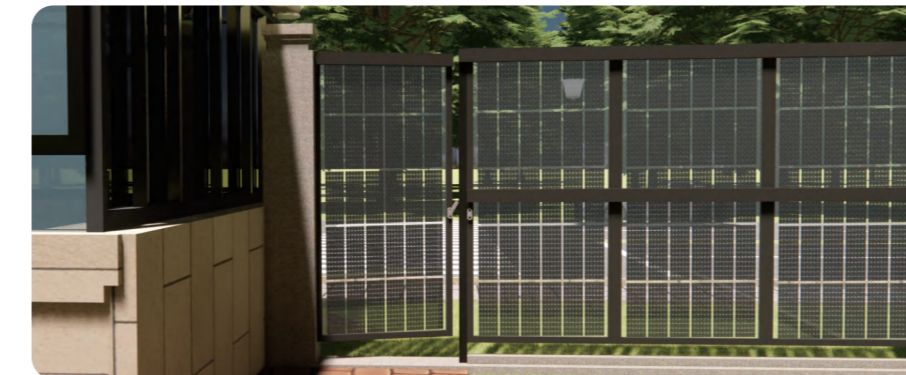
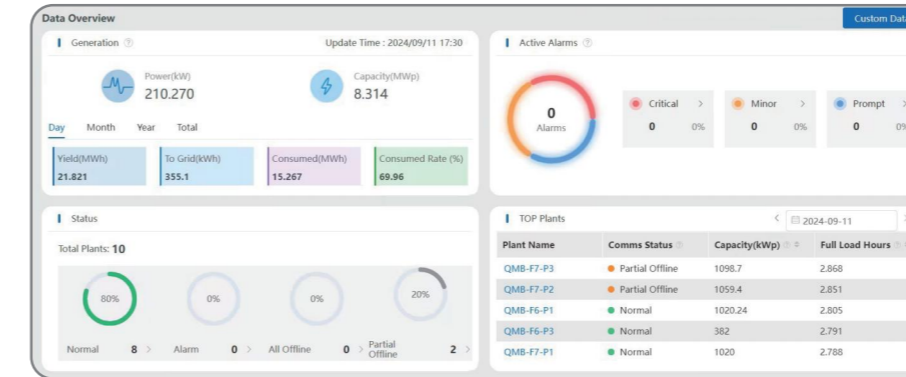
HORAY has advanced in the green energy sector by establishing HORAY Energy, offering integrated services in PV power plant planning, design, construction, and intelligent O&M.



Off-grid residential or villa green microgrid ▲



Grid-connected residential or villa green microgrid ▲



Professional Services



24H/7D Monitoring Platform
Monitor real-time power generation, operating status, and energy quality.



Customized Services
Customized solutions tailored to meet clients' unique needs.



Localized Services
Multiple global offices provide on-site support for clients.



Technical Support
Various technical consultations and training services.



Tailored Energy Solutions
Deeply understanding your needs to provide optimized solutions.



PV Policy Consultation
Insights into the latest market trends and forecasts.

PV Project

Ground-Based Power Plant



Czech Republic **7MW**



Germany **3MW**



Italy **2MW**

Czech Republic **6.6MW**

Roof-Mounted Solar Project



Czech Republic **2MW**



Croatia **1.3MW**



Moldova **200KW**

Residential Solar Project



Singapore **45KW**



Germany **29KW**



Spain **12KW**

*All the exhibited projects featured the use of Herun-brand products, contributing to the advancement of global clean energy development.