



HORAY

HORAY SOLAR

2026 INTRODUCTION

- 
- 1.3MW Project in Italy

CONTENTS

01

About Horay

02

Solar Modules

03

Energy Storage

04

Global PV Station



A modern, multi-story office building with a white facade and large glass windows. The building is surrounded by greenery and a parking lot. The sky is blue with some clouds.

HORAY

01 | About Horay

Corporate Culture | Group Structure | Milestone | Corporate Profile

HORAY 禾润

H**Hopeful**

Horay Solar has been devoted to the global expansion, has a promising future with strong technical support, scientific production management and strict quality control.

O**Outstanding**

Our products have outstanding advantages, including higher output power and harsh environmental adaptability, etc.

R**Responsible**

Undertaking great social responsibility, Horay Solar determined to become a leading photovoltaic company in pursuit of good quality.

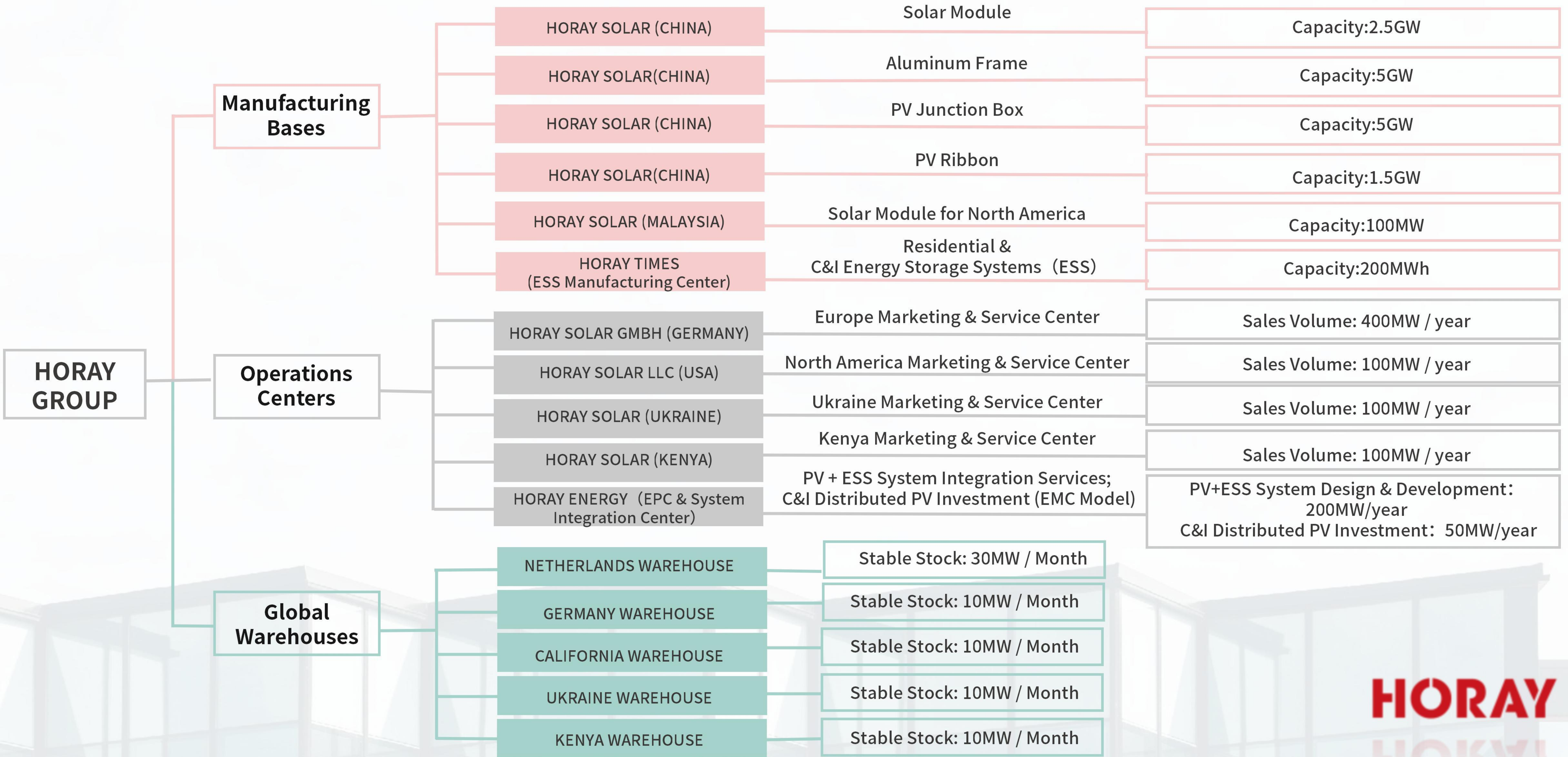
A**Aspiring**

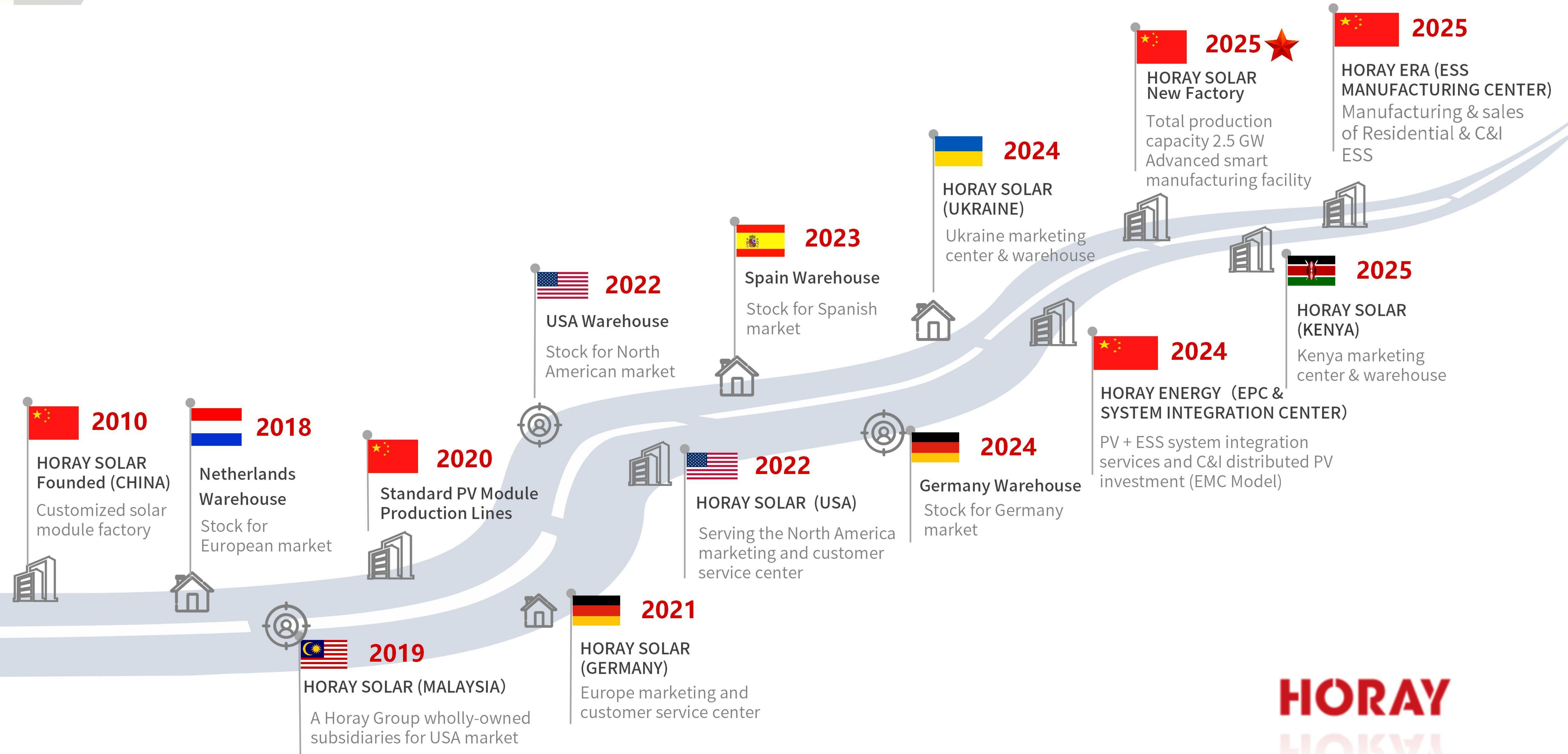
Our colleagues have the greater ambition to produce cleaner and much more efficient solar panel.

Y**Youthful**

Everyone of our team is full of youth and vigour.

HORAY**HORAY**





Horay Solar specializes in the R&D, manufacturing, and sales of PV modules and energy storage systems.

The Group operates module plants, ESS manufacturing, material facilities, and an EPC & system integration center across China and Malaysia.

Global marketing and warehousing hubs in Germany, the U.S., Kenya and other regions enable efficient supply and local support.

With advanced technology, intelligent manufacturing, and strict quality control, Horay delivers high-performance products certified by major international standards.

HORAY GROUP

16 Years

In Solar Industry

6

Manufacturing
Bases

2.5 GW

Annual Capacity Of
Modules

80+

Strategic Partners

16 Bases

Throughout The
World

11.5 GW

Annual Capacity
Of ESS

10 GWh

Annual Capacity Of
ESS

1500+

Global Projects





• HORAY SOLAR (Headquarters) •

Horay headquarters serves as the core PV module manufacturing base for the Group. The facility utilizes integrated intelligent and automated systems, where advanced equipment and digital monitoring ensure seamless production coordination, full traceability, and consistent high-quality output.



• HORAY ERA (ESS Manufacturing Center) •

HORAY ERA has achieved R&D-to-manufacturing breakthroughs in energy storage, with a complete residential production and quality system. Integrated development, testing, and process control ensure scalable, reliable products.



• PV MATERIAL FACTORY (CHINA) •

HORAY has three key PV material factories: aluminum frames, junction boxes, and PV ribbon. In-house production ensures quality control and stable supply, providing reliable materials to support PV module performance and timely delivery.



• HORAY SOLAR(MALAYSIA) •

A Horay Group wholly-owned subsidiary, especially for North American market. A global leader in sustainable innovation, specializing in reliable low to medium-wattage modules, customized solutions, and OEM services.

**• HORAY SOLAR (GERMANY) •**

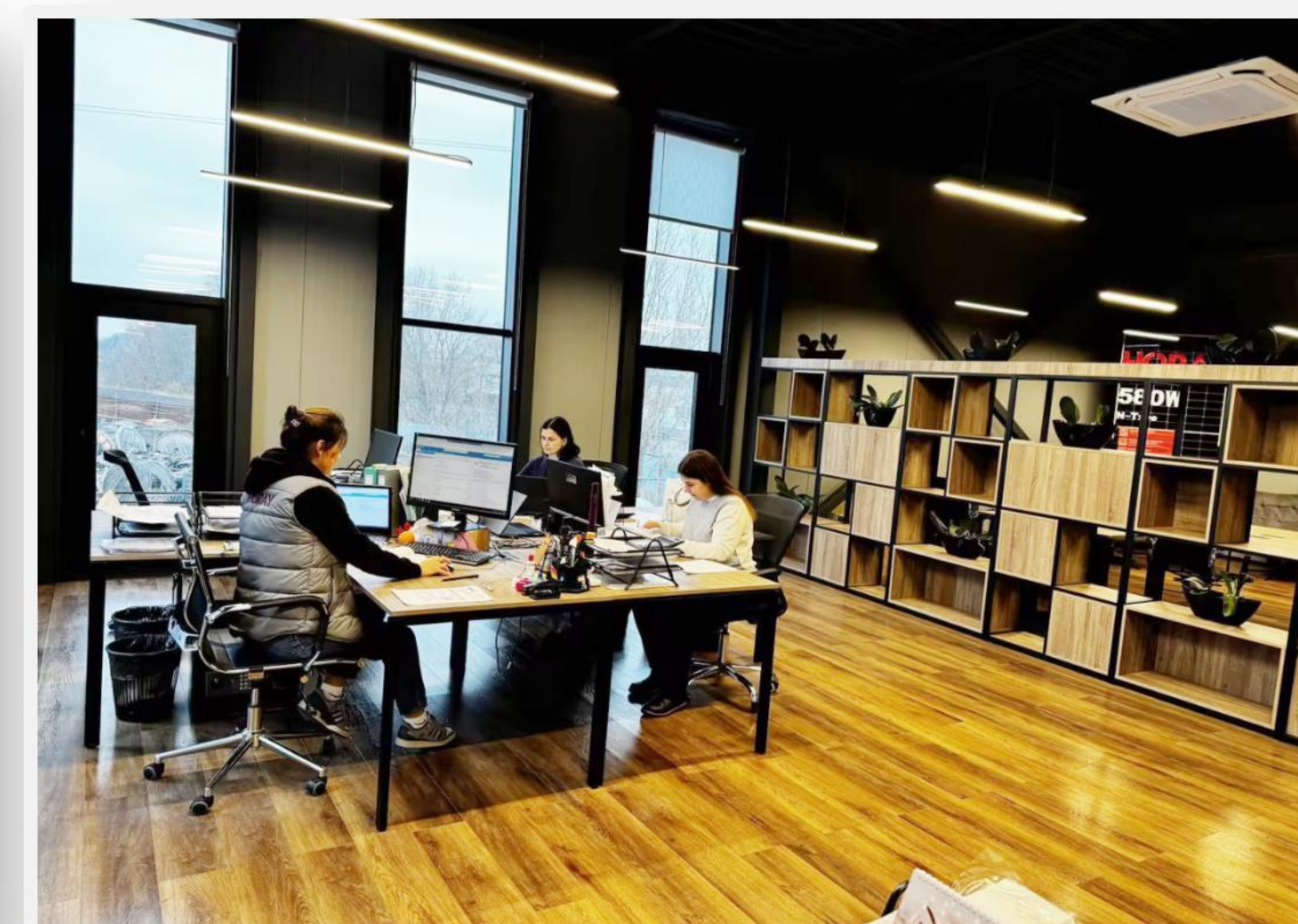
The Europe marketing and customer service center in Germany.

Manages local warehouse and spot logistics in Rotterdam, offering global services like pre-sales consulting, after-sales support, and EPC installation services.

**• HORAY SOLAR LLC (USA) •**

The North America marketing and customer service center in the USA.

To provide services for our customers all over the world, including pre-sales product consulting and after-sales service, EPC installation service and consulting, etc.

**• HORAY SOLAR (UKRAINE) •**

The Ukraine marketing and customer service center in Ukraine.

Offers comprehensive services throughout the Ukraine market, encompassing pre-sales product consultation, after-sales support, EPC installation, and consulting.

**• HORAY SOLAR (KENYA) •**

The Kenya marketing and customer service center in Kenya.

Offers comprehensive services throughout the Kenya market, encompassing pre-sales product consultation, after-sales support, EPC installation, and consulting.

• NETHERLANDS WAREHOUSE •

Add: Vlakbodem 3 Dirksland,
Rotterdam, Netherlands



Warehouse

• UKRAINE WAREHOUSE •

Add: Bud. 26, Street Zaporizka, Boryspilsky
District, Kyiv Region, Ukraine



Warehouse

Horay Owned Warehouse



Horay Owned Warehouse



Horay Owned Warehouse

Warehouse

• USA WAREHOUSE •

Add: 12345 Mills Ave, Chino,
CA, USA

• GERMANY WAREHOUSE •

Add: Horay Warehouse, Robert-Bosch-
Straße 27-29, 63225 Langen, Germany

• KENYA WAREHOUSE •

Add: Mudher Industrial
Park, Syokimau, Nairobi, Kenya

HORAY

HORAY



Germany

HORAY SOLAR GMBH

Add: Robert-Bosch-Straße 27-29,63225 Langen (Hessen),
Germany

USA

HORAY SOLAR LLC

Add: 350 Pauma Place, Escondido CA, USA



Netherlands

HORAY SOLAR (Netherlands Warehouse)

Add: Vlakhodern 3 Dirksland, Rotterdam,
Netherlands

USA

HORAY SOLAR (America Warehouse)

Add: 12345 Mills Ave, Chino, CA, USA



Ukraine

HORAY SOLAR (Ukraine)

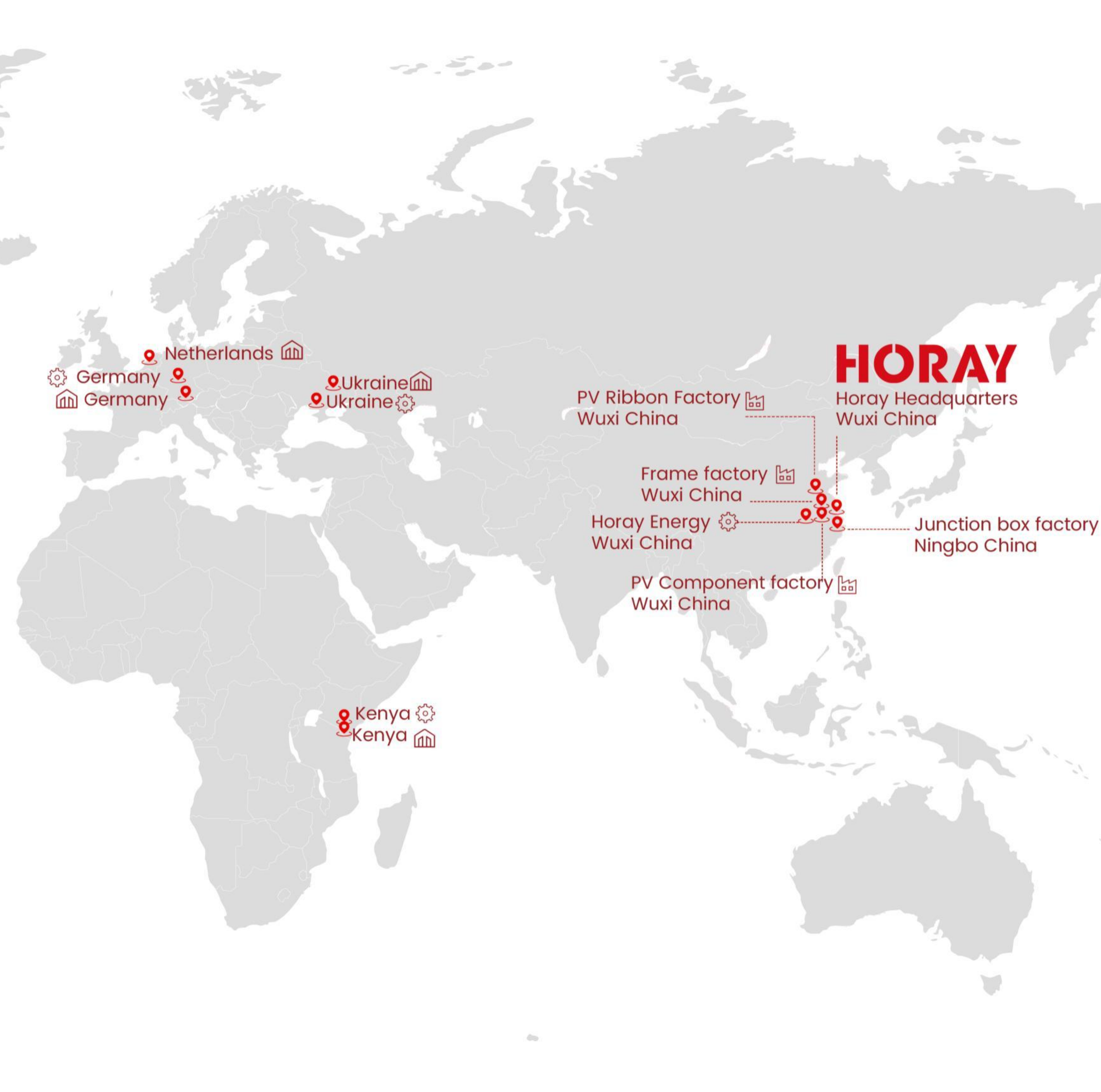
Add: Bud. 26, Street Zaporizka,
Boryspilsky District, Kyiv
Region,Ukraine

Kenya

HORAY SOLAR (Kenya)

Add: Mudher Industrial Park, Syokimau,Nairobi,Kenya.

- Sales Center
- Manufactory
- Warehouse



Solar Module Factory

Horay Solar CO.LTD

Add: No. 300 Huiming Road, Huishan District Wuxi,
Jiangsu, China

Tel:+86 510-8358 0688

E-mail: sales@horaysolar.com



Energy Storage Battery Factory

Wuxi Horay Era Technology CO.,LTD

Add: No.525 Huiming Road, Huishan District Wuxi,
Jiangsu, China

E-mail: sales@horaysolar.com



Aluminum Alloy Frame Factory

Wuxi Weifan New Energy Technology Co., LTD

Add: No.38 Liming Road, Changan Streets, Huishan
District Wuxi, Jiangsu, China

E-mail: sales@horaysolar.com



PV Junction Box Factory

Ningbo Zhisheng Solar Technology Co., LTD

Add: No.698 Yu'an Road, Zhouxiang Town, Cixi City,
Ningbo, Zhejiang, China

E-mail: sales@horaysolar.com



PV Ribbon Factory

Wuxi Pinli New Energy Technology Co., Ltd.

Add: No.30-5 East Yanxin Road, Huishan District Wuxi,
Jiangsu, China

E-mail: sales@horaysolar.com



Horay Energy

Horay Energy CO.,LTD

Add: No.30-5 East Yanxin Road, Huishan District Wuxi,
Jiangsu, China

E-mail: sales@horaysolar.com

HORAY



Europe

- Spain
- Netherlands
- Germany
- Portugal
- Ireland
- Romania
- Czech Republic
- Croatia
- Denmark
- Switzerland
- Italy
- Bulgaria
- Poland
- Slovenia
- Ukraine
- Slovakia
- Austria
- Greece
- Moldova
- UK

Oceania

- Australia
- New Zealand

Asia

- China
- Japan
- South Korea
- Myanmar
- Malaysia
- Indonesia
- Saudi Arabia
- United Arab Emirates
- Pakistan
- Iraq

Africa

- Kenya
- South Africa
- Nigeria
- Sudan
- Egypt
- Morocco

America

- USA
- Canada
- Mexico
- Colombia
- Ecuador
- Argentina
- Brazil
- Peru
- Chile
- Cuba

Six Advantages

• Production Advantage •

- **Recognition:** "Provincial-level Intelligent Workshop"
- **Expertise:** Over 16 years of manufacturing experience
- **Efficient:** Smart production lines ensure stable output

• Product Advantage •

- **Quality:** Top 5 global materials
- **Flexibility:** Customizable to diverse applications
- **Cost Efficiency:** Competitive pricing with strong value

• Global Presence •

- **Footprint:** 6 manufacturing bases, 5 operation centers, 5 warehouses
- **Logistics:** Overseas warehouses, efficiently meeting customer needs

• Talent Advantage •

- **Professional Team:** Experienced industry specialists
- **Innovation:** Products and technologies at the industry forefront
- **Service Mindset:** Customer-oriented, tailored solutions

• Project Experience •

- **Track Record:** Over 1,000 projects worldwide
- **Technical Support:** Installation, commissioning & maintenance

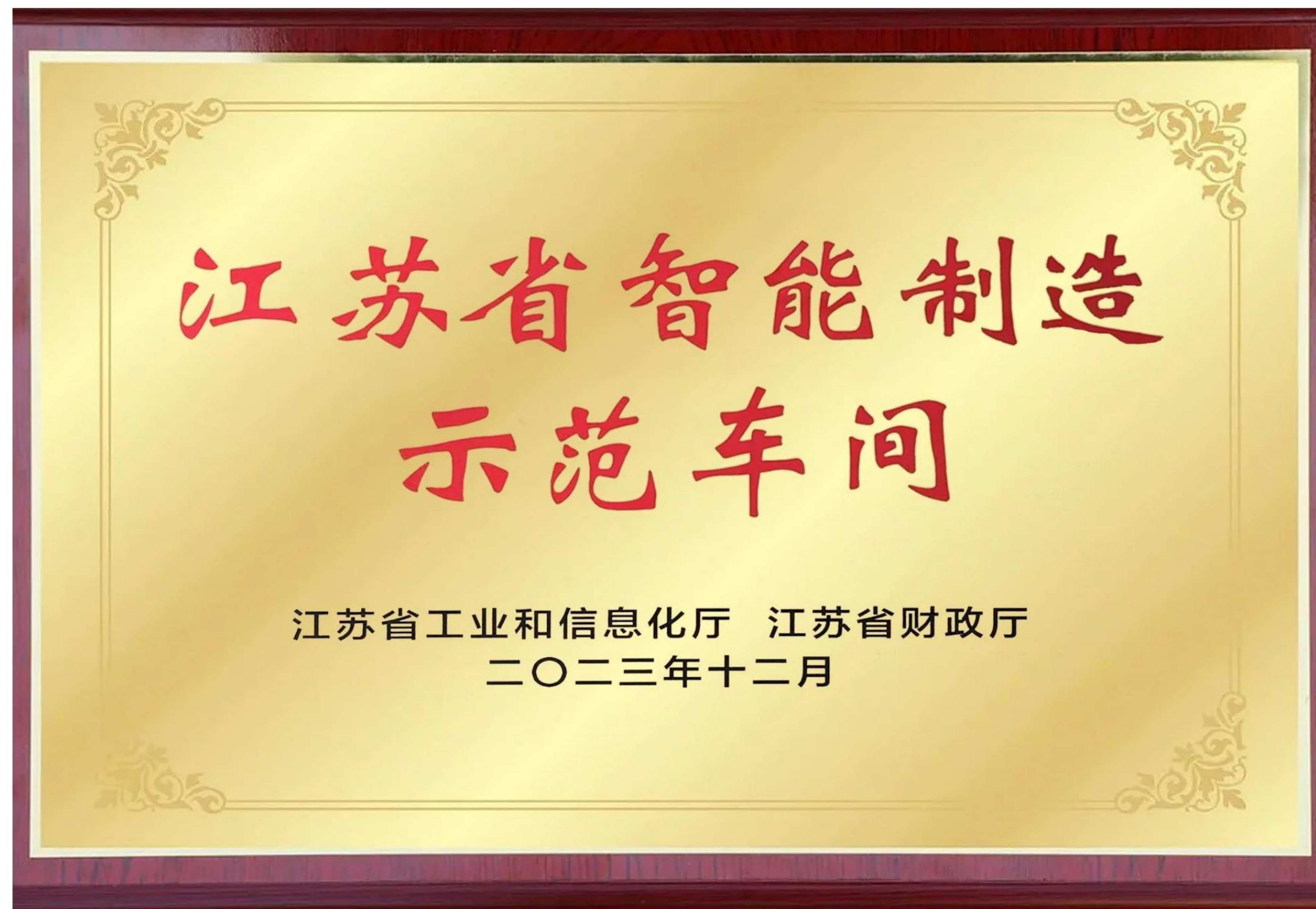
• Value-added Services •

- **Warranty:** 12/15/30-year product & 25/30-year power warranty
- **After-sales:** Timely and professional support

-  2023 Jiangsu Province Intelligent Manufacturing Demonstration Workshop
-  2023 High-Tech Enterprise Certification
-  Internationally Recognized Brands to be Cultivated and Developed in Jiangsu Province, 2023-2025
-  2024 Wuxi Engineering Technology Research Center Certification
-  2024 Wuxi Enterprise Technolog Center Certification
-  2024 Capability Maturity Model Manufacturing Certification
-  2025 Jiangsu Provincial Advanced Intelligent Factory
-  2025 Provincial SRDI Enterprise

**HORAY**

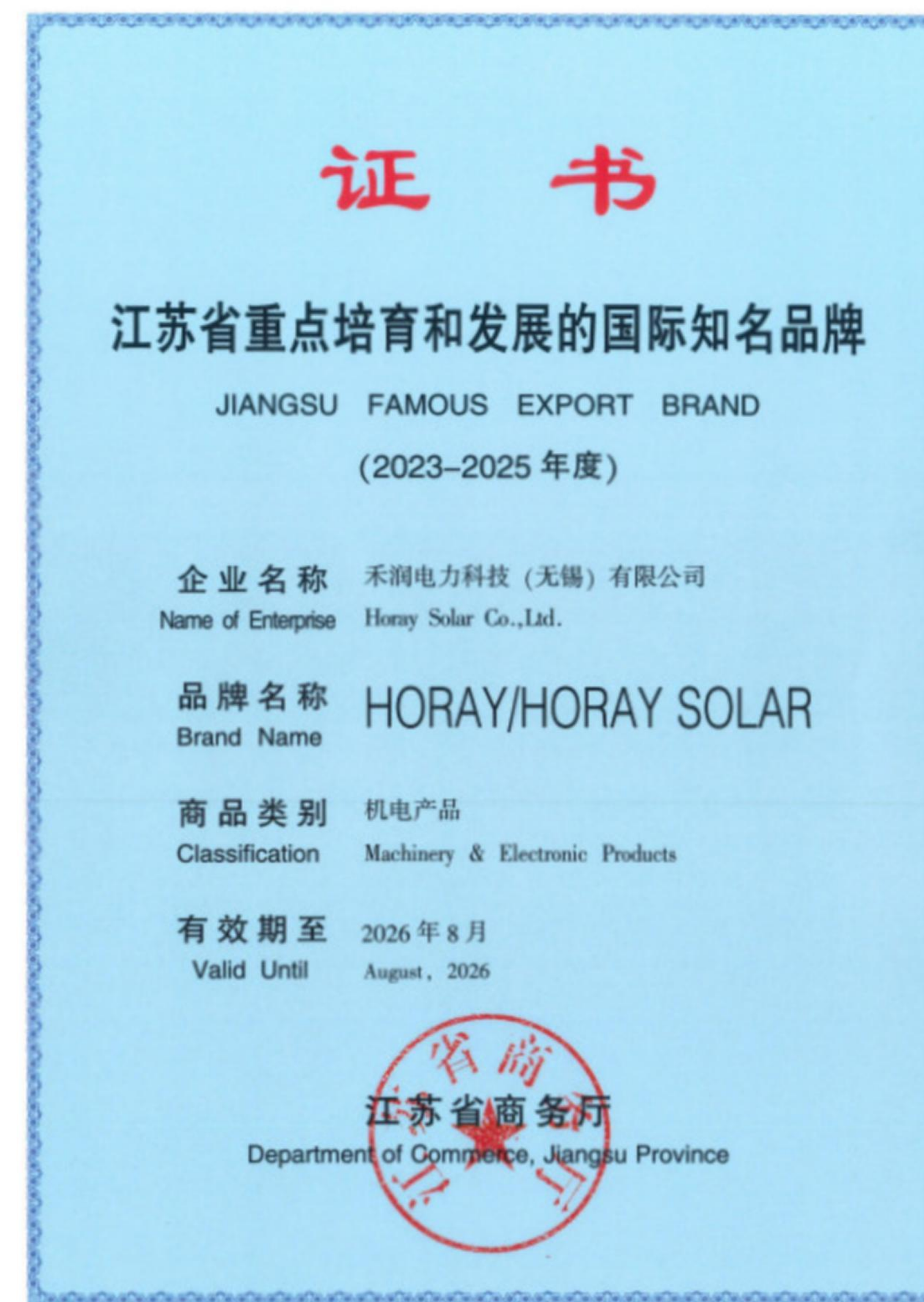
2023 Jiangsu Province Intelligent Manufacturing Demonstration Workshop



2023 High-Tech Enterprise Certification



Internationally Recognized Brands to be Cultivated and Developed in Jiangsu Province, 2023-2025



2024 Wuxi Engineering Technology Research Center Certification



2024 Wuxi Enterprise Technology Center Certification



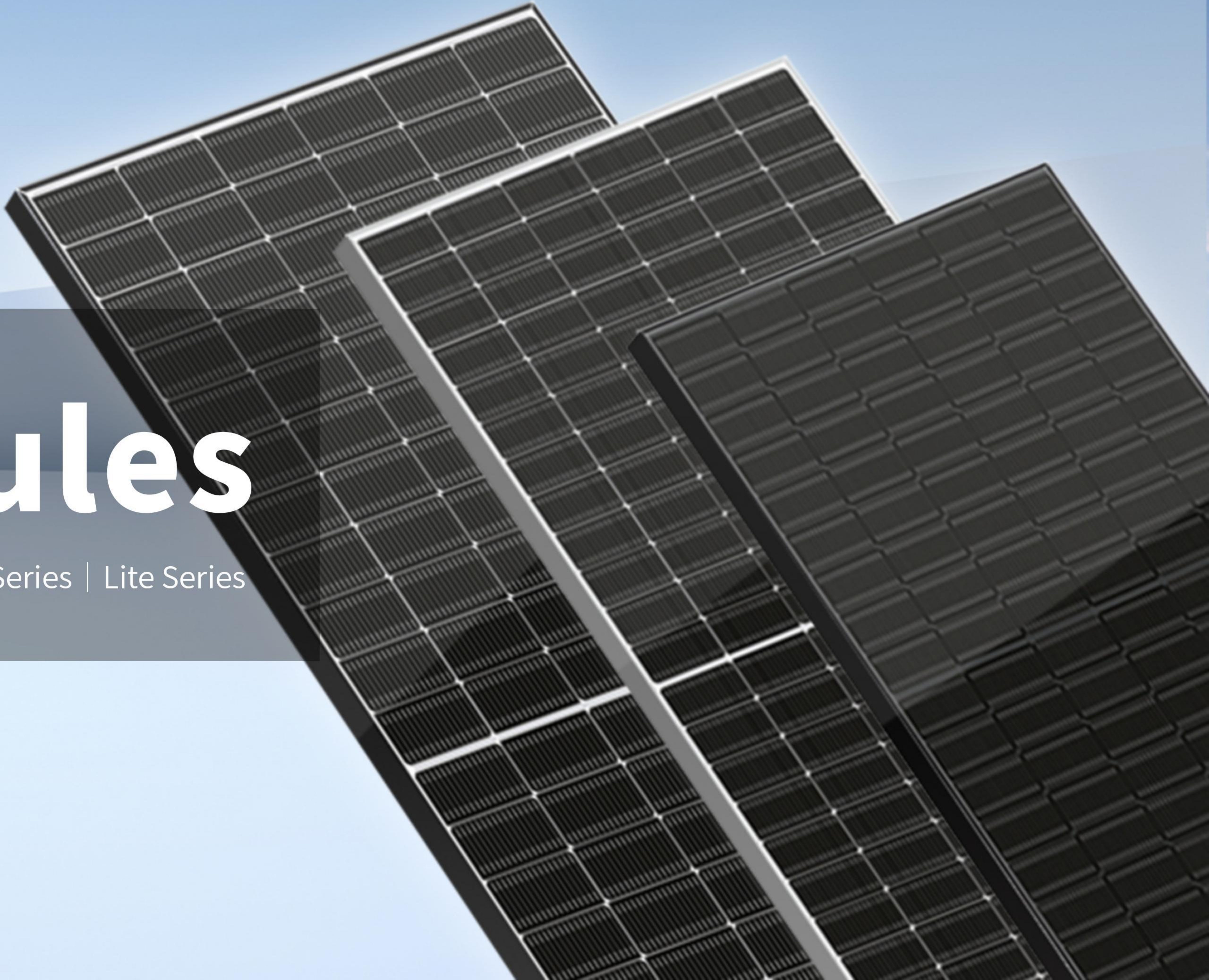
2024 Capability Maturity Model Manufacturing Certification



02

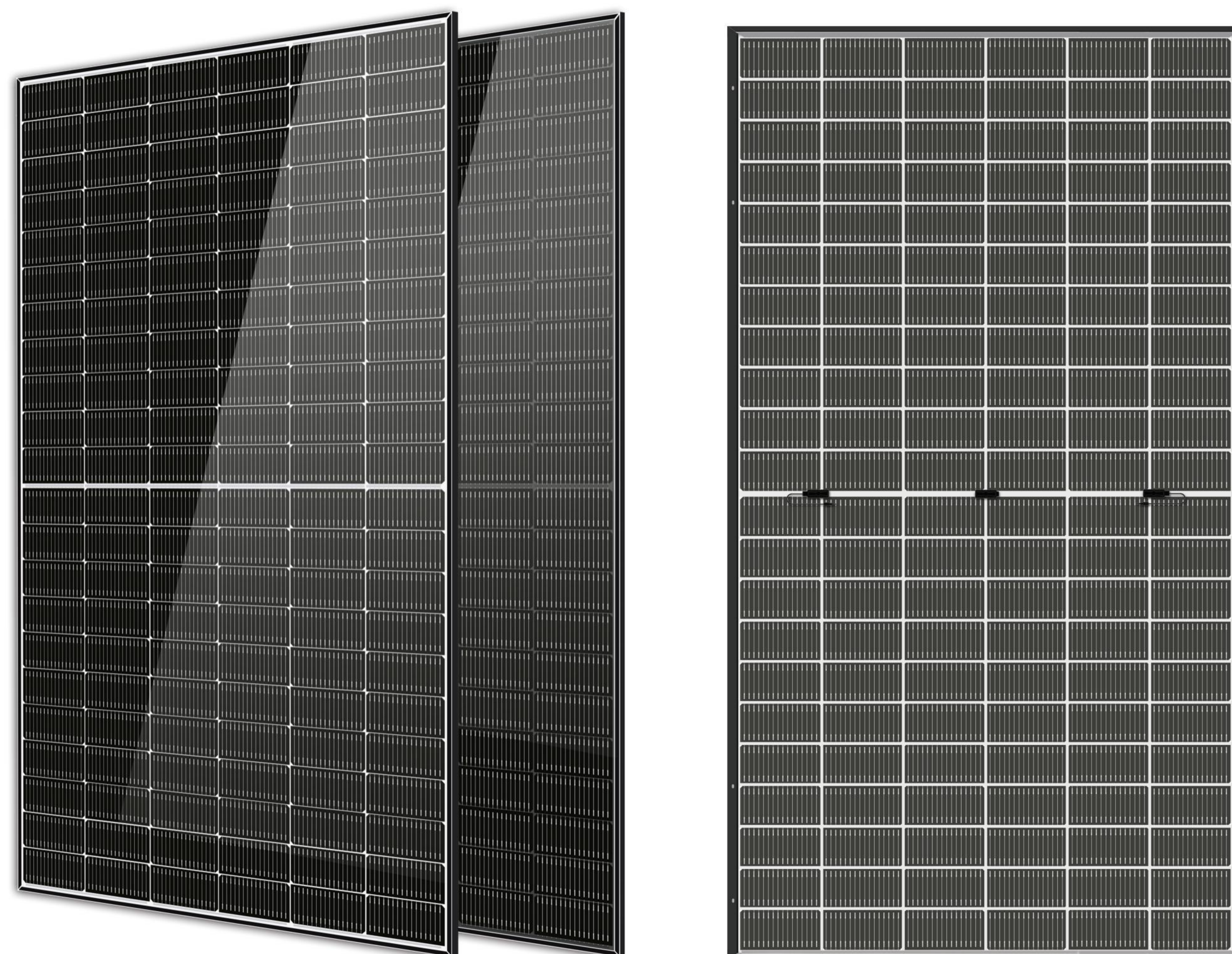
Solar Modules

Ocean Series | Cosmos Series | Galaxy Series | Creek Series | Lite Series

Three solar modules are shown in the bottom right corner, arranged diagonally from the bottom left towards the top right. They are dark in color with a grid of lighter-colored lines representing the solar cells. The background of the entire slide is a light blue sky with soft, stylized white clouds.

	N-type Single-Glass Module	N-type Double-Glass Module
Core Structure	Glass + Cell + Backsheet	Glass + Cell + Glass
Weight	Relatively Lighter	Relatively Heavier
Core Technology	N-type , SMBB, non-destructive cutting, and N-type technologies. Features low degradation, low-temperature coefficient, high bifaciality (for double-glass modules), and anti-PID advantages.	
Degradation Rate	First-year degradation $\leq 1\%$, Annual linear degradation $\leq 0.4\%-0.5\%$	First-year degradation $\leq 1\%$, Annual linear degradation $\leq 0.4\%$
Mechanical Strength	Excellent	Outstanding, typically capable of withstanding 5400 Pa snow load and 2400 Pa wind load.
Environmental Durability	Excellent	Extreme, suitable for high-salt, high-ammonia, humid, sand, and dusty environments.
Fire Rating	Class C	Class A
Water Vapor Resistance	Excellent	Extreme , double-glass structure effectively prevents water vapor penetration.
Warranty	12 years Product Warranty, 25-30 years Power Output Warranty.	15 years Product Warranty, 30 years Power Output Warranty.



**Half Cells - 182mm**

Solar Ocean N-Type **SMBB** Solar Modules

MONO-FACIAL MODULES | BIFACIAL MODULES



Power: 430W-450W
Cell Amount: 108 half-cells



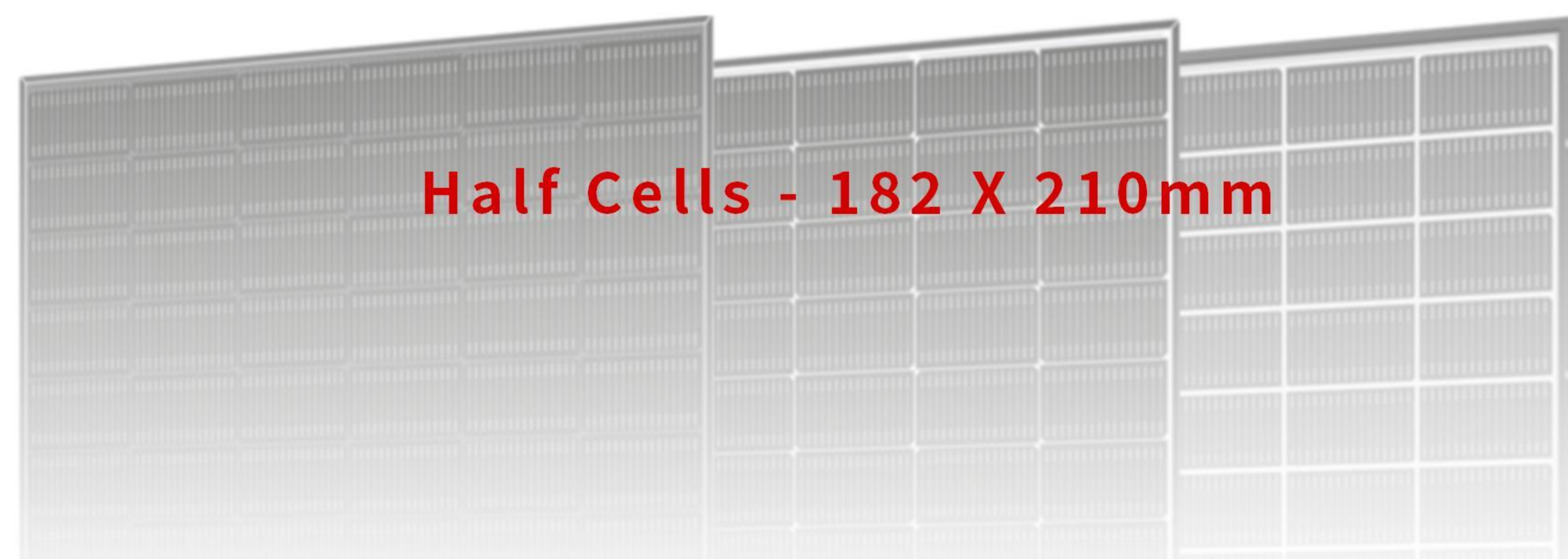
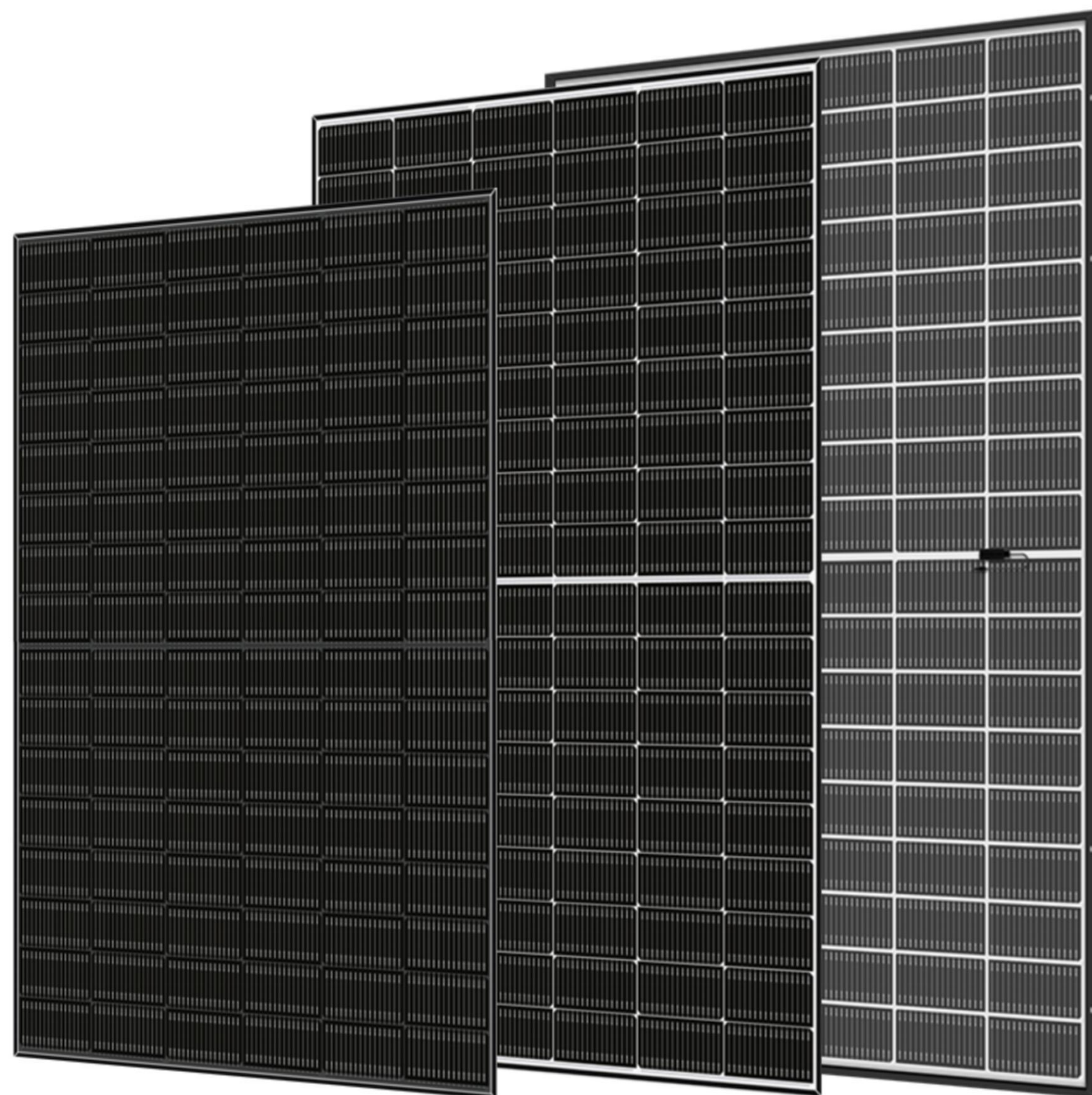
Power: 480W-500W
Cell Amount: 120 half-cells



Power: 530W-550W
Cell Amount: 132 half-cells



Power: 585W-605W
Cell Amount: 144 half-cells



Half Cells - 182 X 210mm

Solar Cosmos N-Type **SMBB** Solar Modules

MONO-FACIAL MODULES | BIFACIAL MODULES



Power: 455W-465W
Cell Amount: 96 half-cells



Power: 500W-520W
Cell Amount: 108 half-cells



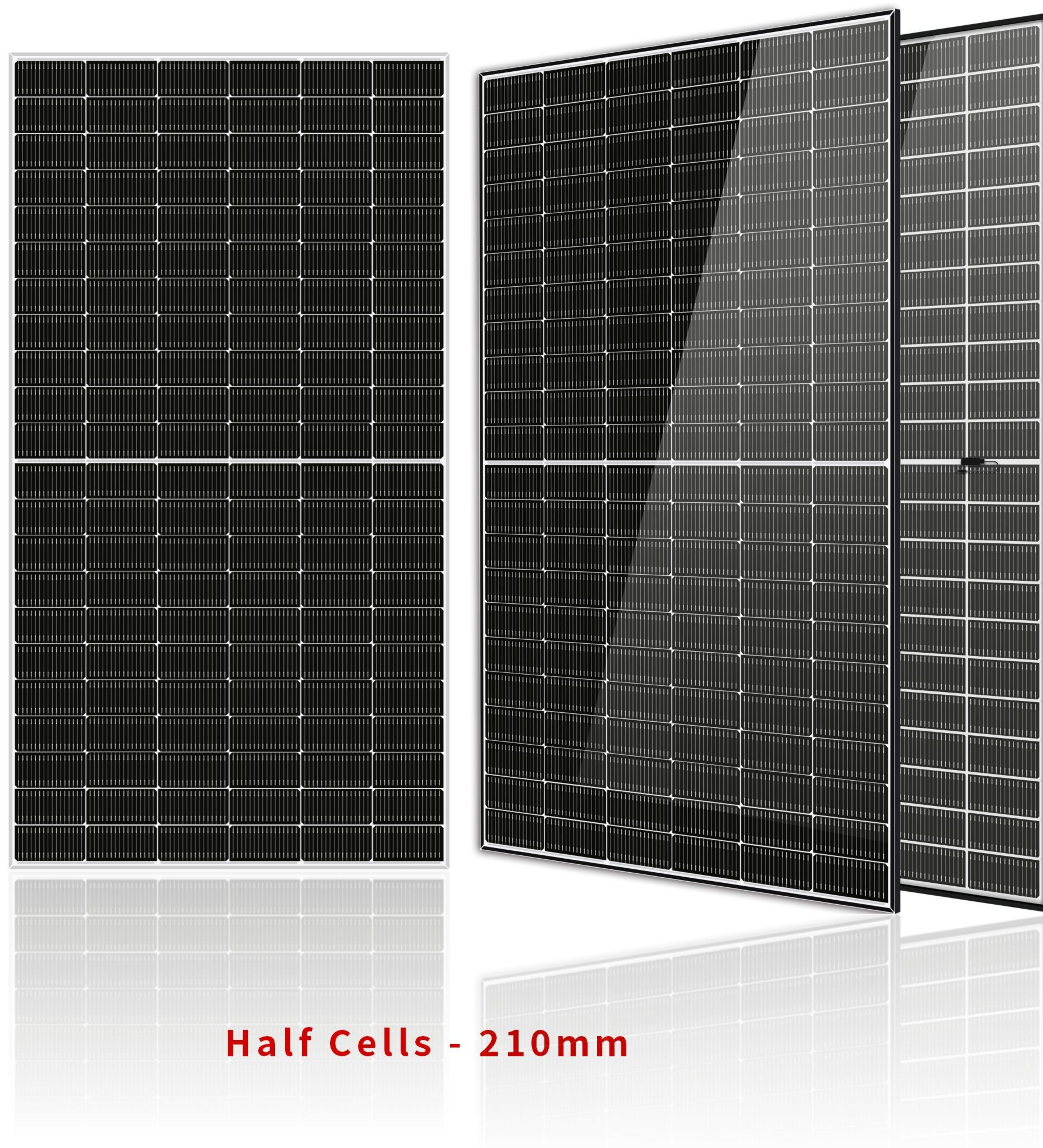
Power: 560W-580W
Cell Amount: 120 half-cells



Power: 620W-640W
Cell Amount: 132 half-cells

HORAY

HORAY

**Half Cells - 210mm**

Solar Galaxy N-Type **SMBB** Solar Modules

MONO-FACIAL MODULES | BIFACIAL MODULES



Power: 520W-555W
Cell Amount: 100 half-cells



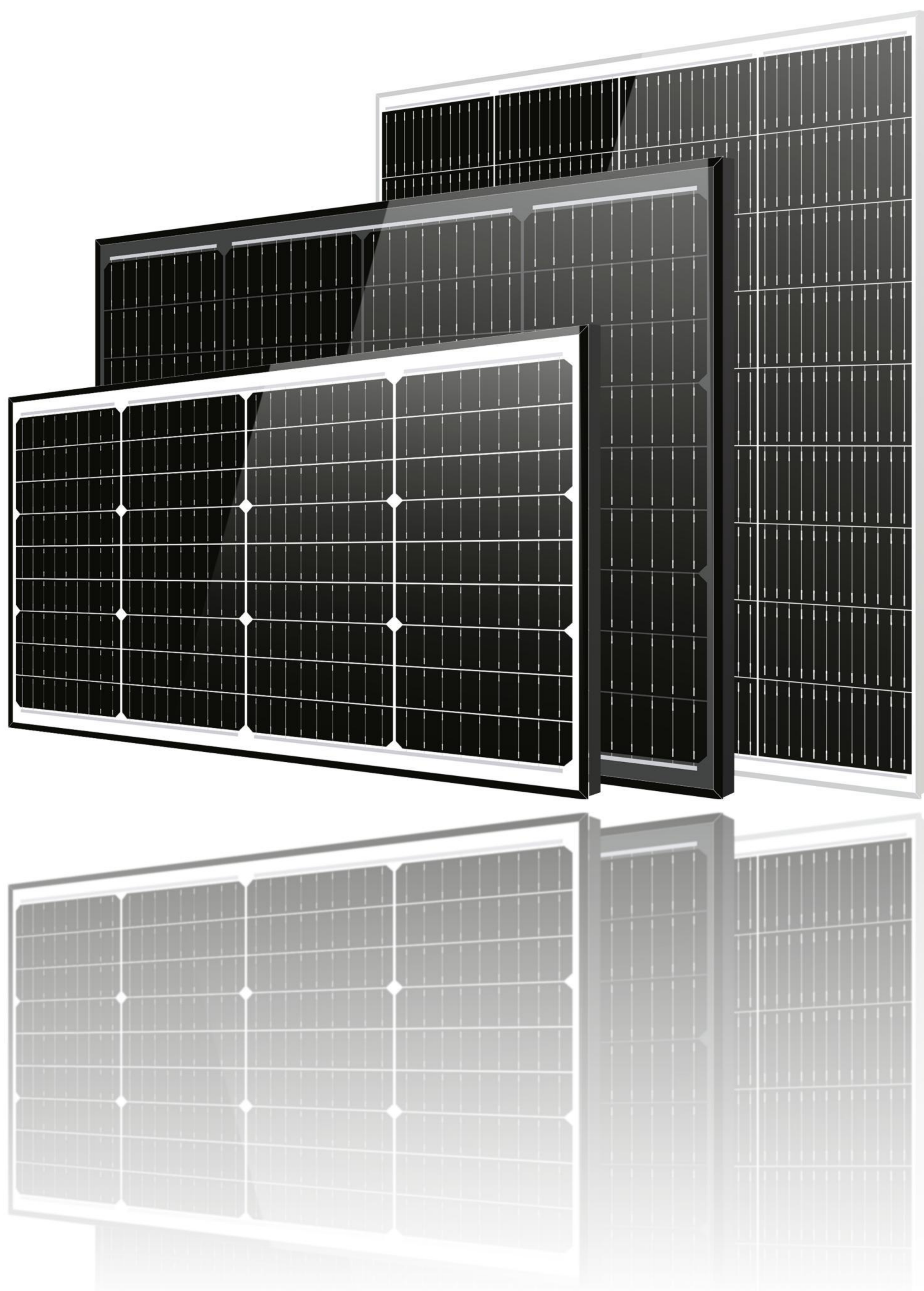
Power: 575W-605W
Cell Amount: 110 half-cells



Power: 630W-660W
Cell Amount: 120 half-cells

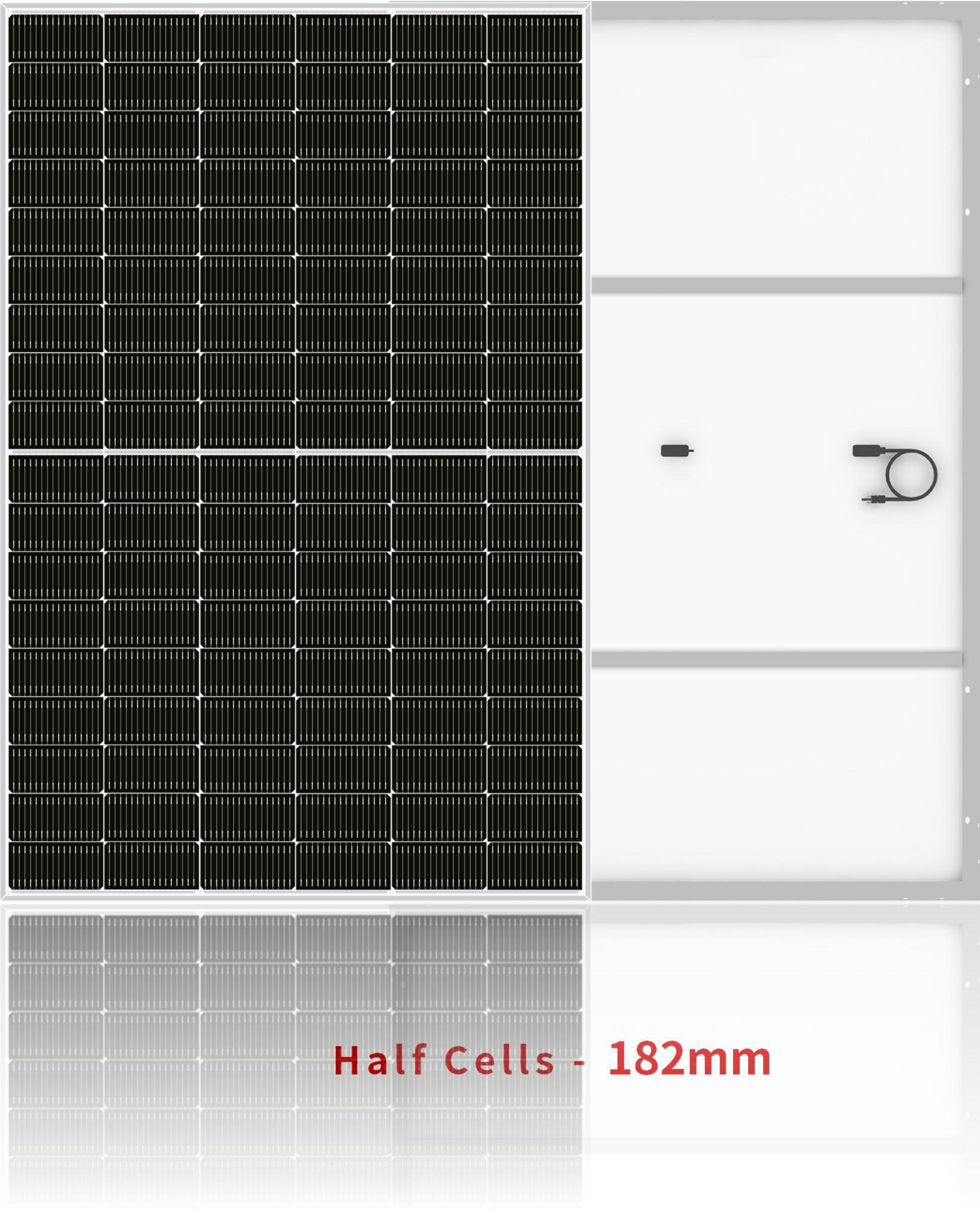


Power: 700W-730W
Cell Amount: 132 half-cells



Solar Creek **Customized** Solar Modules

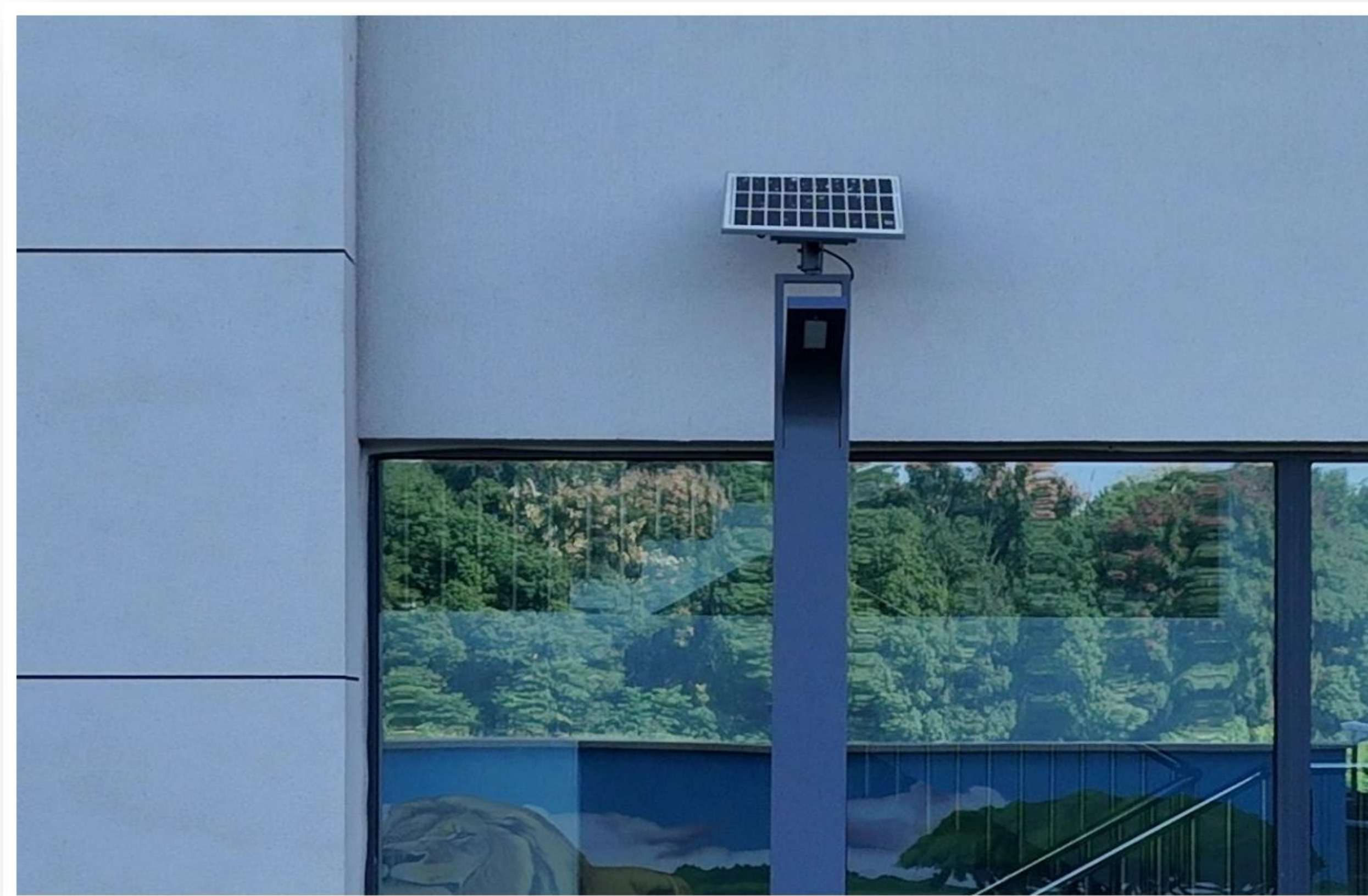
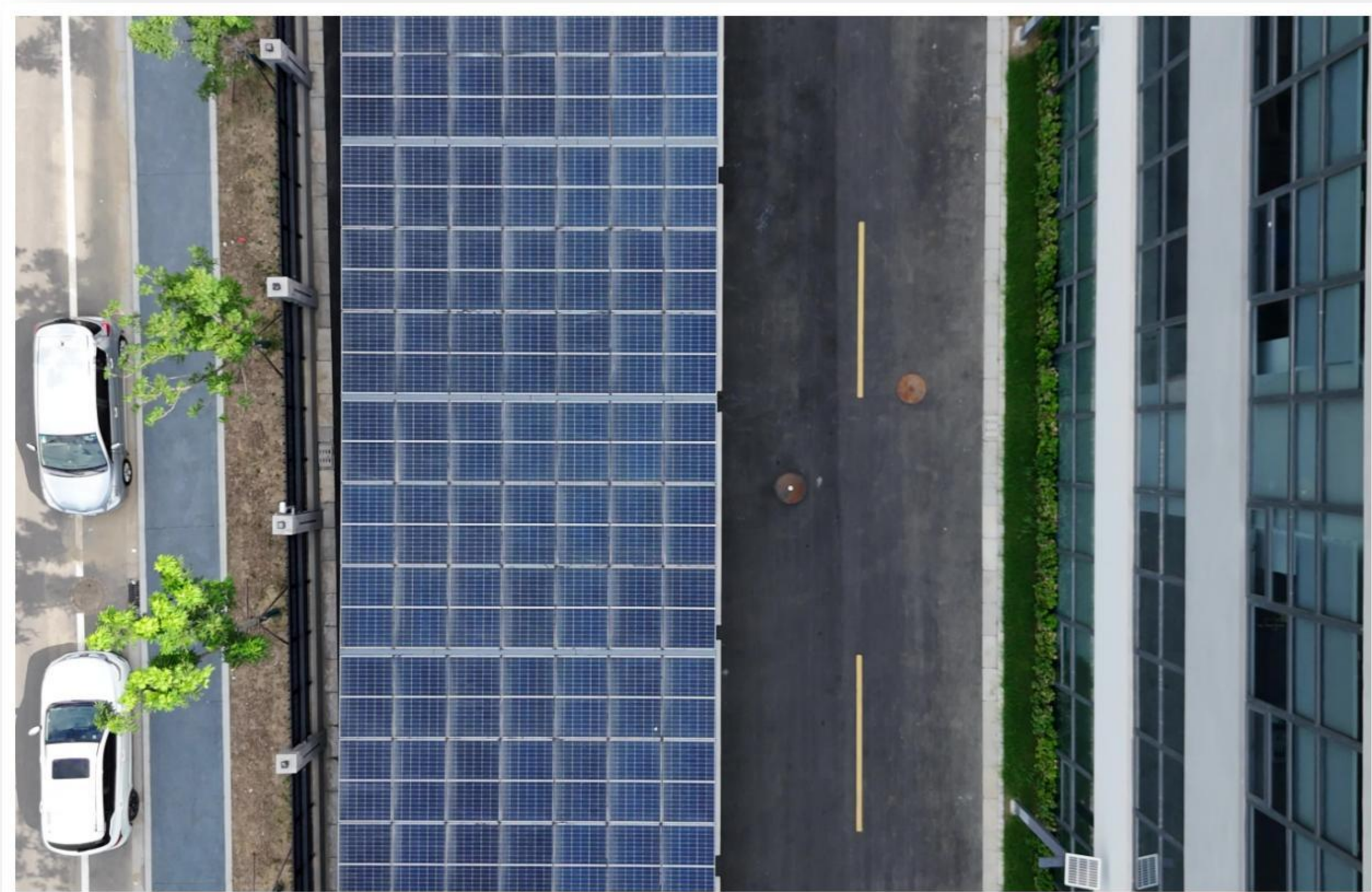
- ✓ Power: 20W-390W (Customizable)
- ✓ Size: Customizable
- ✓ Electrical Performance: Customizable
- ✓ Application: Customizable



Solar Lite
N-Type **SMBB** Solar Modules
MONO-FACIAL MODULES

- ✓ Power:415W-440W
Cell Amount: 108 half-cells
- ✓ Power:460W-490W
Cell Amount: 120 half-cells

Type	1.1mm high transmittance tempered glass	1.6mm high transmittance tempered glass
Weight (kg/m²)	5.5	6.9

**Solar Carport****Solar Street Light****Solar Fence****Solar Carport****Solar Street Light****Solar Fence**



Maximum Rating

Power Selection 0~+5W
Measuring Uncertainty of Pm 0~±3%
Operating Temperature -40°C~+85°C



Qualified Materials

MBB/SMBB Cell
Higher Output Power
Harsh Environmental Adaptability
PID Protection



Low Light

High Performance in Low-light Environment



Enhanced External Load

Wind Load 2400Pa
Snow Load 5400Pa



Warranty

12/15 Years Product Warranty
25/30 Years Power Output Warranty
10 Years 95.4%, 30 Years 87.4%



Certification

IEC61215: 2021 IEC61730: 2016
TUV Rheinland Standard, IEC, CE,
ETL, UL, MCS, CB, JP-AC, INMETRO
ISO9001, ISO14001, CQC, CSI, etc

Overall Objective(2026–2027)



Overall module power increase
30–50W

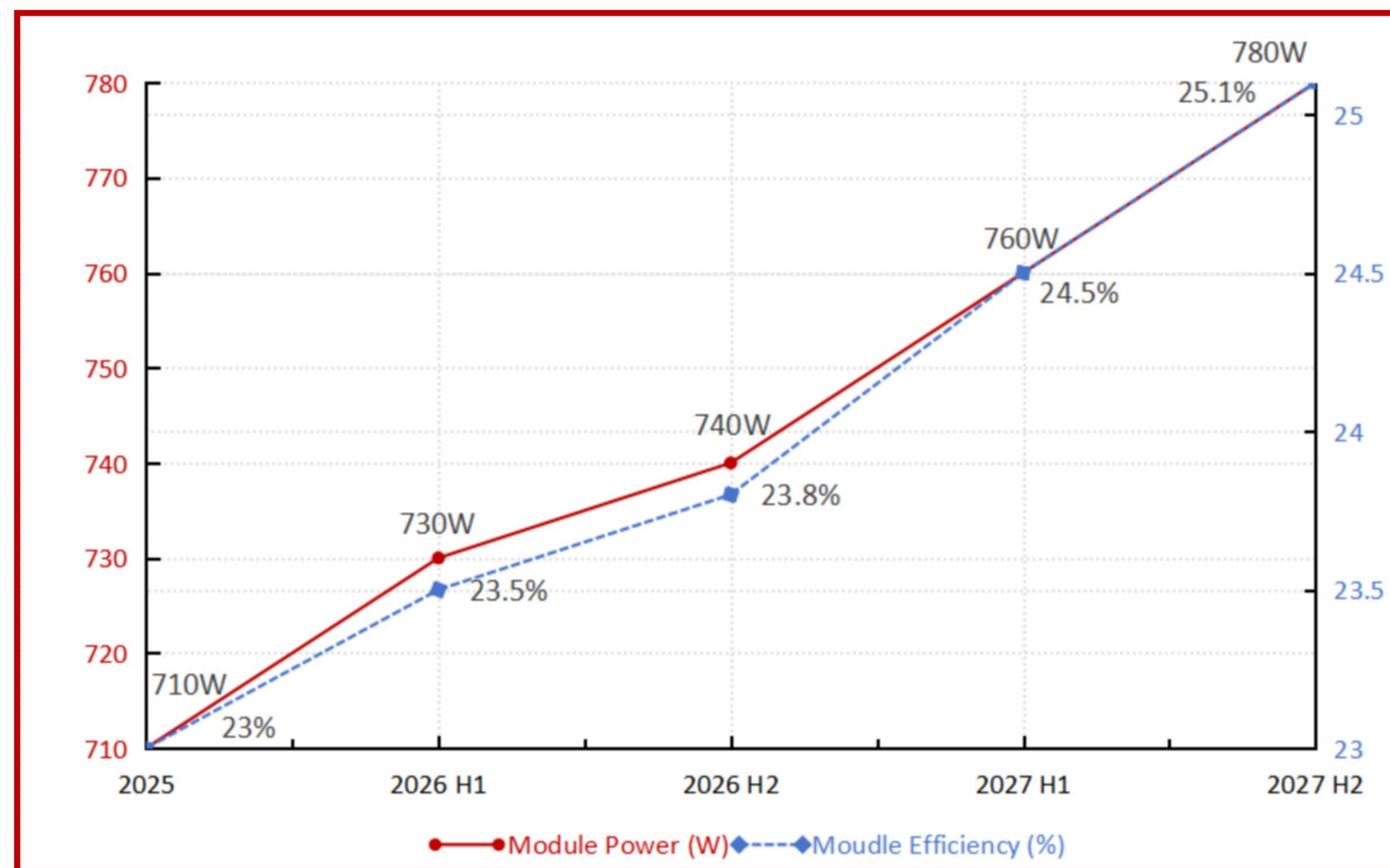


Target efficiency
23%–25.1%

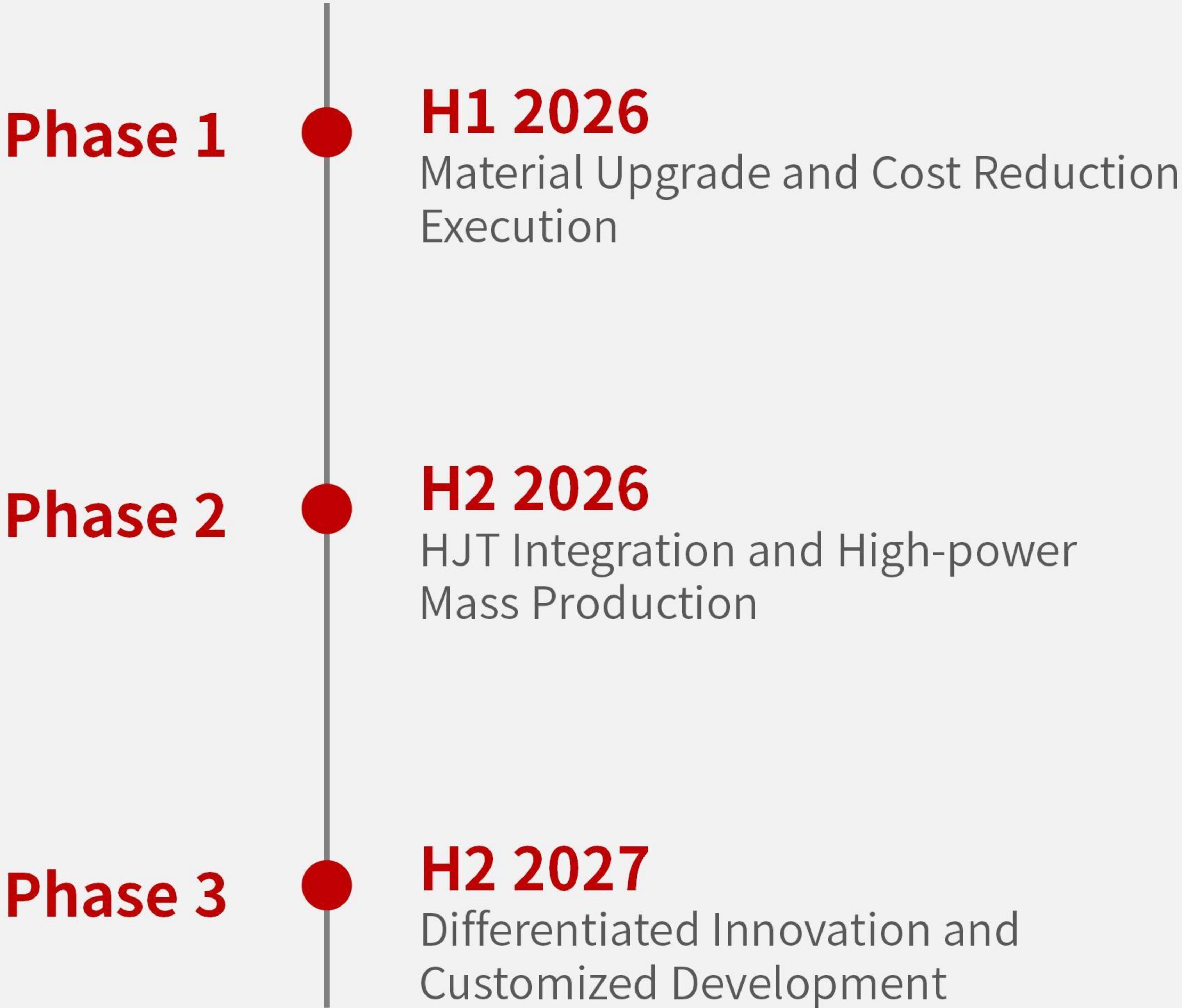


Reduced LCOE
to strengthen competitiveness
across all market segments

PV Module Performance Improvement Trend(2026–2027)



Phase Plan



Milestones and Expected Deliverables

Time	Key Result	Power Target
H1 2026	Mass production of composite-frame modules	720–730W
H2 2026	Stable HJT mass production	740–750W
H2 2027	Stable mass production of BC modules	BC series

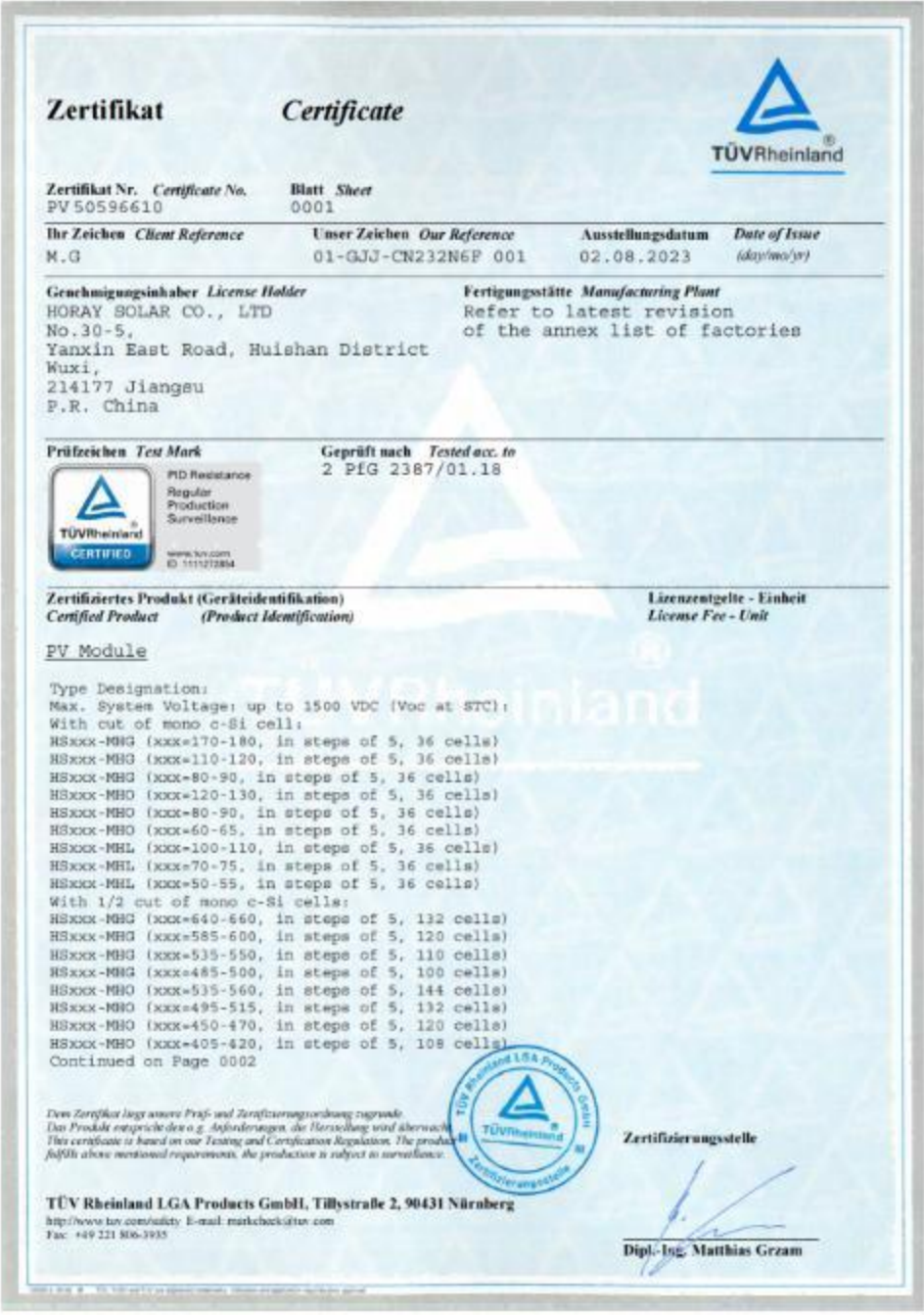
Certificates

For Products

Tested by the Third-party, our solar modules obtained international certifications. Incl. TUV , IEC, CE, MCS, CSI, INMETRO, CB,ETL, BSCI, JP-AC, CQC etc.

For full details, please contact us.

Certificates



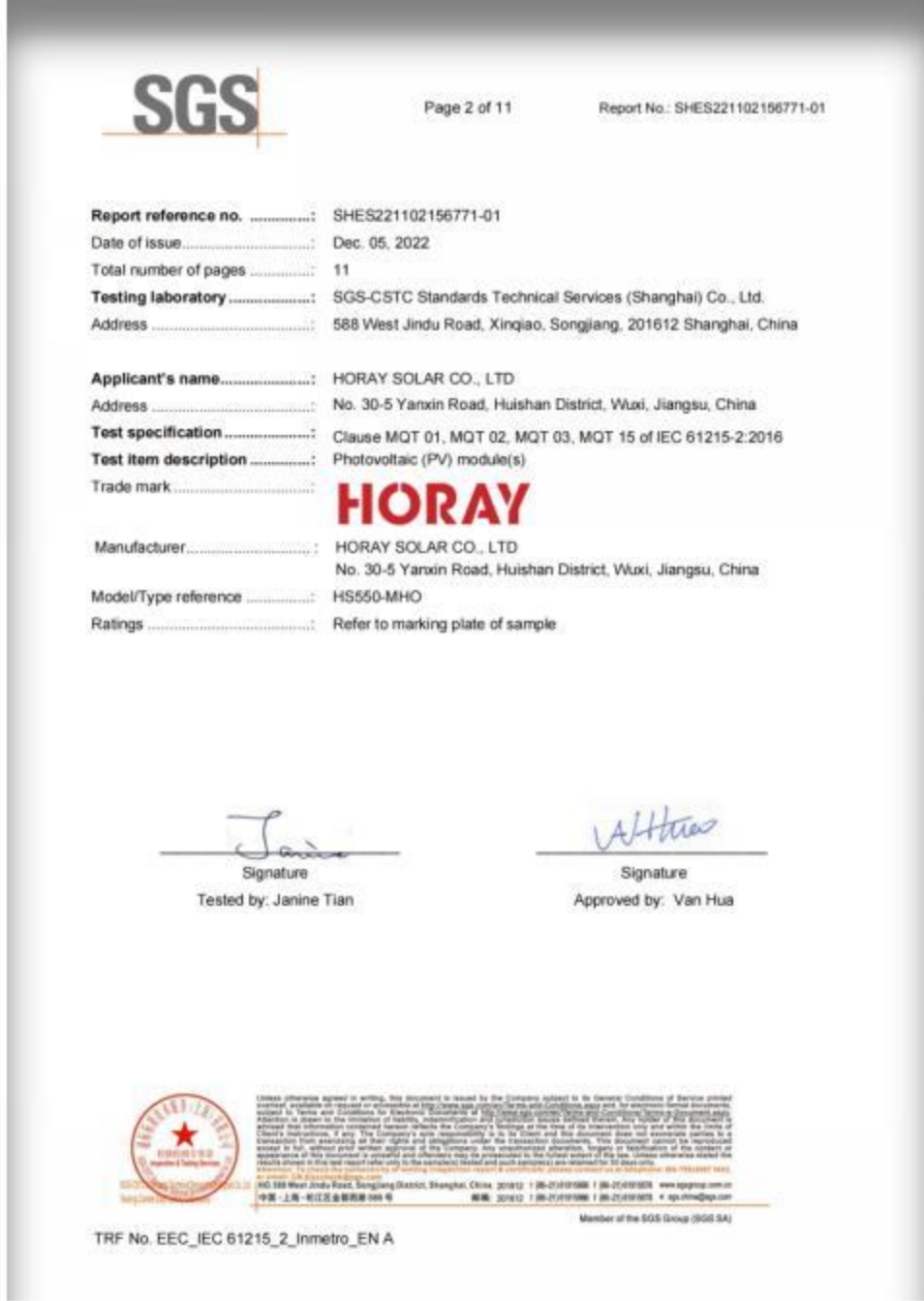
TUV



CE



PV CYCLE



INMETRO



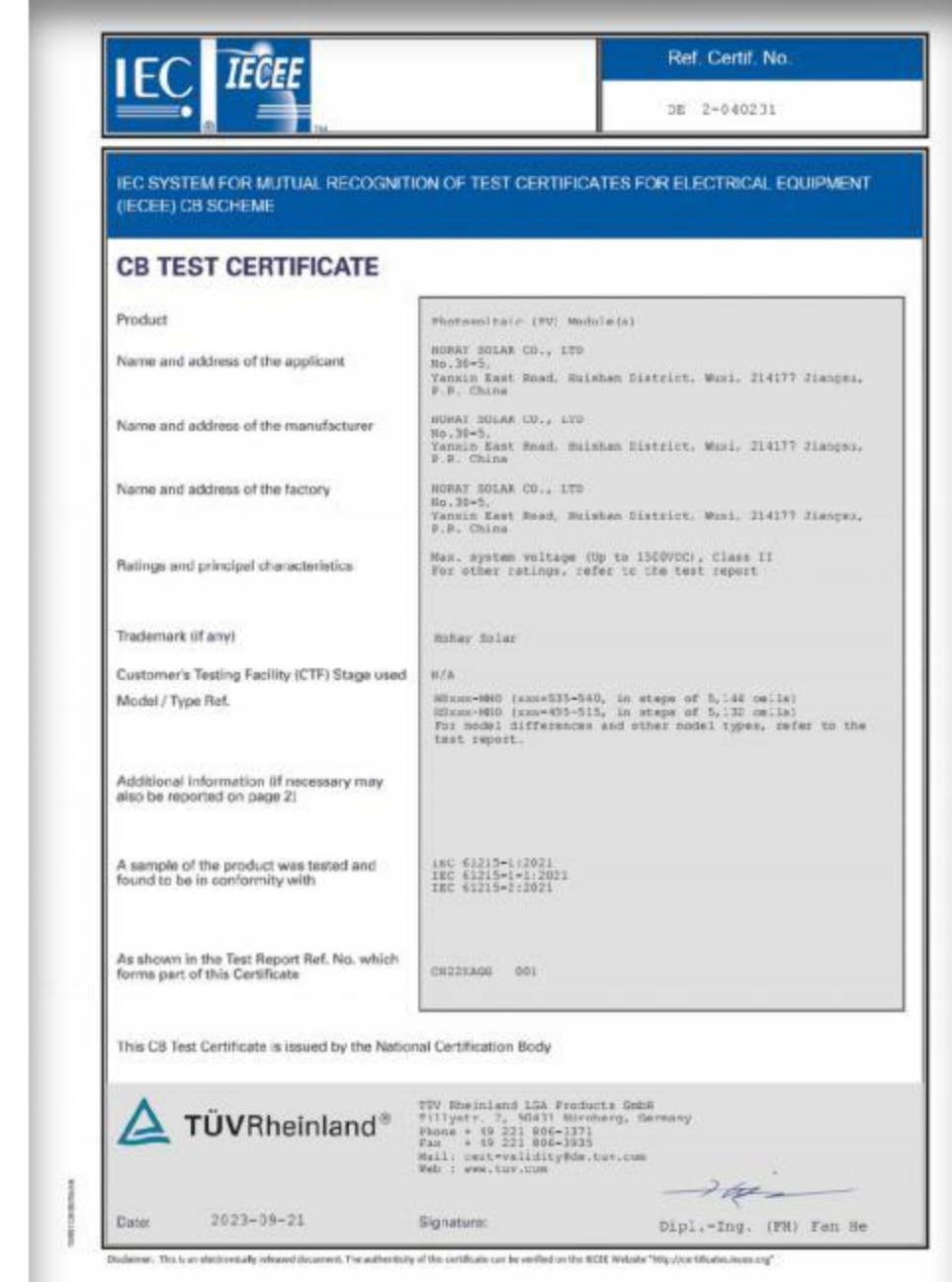
CQC



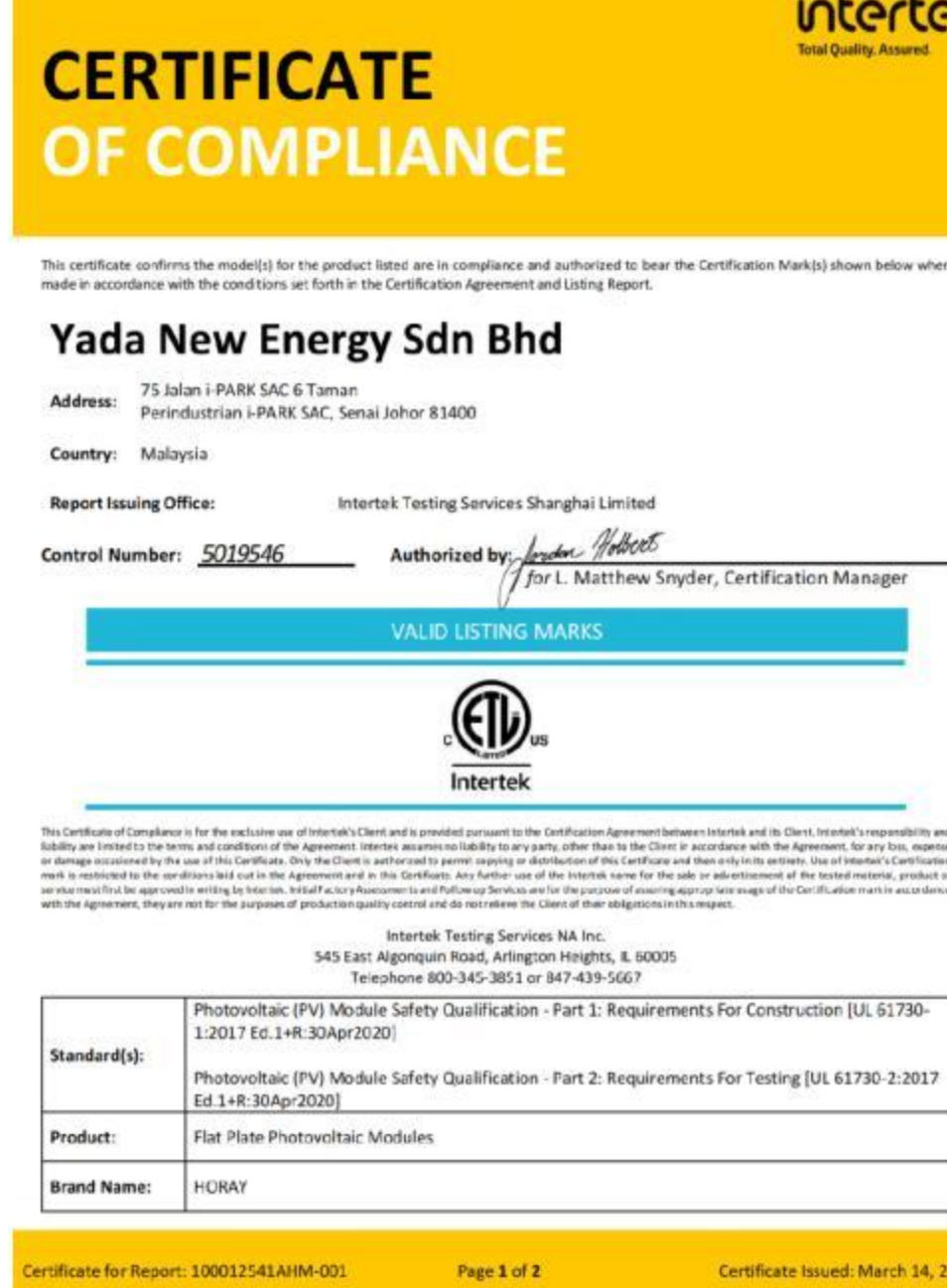
MCS



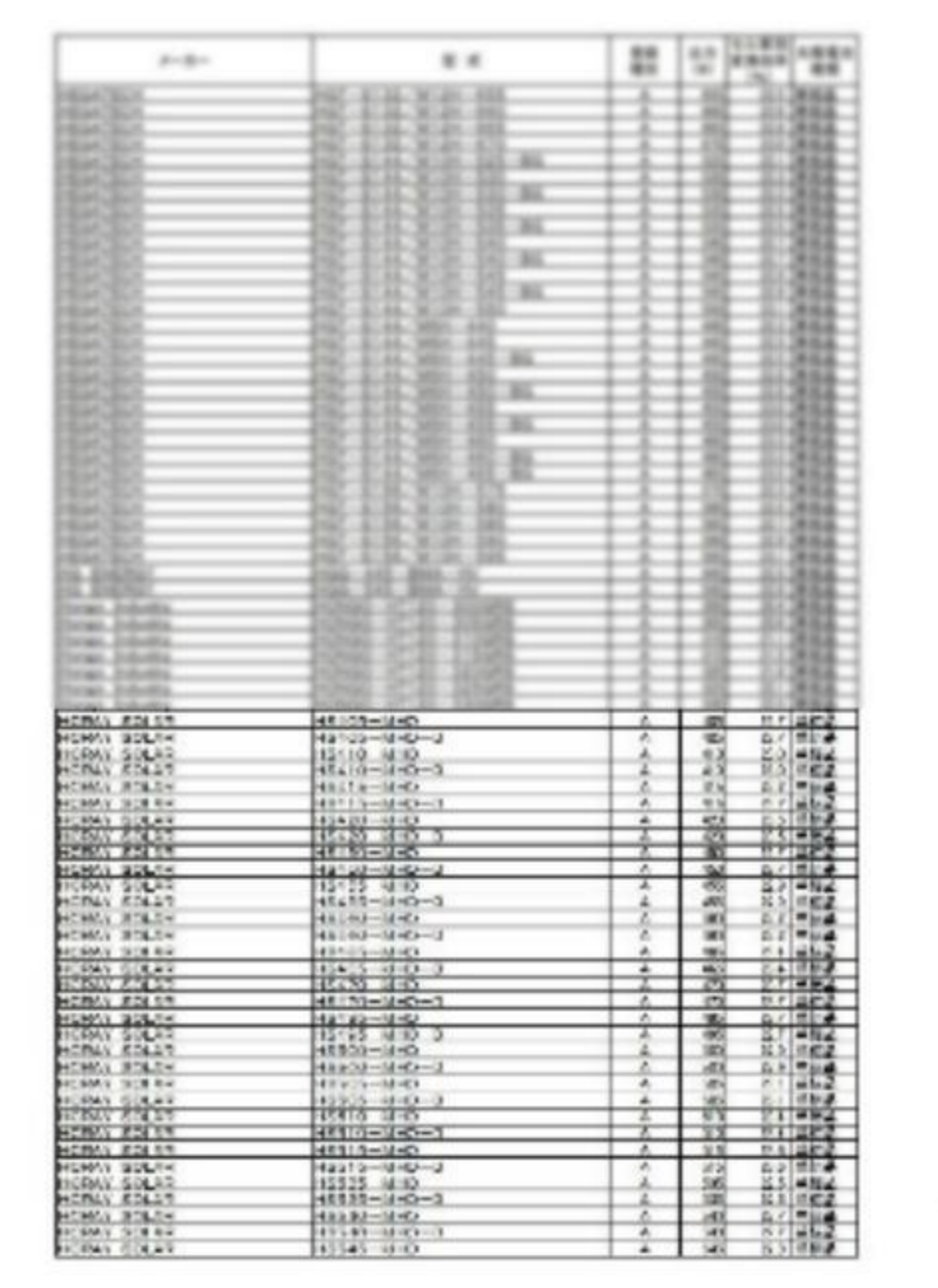
CSI



CB



ETL



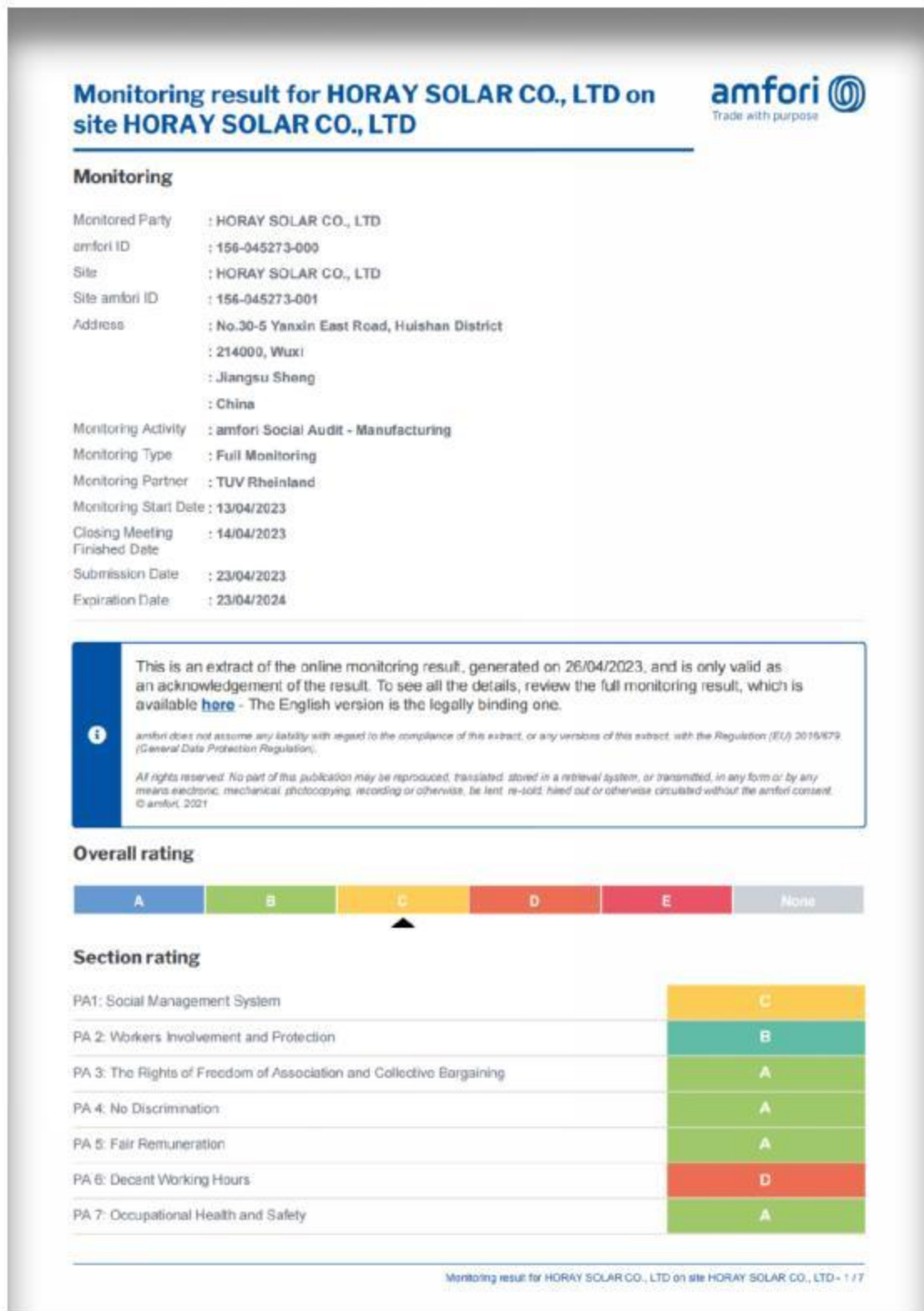
JPAC

Certificates

For Factory

Tested by the Third-party, our solar factory obtained international certifications. Incl. BSCI, ISO9001, ISO14001, ISO45001 etc.

For full details, please contact us.



BSCI



ISO 9001



ISO 14001



ISO 45001



HORAY

2026 HORAY Retains BloombergNEF Tier 1

PV Module Manufacturers

Tier 1



HORAY

03

Energy Storage

NeoHome Series | PowerGo Series | Off-grid Inverter Series



NeoHome Series

Residential Energy Storage Battery



Product Model	Max. Charge/Discharge Current (A)	Cycle Life	Net Weight (kg)	Product Dimensions (W*D*H)(mm)
NeoHome 2.5kWh	50	≥6000 cycle 0.5C	26	370*160*416
NeoHome 5kWh	100	≥6000 cycle 0.5C	44	370*160*610
NeoHome 10kWh	200	≥6000 cycle 0.5C	88	510*160*870
NeoHome 15kWh	200	≥8000 cycle 0.5C	123	445*250*922
NeoHome 17kWh	200	≥8000 cycle 0.5C	124	445*250*922

NeoHome Residential Energy Storage Battery

Ultra-Long Cycle Life

- ✓ 6,000 cycles (0.5C); up to 8,000 cycles for selected models, significantly reducing Total Cost of Ownership (TCO).

Fast Charging

- ✓ Supports high-current fast charging (50A–150A), suitable for frequent use.

High Energy Density

- ✓ 50% reduction in volume and weight compared to traditional batteries.

Smart Monitoring

- ✓ Bluetooth / Wi-Fi remote monitoring of battery status and parameters.



PowerGo Series

Portable Battery PV+ESS



Product Model	Discharge Power	Battery Capacity	Net Weight (kg)	Size (L*W*H)(mm)
PowerGo 300W/1kWh	0.3kW	1KWh	20	210*130*285
PowerGo 1kW/2kWh	1kW	2KWh	19	288*210*311
PowerGo 1.2kW/3.6kWh	1.2kW	3.6KWh	30	440*285*360
PowerGo 2.2kW/3.6kWh	2.2kW	3.6KWh	33	440*285*360

PowerGo Portable Battery PV+ESS

All-in-One Integrated Design

- ✓ Inverter, controller, and BMS for simplified installation and operation.

Compact Design

- ✓ Small and light, saves space, and is convenient for installation and movement.



High-Efficiency Conversion

- ✓ Wide voltage input (12V–400V), suitable for diverse scenarios.

Long-Life Battery Cells

- ✓ 6,000 cycles @ 80% DOD for long-term stable operation.

Off-grid Inverter Series



Model No	TG6200-48
Rated Input Voltage (VAC)	208 / 220 / 230 / 240; L + N + PE
Rated Capacity (KW)	6
Max. Efficiency (Battery Mode)	94%@48VDC
Max PV Input Current / Input Power	27A / 9000W
Max. Charge Current (PV+AC)(A)	120
Compatible Battery Type	Lithium and Lead-acid
Net Weight (kg)	10
Dimensions (W * H * D)(mm)	410*336*110

Off-grid Inverter Series

- Built-in 120A Solar Charger
- Wide PV Input Voltage Range 60-500V
- 27A Max. PV Input Current
- Dual AC Output
- Support Lithium/Lead-acid Battery
- Lithium Battery Activation



- Inverter Work without Battery
- Feed-in to Grid
- WiFi Monitoring(built-in)
- 5 Inch LCD Display
- Wide Operating Temperature Range -10 to 60°C
- Compact and Lightweight, Easy to Install

Certificates

For Products

Tested by third-party laboratories, the Residential ESS has obtained international certifications including CE-EMC and UN38.3.

For full details, please contact us.



CE-EMC



UN38.3

- 6.6MW Project in Czech Republic

04 | Global PV Station

PV Power Plants | Commercial & Industrial | Residential

Company Overview

Horay Energy Co., Ltd., a subsidiary of Horay Group established in 2022, specializes in distributed PV project investment, construction, and operation. Services include PV power plant design, procurement, construction, module sales, and R&D for smart microgrid systems (e.g., solar carports, fences, and residential green energy systems). We provide professional, efficient, and one-stop solutions for global clients.

Certifications



Qualification Certificate of Construction Industry Enterprises



Certificate of Electric Power Installation, Maintenance and Testing



Safety Production License



Certificate of Integrity Enterprise in Bidding and Tendering



Credit Certificate of China's Electric Power Industry

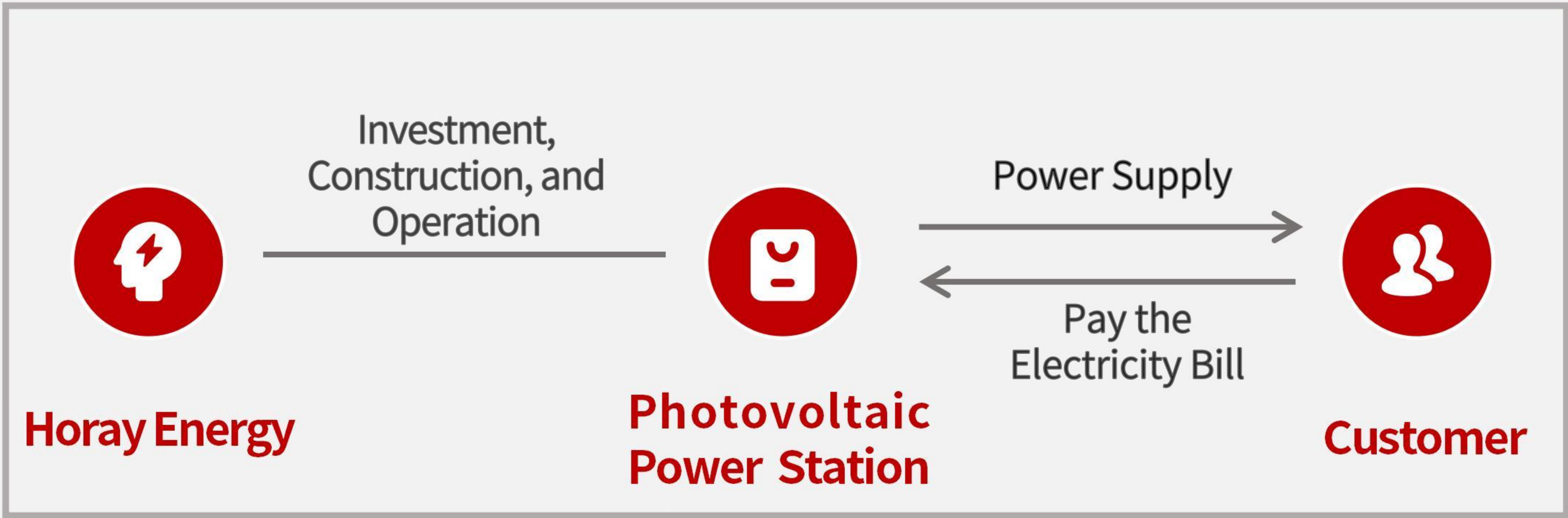
System Certifications



Energy Management Contracts (EMC)

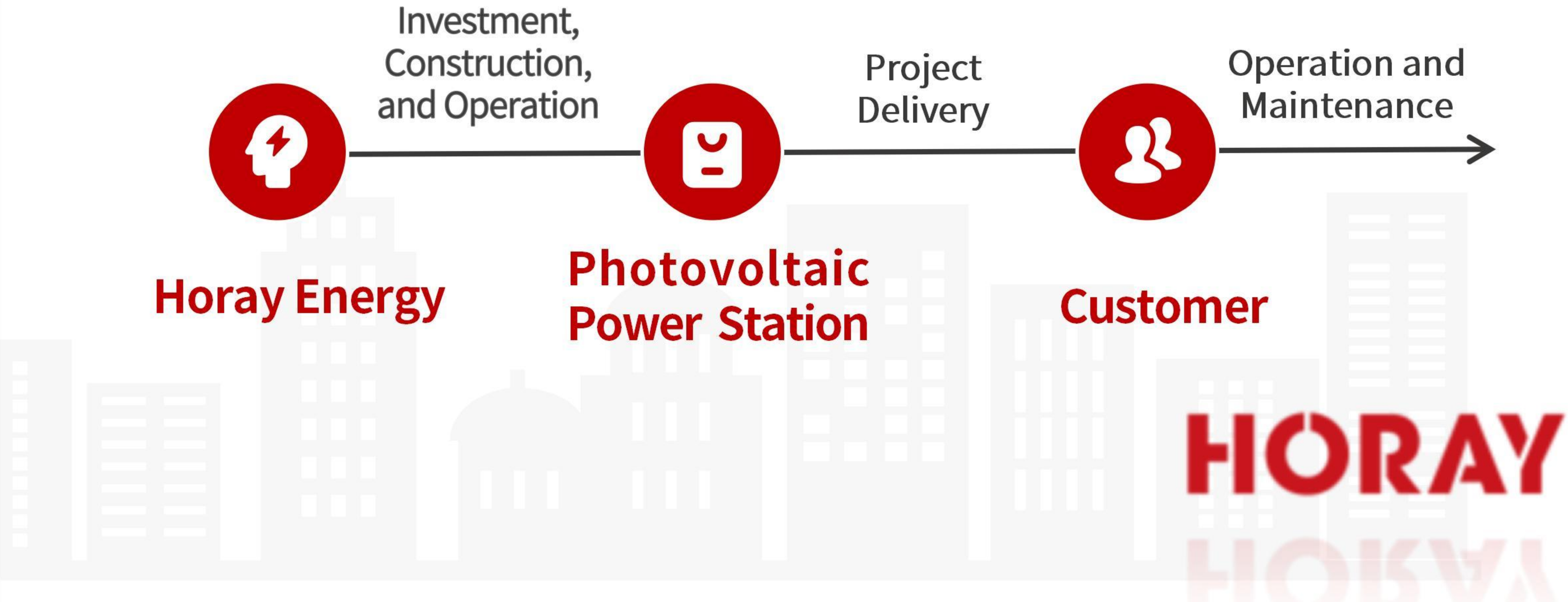
Horay Energy invests in and operates PV plants, offering clients green energy at below-grid prices.

- ◆ Adopt the "self-consumption with grid feed-in" model, where the solar power is first used on-site, and surplus electricity is fed into the public grid.
- ◆ "Self-consumption with no grid export" model, where all solar-generated electricity is used on-site, and surplus energy is stored or consumed locally instead of being fed into the public grid.



Design-Procurement-Construction (EPC)

- ◆ Customers sign general contracting project contracts with our company. Our company is responsible for the design, procurement, and construction of photovoltaic power stations. By leveraging our advantages in technology and management, we ensure the high-quality and efficient delivery of the projects.
- ◆ After the project is delivered, customers can also choose our company to provide operation and maintenance services to ensure the long-term and stable operation of the photovoltaic power station.





HORAY

• **Croatia | 11.74MW**



Horay brand Solar Ocean Modules

- **Czech Republic | 6.6MW**



Horay brand Solar Galaxy Modules



HORAY

• **Czech Republic | 5.5MW**



Horay brand Solar Galaxy Modules



HORAY

• China | 5.2MW



Horay brand Solar Galaxy Modules



HORAY

• **Czech Republic | 4.5MW**



Horay brand Solar Ocean Modules



HORAY

• **Germany | 3MW**



Horay brand Solar Galaxy Modules



HORAY

• **Italy | 2MW**



Horay brand Solar Galaxy Modules

HORAY

THANKS

Author: Horay Solar Marketing Department



www.horaysolar.com



sales@horaysolar.com



+86 510 8358 0688



Robert-Bosch-Straße 27-29, 63225 Langen, Germany

