

Mono

Bifacial

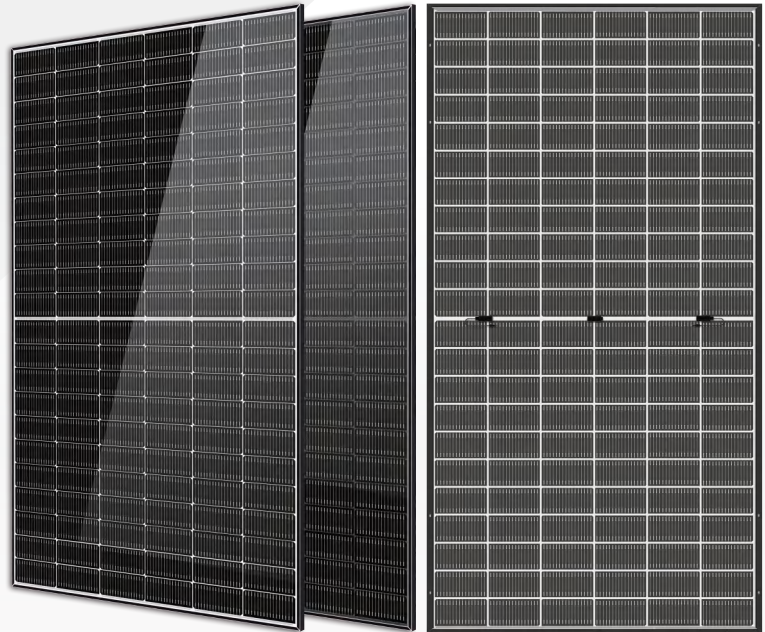
HORAY

Solar Ocean

540-560 Watt N-Type

MONO-BIFACIAL MODULE

- IEC61215: 2021
- IEC61730: 2023
- TUV Rheinland Standard
- Lloyd'S Ariel Re
- Solar Performance Insurance
- ISO9001: 2015
- Quality Management System
- ISO14001:
- Environmental Management System
- CE: Europe Standard
- Inmetro Certificate
- Japan JP-AC
- China Quality Certification Centre
- Solar product certification



KEY FEATURES



SMBB Cell

More uniform current collection capability, reducing the current heat loss of the internal cells.



Low Light Features

Higher performance under low light environment.



Higher Output Power

The output power of 132 half-cells Monocrystalline modules is up to 560W.



LID Free

N-type solar cell has no LID naturally which can increase power generation.



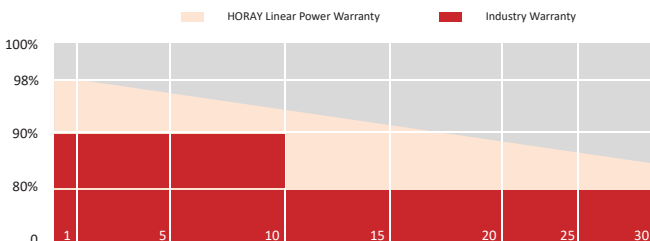
Harsh Environmental Adaptability

Strict salt spray and ammonia corrosion test by the third party.



Load Capacity

Mechanical load tests including wind load 2400 Pa and snow load 5400 Pa.



HEADQUARTER: HORAY SOLAR CO., LTD.

GLOBAL MARKETING AND SERVICE: HORAY SOLAR GMBH

✉ sales@horaysolar.com 🌐 www.horaysolar.com ☎ +86-510 83580688
 📍 NO.30-5, East Yanxin Road, Huishan District, Wuxi 214177 Jiangsu P.R China

✉ info@horaysolar.com 🌐 www.horaysolar.com
 📍 Robert-Bosch-StraBe 27-29,63225 Langen , Germany

SPECIFICATIONS

Weight	29kg
Dimension	2140mm*1134mm*30mm
Cell Dimension	182.2*93.4mm
Cell Amount	66*2 pcs
Maximum System Voltage	1500V
Junction Box	IP68
Type of the front glass	2.0mm Coated ultra clear glass
Type of the back glass	2.0mm Heat-strengthened glass
Frame	Aluminum Alloy
Cable	4mm ² ,+300,-300mm;Length can be customized
Connector	MC4 compatible
Application Level	Class A

ELECTRICAL PARAMETERS AT STC

Module Type	HS540TC-MHA-D	HS545TC-MHA-D	HS550TC-MHA-D	HS555TC-MHA-D	HS560TC-MHA-D
Power	540W	545W	550W	555W	560W
Open Circuit Voltage	47.68V	47.88V	48.07V	48.27V	48.51V
Short Circuit Current	14.34A	14.41A	14.48A	14.56A	14.61A
Maximum Power Voltage	39.79V	39.96V	40.11V	40.28V	40.48V
Maximum Power Current	13.57A	13.64A	13.71A	13.78A	13.83A
Module Efficiency	22.3%	22.5%	22.7%	22.9%	23.1%

* Under Standard Test Conditions (STC) of irradiance of 1000 W/m², spectrum AM 1.5 and cell temperature of 25°C.

ELECTRICAL PARAMETERS AT BNPI

Power	583W	588W	594W	599W	604W
Open Circuit Voltage	47.68V	47.88V	48.07V	48.27V	48.51V
Short Circuit Current	15.34A	15.42A	15.50A	15.58A	15.64A
Maximum Power Voltage	39.79V	39.96V	40.11V	40.28V	40.48V
Maximum Power Current	14.65A	14.72A	14.80A	14.87A	14.93A

*Rear side power gain:The additional gain from the rear side compared to the power of the front side at the standard test condition. It depends on mounting (structure,height,tilt angle etc.)and albedo of the ground.

ELECTRICAL PARAMETERS AT NMOT

Power	411W	415W	419W	423W	427W
Open Circuit Voltage	47.68V	47.88V	48.07V	48.27V	48.51V
Short Circuit Current	10.92A	10.98A	11.04A	11.09A	11.14A
Maximum Power Voltage	39.79V	39.96V	40.11V	40.28V	40.48V
Maximum Power Current	10.34A	10.39A	10.45A	10.50A	10.54A

* Under Nominal Module Operating Temperature (NMOT), irradiance of 800 W/m², spectrum AM 1.5, ambient temperature 20°C, wind speed 1 m/s.

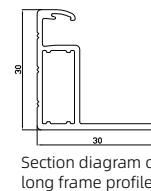
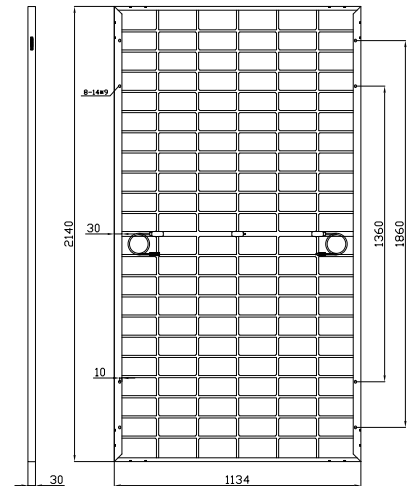
TEMPERATURE CHARACTERISTICS

NMOT	45±2°C
Temp Coefficient of ISC	+0.04%/°C
Temp Coefficient of VOC	-0.23%/°C
Temp Coefficient of Pmax	-0.28%/°C

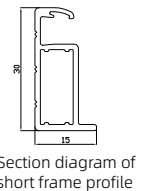
PACKING CONFIGURATION

Modules/Pallet	37 Pieces
Packaging Description	20 Pallets, Total=(37+37)x10=740 Pieces
Modules/40' Container	740 Pieces

MECHANICAL DIAGRAMS

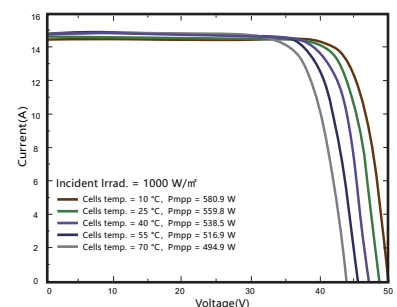
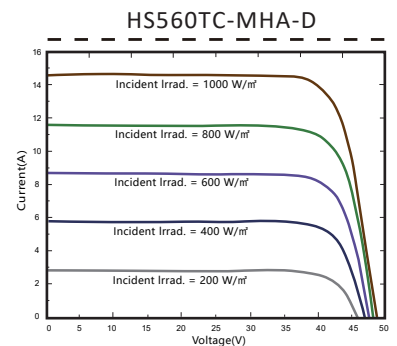


Section diagram of long frame profile



Section diagram of short frame profile

CHARACTERISTICS



MAXIMUM RATING

Power selection	0~+5W
Measuring uncertainty of Pm	0~±3%
Operating Temperature	-40°C~+85°C
Wind Load/Snow Load	2400pa/5400pa
Fuse Current	25A

15 YEARS Quality Warranty

30 YEARS Power Warranty