

Mono

Bifacial

HORAY

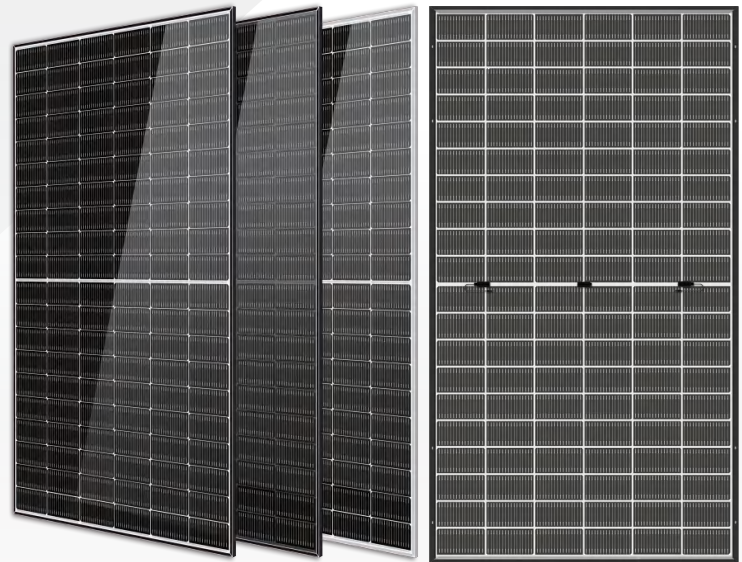
TIER1
BloombergNEF

Solar Ocean

520-540 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 120 half-cells Monocrystalline modules is up to 540W.



LID Free

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



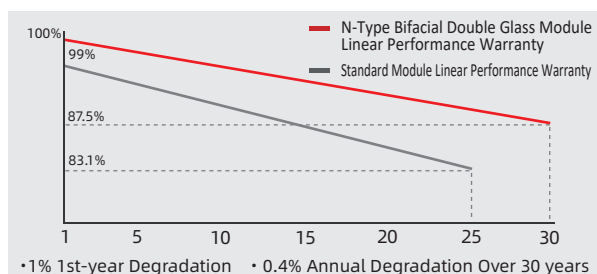
Harsh Environmental Adaptability

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.



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SPECIFICATIONS

Weight	29kg
Dimension	2094mm*1134mm*30mm
Cell Dimension	182*99.5mm
Cell Amount	60*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	HS520TC-MHD-D	HS525TC-MHD-D	HS530TC-MHD-D	HS535TC-MHD-D	HS540TC-MHD-D
Power	520W	525W	530W	535W	540W
Open Circuit Voltage	43.23V	43.42V	43.62V	43.68V	43.71V
Short Circuit Current	15.10A	15.18A	15.26A	15.38A	15.51A
Maximum Power Voltage	36.67V	36.83V	37.00V	37.05V	37.08V
Maximum Power Current	14.18A	14.25A	14.32A	14.44A	14.56A
Module Efficiency	22.23%	22.44%	22.65%	22.87%	23.08%

* 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	572W	578W	583W	589W	594W
Open Circuit Voltage	43.23V	43.42V	43.62V	43.68V	43.71V
Short Circuit Current	16.61A	16.70 A	16.78A	16.92A	17.06A
Maximum Power Voltage	36.67V	36.83V	37.00V	37.05V	37.08V
Maximum Power Current	15.60A	15.68A	15.76A	15.88A	16.02A

*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	396W	400W	404W	408W	411W
Open Circuit Voltage	43.23V	43.42V	43.62V	43.68V	43.71V
Short Circuit Current	11.51A	11.57A	11.62A	11.72A	11.82A
Maximum Power Voltage	36.67V	36.83V	37.00V	37.05V	37.08V
Maximum Power Current	10.81A	10.86A	10.92A	11.00A	11.10A

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

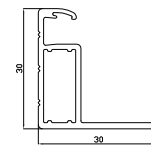
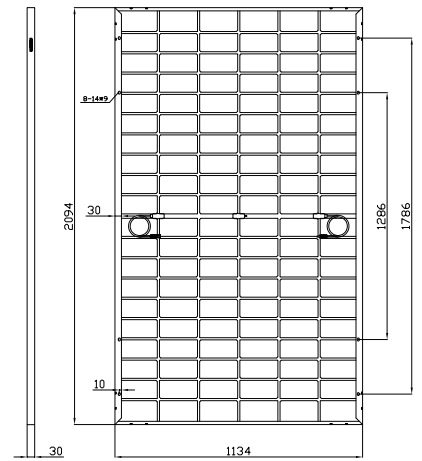
TEMPERATURE CHARACTERISTICS

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

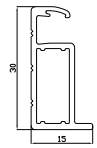
PACKING CONFIGURATION

Modules/Pallet	37 Pieces
Packaging Description	22 Pallets, Total=(37+37)x11=814 Pieces
Modules/40' Container	814 Pieces

MECHANICAL DIAGRAMS

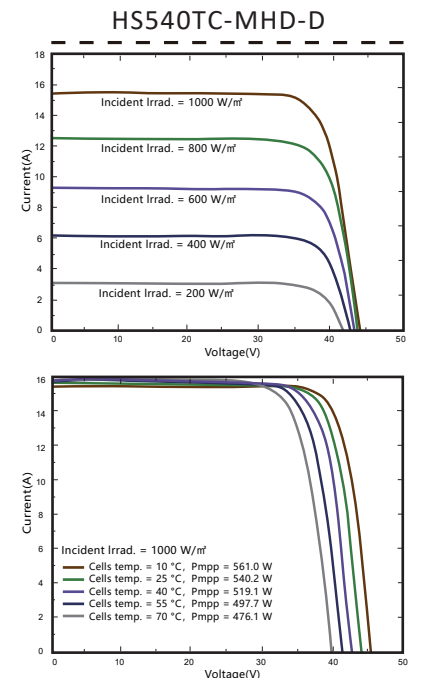


Section diagram of long frame profile



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	30A

15 YEARS Quality Warranty

30 YEARS Power Warranty