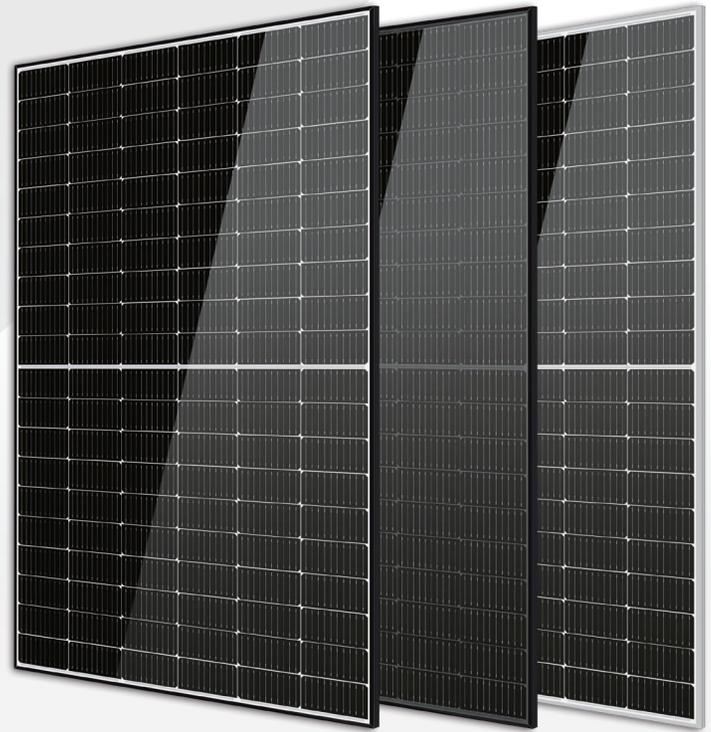


Solar Ocean

450–470 Watt MONO-FACIAL MODULE

- IEC61215: 2021
- IEC61730: 2016
- 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



KEY FEATURES



MBB 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 470W.



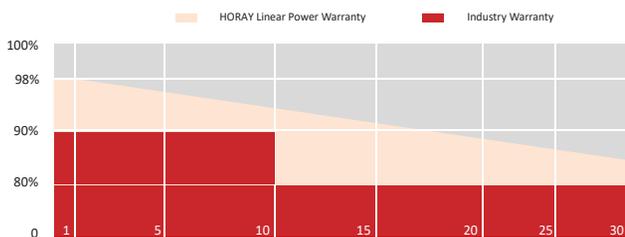
PID Protection
Ensure the attenuation probability caused by PID phenomenon is minimized.



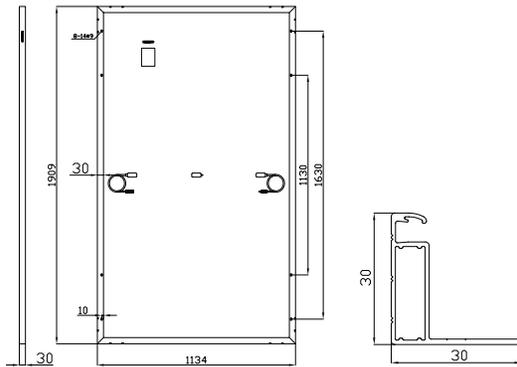
Harsh Environmental Adaptability
Strict salt spray and ammonia corrosion test by the third party.



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



MECHANICAL DIAGRAMS



SPECIFICATIONS

| | |
|------------------------|---|
| Weight | 22.5kg |
| Dimension | 1909mm*1134mm*30mm |
| Cell Dimension | 182*91mm |
| Cell Amount | 60*2 pcs |
| Maximum System Voltage | 1500V |
| Junction Box | IP68 |
| Frame | Aluminum Alloy |
| Cable | 4mm ² ,+300,-300mm/±1100mm Length can be customized |
| Connector | MC4 compatible |
| Application Level | Class A |

ELECTRICAL PARAMETERS AT STC

| Module Type | HS450-MHO | HS455-MHO | HS460-MHO | HS465-MHO | HS470-MHO |
|-----------------------|-----------|-----------|-----------|-----------|-----------|
| Power | 450W | 455W | 460W | 465W | 470W |
| Open Circuit Voltage | 41.40V | 41.60V | 41.80V | 42.00V | 42.20V |
| Short Circuit Current | 13.68A | 13.73A | 13.78A | 13.84A | 13.90A |
| Maximum Power Voltage | 34.60V | 34.80V | 35.00V | 35.20V | 35.40V |
| Maximum Power Current | 13.01A | 13.08A | 13.15A | 13.21A | 13.28A |
| Module Efficiency | 20.79% | 21.02% | 21.25% | 21.48% | 21.71% |

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

ELECTRICAL PARAMETERS AT NMOT

| | | | | | |
|-----------------------|--------|--------|--------|--------|--------|
| Power | 340W | 344W | 348W | 352W | 356W |
| Open Circuit Voltage | 39.20V | 39.45V | 39.70V | 39.97V | 40.21V |
| Short Circuit Current | 10.94A | 10.98A | 11.02A | 11.06A | 11.10A |
| Maximum Power Voltage | 32.67V | 32.87V | 33.08V | 33.31V | 33.51V |
| Maximum Power Current | 10.41A | 10.46A | 10.52A | 10.57A | 10.62A |

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

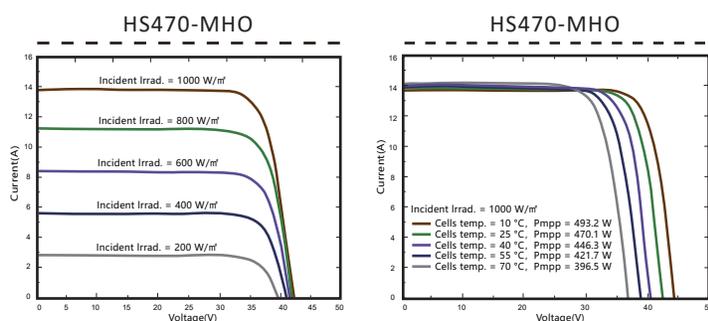
TEMPERATURE CHARACTERISTICS

| | | | |
|-------------------------|-----------|--------------------------|-----------|
| NMOT | 45±2°C | Temp Coefficient of ISC | +0.05%/°C |
| Temp Coefficient of VOC | -0.28%/°C | Temp Coefficient of Pmax | -0.34%/°C |

PACKING CONFIGURATION

| | | | |
|-----------------------|---|-----------------------|------------|
| Modules/Pallet | 37 Pieces | Modules/40' Container | 888 Pieces |
| Packaging Description | 24 Pallets, Total=(37+37)x12=888 Pieces | | |

IV 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 |

12 YEARS Quality Warranty

30 YEARS Power Warranty

CAUTION: READ SAFETY AND INSTALLATION INSTRUCTIONS BEFORE USING THE PRODUCT.

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