

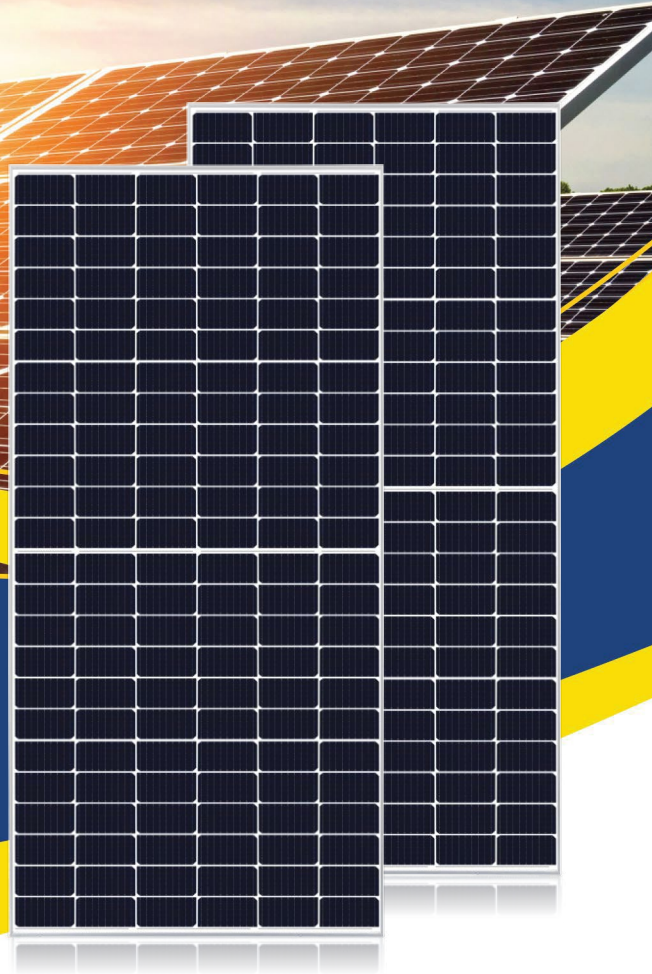
# SOLAR PANEL

## EM450MP


**144 CELL**  
Mono PERC Module


**1500VDC**  
Maximum System Voltage


**Class A Module**





### Special Features :


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**9BB Half-cut Cell Technology**  
New circuit design, lower internal current, lower Rs loss  
Ga doped wafer, attenuation <2% (1st year) / ≤0.55% (Linear)
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**Significantly Lower the Risk of Hot Spot**  
Special circuit design with much lower hot spot temperature
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**Lower LCOE**  
2% more power generation, lower LCOE
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**Wider Application**  
No water-permeability and high wear-resistance, can be widely used in high-humid, windy and dusty area
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**PID Anti**  
**Excellent Anti-PID Performance**  
2 times of industry standard Anti-PID test
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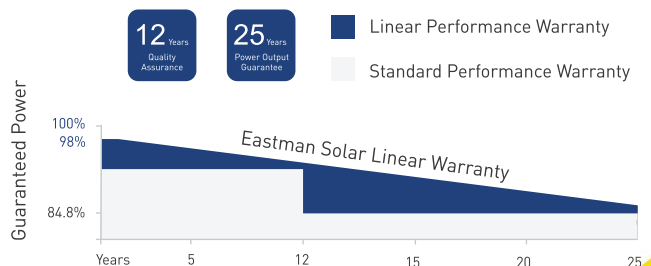
**IP68 Junction Box**  
High waterproof level
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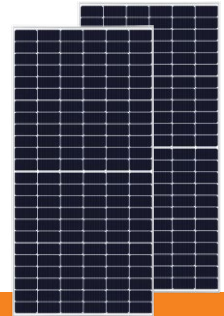
**Excellent Low irradiance performance**

### System & Product Certificates

- IEC 61215 / IEC 61730 / UL 61730
- ISO 9001: 2015 Quality Management System
- ISO 14001: 2015 Environment Management System
- ISO 45001: 2018 Occupational Health and Safety Management Systems

### Performance Warranty





### Electrical Characteristics

Testing Condition	STC
Maximum Power (Pmax/W)	450
Operating Voltage (Vmpp/V)	40.9
Operating Current (Impp/A)	11.01
Open-Circuit Voltage (Voc/V)	49.6
Short-Circuit Current (Isc/A)	11.54
Module Efficiency (%)	20.70

STC: Irradiance 1000W/m<sup>2</sup>, Spectra at AM1.5, Module Temperature 25 °C. Power output tolerance: 0~+5W, Test uncertainty for Pmax: ±3%  
 NMOT: Irradiance 800W/m<sup>2</sup>, Spectra at AM1.5, Ambient Temperature 20 °C, Wind speed 1m/s

### Mechanical Characteristics

Solar Cell	Monocrystalline 166*166mm
No. of Cells	144 (6*24)
Module Dimensions	2094*1038*35mm (82.44*40.87*1.38inches)
Weight	23.5kg (51.81lbs)
Front Glass	3.2mm Coated Tempered Glass
Frame	Anodized Aluminium Alloy
Junction Box	IP68, 3 Bypass Diodes
Output Cables	4mm <sup>2</sup> (IEC), 12AWG(UL) 300mm in Length or Customized Length
Connectors	T01/LJQ-3-CSY/MC4/MC4-EV02

### Application Conditions

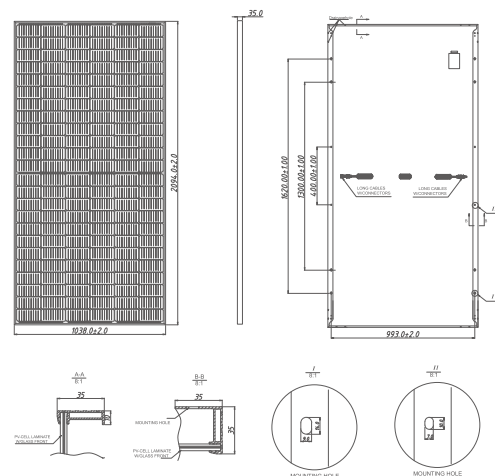
Maximum System Voltage	1000V/1500V/DC
Operating Temperature	-40°C~+85°C
Maximum Series Fuse	20A
Safety Protection Class	Class II
Mechanical Load (Front side)	5400Pa
Mechanical Load (Back side)	2400Pa

### Temperature Characteristics

Temperature Coefficient of Pmax	-0.36%/°C
Temperature Coefficient of Voc	-0.26%/°C
Temperature Coefficient of Isc	+0.043%/°C
Nominal Module Operating Temperature(NMOT)	43±2°C

Product specification are subject to change without prior notice.

### Technical Drawings



### I-V Curve

