

# Maysun Solar

158.75mm 144Cells

Half-Cell High Efficiency PV Module

## MS(400-420)MB- 72H Series

### 144 LAYOUT

MONOCRYSTALLINE MODULE

### 400- 420W

POWER OUTPUT RANGE

### 20.87%

MAXIMUM EFFICIENCY

### 0~+5W

POSITIVE POWER TOLERANCE

Maysun Solar brand was established in 2008, our marketing center is located in the beautiful Chinese city of Hangzhou. We are a professional solar panels manufacturer and wholesaler. Our business covers the production and manufacture of various types of mono solar panels and poly solar panels. We have two solar plates production bases in China and UAE, with an annual production capacity of 1G watts. Our solar panel products have been exported to more than 80 countries and regions around the world. We have overseas sales offices and warehouses in Germany, Italy, Poland, Hungary, Saudi Arabia, Indonesia, UAE, etc. We have strictly quality management system of solar PV module, we are capable of absorbing and applying advanced technologies and new processes in the photovoltaic module industry in the fastest time, bringing high-performance special solar PV modules to the market, and serve our customers.

**Comprehensive Products  
and System Certificates**

IEC61215/IEC61730/IEC61701/IEC62716  
ISO 9001: Quality Management System

Management System

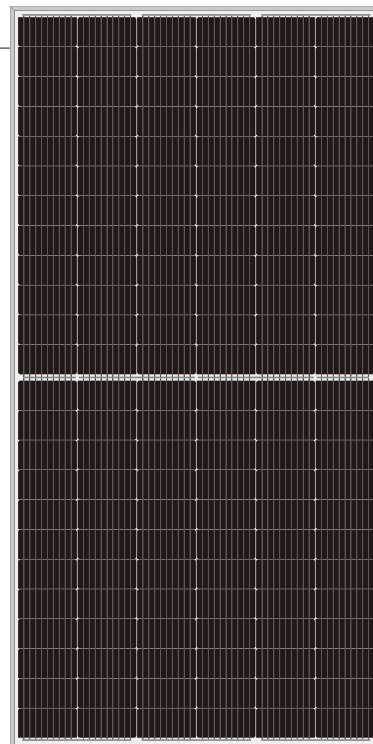


#### PRODUCTS

MS(400-420)MB- 72H

#### POWER RANGE

400-420W



#### High power

- Up to 420W front power and 20.87% module efficiency with half-cut and MBB (Multi Busbar) technology bringing more BOS savings
- Lower resistance of half-cut and good reflection effect of MBB ensure high power



#### High reliability

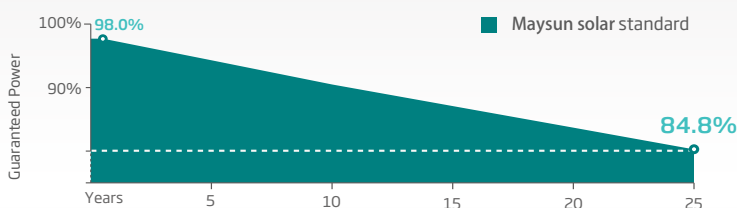
- Ensured PID resistance through cell process and module material control
- Resistant to salt, acid and ammonia
- Mechanical performance: Up to 5400 Pa positive load and 2400 Pa negative load

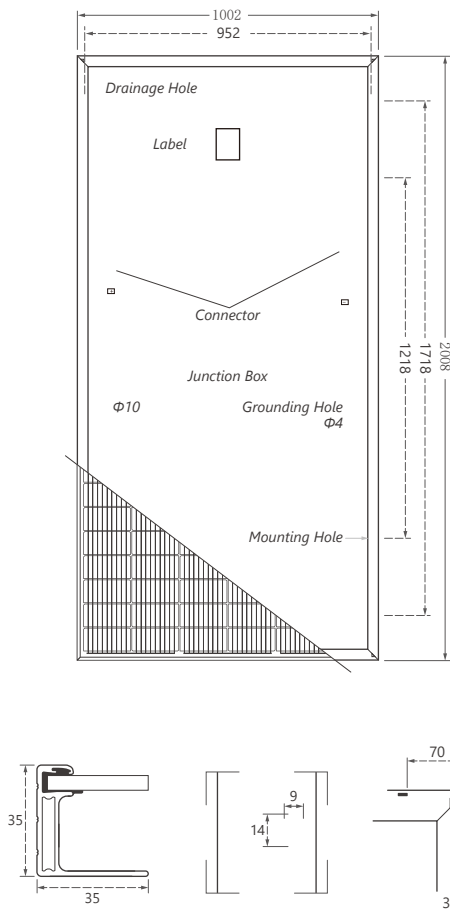


#### High energy generation

- Excellent IAM and low light performance validated by 3rd party with cell process and module material optimization
- Better anti-shading performance and lower operating temperature

#### PERFORMANCE WARRANTY





### Electrical Characteristics(STC)

Peak Power Watts-P <sub>MAX</sub> (Wp)*	400	405	410	420
Power Tolerance-P <sub>MAX</sub> (W)	0 ~ +5			
Maximum Power Voltage-V <sub>MPP</sub> (V)	40.6	40.8	41.0	41.4
Maximum Power Current-I <sub>MPP</sub> (A)	9.86	9.93	10.00	10.15
Open Circuit Voltage-V <sub>OC</sub> (V)	49.0	49.2	49.4	49.8
Short Circuit Current-I <sub>SC</sub> (A)	10.32	10.35	10.40	10.46
Module Efficiency η <sub>m</sub> (%)	19.88	20.13	20.38	20.87

STC: Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, Air Mass AM1.5.  
\*Measuring tolerance: ±3%.

### Electrical Characteristics(NOCT)

Maximum Power-P <sub>MAX</sub> (Wp)	302	305	309	317
Maximum Power Voltage-V <sub>MPP</sub> (V)	39.6	39.8	40.1	40.5
Maximum Power Current-I <sub>MPP</sub> (A)	7.63	7.67	7.71	7.83
Open Circuit Voltage-V <sub>OC</sub> (V)	47.3	47.5	47.7	48.1
Short Circuit Current-I <sub>SC</sub> (A)	8.19	8.23	8.27	8.35

NOCT: Irradiance at 800W/m<sup>2</sup>, Ambient Temperature 20°C, Wind Speed 1m/s.

### MECHANICAL DATA

Solar Cells	Mono 158.75×79.375mm
Cell Orientation	144 cells (6× 24)
Module Dimensions	2008×1002×35mm (79.06× 39.45 × 1.38 inches)
Weight	22.4kg
Glass	3.2mm High Transmission, Antireflection Coating
Encapsulant Material	EVA/POE
Backsheet	Transparent
Frame	30 mm (1.18 inches) Anodized Aluminium Alloy
J-Box	IP68, 3 Bypass Diodes
Cables	4.0mm <sup>2</sup> , Portrait: 300mm(+)/400mm(-) Landscape: 1200mm(+)/1200mm(-)
Connector	MC4 Compatible

\*Please refer to regional datasheet for specific connector.

### TEMPERATURE RATINGS

NOCT(Nominal Operating Cell Temperature)	45°C (±2°C)
Temperature Coe <sup>o</sup> cient of P <sub>MAX</sub>	- 0.37%/ °C
Temperature Coe <sup>o</sup> cient of V <sub>OC</sub>	- 0.29%/ °C
Temperature Coe <sup>o</sup> cient of I <sub>SC</sub>	0.05%/ °C

(Do not connect Fuse in Combiner Box with two or more strings in parallel connection)

### WARRANTY

12 year Product Workmanship Warranty
25 year Power Warranty
2% first year degradation
0.55% Annual Power Attenuation

(Please refer to product warranty for details)

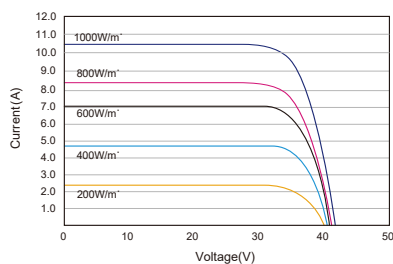
### MAXIMUM RATINGS

Operational Temperature	-40~+85 °C
Maximum System Voltage	1500V DC (IEC)
Max Series Fuse Rating	20A

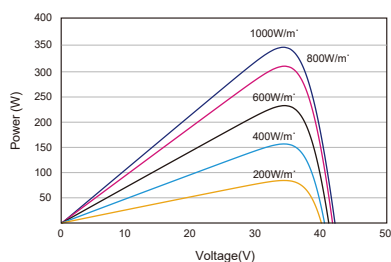
### PACKAGING CONFIGURATION

Modules per box: 31 pieces
Modules per 40' container: 726 pieces

### I-V CURVES OF PV MODULE(350W)



### P-V CURVES OF PV MODULE(350W)



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

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