

# Maysun Solar

182mm 120Cells

Monocrystalline PV Module

## MS(440-460)MB- 60H Series



### 120 LAYOUT

MONOCRYSTALLINE MODULE

### 440- 460W

POWER OUTPUT RANGE

### 21.26%

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(440-460)MB- 72H Series

#### POWER RANGE

440-460W



#### High power

- Up to 460W front power and 21.26% 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

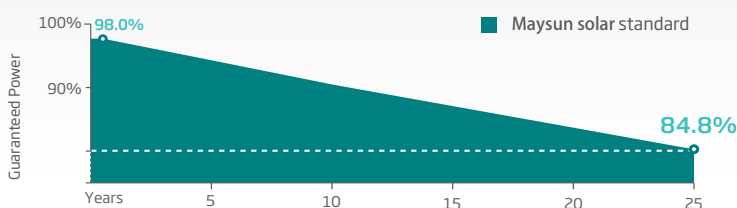
- Ensured PID resistance through cell process and module material control
- Resistant to salt, acid and ammonia
- Mechanical performance: Up to 5400 Pa positive load and 2400 Pa negative load



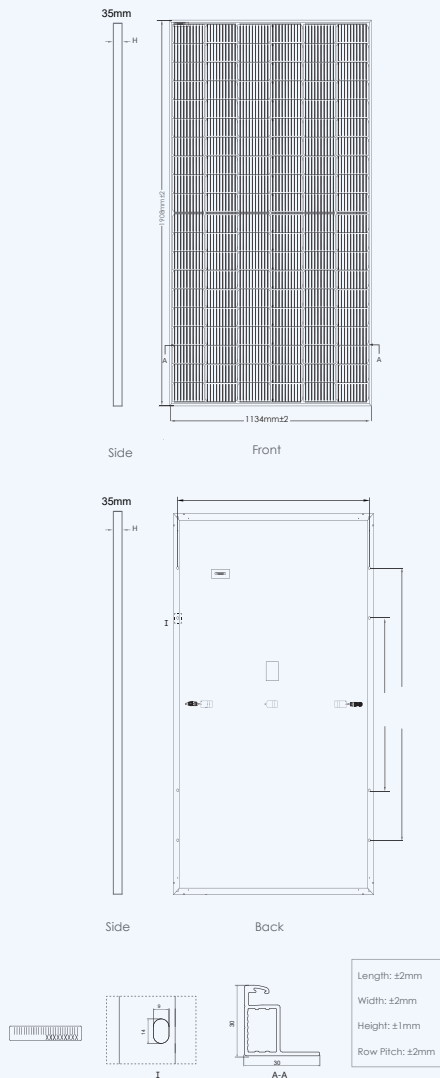
#### High energy generation

- 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

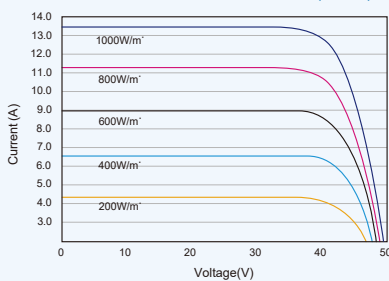
### PERFORMANCE WARRANTY



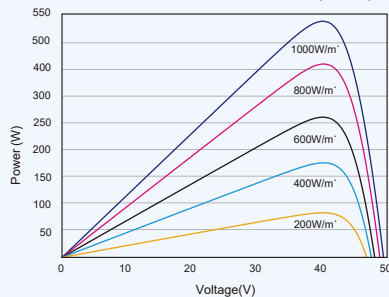
### DIMENSIONS OF PV MODULE(mm)



### I-V CURVES OF PV MODULE(530W)



### P-V CURVES OF PV MODULE(530W)



### ELECTRICAL DATA (STC)

Peak Power Watts- $P_{MAX}$ (Wp)*	440	445	450	455	460
Power Tolerance- $P_{MAX}$ (W)	0 ~ +5				
Maximum Power Voltage- $V_{MPP}$ (V)	33.72	33.82	33.91	34.06	34.20
Maximum Power Current- $I_{MPP}$ (A)	13.05	13.16	13.27	13.36	13.45
Open Circuit Voltage- $V_{OC}$ (V)	41.02	41.10	41.18	41.33	41.48
Short Circuit Current- $I_{SC}$ (A)	13.73	13.79	13.85	13.93	14.01
Module Efficiency $\eta_m$ (%)	20.34	20.57	20.80	21.03	21.26

STC: Irradiance 1000W/m², Cell Temperature 25°C, Air Mass AM1.5.

\*Measuring tolerance: ±3%.

### ELECTRICAL DATA (NOCT)

Maximum Power- $P_{MAX}$ (Wp)	327	331	335	339	342
Maximum Power Voltage- $V_{MPP}$ (V)	31.39	31.56	31.73	31.90	32.07
Maximum Power Current- $I_{MPP}$ (A)	10.43	10.49	10.55	10.61	10.67
Open Circuit Voltage- $V_{OC}$ (V)	38.72	38.79	38.87	39.01	39.15
Short Circuit Current- $I_{SC}$ (A)	11.09	11.14	11.19	11.25	11.32

NOCT: Irradiance at 800W/m², Ambient Temperature 20°C, Wind Speed 1m/s.

### MECHANICAL DATA

Solar Cells	Monocrystalline
Cell Orientation	120cells (6 × 20)
Module Dimensions	1908×1134×30mm (75.12×44.65×1.18 inch)
Weight	24.2 kg (53.35 lbs)
Glass	3.2mm, Anti-Reflection Coating, High Transmission, Low Iron, Tempered Glass
Encapsulant Material	EVA/POE
Backsheet	White
Frame	Anodized Aluminium Alloy
J-Box	IP 68 rated
Cables	TUV 1×4.0mm² (+): 400mm, (-): 200mm or Customized Length
Connector	MC4

\*Please refer to regional datasheet for specific connector.

### TEMPERATURE RATINGS

NOCT(Nominal Operating Cell Temperature)	45°C (±2°C)
Temperature Coefficient of $P_{MAX}$	- 0.35%/°C
Temperature Coefficient of $V_{OC}$	- 0.28%/°C
Temperature Coefficient of $I_{SC}$	0.048%/°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	1000/1500VDC (IEC)
Max Series Fuse Rating	25A

### PACKAGING CONFIGURATION

Modules per box: 37 pieces
Modules per 40' container: 888 pieces



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

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