

Mono

Monocrystalline

MS(485-510)MB-50H Series

MAXIMUM POWER OUTPUT

MAXIMUM EFFICIENCY

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

Management System



IEC 60068-2-68
Sand test

IEC 62804
1500V PID test

IEC 61701
Salt Spray test
Severity (3)



MS(485-510)MB-50H Series

485-510W



High customer value

- Lower LCOE (Levelized Cost Of Energy), reduced BOS (Balance Of System) cost, shorter payback time
- Lower guaranteed first year and annual degradation
- Designed for compatibility with existing mainstream system components
- Higher return on Investment



High power up to 510W

- Large area cells based on 210mm silicon wafers and 1/3-cut cell technology
- Up to 21.2% module efficiency with high density interconnect technology
- Multi-busbar technology for better light trapping effect, lower series resistance and improved current collection



High reliability

- Minimized micro-cracks with innovative non-destructive cutting technology
- Ensured PID resistance through cell process and module material control
- Resistant to harsh environments such as salt, ammonia, sand, high temperature and high humidity areas
- Mechanical performance up to 5400 Pa positive load and 2400 Pa negative load



High energy yield

- Excellent IAM (Incident Angle Modifier) and low irradiation performance, validated by 3rd party certifications
- The unique design provides optimized energy production under inter-row shading conditions

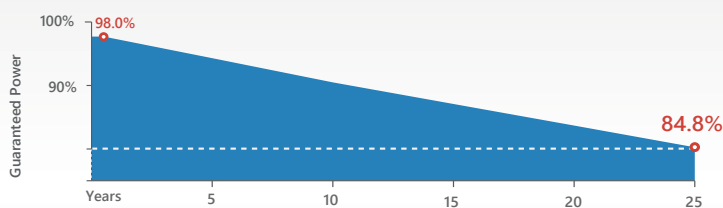


Figure 1 is a line graph showing Power (W) on the Y-axis (ranging from 0 to 550 in increments of 50) versus Voltage (V) on the X-axis (ranging from 0 to 60 in increments of 10). Five curves are plotted, representing different solar irradiance levels: 1000 W/m² (dark blue), 800 W/m² (magenta), 600 W/m² (black), 400 W/m² (light blue), and 200 W/m² (orange). All curves start at (0,0) and show a characteristic peak. The peak power increases with irradiance, and the peak voltage also shifts slightly to higher values as irradiance increases.

Irradiance (W/m²)	Peak Voltage (V)	Peak Power (W)
1000	~42	~500
800	~41	~400
600	~38	~280
400	~35	~180
200	~32	~100

Peak Power Watts-P _{MAX} (Wp)*	485	490	495	500	505	510
Power Tolerance-P _{MAX} (W)	0 ~ +5					
Maximum Power Voltage-V _{MPP} (V)	42.2	42.4	42.6	42.8	43.0	43.2
Maximum Power Current-I _{MPP} (A)	11.49	11.56	11.63	11.69	11.75	11.81
Open Circuit Voltage-V _{OC} (V)	51.1	51.3	51.5	51.7	51.9	52.1
Short Circuit Current-I _{SC} (A)	12.07	12.14	12.21	12.28	12.35	12.42
Module Efficiency η _m (%)	20.1	20.3	20.5	20.7	21.0	21.2

Maximum Power-P _{MAX} (Wp)	365	369	373	377	381	385
Maximum Power Voltage-V _{MPP} (V)	39.9	40.0	40.2	40.4	40.6	40.5
Maximum Power Current-I _{MPP} (A)	9.17	9.22	9.28	9.33	9.38	9.50
Open Circuit Voltage-V _{OC} (V)	48.1	48.2	48.4	48.6	48.8	49.0
Short Circuit Current-I _{SC} (A)	9.73	9.78	9.84	9.90	9.95	10.01

Solar Cells	Monocrystalline
Cell Orientation	150 cells
Module Dimensions	2185×1098×35 mm (86.02×43.22×1.38 inches)
Weight	26.5 kg (58.4 lb)
Glass	3.2 mm (0.13 inches), High Transmission, AR Coated Heat Strengthened Glass
Encapsulant Material	EVA
Backsheet	White
Frame	35 mm (1.38 inches) Anodized Aluminium Alloy
J-Box	IP 68 rated
Cables	Photovoltaic Technology Cable 4.0mm ² (0.006 inches ²), Portrait: N 280mm/P 280mm(11.02/11.02inches) Length can be customized
Connector	MC4

NOCT(Nominal Operating Cell Temperature)	43°C (±2°C)
Temperature Coe'cient of P _{MAX}	- 0.34%/°C
Temperature Coe'cient of V _{oc}	- 0.25%/°C
Temperature Coe'cient of I _{sc}	0.04%/°C

Operational Temperature	-40~+85°C
Maximum System Voltage	1500V DC (IEC)
	1000V DC (IEC)
Max Series Fuse Rating	20A

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

Modules per box: 31 pieces

Modules per 40' container: 620 pieces