

Maysun Solar

Full Black Monocrystalline
PV Module

MS(390-410)MB-40H Series



410W

MAXIMUM POWER OUTPUT

21%

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

Management System



IEC 60068-2-68
Sand test

IEC 62804
1500V PID test

IEC 61701
Salt Spray test
Severity (3)



PRODUCTS

MS(390-410)MB-40H Series

POWER RANGE

390-410W



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 410W

- Large area cells based on 210mm silicon wafers and 1/2-cut cell technology
- Up to 21% module efficiency with high density interconnect technology
- Multi-busbar technology for better light trapping effect, lower series resistance and improved current collection



High reliability

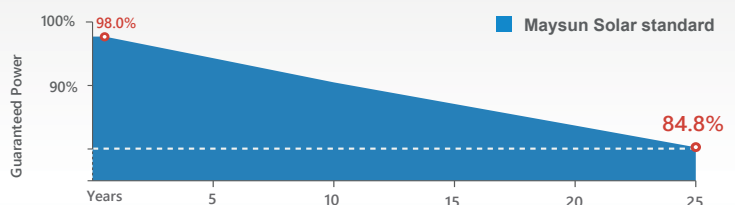
- Minimized micro-cracks with innovative non-destructive cutting technology
- Ensured PID resistance through cell process and module material control
- Resistant to harsh environments such as salt, ammonia, sand, high temperature and high humidity areas
- Mechanical performance up to 5400 Pa positive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



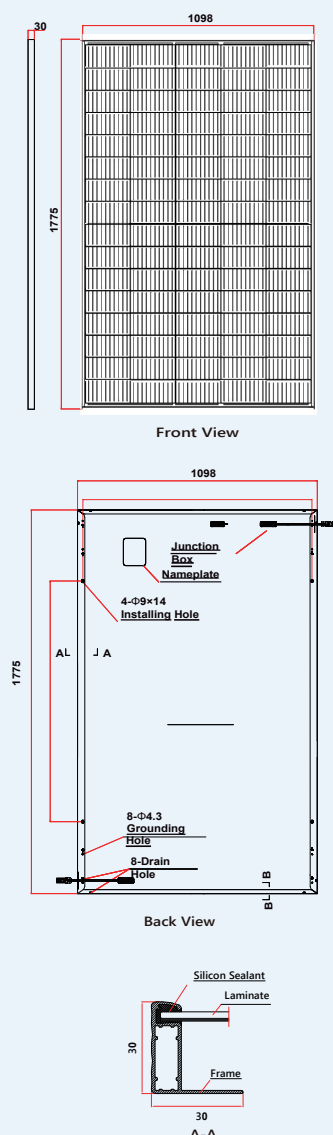
High energy yield

- 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

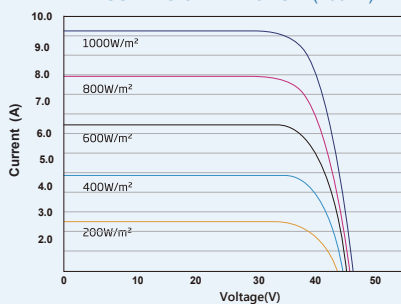
Maysun Solar's Vertex Backsheet Performance Warranty



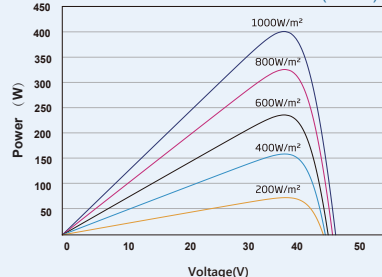
DIMENSIONS OF PV MODULE(mm)



I-V CURVES OF PV MODULE(400W)



P-V CURVES OF PV MODULE(400W)



ELECTRICAL DATA (STC)

| Peak Power Watts- P_{MAX} (Wp)* | 390 | 395 | 400 | 405 | 410 |
|--------------------------------------|--------|-------|------|-------|-------|
| Power Tolerance- P_{MAX} (W) | 0 ~ +5 | | | | |
| Maximum Power Voltage- V_{MPP} (V) | 42.63 | 42.94 | 43.3 | 43.65 | 44.0 |
| Maximum Power Current- I_{MPP} (A) | 9.15 | 9.20 | 9.24 | 9.28 | 9.32 |
| Open Circuit Voltage- V_{OC} (V) | 51.59 | 51.96 | 52.4 | 52.82 | 53.24 |
| Short Circuit Current- I_{SC} (A) | 9.70 | 9.75 | 9.79 | 9.83 | 9.88 |
| Module Efficiency η_m (%) | 20.0 | 20.2 | 20.5 | 20.7 | 21.0 |

STC: Irradiance 1000W/m², Cell Temperature 25°C, Air Mass AM1.5. *Measuring tolerance: ±3%.

ELECTRICAL DATA (NOCT)

| Maximum Power- P_{MAX} (Wp) | 295 | 299 | 302 | 306 | 309 |
|--------------------------------------|------|------|------|------|------|
| Maximum Power Voltage- V_{MPP} (V) | 39.6 | 39.9 | 40.2 | 40.6 | 40.9 |
| Maximum Power Current- I_{MPP} (A) | 7.44 | 7.49 | 7.51 | 7.54 | 7.56 |
| Open Circuit Voltage- V_{OC} (V) | 47.9 | 48.3 | 48.6 | 49.1 | 49.4 |
| Short Circuit Current- I_{SC} (A) | 7.82 | 7.86 | 7.89 | 7.99 | 8.01 |

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

MECHANICAL DATA

| | |
|----------------------|--|
| Solar Cells | Monocrystalline |
| Cell Orientation | 80 cells |
| Module Dimensions | 1775×1098×30mm (69.88×43.22×1.18inches) |
| Weight | 21 kg |
| Glass | 3.2 mm (0.13 inches), High Transmission, AR Coated Heat Strengthened Glass |
| Encapsulant Material | EVA |
| Backsheet | Black |
| Frame | 30 mm (1.18 inches) Black, anodized aluminium alloy |
| J-Box | IP 68 rated |
| Cables | Photovoltaic Technology Cable 4.0mm² (0.006 inches), Portrait: N 700mm/P 700mm(27.55/27.55inches) Length can be customized |
| Connector | MC4 |

*Please refer to regional datasheet for specified connector.

TEMPERATURE RATINGS

| | |
|--|-------------|
| 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 |

MAXIMUM RATINGS

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

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)

PACKAGING CONFIGURATION

| |
|---------------------------------------|
| Modules per box: 37 pieces |
| Modules per 40' container: 988 pieces |



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

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Website: www.maysunsolar.com