

Mono PERC 166mm 144 Cells

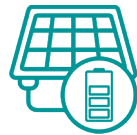
MS(435-460)MB-72H N-Type

435/440/445/450/455/460 WP



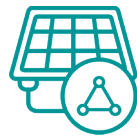
High customer value

- 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



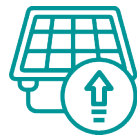
High energy yield

- 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



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
- Class-C fire safety test passed



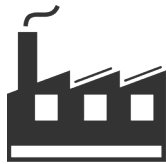
High power up to 460W

- Large area cells based on 166mm N-Type silicon wafers and 1/2-cut cell technology
- Up to 21.1% module efficiency with high density interconnect technology
- Multi-busbar technology for better light trapping effect lower series resistance and improved current collection
- N-type solar cells, lower light-induced attenuation, longer life.

APPLICATIONS >>



On-grid residential roof-tops



On-grid commercial/ industrial roof-tops

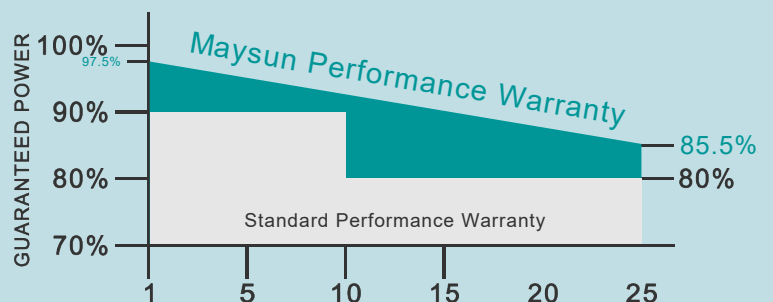


MAXIMUM EFFICIENCY

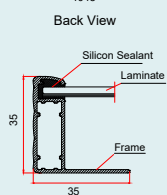
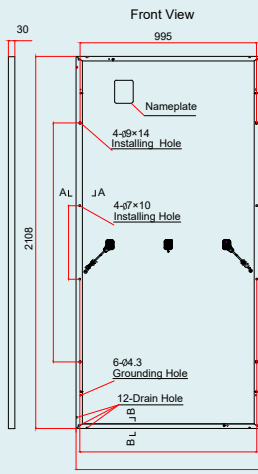
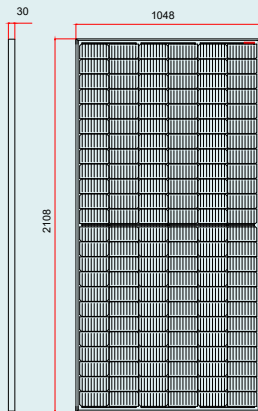
21.1%

POSITIVE POWER TOLERANCE

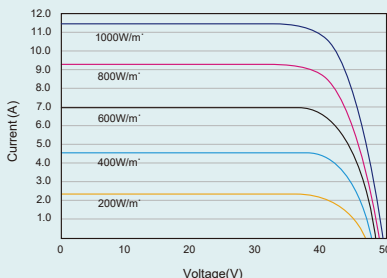
0 ~ +5W



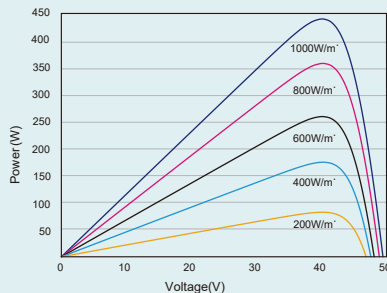
DIMENSIONS OF PV MODULE(mm)



I-V CURVES OF PV MODULE(445W)



P-V CURVES OF PV MODULE(445W)



ELECTRICAL DATA (STC)

Parameter	435	440	445	450	455	460
Peak Power Watts- P_{MAX} (Wp)*	435	440	445	450	455	460
Power Tolerance- P_{MAX} (W)	0 ~ +5					
Maximum Power Voltage- V_{MPP} (V)	40.5	40.7	40.8	41.0	41.2	41.3
Maximum Power Current- I_{MPP} (A)	10.74	10.82	10.90	10.98	11.06	11.13
Open Circuit Voltage- V_{OC} (V)	49.0	49.2	49.4	49.6	49.8	50.0
Short Circuit Current- I_{SC} (A)	11.31	11.39	11.46	11.53	11.61	11.68
Module Efficiency η_m (%)	20.0	20.2	20.4	20.7	20.9	21.1

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

ELECTRICAL DATA (NOCT)

Parameter	328	332	336	340	344	347
Maximum Power- P_{MAX} (Wp)	328	332	336	340	344	347
Maximum Power Voltage- V_{MPP} (V)	38.2	38.4	38.5	38.7	38.9	39.1
Maximum Power Current- I_{MPP} (A)	8.60	8.66	8.71	8.77	8.84	8.89
Open Circuit Voltage- V_{OC} (V)	46.1	46.3	46.5	46.6	46.8	47.0
Short Circuit Current- I_{SC} (A)	9.11	9.18	9.24	9.29	9.36	9.41

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

MECHANICAL DATA

Solar Cells	Monocrystalline
Cell Orientation	144 cells
Module Dimensions	2108 × 1048 × 30 mm (82.99×41.26×1.18 inches)
Weight	24 kg
Glass	3.2 mm (0.13 inches), High Transmission, AR Coated Heat Strengthened Glass
Encapsulant Material	EVA/POE
Backsheet	White
Frame	30 mm(1.18 inches) Silver, anodized aluminium alloy
J-Box	IP 68 rated (3 bypass diodes)
Cables	Photovoltaic Technology Cable 4.0mm ² (0.006 inches ²) Portrait: N 300mm/P 300mm(11.2/11.2 inches) Length can be customized
Connector	MC4 Compatible

*Please refer to regional datasheet for specified connector.

TEMPERATURE RATINGS

NOCT(Nominal Operating Cell Temperature)	43°C (±2°C)
Temperature Coefficient of P_{MAX}	- 0.34%/°C
Temperature Coefficient of V_{OC}	- 0.25%/°C
Temperature Coefficient 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

- 15 year Product Workmanship Warranty
- 25 year Power Warranty
- 2.5% first year degradation
- 0.5% Annual Power Attenuation

*Please refer to product warranty for details.

PACKAGING CONFIGURATION

- Modules per pallet: 37+42 pieces
- Modules per 40' container: 869 pieces



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

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Website: www.maysunsolar.com