

Mono PERC 210mm 144 Cells

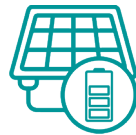
MS(410-435)MB-48H Black Frame

410/415/420/425/430/435 WP



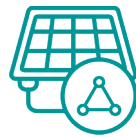
High customer value

- 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



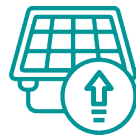
High energy yield

- 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



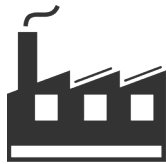
High power up to 435W

- Innovative 210*182 mm rectangular cell, more efficient than conventional square cells
- Up to 21.8% module efficiency with high density interconnect technology
- Multi-busbar technology for better light trapping effect lower series resistance and improved current collection

APPLICATIONS >>



On-grid residential roof-tops



On-grid commercial/ industrial roof-tops

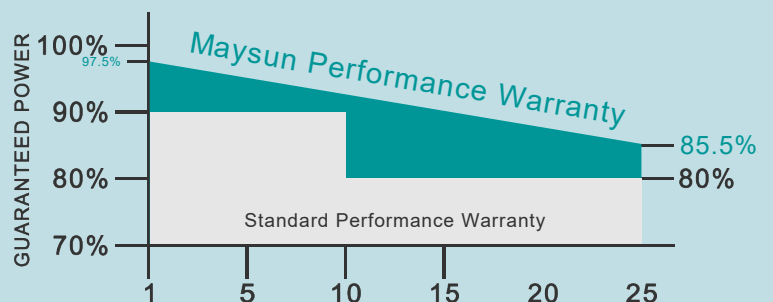


MAXIMUM EFFICIENCY

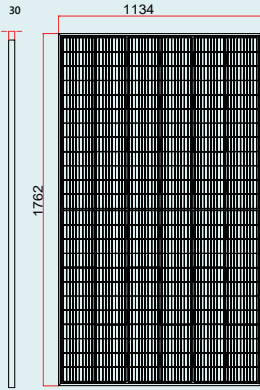
21.8%

POSITIVE POWER TOLERANCE

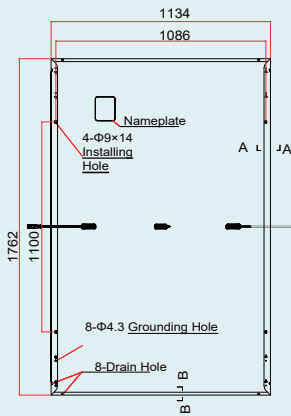
0 ~ +5W



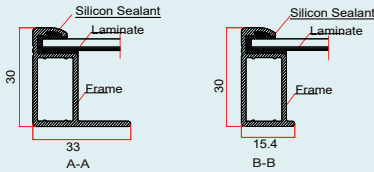
DIMENSIONS OF PV MODULE(mm)



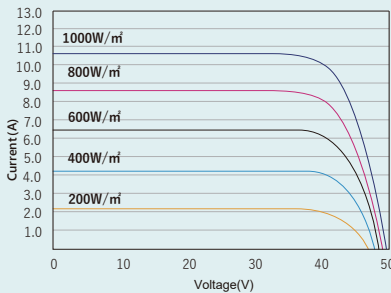
Front View



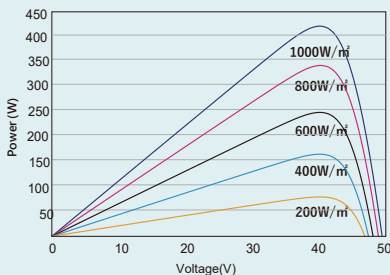
Back View



I-V CURVES OF PV MODULE(420W)



P-V CURVES OF PV MODULE(420W)



ELECTRICAL DATA (STC)

Parameter	410	415	420	425	430	435
Peak Power Watts- P_{MAX} (Wp)*	410	415	420	425	430	435
Power Tolerance- P_{MAX} (W)	0 ~ +5					
Maximum Power Voltage- V_{MPP} (V)	40.8	41.0	41.3	41.5	41.8	42.0
Maximum Power Current- I_{MPP} (A)	10.03	10.11	10.17	10.24	10.30	10.36
Open Circuit Voltage- V_{OC} (V)	49.1	49.4	49.7	49.9	50.3	50.6
Short Circuit Current- I_{SC} (A)	10.64	10.64	10.69	10.74	10.81	10.86
Module Efficiency η_m (%)	19.9	20.8	21.0	21.3	21.5	21.8

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

ELECTRICAL DATA (NOCT)

Parameter	309	313	317	321	325	329
Maximum Power- P_{MAX} (Wp)	309	313	317	321	325	329
Maximum Power Voltage- V_{MPP} (V)	38.2	38.5	38.8	39.1	39.4	39.6
Maximum Power Current- I_{MPP} (A)	8.09	8.13	8.17	8.21	8.26	8.30
Open Circuit Voltage- V_{OC} (V)	46.3	46.5	46.7	46.9	47.3	47.6
Short Circuit Current- I_{SC} (A)	8.54	8.58	8.62	8.66	8.71	8.75

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

MECHANICAL DATA

Solar Cells	Monocrystalline
Cell Orientation	144 cells
Module Dimensions	1762×1134×30 mm (69.37×44.65×1.18 inches)
Weight	21.8 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) black, anodized aluminium alloy
J-Box	IP 68 rated (3 bypass diodes)
Cables	Photovoltaic Technology Cable 4.0mm ² (0.006 inches ²) Portrait: N 350mm/P 350mm(13.7/13.7inches) 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 pieces

Modules per 40' container: 962 pieces



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

© 2023 Maysun Solar All rights reserved. Specifications included in this datasheet are subject to change without notice.

Website: www.maysunsolar.com