

Mono PERC 210mm 100 Cells

MS(495-520)MDG-50H Dual Glass

495/500/505/510/515/520 WP

CORNELL ENERGY

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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

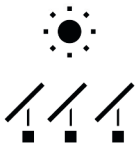
- Minimized micro-cracks with innovative non-destructive cutting technology
- Ensured PID resistance through cell process and module material control
- Resistant to harsh environments such as salt, ammonia, sand, high temperature and high humidity areas
- Mechanical performance up to 5400 Pa positive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



High power up to 520W

- Large area cells based on 210mm silicon wafers and 1/2-cut cell technology
- Up to 21.6% module efficiency with high density interconnect technology
- Multi-busbar technology for better light trapping effect lower series resistance and improved current collection

APPLICATIONS >>



Ground power plants



Commercial/
industrial roof-tops

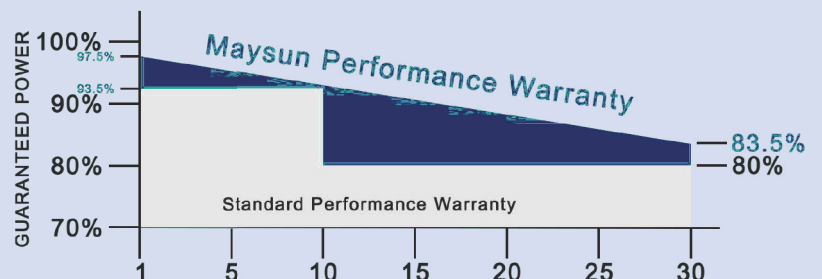


MAXIMUM EFFICIENCY

21.6%

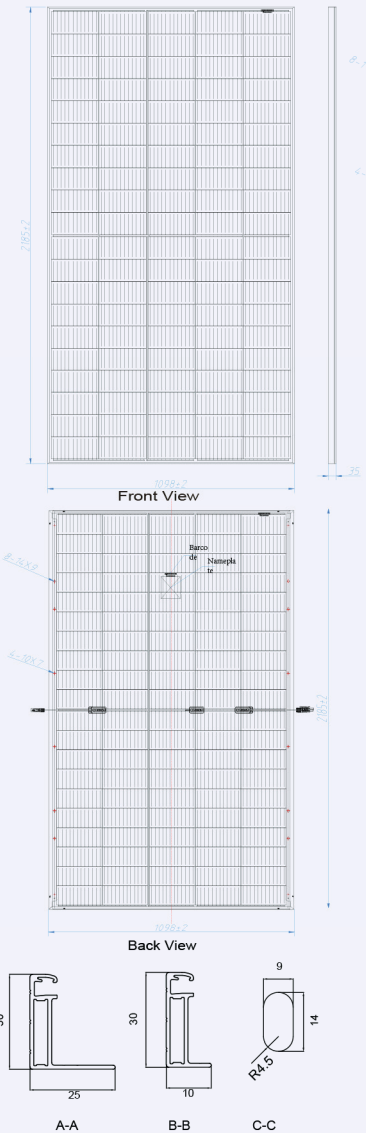
POSITIVE POWER TOLERANCE

0 ~ +5W

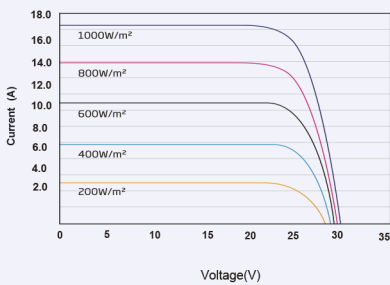


MS(495-520)MDG-50H Dual-Glass

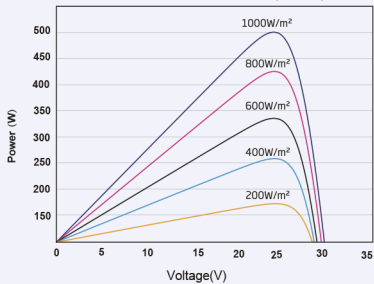
DIMENSIONS OF PV MODULE(mm)



I-V CURVES OF PV MODULE(500W)



P-V CURVES OF PV MODULE(500W)



ELECTRICAL DATA (STC)

Peak Power Watts-P _{MAX} (Wp)*	495	500	505	510	515	520
Power Tolerance-P _{MAX} (W)	0 ~ +5					
Maximum Power Voltage-V _{MPP} (V)	28.6	28.8	29.0	29.2	29.4	29.6
Maximum Power Current-I _{MPP} (A)	17.31	17.36	17.42	17.49	17.57	17.64
Open Circuit Voltage-V _{OC} (V)	34.3	34.5	34.7	34.9	35.1	35.3
Short Circuit Current-I _{SC} (A)	18.47	18.55	18.63	18.71	18.79	18.87
Module Efficiency η _m (%)	20.7	20.9	21.1	21.3	21.5	21.7

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

ELECTRICAL DATA (NOCT)

Maximum Power-P _{MAX} (Wp)	375	379	382	385	388	391
Maximum Power Voltage-V _{MPP} (V)	26.6	26.8	27.0	27.2	27.4	27.6
Maximum Power Current-I _{MPP} (A)	14.09	14.14	14.17	14.20	14.25	14.28
Open Circuit Voltage-V _{OC} (V)	32.3	32.5	32.7	32.9	33.1	33.9
Short Circuit Current-I _{SC} (A)	14.88	14.95	15.01	15.08	15.15	15.21

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

MECHANICAL DATA

Solar Cells	Monocrystalline
Cell Orientation	100 cells
Module Dimensions	2185×1098×30 mm (86.02×43.22×1.18 inches)
Weight	26.5 kg
Front Glass	2.0 mm (0.08 inches), High Transmission, AR Coated Heat Strengthened Glass
Encapsulant Material	EVA/POE
Back Glass	2.0 mm (0.08 inches), Heat Strengthened Glass (White Grid Glass)
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 280mm/P 280mm(11.2/11.2 inches) 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 ^o cient of P _{MAX}	- 0.34%/°C
Temperature Coe ^o cient of V _{OC}	- 0.25%/°C
Temperature Coe ^o 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

15 year Product Workmanship Warranty
30 year Power Warranty
2.5% first year degradation
0.45% Annual Power Attenuation

*Please refer to product warranty for details.

PACKAGING CONFIGUREATION

Modules per pallet: 31 pieces
Modules per 40' container: 740 pieces