



MG MONO BIFACIAL A GRADE 590W

MORE POWER

- Module power up to 590 W
Module efficiency up to 22.84%
- Up to 3.5 % lower LCOE
Up to 5.7 % lower system cost
- Comprehensive LID / LeTID mitigation technology, up to 50% lower degradation
- Better shading tolerance

MORE RELIABLE

- 40 °C lower hot spot temperature, greatly reduce module failure rate
- Minimizes micro-crack impacts
- Heavy snow load up to 5400 Pa, wind load up to 2400 Pa*
- 25 years warranty on products
- 30 years linear power performance warranty

1st year power degradation no more than 2%
Subsequent annual power degradation no more than 0.55%



MANAGEMENT SYSTEM CERTIFICATES*

ISO 9001 :2015/Quality management system
ISO 14001 :2015/Standards for environmental management system
ISO 45001 :2018 /International standards for occupational health & safety
IEC62941 :2019/Photovoltaic module manufacturing quality system



MECHANICAL PARAMETERS

Model	590W
Weight	31.5kg±3%
Dimensions	2279mm*1134mm*30mm
Cell Amount	72*2 (144 pcs)
Maximum System Voltage	1500V
Junction Box	IP68
Frame	Aluminum Alloy
Cable	4mm ² /300mm
Connector	MC4 Compatible
Application Level	Grade A

Cell	590W N type mono
Solar Cells	144pcs (2*72)
Dimension	2279mm×1134×30mm
Weight	31.5kg±3%
Structure	2.0 glass + POE/EPE film + 2.0 glass
frame	Anodized - Aluminum alloy
Junction Box	IP68, 3*bypass diode
Cable Length (Including Connector)	4.0mm ² , (+) 300mm/ (-) 300mm (custom)
Connector	MC4/Compatible with MC4
Mechanical load	Front 5400Pa / Back 2400Pa (Maximum Static Load)

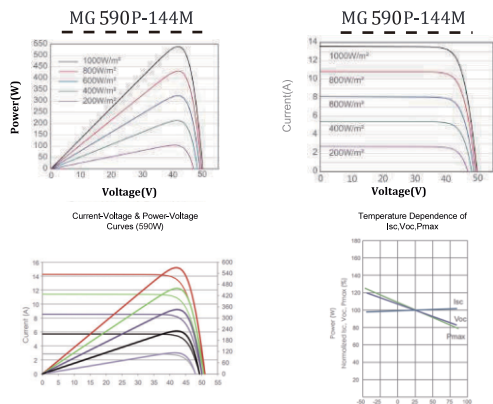
ELECTRICAL PARAMETERS AT STC

Module Type	MG590N-144M	MG590N-144M
Maximum Power (Pmax/W)	590	590
Module Efficiency (%)	22.84%	22.84%
Open Circuit Voltage (Voc/V)	51.6	51.6
Short Circuit Current (Isc/A)	14.34A	14.34A
Voltage at Max.Power (Vmp/V)	43.4V	43.4V
Current at Max.Power (Imp/A)	13.59A	13.59A
Power Tolerance	0~+3%	
STC : Irradiance 1000W/m ² Cell Temperature 25°C AM1.5		

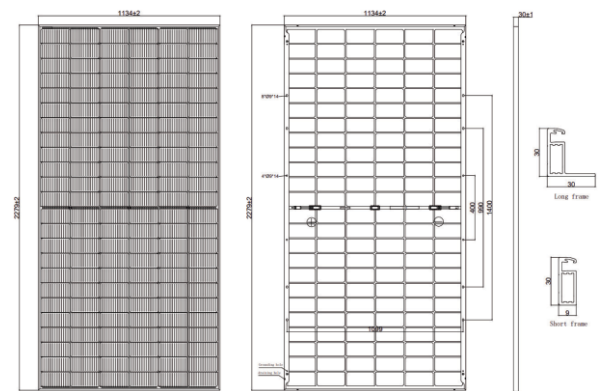
ELECTRICAL PARAMETERS AT NOCT

Module Type	MG590N-144M	MG590N-144M
Maximum Power (Pmax/W)	545W	545W
Open Circuit Voltage (Voc/V)	49.1V	49.1V
Short Circuit Current (Isc/A)	11.61A	11.61A
Voltage at Max. Power (Vmp/V)	40.9A	40.9A
Current at Max. Mower (Imp/A)	10.90A	10.90A
NOCT : Irradiance 800W/m ² Ambient Temperature 20°C Wind at 1m/S AM1.5		

CHARACTERISTICS



MECHANICAL DIAGRAMS



* The specifications and key features contained in this datasheet may deviate slightly from our actual products due to the ongoing innovation and product enhancement. The solar energy is not a constant and it is necessary to adjust to the information described herein at any time without further notice. Please be kindly advised that PV modules should be handled and installed by qualified people who have professional skills and please carefully read the safety and installation instructions before using our PV modules.