

## 120 HALF-CELL MONOFACIAL MODULE

# 580-600W

MSMXXS - D60/Wmh



### Features



#### High module conversion efficiency

Module efficiency up to 21.2% achieved through advanced cell technology and manufacturing process



#### Macsun Solar current sorting process

Up to 2% power loss caused by current mismatch could be diminished by current sorting technique to maximize system power output



#### Excellent weak light performance

More power output in weak light condition, such as cloudy, morning and sunset



#### Lower operating temperature

Lower operating temperature and temperature coefficient increases the power output



#### Extended wind and snow load tests

Module certified to withstand extreme wind (2400 Pascal) and snow loads (5400 Pascal) \*



#### Withstanding harsh environment

Reliable quality leads to a better sustainability even in harsh environment like desert, farm and coastline

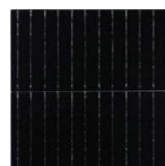
Certifications and standards:  
IEC 61215, IEC 61730, conformity to CE



### Trust Macsun Solar to Deliver Reliable Performance Over Time

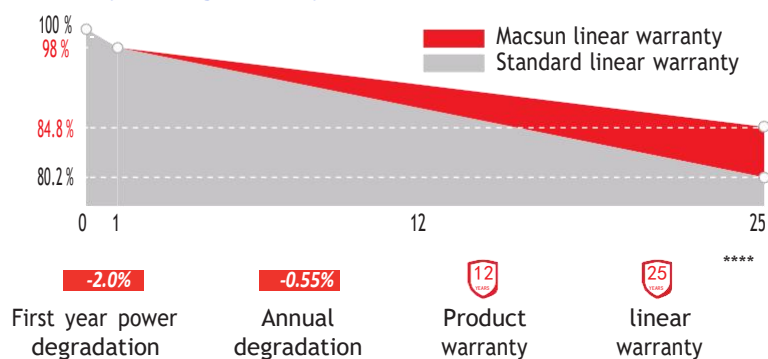
- World-class manufacturer of crystalline silicon photovoltaic modules
- Rigorous quality control meeting the highest international standards: ISO 9001, ISO 14001 and ISO17025
- Regular independently checked production process from international accredited institute/company
- Tested for harsh environments (IEC 61701, IEC 62716, DIN EN 60068-2-68) \*\*\*
- Long-term reliability tests
- 2 × 100% EL inspection ensuring defect-free modules

### HD technology + Half-Cell



Half-cell with MBB design decreases internal resistance while boosts power output; narrowed inter-cell gap through flexible welding technology contributes to the module's compact dimension.

### Industry-leading Warranty based on nominal power



### IP68 Rated Junction Box



The Macsun Solar IP68 rated junction box ensures an outstanding waterproof level, supports installations in all orientations and reduces stress on the cables.

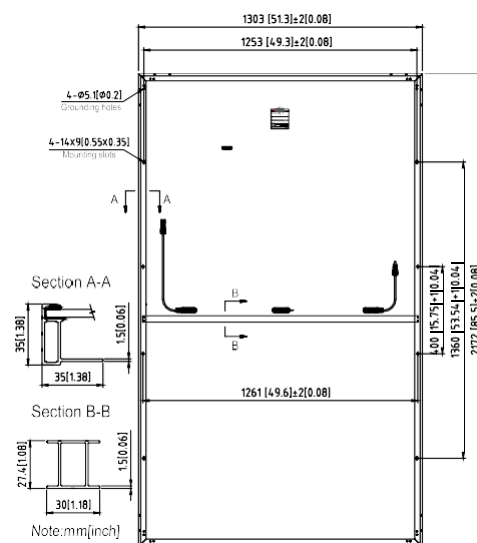
\* Please refer to Macsun Solar Standard Module Installation Manual for details.  
 \*\* WEEE only for EU market. \*\*\* Please refer to Macsun Solar Product Near-coast Installation Guide for details.  
 \*\*\*\* Please refer to Macsun Solar Limited Warranty for details.

STC	MSMXXXS-D60/Wmh				
Maximum Power at STC (Pmax)	600W	595W	590W	585W	580W
Optimum Operating Voltage (Vmp)	34.65V	34.45V	34.25V	34.05V	33.85V
Optimum Operating Current (Imp)	17.32A	17.28A	17.23A	17.19A	17.14A
Open Circuit Voltage (Voc)	41.85V	41.65V	41.45V	41.25V	41.05V
Short Circuit Current (Isc)	18.31A	18.27A	18.22A	18.18A	18.13A
Module Efficiency	21.2%	21.0%	20.8%	20.7%	20.5%
Operating Module Temperature	-40 °C to +85 °C				
Maximum System Voltage	1500 V DC (IEC)				
Maximum Series Fuse Rating	35 A				
Power Tolerance	0/+5 W				

STC: Irradiance 1000 W/m<sup>2</sup>, module temperature 25 °C, AM=1.5;  
Tolerance of Pmax is within +/- 3%;  
For tracker installation, please turn to Macsun Solar for mechanical load information.

NMOT	MSMXXXS-D60/Wmh				
Maximum Power at NMOT (Pmax)	452.5W	448.9W	445.0W	441.4W	437.5W
Optimum Operating Voltage (Vmp)	32.4V	32.2V	32.0V	31.9V	31.7V
Optimum Operating Current (Imp)	13.97A	13.94A	13.89A	13.86A	13.81A
Open Circuit Voltage (Voc)	39.4V	39.2V	39.1V	38.9A	38.7V
Short Circuit Current (Isc)	14.73A	14.70A	14.66A	14.63V	14.59A

NMOT: Irradiance 800 W/m<sup>2</sup>, ambient temperature 20 °C, AM=1.5, wind speed 1 m/s.



### Temperature Characteristics

Nominal Module Operating Temperature (NMOT)	42 ± 2 °C
Temperature Coefficient of Pmax	-0.36%/°C
Temperature Coefficient of Voc	-0.304%/°C
Temperature Coefficient of Isc	0.050%/°C

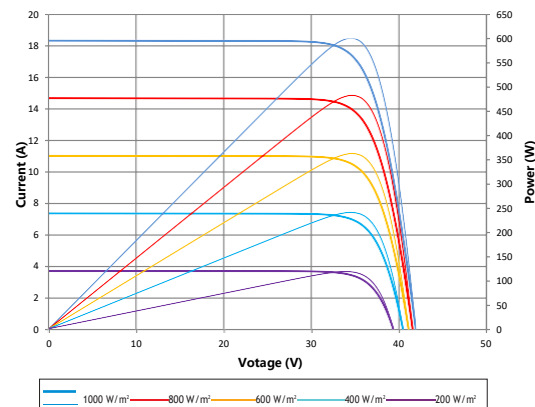
### Mechanical Characteristics

Solar Cell	Monocrystalline silicon 210 mm
No. of Cells	120 (6 × 20)
Dimensions	2172 × 1303 × 35 mm (85.5 × 51.3 × 1.4 inches)
Weight	31.5 kgs (69.4 lbs.)
Front Glass	3.2 mm (0.126 inches)
Frame	Anodized aluminium alloy
Junction Box	IP68 rated (3 bypass diodes)
Output Cables	4.0 mm <sup>2</sup> , Portrait: (-) 350 mm and (+) 160 mm in length or customized length
Connectors	MC4 EVO2, Cable 01S

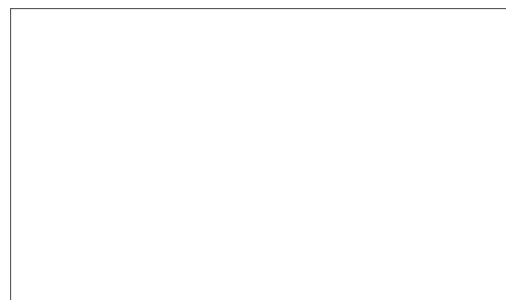
### Packing Configuration

Container	40' HC
Pieces per container	558

### Current-Voltage & Power-Voltage Curve (600S)



### Dealer information



Information on how to install and operate this product is available in the installation instruction. All values indicated in this data sheet are subject to change without prior announcement. The specifications may vary slightly. All specifications are in accordance with standard EN 50380. Color differences of the modules relative to the figures as well as discolorations of/in the modules which do not impair their proper functioning are possible and do not constitute a deviation from the specification.