

# AS-8M120-HC 580W~605W

## MONOCRYSTALLINE MODULE

### ADVANCED PERFORMANCE & PROVEN ADVANTAGES

- High module conversion efficiency up to 21.38% by using innovative Half-cell design and Multi-busbar(MBB) cell technology.
- Low temperature coefficient and excellent performance under high temperature and low light conditions.
- Robust aluminum frame ensures the modules to withstand wind loads up to 2400Pa and snow loads up to 5400Pa.
- High reliability against extreme environmental conditions (passing salt mist, ammonia and hail tests).
- Potential induced degradation (PID) resistance.

### CERTIFICATIONS

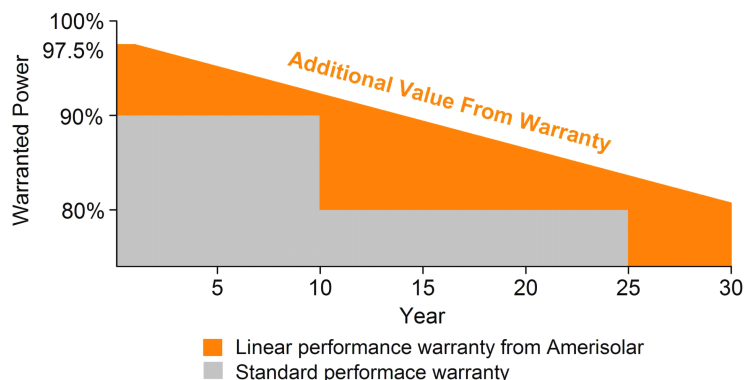
- IEC 61215, IEC 61730, CE
- ISO 9001:2015: Quality management system
- ISO 14001:2015: Environmental management system
- ISO 45001:2018: Occupational health and safety management system



### SPECIAL WARRANTY

- 20 years product warranty
- 30 years linear power output warranty

**Passionately  
committed to  
delivering innovative  
energy solution**



## ELECTRICAL CHARACTERISTICS AT STC

Maximum Power ( $P_{max}$ )	580W	585W	590W	595W	600W	605W
Open Circuit Voltage ( $V_{OC}$ )	40.8V	41.0V	41.2V	41.4V	41.6V	41.8V
Short Circuit Current ( $I_{SC}$ )	18.25A	18.30A	18.35A	18.40A	18.45A	18.50A
Voltage at Maximum Power ( $V_{mp}$ )	33.9V	34.1V	34.3V	34.5V	34.7V	34.9V
Current at Maximum Power ( $I_{mp}$ )	17.11A	17.16A	17.21A	17.25A	17.30A	17.34A
Module Efficiency (%)	20.49	20.67	20.85	21.02	21.20	21.38
Operating Temperature	-40°C to +85°C					
Maximum System Voltage	1000V DC/1500V DC					
Fire Resistance Rating	Type 1(in accordance with UL1703)/Class C(IEC61730)					
Maximum Series Fuse Rating	30A					

STC: Irradiance 1000W/m<sup>2</sup>, Cell temperature 25°C, AM1.5; Tolerance of P<sub>max</sub>: ±3%; Measurement Tolerance: ±3%

## ELECTRICAL CHARACTERISTICS AT NOCT

Maximum Power ( $P_{max}$ )	435W	439W	443W	447W	451W	455W
Open Circuit Voltage ( $V_{OC}$ )	38.4V	38.6V	38.8V	39.0V	39.2V	39.4V
Short Circuit Current ( $I_{SC}$ )	14.78A	14.82A	14.86A	14.90A	14.94A	14.98A
Voltage at Maximum Power ( $V_{mp}$ )	31.4V	31.6V	31.8V	32.0V	32.2V	32.4V
Current at Maximum Power ( $I_{mp}$ )	13.86A	13.90A	13.94A	13.97A	14.01A	14.05A

NOCT: Irradiance 800W/m<sup>2</sup>, Ambient temperature 20°C, Wind Speed 1 m/s

## MECHANICAL CHARACTERISTICS

Cell type	Monocrystalline PERC 210*105mm
Number of cells	120 (6x20)
Module dimensions	2172x1303x35mm (85.51x51.30x1.38inches)
Weight	31kg (68.3lbs)
Front cover	3.2mm (0.13inches) tempered glass with AR coating
Frame	Anodized aluminum alloy
Junction box	IP68, 3 diodes
Cable	4mm <sup>2</sup> (0.006inches <sup>2</sup> ), Portrait: 300mm (11.81inches); Landscape: 1300mm (51.18inches)
Connector	MC4 or MC4 compatible

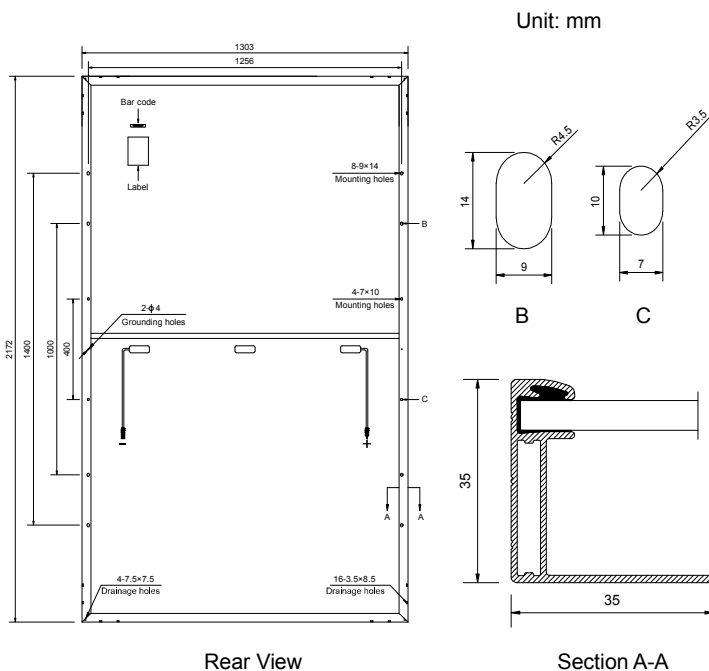
## TEMPERATURE CHARACTERISTICS

Nominal Operating Cell Temperature (NOCT)	43°C±2°C
Temperature Coefficients of $P_{max}$	-0.34%/°C
Temperature Coefficients of $V_{OC}$	-0.26%/°C
Temperature Coefficients of $I_{SC}$	0.05%/°C

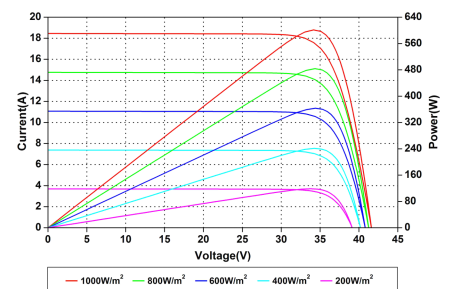
## PACKAGING

Standard packaging	31pcs/pallet
Module quantity per 20' container	155pcs
Module quantity per 40' container	527pcs (HQ)

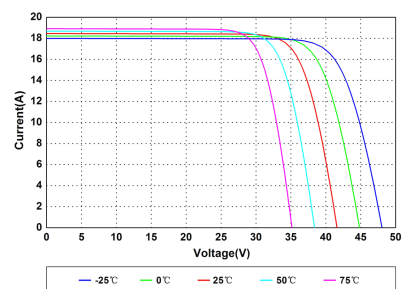
## ENGINEERING DRAWINGS



## IV CURVES



Current-Voltage and Power-Voltage Curves at Different Irradiances



Current-Voltage Curves at Different Temperatures

Specifications in this datasheet are subject to change without prior notice.