

AS-7M120-HC 435W~455W

MONOCRYSTALLINE MODULE

ADVANCED PERFORMANCE & PROVEN ADVANTAGES

- High module conversion efficiency up to 20.99% 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

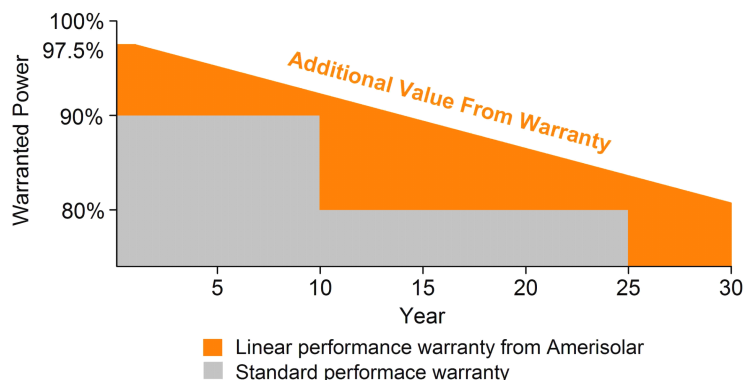
- IEC 61215, IEC 61730, CE
- ISO 9001:2015: Quality management system
- ISO 14001:2015: Environmental management system
- ISO 45001:2018: Occupational health and safety management system



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})	435W	440W	445W	450W	455W
Open Circuit Voltage (V_{OC})	40.8V	41.0V	41.2V	41.4V	41.6V
Short Circuit Current (I_{SC})	13.65A	13.70A	13.75A	13.80A	13.85A
Voltage at Maximum Power (V_{mp})	34.0V	34.2V	34.4V	34.6V	34.8V
Current at Maximum Power (I_{mp})	12.80A	12.87A	12.94A	13.01A	13.08A
Module Efficiency (%)	20.06	20.29	20.52	20.75	20.99
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	25A				

STC: Irradiance 1000W/m², Cell temperature 25°C, AM1.5; Tolerance of P_{max}: ±3%; Measurement Tolerance: ±3%

ELECTRICAL CHARACTERISTICS AT NOCT

Maximum Power (P_{max})	324W	328W	332W	336W	340W
Open Circuit Voltage (V_{OC})	45.1V	45.3V	45.5V	45.7V	45.9V
Short Circuit Current (I_{SC})	11.06A	11.10A	11.14A	11.18A	11.22A
Voltage at Maximum Power (V_{mp})	30.9V	31.1V	31.3V	31.5V	31.7V
Current at Maximum Power (I_{mp})	10.49A	10.55A	10.61A	10.67A	10.73A

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

MECHANICAL CHARACTERISTICS

Cell type	Monocrystalline PERC 182*91mm
Number of cells	120 (6x20)
Module dimensions	1912x1134x35mm (75.28x44.65x1.38inches)
Weight	24kg (52.9lbs)
Front cover	3.2mm (0.13inches) tempered glass with AR coating
Frame	Anodized aluminum alloy
Junction box	IP68, 3 diodes
Cable	4mm ² (0.006inches ²), Portrait: 300mm (11.81inches); Landscape: 1200mm (47.24inches)
Connector	MC4 or MC4 compatible

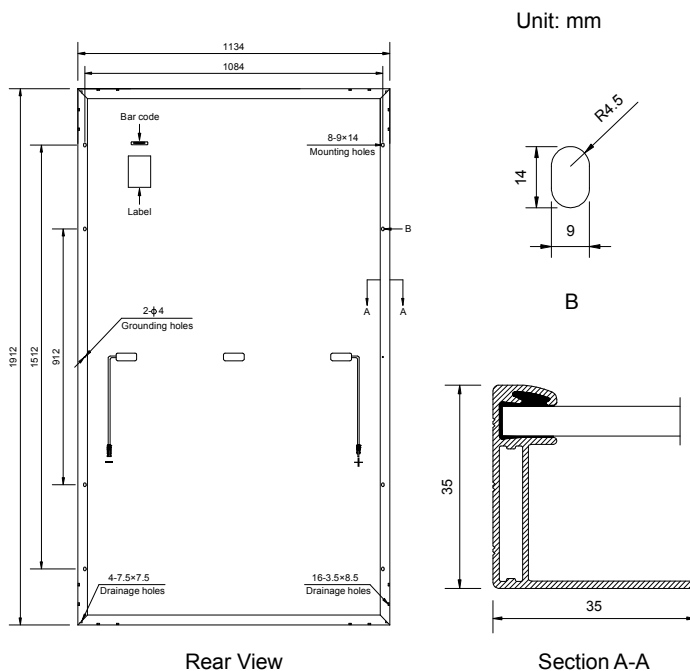
TEMPERATURE CHARACTERISTICS

Nominal Operating Cell Temperature (NOCT)	43°C±2°C
Temperature Coefficients of P_{max}	-0.36%/°C
Temperature Coefficients of V_{OC}	-0.28%/°C
Temperature Coefficients of I_{SC}	0.05%/°C

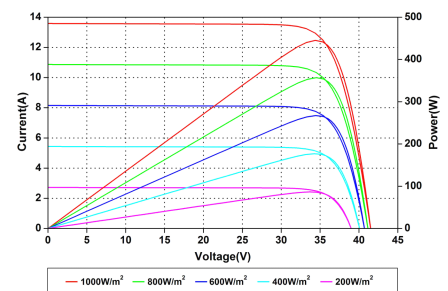
PACKAGING

Standard packaging	31pcs/pallet
Module quantity per 20' container	186pcs
Module quantity per 40' container	744pcs (HQ)

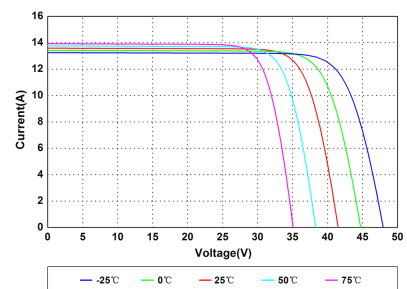
ENGINEERING DRAWINGS



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.