

AS-7M120-HC

460W~480W

N TYPE MONOCRYSTALLINE MODULE

ADVANCED PERFORMANCE & PROVEN ADVANTAGES

- High module conversion efficiency up to 22.16% 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

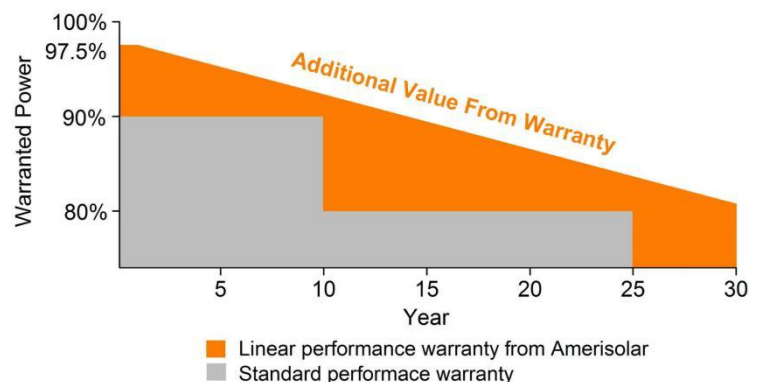
- IEC 61215, IEC 61730, UL 1703, IEC 62716, IEC 61701, IEC TS 62804, CE, CQC
- ISO 9001:2015: Quality management system
- ISO 14001:2015: Environmental management system
- ISO 45001:2018: Occupational health and safety management system



SPECIAL WARRANTY

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

Passionately
committed to
delivering innovative
energy solution



ELECTRICAL CHARACTERISTICS AT STC

Maximum Power (P_{max})	460W	465W	470W	475W	480W
Open Circuit Voltage (V_{oc})	42.05V	42.22V	42.38V	42.54V	42.71V
Short Circuit Current (I_{sc})	13.99A	14.07A	14.15A	14.23A	14.31A
Voltage at Maximum Power (V_{mp})	34.72V	34.89V	35.05V	35.21V	35.38V
Current at Maximum Power (I_{mp})	13.25A	13.33A	13.41A	13.49A	13.57A
Module Efficiency (%)	21.24	21.47	21.70	21.93	22.16
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 Pmax: ±3%; Measurement Tolerance: ±3%

ELECTRICAL CHARACTERISTICS AT NOCT

Maximum Power (P_{max})	346W	350W	353W	357W	361W
Open Circuit Voltage (V_{oc})	39.94V	40.10V	40.25V	40.41V	40.57V
Short Circuit Current (I_{sc})	11.29A	11.36A	11.42A	11.49A	11.55A
Voltage at Maximum Power (V_{mp})	32.60V	32.77V	32.94V	33.10V	33.27V
Current at Maximum Power (I_{mp})	10.61A	10.67A	10.73A	10.79A	10.85A

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

MECHANICAL CHARACTERISTICS

Cell type	N type mono crystalline 182*91mm
Number of cells	120 (6x20)
Module dimensions	1910x1134x35mm
Weight	24kg
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), Length: Portrait: 300mm (11.81inches); Landscape: 1200mm (47.24inches)
Connector	MC4 or MC4 compatible

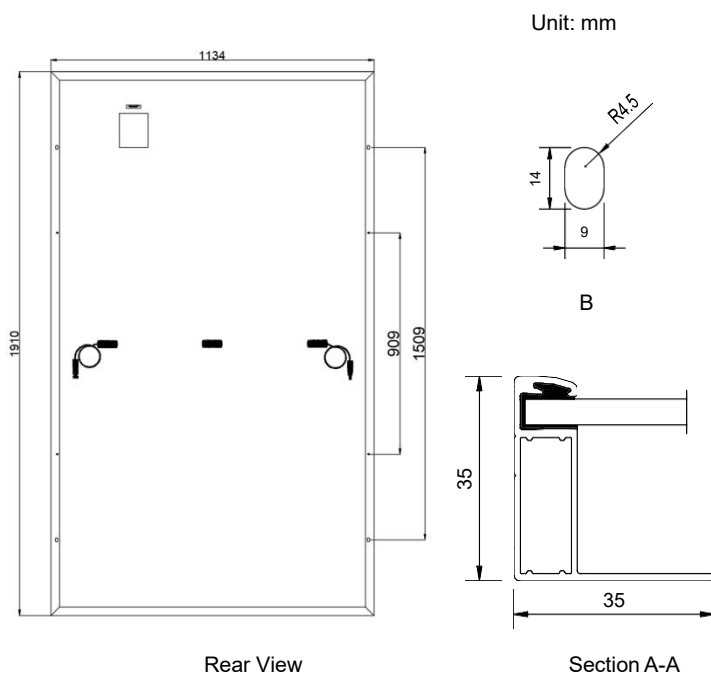
TEMPERATURE CHARACTERISTICS

Nominal Operating Cell Temperature (NOCT)	43°C±2°C
Temperature Coefficients of Pmax	-0.31%/°C
Temperature Coefficients of Voc	-0.26%/°C
Temperature Coefficients of Isc	0.046%/°C

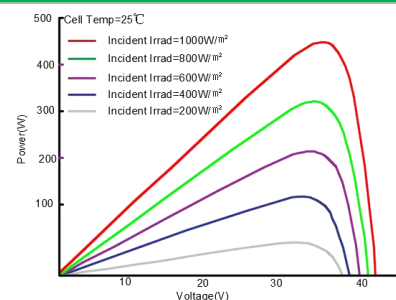
PACKAGING

Standard packaging	31pcs/pallet
Module quantity per 40' container	744pcs

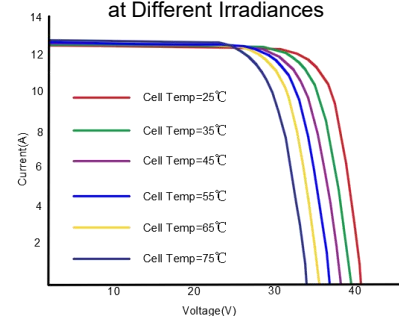
ENGINEERING DRAWINGS



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.