

AS-7M110-HC 400W~420W

MONOCRYSTALLINE MODULE

ADVANCED PERFORMANCE & PROVEN ADVANTAGES

- High module conversion efficiency up to 20.85% 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

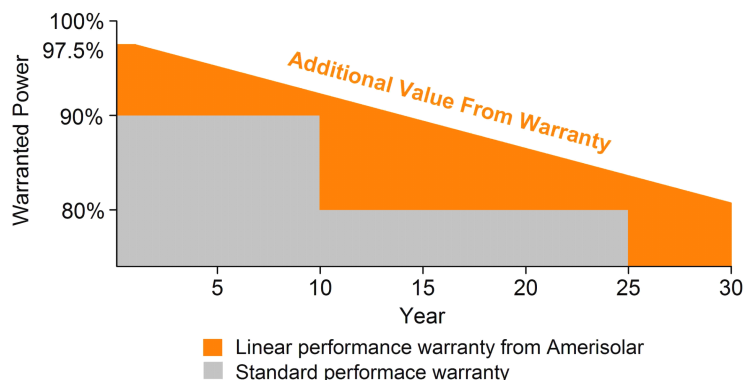
- IEC 61215, IEC 61730, CE
- ISO 9001:2015: Quality management system
- ISO 14001:2015: Environmental management system
- ISO 45001:2018: Occupational health and safety management system



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})	400W	405W	410W	415W	420W
Open Circuit Voltage (V_{OC})	37.4V	37.6V	37.8V	38.0V	38.2V
Short Circuit Current (I_{SC})	13.58A	13.65A	13.72A	13.79A	13.86A
Voltage at Maximum Power (V_{mp})	31.2V	31.4V	31.6V	31.8V	32.0V
Current at Maximum Power (I_{mp})	12.83A	12.90A	12.98A	13.06A	13.13A
Module Efficiency (%)	19.86	20.11	20.36	20.60	20.85
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})	300W	304W	308W	312W	316W
Open Circuit Voltage (V_{OC})	34.4V	34.6V	34.8V	35.0V	35.2V
Short Circuit Current (I_{SC})	11.00A	11.06A	11.12A	11.18A	11.24A
Voltage at Maximum Power (V_{mp})	28.4V	28.6V	28.8V	29.0V	29.2V
Current at Maximum Power (I_{mp})	10.49A	10.56A	10.63A	10.69A	10.75A

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

MECHANICAL CHARACTERISTICS

Cell type	Monocrystalline PERC 182*91mm
Number of cells	110 (5x22)
Module dimensions	2098x960x35mm (82.60x37.80x1.38inches)
Weight	22.5kg (49.6lbs)
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

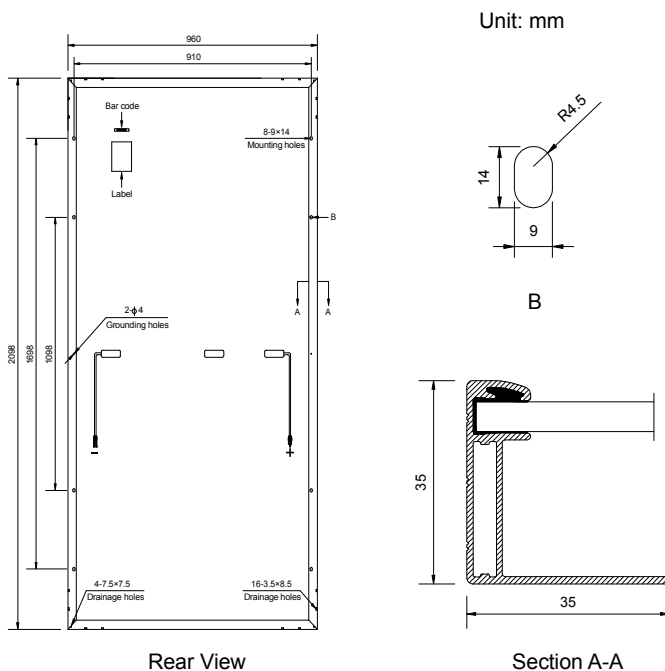
TEMPERATURE CHARACTERISTICS

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

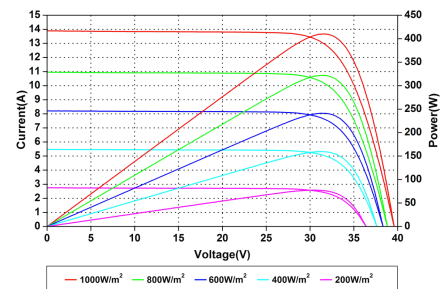
PACKAGING

Standard packaging	31pcs/pallet
Module quantity per 20' container	310pcs
Module quantity per 40' container	682pcs(GP)/748pcs(HQ)

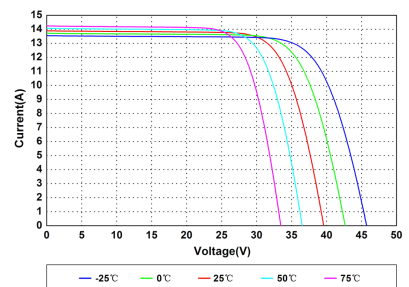
ENGINEERING DRAWINGS



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.