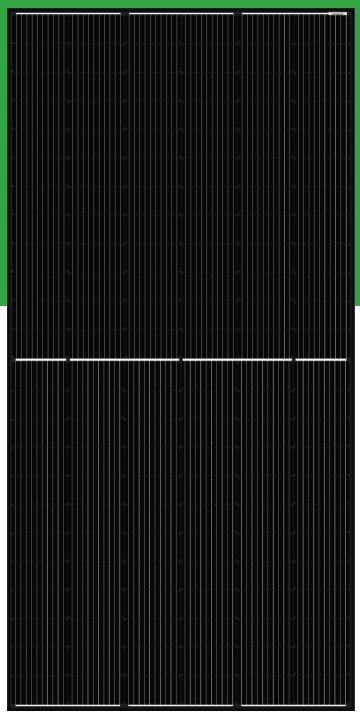
Amerisolar USA | New Energy New World®



AS-7M144-HC BLACK

530W~555W

MONOCRYSTALLINE MODULE

ADVANCED PERFORMANCE & PROVEN ADVANTAGES

- High module conversion efficiency up to 21.48% 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.
- Aesthetically appealing design with black backsheet and frame.

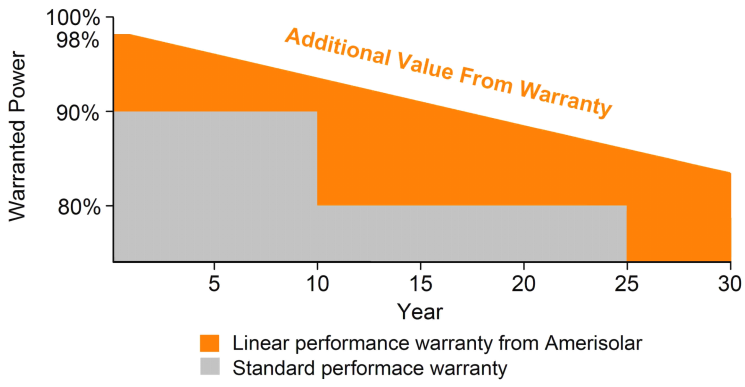
CERTIFICATIONS

- IEC 61215, IEC 61730, IEC 61701, IEC TS 62804, CE, MCS
- 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



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ELECTRICAL CHARACTERISTICS AT STC

Maximum Power (P_{max})	530W	535W	540W	545W	550W	555W
Open Circuit Voltage (V_{OC})	49.2V	49.4V	49.6V	49.8V	50.0V	50.2V
Short Circuit Current (I_{SC})	13.78A	13.82A	13.86A	13.90A	13.94A	13.98A
Voltage at Maximum Power (V_{mp})	41.0V	41.2V	41.4V	41.6V	41.8V	42.0V
Current at Maximum Power (I_{mp})	12.93A	12.99A	13.05A	13.11A	13.16A	13.22A
Module Efficiency (%)	20.51	20.70	20.89	21.09	21.28	21.48
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/m^2, Cell temperature 25°C, AM1.5; Tolerance of Pmax: ±3%; Measurement Tolerance: ±3%

ELECTRICAL CHARACTERISTICS AT NOCT

Maximum Power (P_{max})	395W	399W	403W	407W	411W	415W
Open Circuit Voltage (V_{OC})	45.3V	45.5V	45.7V	45.9V	46.1V	46.3V
Short Circuit Current (I_{SC})	11.16A	11.19A	11.22A	11.25A	11.28A	11.31A
Voltage at Maximum Power (V_{mp})	37.3V	37.5V	37.7V	37.9V	38.1V	38.3V
Current at Maximum Power (I_{mp})	10.59A	10.64A	10.69A	10.74A	10.79A	10.84A

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

MECHANICAL CHARACTERISTICS

Cell type	Monocrystalline PERC 182*91mm
Number of cells	144 (6x24)
Module dimensions	2279x1134x35mm (89.72x44.65x1.38inches)
Weight	27.5kg (60.6lbs)
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: 1300mm (51.18inches)
Connector	MC4 compatible

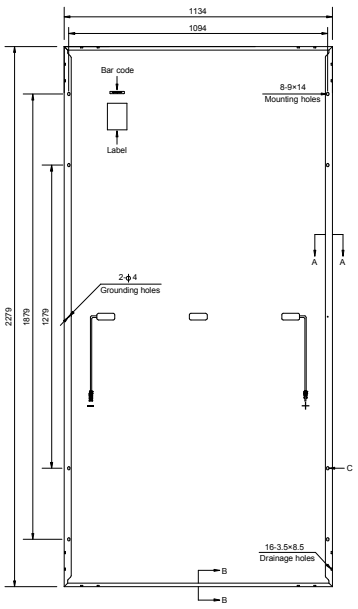
TEMPERATURE CHARACTERISTICS

Nominal Operating Cell Temperature (NOCT)	42°C±2°C
Temperature Coefficients of P_{max}	-0.35%/°C
Temperature Coefficients of V_{OC}	-0.28%/°C
Temperature Coefficients of I_{SC}	0.048%/°C

PACKAGING

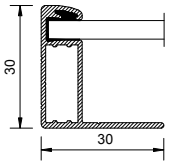
Standard packaging	31pcs/pallet
Module quantity per 20' container	155pcs
Module quantity per 40' container	620pcs (HQ)

ENGINEERING DRAWINGS

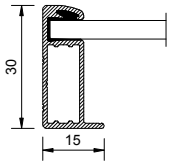


Rear View

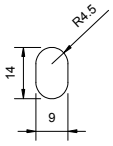
Unit: mm



Section A-A

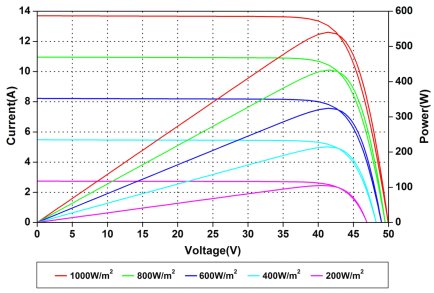


Section B-B

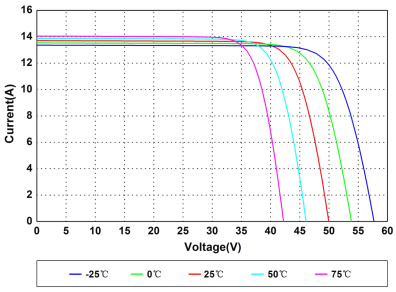


C

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.