

AS-7M144NFL-HC

550W~575W

MONOCRYSTALLINE MODULE

Product Characteristics

- Optimized composite materials, 70% lighter at the same power
- Used advanced organic polymer encapsulation materials, bending radius reach 0.30m, fit all kinds of curved surface perfectly
- Through quickly bonding installation, requires no penetration, eliminates the use of mounting hardware

CERTIFICATIONS

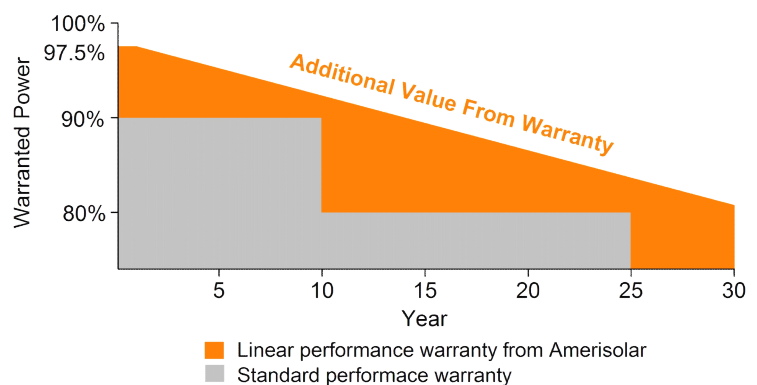
- IEC 61215, IEC 61730
- ISO 9001:2015: Quality management system
- ISO 14001:2015: Environmental management system
- ISO 45001:2018: Occupational health and safety management system



SPECIAL WARRANTY

- 12 years product warranty
- 25 years linear power output warranty

Passionately
committed to
delivering innovative
energy solution



ELECTRICAL CHARACTERISTICS AT STC

Maximum Power (P_{max})	550W	555W	560W	565W	570W	575W
Open Circuit Voltage (V_{OC})	53.79V	53.99V	54.19V	54.39V	54.59V	54.79V
Short Circuit Current (I_{SC})	12.89A	12.92A	12.96A	13.00A	13.04A	13.09A
Voltage at Maximum Power (V_{mp})	45.19V	45.25V	45.29V	45.34V	45.39V	45.44V
Current at Maximum Power (I_{mp})	12.18A	12.27A	12.37A	12.47A	12.56A	12.66A
Module Efficiency (%)	20.46	20.64	20.83	21.01	21.20	21.39
Operating Temperature	-40°C to +85°C					
Maximum System Voltage	1500V DC					
Safety Class	Class II					
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})	414W	418W	422W	426W	430W	434W
Open Circuit Voltage (V_{OC})	50.31V	50.36V	50.40V	50.45V	50.50V	50.55V
Short Circuit Current (I_{SC})	10.40A	10.43A	10.46A	10.49A	10.52A	10.55A
Voltage at Maximum Power (V_{mp})	42.34V	42.40V	42.44V	42.49V	42.54V	42.58V
Current at Maximum Power (I_{mp})	9.79A	9.87A	9.95A	10.03A	10.11A	10.20A

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

MECHANICAL CHARACTERISTICS

Cell type	Monocrystalline TOPCon 182*91.875mm
Number of cells	144(12x12)
Module dimensions	2246x1197x2mm
Weight	10.2kg
Front cover	Lightweight high transparent polymer materials
Junction box	IP68, 3 diodes
Cable	4mm ² , Portrait: 300mm; Customized Length
Connector	MC4 compatible

TEMPERATURE CHARACTERISTICS

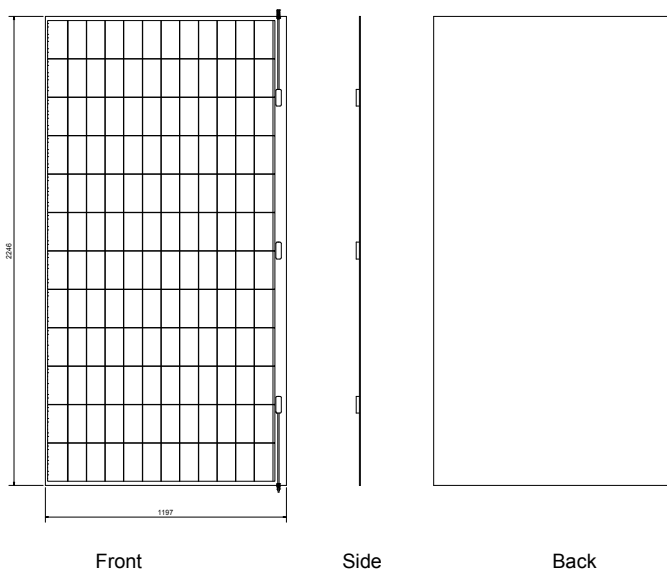
Nominal Operating Cell Temperature (NOCT)	45°C±2°C
Temperature Coefficients of P_{max}	-0.29%/°C
Temperature Coefficients of V_{OC}	-0.26%/°C
Temperature Coefficients of I_{SC}	0.045%/°C

PACKAGING

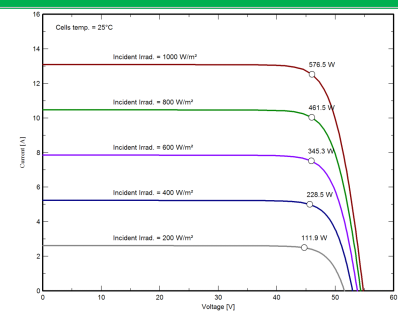
Standard packaging	70pcs/pallet
Module quantity per 20' container	280pcs
Module quantity per 40' container	1190pcs (HQ)

ENGINEERING DRAWINGS

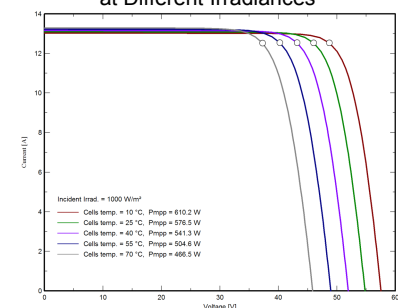
Unit: mm



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.