

AS-7M144N-BHC

550W~575W

N TYPE MONOCRYSTALLINE MODULE

ADVANCED PERFORMANCE & PROVEN ADVANTAGES

- High module conversion efficiency up to 22.25% by using innovative N-type TOPCon cell technology.
- Extremely low LID (light induced degradation) and low annual power degradation ensure higher energy yield during the module's lifetime.
- 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

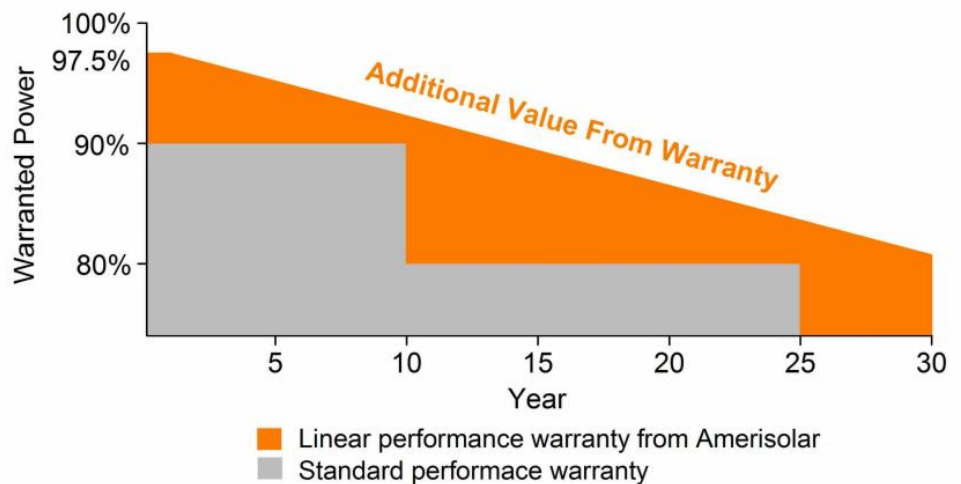
- IEC 61215, IEC 61730, CE
- ISO 9001:2015: Quality management system
- ISO 14001:2015: Environmental management system
- ISO 45001:2018: Occupational health and safety management system



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})	550W	555W	560W	565W	570W	575W
Open Circuit Voltage (V _{oc})	50.0V	50.2V	50.4V	50.6V	50.8V	51.0V
Short Circuit Current (I _{sc})	13.94A	13.99A	14.04A	14.09A	14.14A	14.19A
Voltage at Maximum Power (V _{mp})	41.8V	42.0V	42.2V	42.4V	42.6V	42.8V
Current at Maximum Power (I _{mp})	13.16A	13.22A	13.28A	13.33A	13.39A	13.44A
Module Efficiency (%)	21.28	21.48	21.67	21.86	22.06	22.25
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})	413W	417W	421W	425W	429W	433W
Open Circuit Voltage (V _{oc})	47.5V	47.7V	47.9V	48.1V	48.3V	48.5V
Short Circuit Current (I _{sc})	11.29A	11.33A	11.37A	11.41A	11.45A	11.49A
Voltage at Maximum Power (V _{mp})	39.3V	39.5V	39.7V	39.9V	40.1V	40.3V
Current at Maximum Power (I _{mp})	10.51A	10.56A	10.61A	10.66A	10.70A	10.75A

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

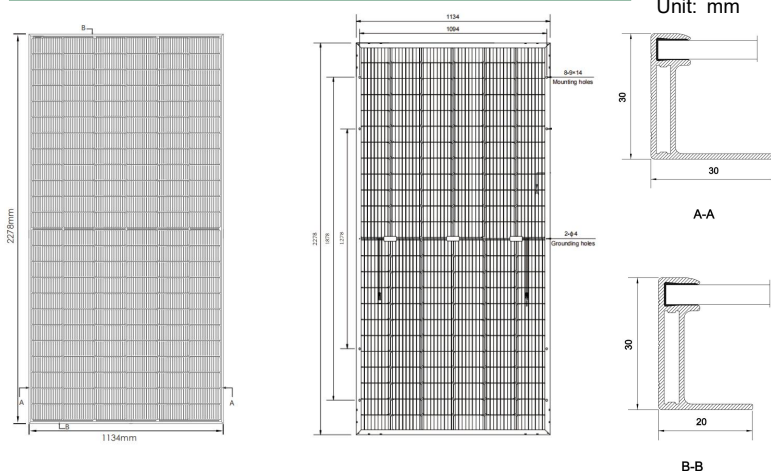
ELECTRICAL CHARACTERISTICS WITH DIFFERENT REAR SIDE POWER GAIN (EXAMPLE: AS-7M144-BHC-560W)						
Power Gain	P _{max}	V _{oc}	I _{sc}	V _{mp}	I _{mp}	
10%	616W	50.4V	15.44A	42.2V	14.60A	
15%	644W	50.4V	16.15A	42.2V	15.27A	
20%	672W	50.4V	16.85A	42.2V	15.93A	
25%	700W	50.4V	17.55A	42.2V	16.59A	
30%	728W	50.4V	18.25A	42.2V	17.26A	

MECHANICAL CHARACTERISTICS	
Cell type	Monocrystalline Bifacial N type 182*91mm
Number of cells	144 (6x24)
Module dimensions	2278x1134x30mm
Weight	32kg
Glass	2mm AR coated tempered glass/2mm tempered glass
Frame	Anodized aluminum alloy
Junction box	IP68, 3 diodes
Cable	4mm ² , Portrait: 300mm ; Landscape: 1300mm
Connector	MC4 or MC4 compatible

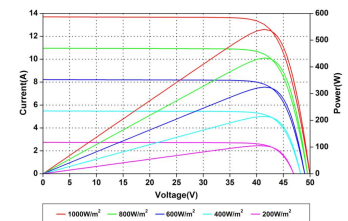
TEMPERATURE CHARACTERISTICS	
Nominal Operating Cell Temperature (NOCT)	42°C±2°C
Temperature Coefficients of P _{max}	-0.30%/°C
Temperature Coefficients of V _{oc}	-0.25%/°C
Temperature Coefficients of I _{sc}	0.05%/°C

PACKAGING	
Standard packaging	36pcs/pallet
Module quantity per 20' container	180pcs
Module quantity per 40' container	720pcs (HQ)

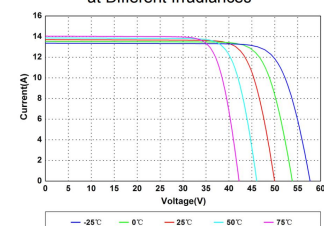
ENGINEERING DRAWINGS



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.