

# AS-7M108N-BHC G12R

## 500W~520W

### MONOCRYSTALLINE MODULE

#### ADVANCED PERFORMANCE & PROVEN ADVANTAGES

- High module conversion efficiency up to 23.40% 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

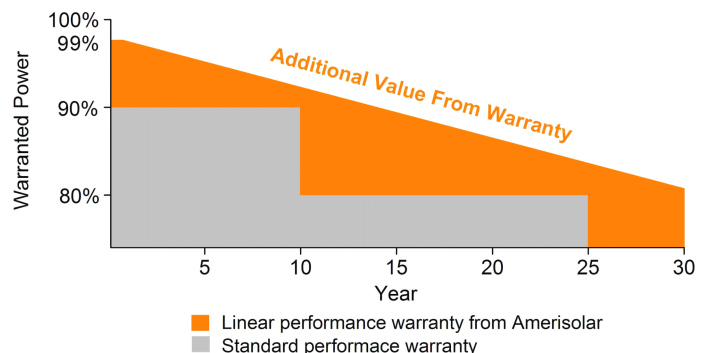


- IEC 61215, IEC 61730, CE
- ISO 9001:2015: Quality management system
- ISO 14001:2015: Environmental management system
- ISO 45001:2018: Occupational health and safety management system

#### 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 (Pmax)	500W	505W	510W	515W	520W
Open Circuit Voltage (VOC)	40.7V	40.9V	41.1V	41.3V	41.5V
Short Circuit Current (ISC)	15.47A	15.53A	15.59A	15.65A	15.71A
Voltage at Maximum Power (Vmp)	34.1V	34.3V	34.5V	34.7V	34.9V
Current at Maximum Power (Imp)	14.67A	14.73A	14.79A	14.85A	14.90A
Module Efficiency (%)	22.50	22.72	22.95	23.17	23.40
Operating Temperature	-40°C to +85°C				
Maximum System Voltage	1000V DC/1500V DC				
Fire Resistance Rating	Class C				
Maximum Series Fuse Rating	30A				

STC: Irradiance 1000W/m<sup>2</sup>, Cell temperature 25°C, AM1.5; Tolerance of Pmax: ±3%; Measurement Tolerance: ±3%

## ELECTRICAL CHARACTERISTICS AT NOCT

Maximum Power (Pmax)	375W	379W	383W	387W	391W
Open Circuit Voltage (VOC)	38.3V	38.5V	38.7V	38.9V	39.1V
Short Circuit Current (ISC)	12.54A	12.59A	12.64A	12.68A	12.72A
Voltage at Maximum Power (Vmp)	31.6V	31.8V	32.0V	32.2V	32.4V
Current at Maximum Power (Imp)	11.87A	11.92A	11.97A	12.02A	12.07A

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

## ELECTRICAL CHARACTERISTICS WITH DIFFERENT REAR SIDE POWER GAIN (EXAMPLE: AS-7M108N-BHC-510W)

Power Gain	P <sub>max</sub>	V <sub>oc</sub>	I <sub>sc</sub>	V <sub>mp</sub>	I <sub>mp</sub>
10%	561W	41.1V	17.11A	34.5V	16.27A
15%	587W	41.1V	17.91A	34.5V	17.02A
20%	612W	41.1V	19.02A	34.5V	17.74A
25%	638W	41.1V	19.45A	34.5V	18.50A
30%	663W	41.1V	20.22A	34.5V	19.22A

## MECHANICAL CHARACTERISTICS

Cell type	Monocrystalline N-type 182*105mm
Number of cells	108 (6x18)
Module dimensions	1960x1134x30mm
Weight	25kg
Front cover	3.2mm tempered glass with AR coating
Frame	Anodized aluminum alloy
Junction box	IP68, 3 diodes
Cable	4mm <sup>2</sup> , Portrait: 300mm; Landscape: 1200mm
Connector	MC4 or MC4 compatible

## TEMPERATURE CHARACTERISTICS

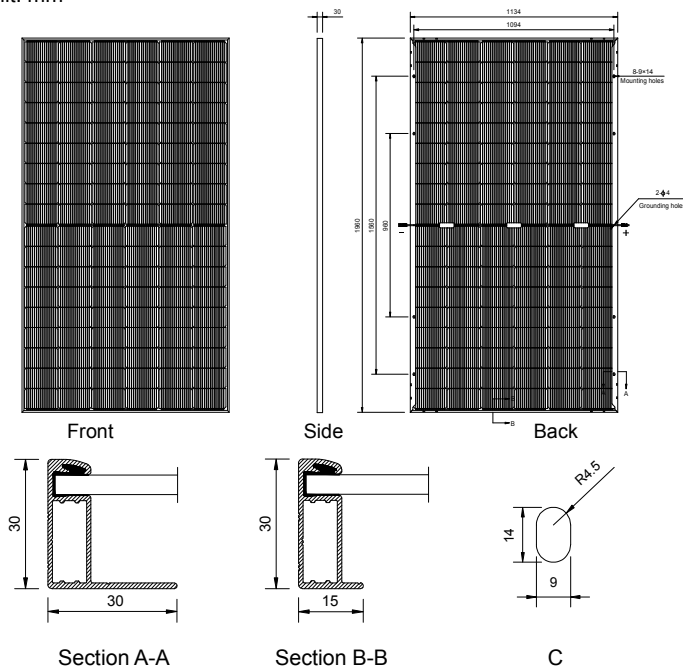
Nominal Operating Cell Temperature (NOCT)	43°C±2°C
Temperature Coefficients of P <sub>max</sub>	-0.30%/°C
Temperature Coefficients of V <sub>oc</sub>	-0.25%/°C
Temperature Coefficients of I <sub>sc</sub>	0.045%/°C

## PACKAGING

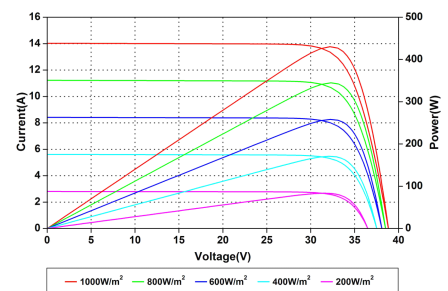
Standard packaging	36pcs/pallet
Module quantity per 20' container	180pcs
Module quantity per 40' container	792pcs(HQ)

## ENGINEERING DRAWINGS

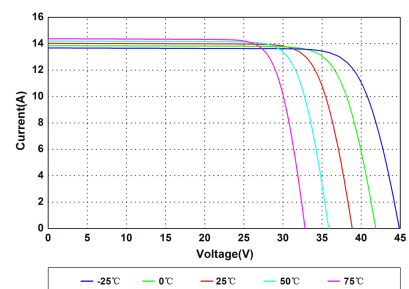
Unit: mm



## 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.