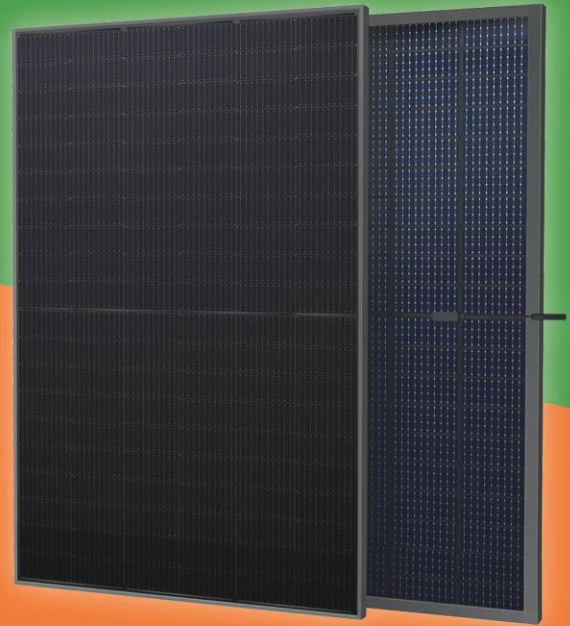




# AS-7M120N-BHC

## BIFACIAL BLACK SOLAR MODULE

### 465W ~ 485W



### ● ADVANCED PERFORMANCE & PROVEN ADVANTAGES

High module conversion efficiency up to 21.26% 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

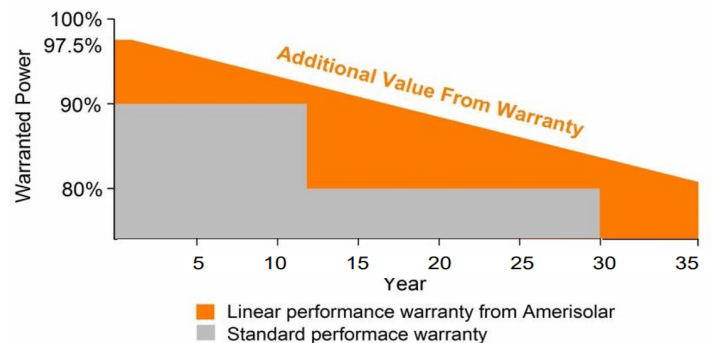
ISO 45001:2018: Occupational health and safety management system

### ● SPECIAL WARRANTY

35 years product warranty

35 years linear power output warranty

## Passionately committed to delivering innovative energy solution



## ELECTRICAL CHARACTERISTICS AT STC

Maximum Power ( $P_{max}$ )	465W	470W	475W	480W	485W
Open Circuit Voltage ( $V_{oc}$ )	42.22V	42.38V	42.54V	42.71V	42.88V
Short Circuit Current ( $I_{sc}$ )	14.07A	14.15A	14.23A	14.31A	14.39A
Voltage at Maximum Power ( $V_{mp}$ )	34.89V	35.05V	35.21V	35.38V	35.54V
Current at Maximum Power ( $I_{mp}$ )	13.33A	13.41A	13.49A	13.57A	13.65A
Module Efficiency (%)	21.7	21.9	22.1	22.3	22.4
Operating Temperature	-40°C to +85°C				
Maximum System Voltage	1500V DC				
Fire Resistance Rating	Type 1(in accordance with UL1703)/Class C(IEC61730)				
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 ( $P_{max}$ )	350W	353W	357W	361W	365W
Open Circuit Voltage ( $V_{oc}$ )	40.10V	40.25V	40.41V	40.57V	40.73V
Short Circuit Current ( $I_{sc}$ )	11.36A	11.42A	11.49A	11.55A	11.61A
Voltage at Maximum Power ( $V_{mp}$ )	32.77V	32.94V	33.10V	33.27V	33.44V
Current at Maximum Power ( $I_{mp}$ )	10.67A	10.73A	10.79A	10.85A	10.92A

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

## ELECTRICAL CHARACTERISTICS WITH DIFFERENT REAR SIDE POWER GAIN (E.G.: AS-7M120N-BHC-485W)

Power Gain	Pmax	Voc	Isc	Vmp	Imp
10%	534W	42.88V	15.83A	35.54V	15.03A
15%	558W	42.88V	16.55A	35.54V	15.71A
20%	582W	42.88V	17.27A	35.54V	16.38A
25%	606W	42.88V	17.99A	35.54V	17.06A
30%	631W	42.88V	18.71A	35.54V	17.76A

## MECHANICAL CHARACTERISTICS

Cell type	Monocrystalline N type 182*91mm
Number of cells	120 (6x20)
Module dimensions	1908x1134x30mm
Weight	26kg
Glass	2.0mm or 1.6mm semi-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

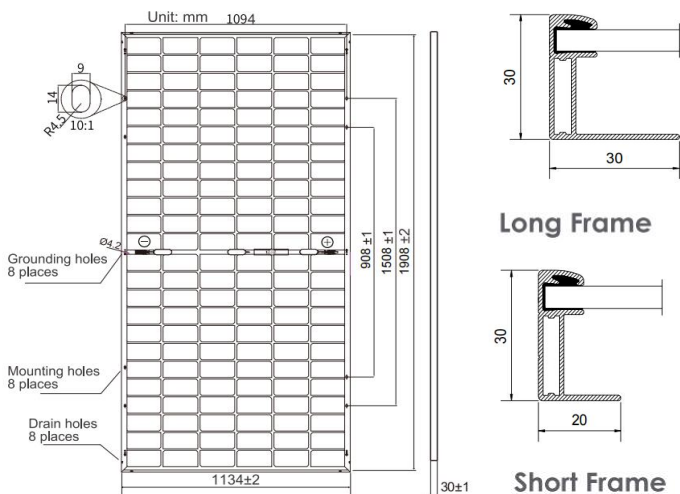
## TEMPERATURE CHARACTERISTICS

Nominal Operating Cell Temperature (NOCT)	45°C±2°C
Temperature Coefficients of $P_{max}$	-0.31%/°C
Temperature Coefficients of $V_{oc}$	-0.26%/°C
Temperature Coefficients of $I_{sc}$	0.046%/°C

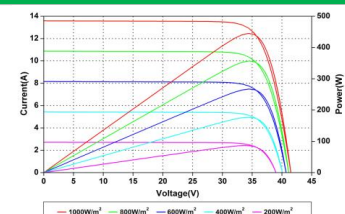
## PACKAGING

Standard packaging	36pcs/pallet
Module quantity per 20' container	216pcs
Module quantity per 40' container	864pcs (HQ)

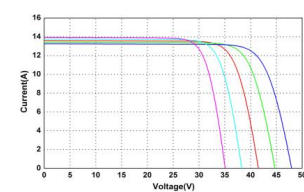
## ENGINEERING DRAWINGS



## IV CURVES



Current-Voltage and Power-Voltage Curves at Different Irradiances



Current-Voltage Curves at Different Temperatures