



# AS-7M108N-BHC

## BIFACIAL BLACK SOLAR MODULE

### 420W ~ 440W



#### ● 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

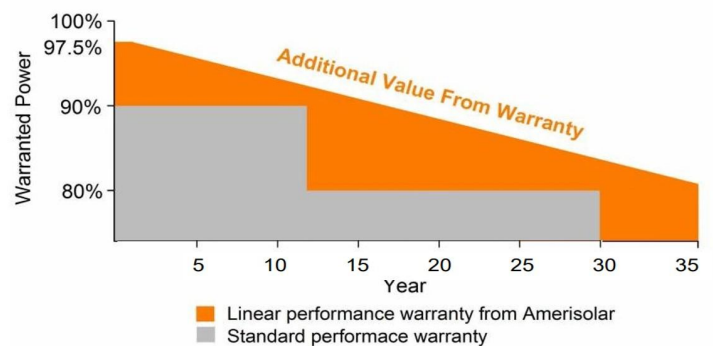
ISO 45001:2018: Occupational health and safety management system

#### ● 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 ( $P_{max}$ )           | 410W  | 415W   | 420W   | 425W   | 430W   | 435W   | 440W   |
| Open Circuit Voltage ( $V_{OC}$ )     | 37.5V   | 37.7V  | 37.9V  | 38.1V  | 38.3V  | 38.5V  | 38.7V  |
| Short Circuit Current ( $I_{SC}$ )    | 13.88A  | 13.96A | 14.04A | 14.11A | 14.18A | 14.25A | 14.32A |
| Voltage at Maximum Power ( $V_{mp}$ ) | 31.6V   | 31.8V  | 32.0V  | 32.2V  | 32.4V  | 32.6V  | 32.8V  |
| Current at Maximum Power ( $I_{mp}$ ) | 12.98A  | 13.06A | 13.13A | 13.20A | 13.28A | 13.35A | 13.42A |
| Module Efficiency (%)                 | 21.0  | 21.3   | 21.5   | 21.8   | 22.0   | 22.3   | 22.5   |
| 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            | 25A   |        |        |        |        |        |        |

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

| ELECTRICAL CHARACTERISTICS AT NOCT    |        |        |        |        |        |        |        |
|---------------------------------------|--------|--------|--------|--------|--------|--------|--------|
| Maximum Power ( $P_{max}$ )           | 311W   | 315W   | 318W   | 322W   | 326W   | 330W   | 334W   |
| Open Circuit Voltage ( $V_{OC}$ )     | 35.8V  | 36.0V  | 36.2V  | 36.4V  | 36.6V  | 36.8V  | 37.0V  |
| Short Circuit Current ( $I_{SC}$ )    | 11.16A | 11.22A | 11.27A | 11.33A | 11.38A | 11.43A | 11.48A |
| Voltage at Maximum Power ( $V_{mp}$ ) | 29.6V  | 29.8V  | 30.0V  | 30.2V  | 30.3V  | 30.5V  | 30.7V  |
| Current at Maximum Power ( $I_{mp}$ ) | 10.51A | 10.56A | 10.62A | 10.67A | 10.74A | 10.82A | 10.88A |

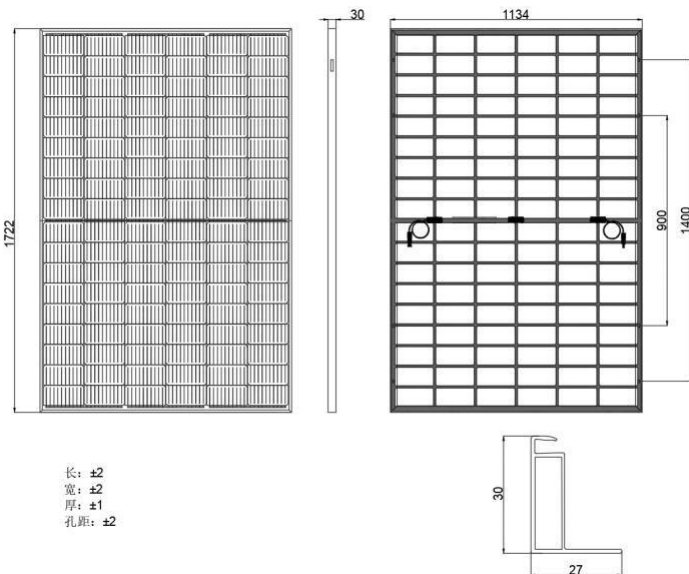
NOCT: Irradiance 800W/m<sup>2</sup>, Ambient temperature 20°C, Wind Speed 1 m/s

| MECHANICAL CHARACTERISTICS |   |
|----------------------------|---|
| Cell type                  | Monocrystalline N type 182*91mm   |
| Number of cells            | 108 (6x18)  |
| Module dimensions          | 1722x1134x30mm (67.80x44.65x1.18inches)   |
| Weight                     | 24kg (52.9lbs)  |
| Glass                      | 2.0mm or 1.6mm tempered glass with AR coating   |
| Frame                      | Black Anodized aluminum alloy   |
| Junction box               | IP68, 3 diodes  |
| Cable                      | 4mm <sup>2</sup> (0.006inches <sup>2</sup> ), Portrait: 300mm (11.78inches);<br>Landscape: 1200mm (47.24inches) |
| Connector                  | MC4 or MC4 compatible   |

| PACKAGING                         |              |
|-----------------------------------|--------------|
| Standard packaging                | 36pcs/pallet |
| Module quantity per 20' container | 216pcs       |
| Module quantity per 40' container | 936pcs (HQ)  |

| TEMPERATURE CHARACTERISTICS                  |            |
|--|------------|
| Nominal Operating Cell Temperature (NOCT)    | 45°C ± 2°C |
| Temperature Coefficients of P <sub>max</sub> | -0.31%/°C  |
| Temperature Coefficients of V <sub>OC</sub>  | -0.26%/°C  |
| Temperature Coefficients of I <sub>SC</sub>  | 0.046%/°C  |

## ENGINEERING DRAWINGS



## IV CURVES

