



# HPBC 2.0

## BSM660M10-72HJD

### 645~665W

#### BLUESUN SOLAR CO.,LTD

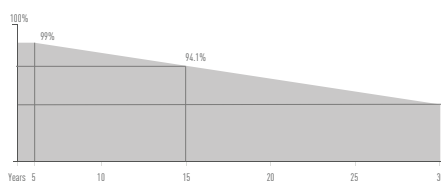
Bluesun, founded in 2004, as a superior photovoltaic manufacturer, is devoted to the R&D and the production of crystalline silicon solar cells and modules for 17 years. The company has its sales areas spread all over more than 100 countries and regions in the world, and the cumulative historical shipments exceeded 12 GW.

#### PERFORMANCE WARRANTY

**15** Enhanced Product Warranty on Materials and Workmanship.

**30** Linear Power Performance Warranty\*

**35** Annual Degradation Over 30 years no more than 0.35%



\*According to the applicable Bluesun Solar Limited Warranty Statement.

#### THE FEATURES:

- Suitable for Distribution Market
- Peak efficiency with top power generation performance
- TaiRay wafer & BC technology enhances high product reliability
- More suitable for industrial and commercial cement roofs and high temperature scenarios

#### MANAGEMENT SYSTEM CERTIFICATES

ISO 9001:2015 / Quality management system

ISO 14001:2015 / Standards for environmental

ISO 45001: 2018 / International standards for occupational health & safety

#### MORE ADVANTAGES:



High efficiency cell: 24.6%



No ribbon on the front  
Enhance oblique light absorption



Back contact welding structure  
Lower cells stress



Low irradiation environment with high power generation performance

#### PRODUCT CERTIFICATES

IEC 61215 / IEC 61730 / CE



| Module Type                                                     |          | BSM645M10-72HJD |       | BSM650M10-72HJD |       | BSM655M10-72HJD                                                                        |       | BSM660M10-72HJD |       | BSM665M10-72HJD |       |
|-----------------------------------------------------------------|----------|-----------------|-------|-----------------|-------|----------------------------------------------------------------------------------------|-------|-----------------|-------|-----------------|-------|
|                                                                 |          | STC             | NMOT  | STC             | NMOT  | STC                                                                                    | NMOT  | STC             | NMOT  | STC             | NMOT  |
| Maximum Power                                                   | (Pmax/W) | 645             | 491   | 650             | 495   | 655                                                                                    | 499   | 660             | 502   | 665             | 506   |
| Operating Voltage                                               | (Vmp/V)  | 44.77           | 42.55 | 44.87           | 42.64 | 44.97                                                                                  | 42.74 | 45.07           | 42.83 | 45.17           | 42.93 |
| Operating Current                                               | (Imp/A)  | 14.41           | 11.55 | 14.49           | 11.61 | 14.57                                                                                  | 11.68 | 14.65           | 11.75 | 14.72           | 11.80 |
| Open-Circuit Voltage                                            | (Voc/V)  | 54.12           | 51.43 | 54.22           | 51.53 | 54.32                                                                                  | 51.62 | 54.42           | 51.72 | 54.52           | 51.81 |
| Short-Circuit Current                                           | (Isc/A)  | 15.06           | 12.10 | 15.14           | 12.16 | 15.22                                                                                  | 12.22 | 15.30           | 12.29 | 15.35           | 12.33 |
| Module Efficiency                                               | ηm(%)    | 23.9            |       | 24.1            |       | 24.2                                                                                   |       | 24.4            |       | 24.6            |       |
| STC: Irradiance 1000W/m², Cell Temperature 25°C, Air Mass AM1.5 |          |                 |       |                 |       | NMOT: Irradiance at 800W/m², Ambient Temperature 20°C, Air Mass AM1.5, Wind Speed 1m/s |       |                 |       |                 |       |

| Power Gain            |          | 5%    | 10%   | 15%   | 20%   | 25%   |
|-----------------------|----------|-------|-------|-------|-------|-------|
| Maximum Power         | (Pmax/W) | 688   | 721   | 755   | 788   | 821   |
| Open-Circuit Voltage  | (Voc/V)  | 54.32 | 54.32 | 54.32 | 54.42 | 54.42 |
| Operating Voltage     | (Vmp/V)  | 44.97 | 44.97 | 45.07 | 45.07 | 45.07 |
| Short-Circuit Current | (Isc/A)  | 15.98 | 16.74 | 17.50 | 18.26 | 19.03 |
| Operating Current     | (Imp/A)  | 15.30 | 16.03 | 16.76 | 17.48 | 18.21 |

Technical drawing of the 1000x2386 mm mesh screen. The drawing includes a top-down view of the grid, a side elevation view showing the mesh texture and dimensions, and three detail views. The side elevation shows a total height of 2386 ± 2 mm, with a central section of 1000 ± 0.5 mm and a bottom section of 400 ± 0.5 mm. The width is 1096 ± 2 mm. Mounting holes are indicated at the top and bottom. Detail views show the mesh structure and mounting hole specifications.

|                          |                                                             |
|--------------------------|-------------------------------------------------------------|
| Cell Type                | HPBC 2.0                                                    |
| Cell Arrangement         | 144 (6*24)                                                  |
| Weight                   | 32.3kg±3%                                                   |
| Module Dimensions        | 2382*1134*30mm                                              |
| Cable Length             | +400mm,-200mm/±1400mm/customizable                          |
| Cable Cross Section Size | TUV: 4mm <sup>2</sup> (0.006inches <sup>2</sup> )/UL: 12AWG |
| Front Glass              | 2.0mm coated semi tempered glass                            |
| Back Glass               | 2.0mm semi-tempered glass                                   |
| No. of Bypass Diodes     | 3                                                           |
| Packing Configuration    | 36pcs/carton, 720pcs/40hq                                   |
| Frame                    | Anodized Aluminium Alloy                                    |
| Junction Box             | IP68                                                        |

|                                                                                                  |                                            |
|--------------------------------------------------------------------------------------------------|--------------------------------------------|
| Maximum System Voltage                                                                           | DC1500V(IEC)                               |
| Operating Temperature                                                                            | -40°C~ +85°C                               |
| Maximum Series Fuse                                                                              | 30A                                        |
| Static Loading                                                                                   | Snow Loading: 5400Pa/ Wind Loading: 2400Pa |
| Hailstone Test                                                                                   | 25mm Hailstone at the speed of 23m/s       |
| Safety Class                                                                                     | II                                         |
| Fire Rating                                                                                      | Class C                                    |
| Backside Output Ratio*                                                                           | 70%±5%                                     |
| *Under STC: Backside Output Ratio = $P_{\text{max}}(\text{rear}) / P_{\text{max}}(\text{front})$ |                                            |

|                              |            |
|------------------------------|------------|
| Temperature Coefficient Pmax | -0.260%/°C |
| Temperature Coefficient Voc  | -0.200%/°C |
| Temperature Coefficient Isc  | +0.050%/°C |
| NMOT                         | 45±2°C     |