



## HJT Solar Module

### KEY FEATURES



Excellent performance in low-light environments



High quality junction box and connector systems



100% inspection, to guarantee the reliability of solar systems



More energy yield from the backside



Stronger water resistance, greater air impermeability to extend module lifespan



Enhanced safety by excellent fire resistance



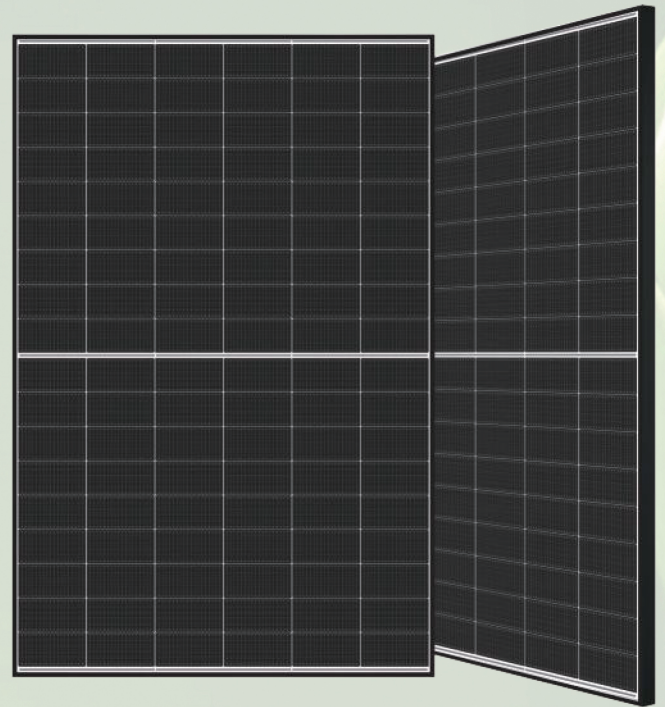
Perfect for sandy, snowy and high latitude regions



Lower operating temperature, more reliable



Cutcell, Less internal power loss, Less mismatch loss



## GSPV-M10/108H-430W-450W 430~450 Watt

182mm 108cells Bifacial HJT Half Cell Double-glass Solar Module

**BLACK**

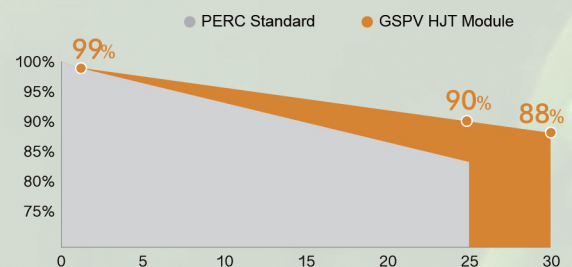
\*BLACK FRAME/BLACK BACK-SHEET PRODUCTS ARE AVAILABLE UPON REQUEST

**15** Years

Product Warranty

**30** Years

Linear Power Warranty

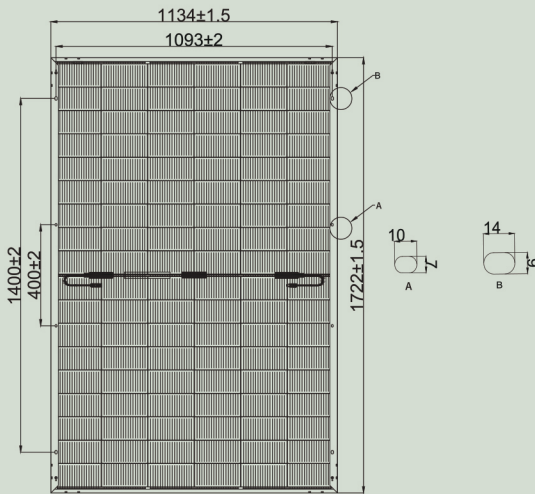


IEC61215  
IEC61730  
UL61215  
UL61730



## Engineering Drawings

Unit: mm



## BSTC\*\*

|                           | (Pmax) | 475W   | 480W   | 485W   | 490W   | 495W   |
|---------------------------|--------|--------|--------|--------|--------|--------|
| Maximum Power             | (Pmax) | 475W   | 480W   | 485W   | 490W   | 495W   |
| Optimum Operating Voltage | (Vmp)  | 33.49V | 33.75V | 34.01V | 34.26V | 34.51V |
| Optimum Operating Current | (Imp)  | 14.18A | 14.23A | 14.27A | 14.31A | 14.35A |
| Open Circuit Voltage      | (Voc)  | 40.30V | 40.56V | 40.83V | 41.09V | 41.34V |
| Short Circuit Current     | (Isc)  | 14.69A | 14.73A | 14.77A | 14.81A | 14.85A |

\*\*BSTC: Front side irradiation 1000W/m<sup>2</sup>, back side reflection irradiation 135W/m<sup>2</sup>, AM=1.5, ambient temperature 25 °C.

## Shipping Configurations

|                             |     |
|-----------------------------|-----|
| Container Size              | HC  |
| Pallets Per Container       | 40' |
| Modules Per Pallet (pcs)    | 26  |
| Modules Per Container (pcs) | 36  |
| Modules Per Container (pcs) | 936 |

## Electrical Characteristics (STC\*)

| Model                           | GSPV-M10/108H-430W | GSPV-M10/108H-435W | GSPV-M10/108H-440W | GSPV-M10/108H-445W | GSPV-M10/108H-450W |
|---------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Maximum Power (Pmax)            | 430W               | 435W               | 440W               | 445W               | 450W               |
| Module Efficiency (%)           | 22.02%             | 22.28%             | 22.53%             | 22.79%             | 23.04%             |
| Optimum Operating Voltage (Vmp) | 33.49V             | 33.75V             | 34.01V             | 34.26V             | 34.51V             |
| Optimum Operating Current (Imp) | 12.84A             | 12.89A             | 12.94A             | 12.99A             | 13.04A             |
| Open Circuit Voltage (Voc)      | 40.30V             | 40.56V             | 40.83V             | 41.09V             | 41.34V             |
| Short Circuit Current (Isc)     | 13.30A             | 13.35A             | 13.40A             | 13.45A             | 13.50A             |
| Operating Module Temperature    | -40 to +85 °C      |                    |                    |                    |                    |
| Maximum System Voltage          | DC1500V (IEC)      |                    |                    |                    |                    |
| Maximum Series Fuse             | 25A                |                    |                    |                    |                    |
| Power Tolerance                 | 0~+5W              |                    |                    |                    |                    |
| Bifaciality                     | 85% ± 5%           |                    |                    |                    |                    |

\*STC: Irradiance 1000 W/m<sup>2</sup>, cell temperature 25 °C, AM=1.5. Tolerance of Pmax is within +/- 3%.

## Temperature Characteristics

|                                     |              |
|-------------------------------------|--------------|
| Nominal Operating Cell Temp. (NOCT) | 44 °C ± 2 °C |
| Temperature Coefficient of Pmax     | -0.26%/°C    |
| Temperature Coefficient of Voc      | -0.24%/°C    |
| Temperature Coefficient of Isc      | 0.04%/°C     |

## Safety & Warranty

|                      |                         |
|----------------------|-------------------------|
| Safety Class         | Class II                |
| Product Warranty     | 15 yrs Workmanship      |
| Performance Warranty | 30 yrs Linear Warranty* |

\* Less than 1% attenuation in the 1st year, the annual attenuation from the 2nd year is no more than 0.375%, and the power is no less than 88% until the 30th year.

## Mechanical Characteristics

|                  |  |
|------------------|--|
| Cell Type        | HJT Mono 182 × 91.75mm   |
| Cell Connection  | 108 (6 × 18)   |
| Module Dimension | 1722 × 1134 × 30 mm  |
| Weight           | 26kg / 22kg  |
| Junction Box     | IP68   |
| Output Cable     | 4mm <sup>2</sup> , 1200mm in length, length can be customized / UV resistant |
| Connectors Type  | MC4 original   |
| Frame            | Anodised aluminum alloy (Black)  |
| Front Load       | 5400 Pa  |
| Rear Load        | 2400 Pa  |
| Glass Thickness  | Double glass, 2.0mm/1.6mm  |