

**BX590T-72HBD**

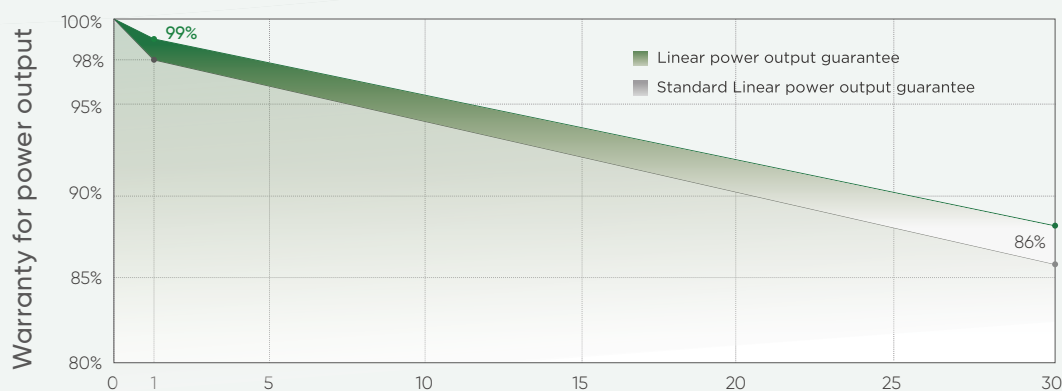
# 580-600W

**N-type TOPCon  
Bifacial Dual Glass  
Solar Module**

## Quality Guarantee

25-year Materials Warranty

30-year Power Warranty



87.4%

**22.84%**

Max Module Eff.

**0~+5W**

Positive Tolerance

### Complete System and Product Certifications

IEC61215/IEC61730

ISO 9001: Quality Management System

ISO 14001: Environmental Management System

ISO 45001: Occupational Health and Safety Management System



Positive power tolerance (0~+5W) guaranteed

High module conversion efficiency (up to 22.84%)

Slower power degradation enabled by Low LID Mono TOPCON technology: first year <1%, 0.40% year 2-30

Solid PID resistance ensured by solar cell process optimization and careful module BOM selection

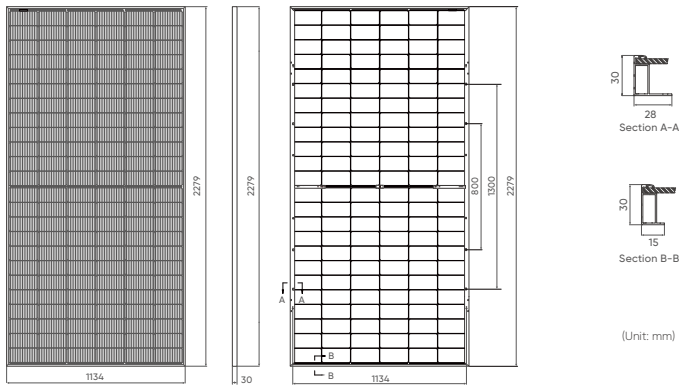
Reduced resistive loss with lower operating current

Higher energy yield with lower operating temperature

Reduced hot spot risk with optimized electrical design and lower operating current



## Design(mm)



|                             |                                                                             |
|-----------------------------|-----------------------------------------------------------------------------|
| <b>Solar Cells</b>          | N-type Mono                                                                 |
| <b>No. of Cells</b>         | 144 (6×24)                                                                  |
| <b>Dimensions</b>           | 2279 × 1134 × 30mm                                                          |
| <b>Weight</b>               | 31.5kg                                                                      |
| <b>Glass</b>                | Front: 2.0mm coated semi-tempered glass;<br>Back: 2.0mm semi-tempered glass |
| <b>Frame</b>                | Anodized aluminium alloy                                                    |
| <b>Junction Box</b>         | Ip68 rated (3 bypass diodes)                                                |
| <b>Output Cables</b>        | 4mm², 300mm (+) / 300mm (-), Length can be customized                       |
| <b>Connectors</b>           | Mc4 compatible                                                              |
| <b>Mechanical load test</b> | 5400Pa                                                                      |
| <b>Packaging</b>            | 36pcs/box, 180pcs/20'GP, 720pcs/40'HQ                                       |

|                                     |                |
|-------------------------------------|----------------|
| <b>Operating Module Temperature</b> | -40°C to +85°C |
| <b>Maximum System Voltage</b>       | 1500 DC (IEC)  |
| <b>Maximum Series Fuse Rating</b>   | 30A            |
| <b>Power Tolerance</b>              | 0/+5W          |

|                                             |            |
|---------------------------------------------|------------|
| <b>Nominal Operating Temperature (NMOT)</b> | 45±2°C     |
| <b>Temperature Coefficient of Pmax</b>      | -0.29%/°C  |
| <b>Temperature Coefficient of Voc</b>       | -0.25%/°C  |
| <b>Temperature Coefficient of Isc</b>       | +0.045%/°C |

## Electrical Parameters(STC\*)

| Module Type                      | 580   | 585   | 590   | 595   | 600   |
|----------------------------------|-------|-------|-------|-------|-------|
| Maximum power (Pmax/W)           | 580   | 585   | 590   | 595   | 600   |
| Open Circuit Voltage (Voc/V)     | 51.57 | 51.72 | 51.87 | 52.02 | 52.17 |
| Short Circuit Current (Isc/A)    | 14.18 | 14.24 | 14.30 | 14.36 | 14.42 |
| Voltage at Maximum power (Vmp/V) | 42.49 | 42.64 | 42.79 | 42.94 | 43.09 |
| Current at Maximum Power (Imp/A) | 13.65 | 13.72 | 13.79 | 13.86 | 13.93 |
| Module Efficiency(%)             | 22.44 | 22.64 | 22.84 | 23.04 | 23.24 |

1. Under Standard Test Conditions (STC) of irradiance of 1000 W/m², spectrum AM 1.5 and cell temperature of 25°C.

## Electrical Parameters(NMOT\*)

| Power (Pmax/W)                | 437   | 440   | 443   | 446   | 449   |
|-------------------------------|-------|-------|-------|-------|-------|
| Open Circuit Voltage (Voc/V)  | 48.99 | 49.14 | 49.33 | 49.52 | 49.71 |
| Short Circuit Current (Isc/A) | 11.40 | 11.42 | 11.44 | 11.46 | 11.48 |
| Maximum power Voltage (Vmp/V) | 39.66 | 39.82 | 39.98 | 40.14 | 40.30 |
| Maximum power Current (Imp/A) | 11.02 | 11.05 | 11.08 | 11.11 | 11.14 |

1. Under Nominal Module Operating Temperature (NMOT), irradiance of 800 W/m², spectrum AM 1.5, ambient temperature 20°C, wind speed 1 m/s.

## Electrical Parameters(At 10% Bifacial Power Output)

| Output Power (Pmax/W)         | 638   | 644   | 650   | 656   | 662   |
|-------------------------------|-------|-------|-------|-------|-------|
| Open Circuit Voltage (Voc/V)  | 51.57 | 51.72 | 51.97 | 52.22 | 52.47 |
| Short Circuit Current (Isc/A) | 15.69 | 15.77 | 15.85 | 15.93 | 16.01 |
| Maximum power Voltage (Vmp/V) | 42.48 | 42.62 | 42.76 | 42.90 | 43.04 |
| Maximum power Current (Imp/A) | 15.02 | 15.11 | 15.20 | 15.29 | 15.38 |