

# TRANSFORMING THE POWER OF SUN



## NEXT GEN **TOPCON** BIFACIAL SOLAR PV MODULE 585-600 Wp DUAL GLASS

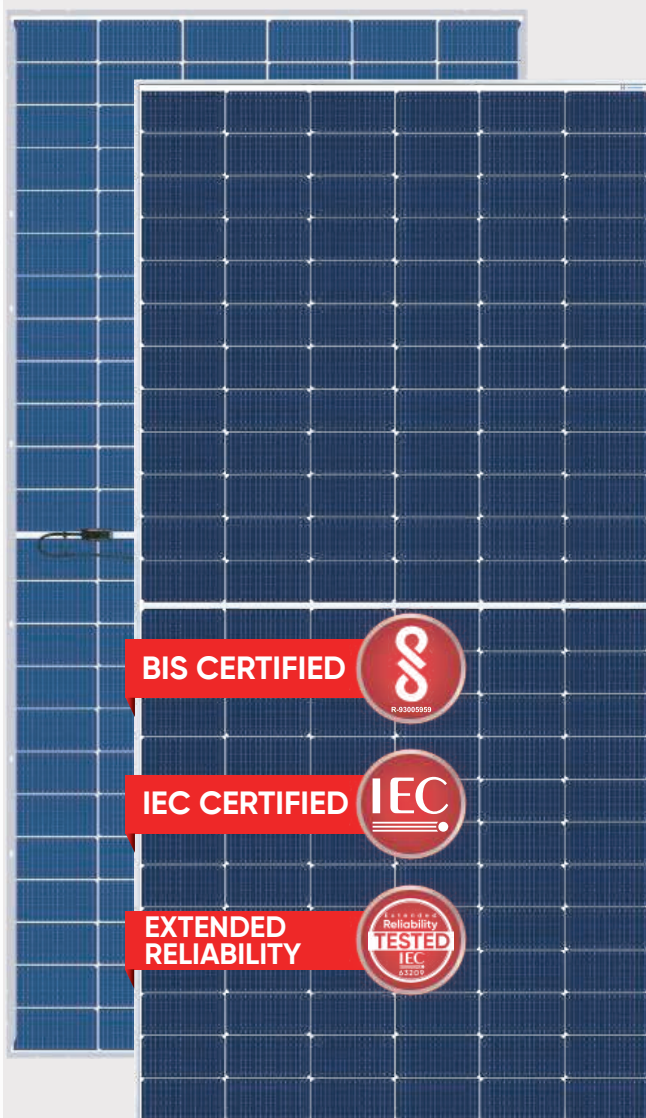
Best in Class Efficiency **23.25%**

High Efficiency **N-Type TOPCon** Cells  
Bifacial Module with Dual Glass

**Non-Destructive Cell Cutting (NDC)**

### FEATURES

-  **Lower LID & Per Year Degradation** - Enhanced Power Generation Using TOPCon Technology
-  **Better Rear Power Gain** - Higher Bifaciality Factor of 80±5%
-  **Improved Temperature Coefficients** as compared to conventional P-Type Technology - Better Generation at Higher Temperature
-  **Half Cut Cell Design** - Excellent Performance Under Partial Shading Conditions
-  **Lower LCOE & Faster ROI** - Higher Bifaciality, Lower BOS Cost
-  **Excellent Module Performance** - Reduced Resistive Loss with MBB Technology
-  **Manufactured in Fully Automatic Production Line** - 100% Inline Hi-Pot and EL Testing at 3 Stages
-  **Meeting Highest Quality Standards** - Manufactured Using Certified Tier 1 BOM
-  **Excellent Performance Under Low Light** - Higher Power Output on Cloudy or Foggy Days
-  **Bifacial gain of Up To 25% with Dual Glass Module**, capable of energy generation with both direct and reflected sunlight.



#### Approvals and Certificates :

IEC 61215, IEC 61730 (I & II), IEC 61853, IEC 62804, IEC 60068, IEC 61701, IEC 62716, IEC 63209, IS 14286 (BIS), ISO 9001:2015, 14001:2015, 45001:2018 certified





## TOPCON SOLAR PV MODULES WITH DUAL GLASS

**585-600Wp**



### ELECTRICAL DATA - STC\* & NOCT\*\*

| Model                      | Unit | JN-585G  |       | JN-590G |       | JN-595G |       | JN-600G |       |
|----------------------------|------|----------|-------|---------|-------|---------|-------|---------|-------|
| Parameters                 |      | STC      | NOCT  | STC     | NOCT  | STC     | NOCT  | STC     | NOCT  |
| Capacity rating Wp         | Pmax | 585      | 442   | 590     | 446   | 595     | 450   | 600     | 454   |
| Max. Power Voltage in V    | Vmp  | 44.09    | 41.52 | 44.23   | 41.65 | 44.37   | 41.78 | 44.52   | 41.92 |
| Max. Power Current in A    | Imp  | 13.27    | 10.65 | 13.34   | 10.71 | 13.41   | 10.76 | 13.48   | 10.82 |
| Open Circuit Voltage in V  | Voc  | 52.57    | 50.01 | 52.72   | 50.16 | 52.88   | 50.31 | 53.03   | 50.45 |
| Short Circuit Current in A | Isc  | 14.05    | 11.24 | 14.10   | 11.28 | 14.16   | 11.33 | 14.22   | 11.38 |
| Module Efficiency          | %    | 22.67    |       | 22.86   |       | 23.05   |       | 23.25   |       |
| Power Tolerance            | Wp   | -0/+4.99 |       |         |       |         |       |         |       |

\*STC: Irradiance 1000 W/m<sup>2</sup>, cell temperature 25°C, Air Mass AM 1.5 according to EN 60904-3. Average efficiency reduction of 4.5 % at 200 W/m<sup>2</sup> according to EN 60904-1. Measurement uncertainty ±3%

\*\*NOCT irradiance 800 W/m<sup>2</sup>, ambient temperature 20°C, wind speed 1 m/sec.

### BI-FACIAL OUTPUT - REAR SIDE POWER GAIN\*

|                    |                       | JN-585G | JN-590G | JN-595G | JN-600G |
|--------------------|-----------------------|---------|---------|---------|---------|
| 10%                | Power Output (W)      | 644     | 649     | 655     | 660     |
|                    | Module Efficiency (%) | 24.95   | 25.15   | 25.38   | 25.57   |
| 15%                | Power Output (W)      | 673     | 679     | 684     | 690     |
|                    | Module Efficiency (%) | 26.08   | 26.31   | 26.50   | 26.73   |
| 20%                | Power Output (W)      | 702     | 708     | 714     | 720     |
|                    | Module Efficiency (%) | 27.20   | 27.43   | 27.66   | 27.90   |
| 25%                | Power Output (W)      | 731     | 738     | 744     | 750     |
|                    | Module Efficiency (%) | 28.32   | 28.59   | 28.83   | 29.06   |
| Bifaciality Factor |                       | 80±5%   |         |         |         |

\*Bifaciality gain is dependent on various factors (Ground Reflectance, Tilt Angle, Location, etc.)

### MECHANICAL DATA

|                          |                                                                                                                           |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Dimensions (L x W x H)   | MM: 2278 x 1133 x 35   IN: 89.68 x 44.60 x 1.37                                                                           |
| Weight                   | 32 kgs   70.55 lbs (±2%)                                                                                                  |
| Junction Box             | Split JB, IP 68 with 3 bypass diodes                                                                                      |
| Cable                    | Solar Cable 4.0 mm <sup>2</sup> / 0.006 in <sup>2</sup> , 400 mm / 15.75 in<br>(Higher cable option available on request) |
| Front Superstrate        | 2.0 mm / 0.079 in, High Transmission, AR coated                                                                           |
| Solar Cells              | N-Type TOPCon - M10 (144 pcs Half Cut)                                                                                    |
| Cell Encapsulation       | PID & UV Resistant Coextruded (POE)                                                                                       |
| Back Substrate           | 2.0 mm / 0.079 in, Heat Strengthened Glass (Optional White Grid)                                                          |
| Frame                    | Anodized Aluminium Alloy                                                                                                  |
| Mechanical Load Strength | 5400 Pa (Snow Load), 2400 Pa (Wind Load)                                                                                  |

### TEMPERATURE RATINGS

|                                           |             |
|-------------------------------------------|-------------|
| Nominal Operating Cell Temperature (NOCT) | 45°C (±2°C) |
| Temperature Coefficient of Voc(β)         | -0.25%/°C   |
| Temperature Coefficient of Isc(α)         | 0.046%/°C   |
| Temperature Coefficient of Pmax(γ)        | -0.30%/°C   |

### PERMISSIBLE OPERATING CONDITIONS

|                         |                |
|-------------------------|----------------|
| Temperature Range       | -40°C to +85°C |
| Maximum System Voltage  | 1500 V DC      |
| Max. Series Fuse Rating | 30 A           |

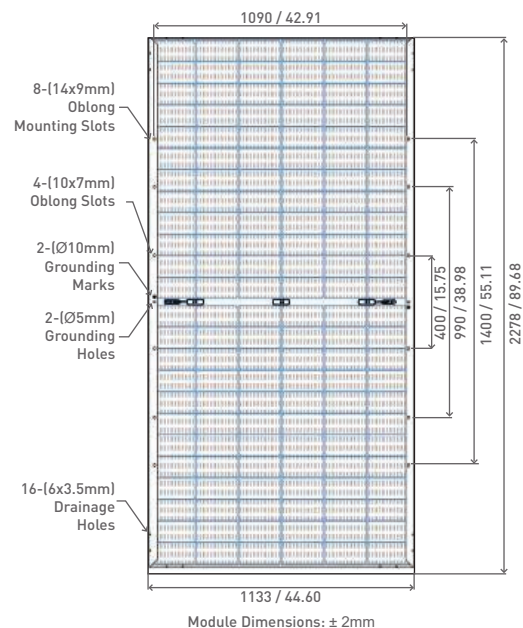
### WARRANTY AND CERTIFICATIONS

|                       |                                     |
|-----------------------|-------------------------------------|
| Product Warranty      | 12 years Product Warranty           |
| Performance Guarantee | 30 year Linear Performance Warranty |

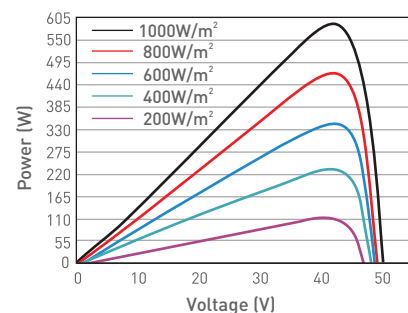
### PACKAGING CONFIGURATION

|                    |      |      |
|--------------------|------|------|
| Vehicle Type       | 32FT | 40FT |
| Module per Pallet  | 28   | 28   |
| Module per Vehicle | 420  | 560  |

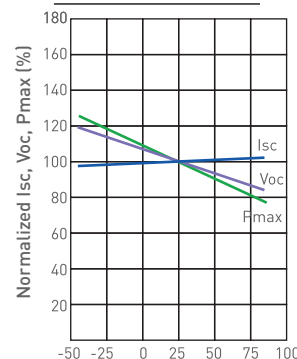
Dimension of PV Module  
Unit: mm / in



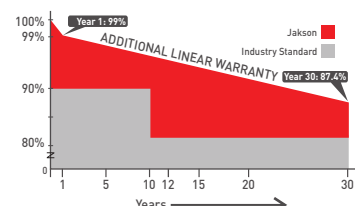
Power-Voltage Curve



Cell Temperature (°C)



Linear Performance Warranty



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