

# TRANSFORMING THE POWER OF SUN













## NEXT GEN **TOPCON** BIFACIAL SOLAR PV MODULE **575-590 Wp**

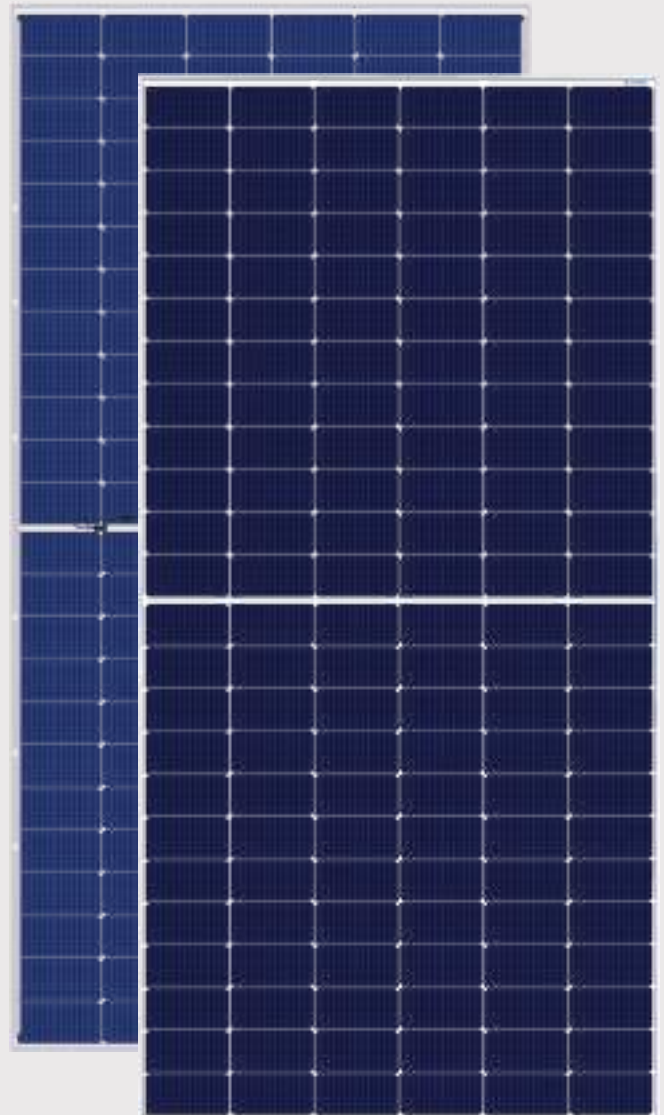
Best in Class Efficiency **22.86%**

High Efficiency **N-Type TOPCon Cells**  
Bifacial Module with Transparent Backsheet

**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 Transparent Backsheet 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, IS 14286 (BIS), UL 61730, CEC, ISO 9001:2015, 14001:2015, 45001:2018 certified



\* Under Process



**TOPCon SOLAR PV MODULES  
WITH TRANSPARENT BACKSHEET**

**575-590Wp**



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

Model	Unit	JN-575BT		JN-580BT		JN-585BT		JN-590BT	
		STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Capacity rating Wp	Pmax	575	432	580	436	585	440	590	443
Max. Power Voltage in V	Vmp	42.82	40.16	42.97	40.20	43.11	40.35	43.26	40.47
Max. Power Current in A	Imp	13.43	10.77	13.50	10.85	13.57	10.91	13.64	10.97
Open Circuit Voltage in V	Voc	51.12	48.63	51.27	48.84	51.42	49.02	51.57	49.21
Short Circuit Current in A	Isc	14.24	11.50	14.30	11.59	14.36	11.64	14.42	11.70
Module Efficiency	%	22.28		22.47		22.67		22.86	
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-575BT	JN-580BT	JN-585BT	JN-590BT
10%	Power Output (W)	633	638	644	649
	Module Efficiency (%)	24.53	24.72	24.95	25.15
15%	Power Output (W)	661	667	673	679
	Module Efficiency (%)	25.61	25.84	26.08	26.31
20%	Power Output (W)	690	696	702	708
	Module Efficiency (%)	26.73	26.97	27.20	27.43
25%	Power Output (W)	719	725	731	738
	Module Efficiency (%)	27.86	28.09	28.32	28.59
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	28 kgs   61.73 lbs
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 (Higher cable option available on request)
Front Superstrate	3.2 mm / 0.126 in, High Transmission, AR coated tempered glass
Solar Cells	N-Type TOPCon - M10 (144 pcs Half Cut)
Cell Encapsulation	PID & UV Resistant
Back Substrate	Transparent Backsheet (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	-0.25%/°C
Temperature Coefficient of Isc	0.046%/°C
Temperature Coefficient of Pmax	-0.29%/°C

**PERMISSIBLE OPERATING CONDITIONS**

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

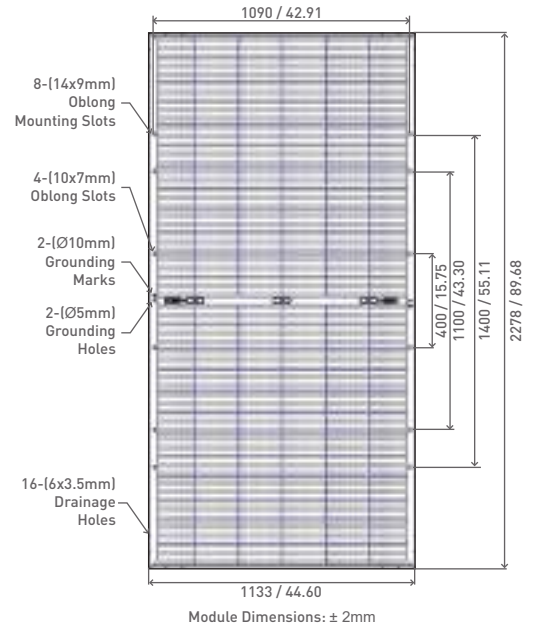
**WARRANTY AND CERTIFICATIONS**

Product Warranty	12 years Product Warranty
Performance Guarantee	25 year Linear Performance Warranty

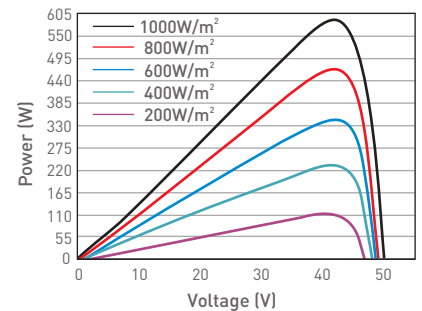
**PACKAGING CONFIGURATION**

	40' HQ	32' HQ
Container Size		
Modules per Pallet	31	31
Modules per Container	620	496

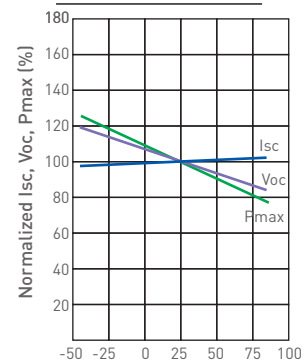
**Dimension of PV Module**  
Unit: mm / in



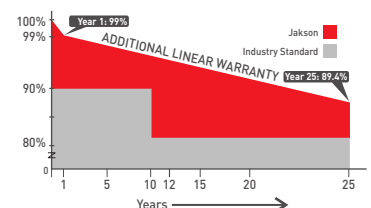
**Power-Voltage Curve**



**Cell Temperature (°C)**



**Linear Performance Warranty**



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