

# TRANSFORMING THE POWER OF SUN













## BIFACIAL SOLAR PV MODULE 540-555 Wp TRANSPARENT BACKSHEET

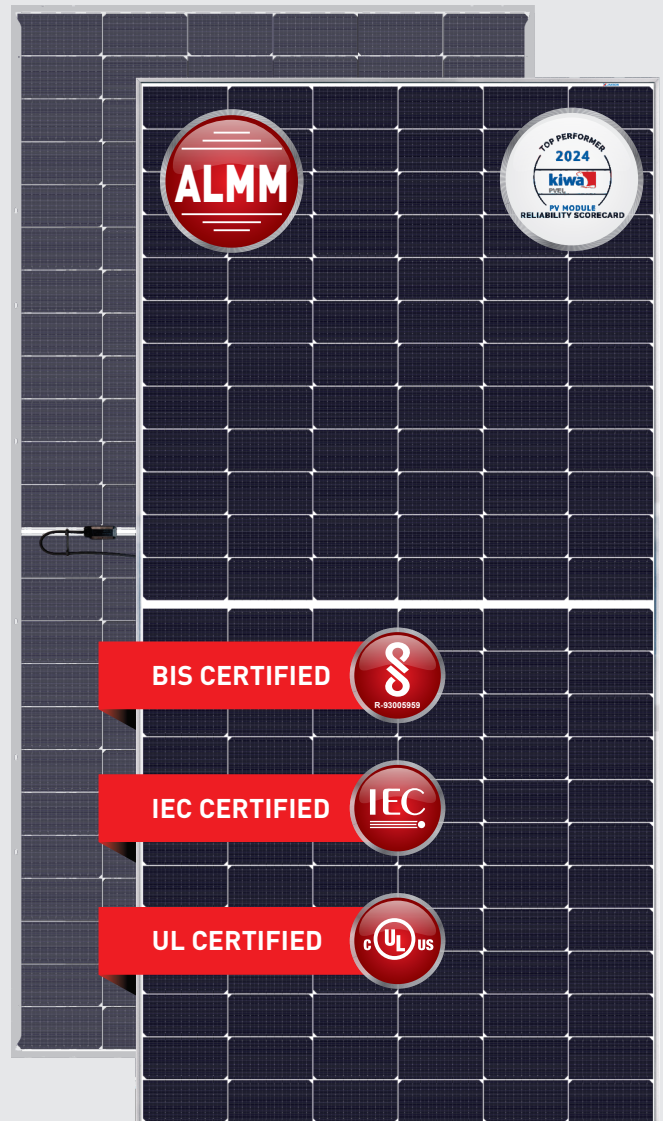
Best in Class Efficiency **21.50%**

MBB Technology **M10 Half Cut (144 Cells)**  
Bifacial Module With Transparent Backsheet

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

### FEATURES

-  Low LID Degradation using PERC Technology - Enhanced Power Generation During its Life Cycle
-  Improved Temperature Coefficients - Better Generation at Higher Temperature
-  Reduced Resistive Loss with MBB Technology - Excellent Module Performance
-  Half Cut Cell Design - Excellent Performance Under Partial Shading Conditions
-  Lower LCOE (Levelized Cost of Electricity) - Faster Return on Investment (ROI)
-  Manufactured in Fully Automatic Production Line
-  100% in line Hi-Pot testing, 100% EL Testing at 3 stages – Stringer, In process and Final Testing
-  Manufactured using certified Tier 1 BOM Meeting Highest Quality Standards
-  Better reliability under Extreme Environmental Conditions
-  Bifacial gain of **Up To 25% with Transparent Backsheet Module**, capable of energy generation with both direct and reflected sunlight.



#### Approvals and Certificates:

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





**BIFACIAL SOLAR PV MODULES  
WITH TRANSPARENT BACKSHEET  
540-555Wp**



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

Model	Unit	JH-540BT		JH-545BT		JH-550BT		JH-555BT	
		STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Capacity rating Wp	Pmax	540	399	545	403	550	407	555	410
Max. Power Voltage in V	Vmp	41.64	39.35	41.80	39.50	41.93	39.62	42.05	39.74
Max. Power Current in A	Imp	12.97	10.15	13.04	10.20	13.12	10.26	13.20	10.33
Open Circuit Voltage in V	Voc	49.60	46.59	49.75	46.74	49.90	46.88	50.00	46.97
Short Circuit Current in A	Isc	13.86	10.87	13.92	10.92	13.98	10.97	14.05	11.02
Module Efficiency	%	20.92		21.12		21.31		21.50	
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\***

		JH-540BT	JH-545BT	JH-550BT	JH-555BT
10%	Power Output (W)	594	600	605	611
	Module Efficiency (%)	23.01	23.25	23.44	23.67
15%	Power Output (W)	621	627	633	638
	Module Efficiency (%)	24.06	24.29	24.53	24.72
20%	Power Output (W)	648	654	660	666
	Module Efficiency (%)	25.11	25.34	25.57	25.80
25%	Power Output (W)	675	681	688	694
	Module Efficiency (%)	26.15	26.39	26.66	26.89
Bifaciality Factor		70±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	Mono PERC Crystalline - M10 (144 pcs Half Cut)
Cell Encapsulation	EVA & EPE (PID & UV Resistant)
Back Substrate	Transparent Backsheet
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	-0.27%/°C
Temperature Coefficient of Isc	0.045%/°C
Temperature Coefficient of Pmax	-0.35%/°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**

Vehicle Type	32FT	40FT
Module per Pallet	28	28
Module per Vehicle	504	616

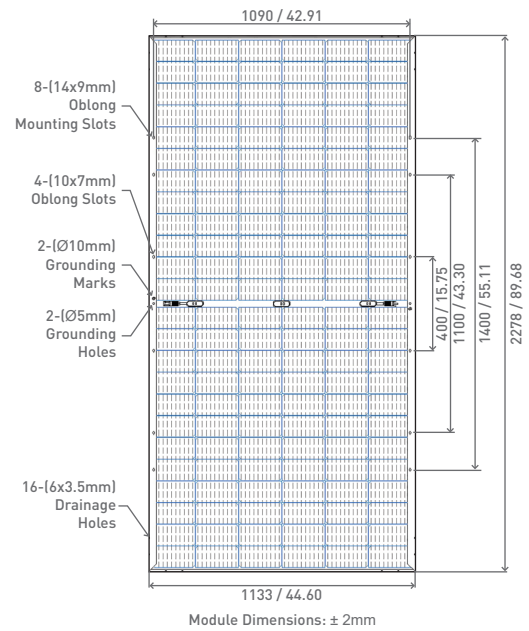
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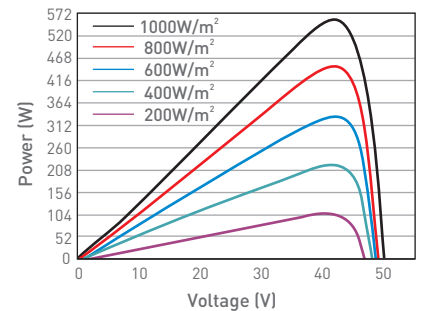
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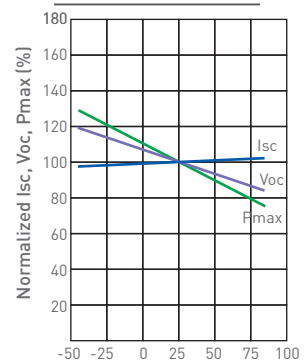
**Dimension of PV Module  
Unit: mm / in**



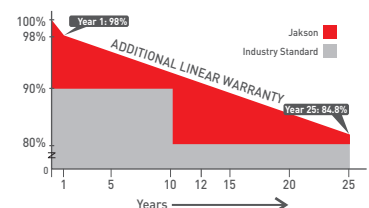
**Power-Voltage Curve**



**Cell Temperature (°C)**



**Linear Performance Warranty**



Product specifications are subject to change without notice  
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