

TRANSFORMING THE POWER OF SUN



BIFACIAL SOLAR PV MODULE 540-555 Wp TRANSPARENT BACKSHEET

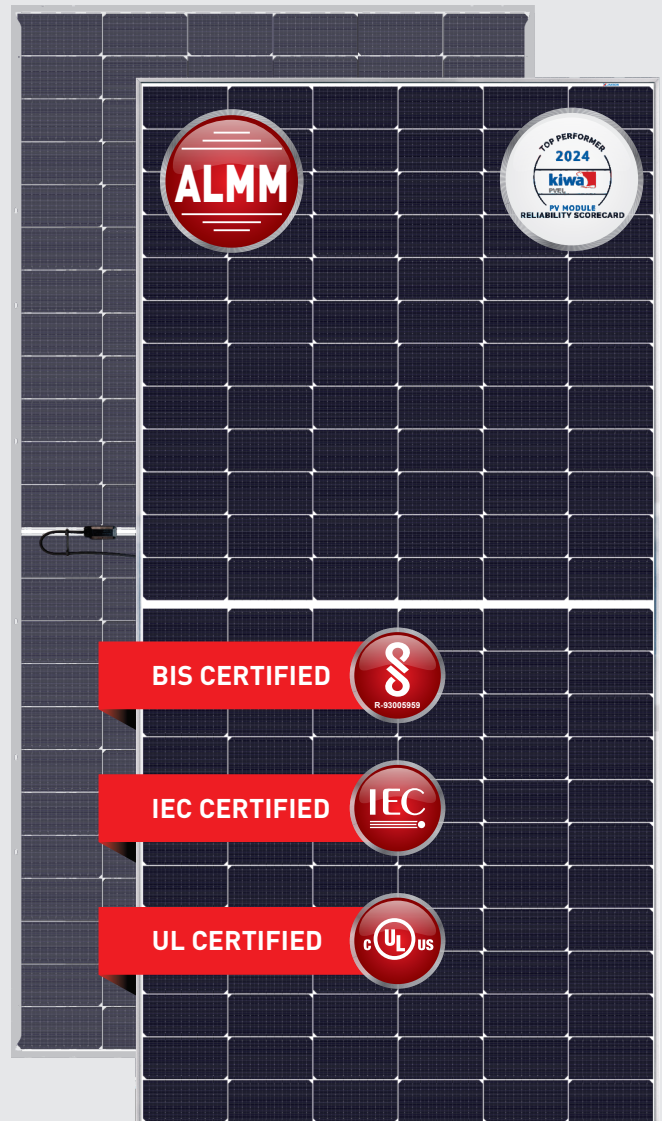
Best in Class Efficiency **21.50%**

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	
Parameters		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/m², cell temperature 25°C, Air Mass AM 1.5 according to EN 60904-3. Average efficiency reduction of 4.5% at 200 W/m² according to EN 60904-1. Measurement uncertainty ±3%

**NOCT irradiance 800 W/m², 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 ² / 0.006 in ² , 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

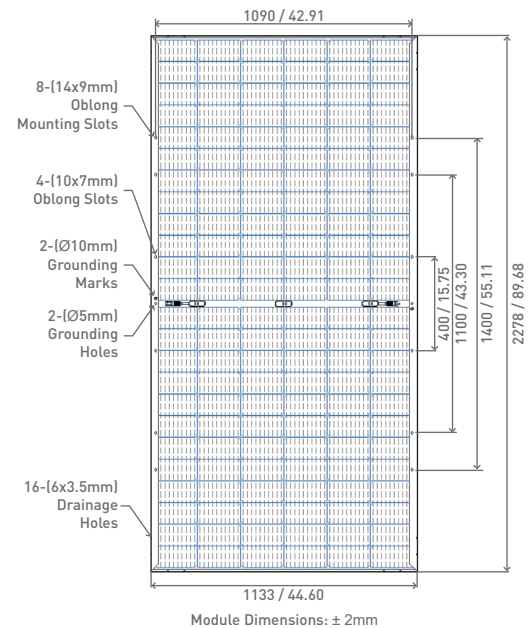
WARRANTY AND CERTIFICATIONS

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

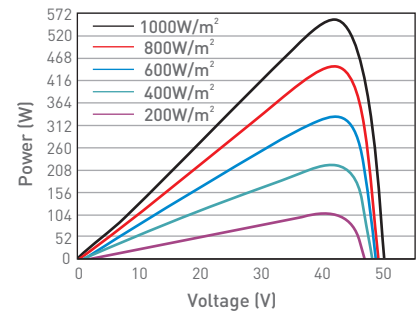
PACKAGING CONFIGURATION

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

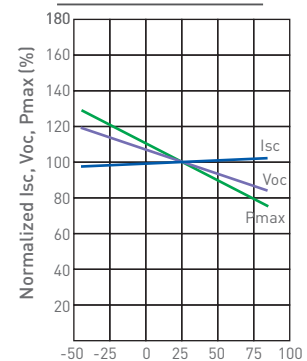
Dimension of PV Module
Unit: mm / in



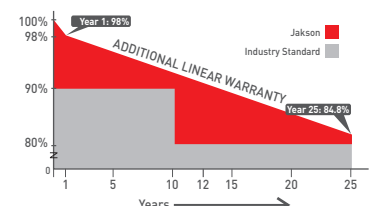
Power-Voltage Curve



Cell Temperature (°C)



Linear Performance Warranty



JAKSON ENGINEERS LIMITED

A-43, Phase-II Extn., Hosiery Complex, Noida-201305, U.P., India

Tel.: +91-120-4302600, 4526100 | Toll Free No. : 1800 103 2600

E-mail: customer.support@jakson.com ; solar-bu@jakson.com | www.jakson.com

For more information, contact [Rooftop Solar India](#).

Product specifications are subject to change without notice
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