

TRANSFORMING THE POWER OF SUN













NEXT GEN BIFACIAL SOLAR PV MODULE 540-555 Wp

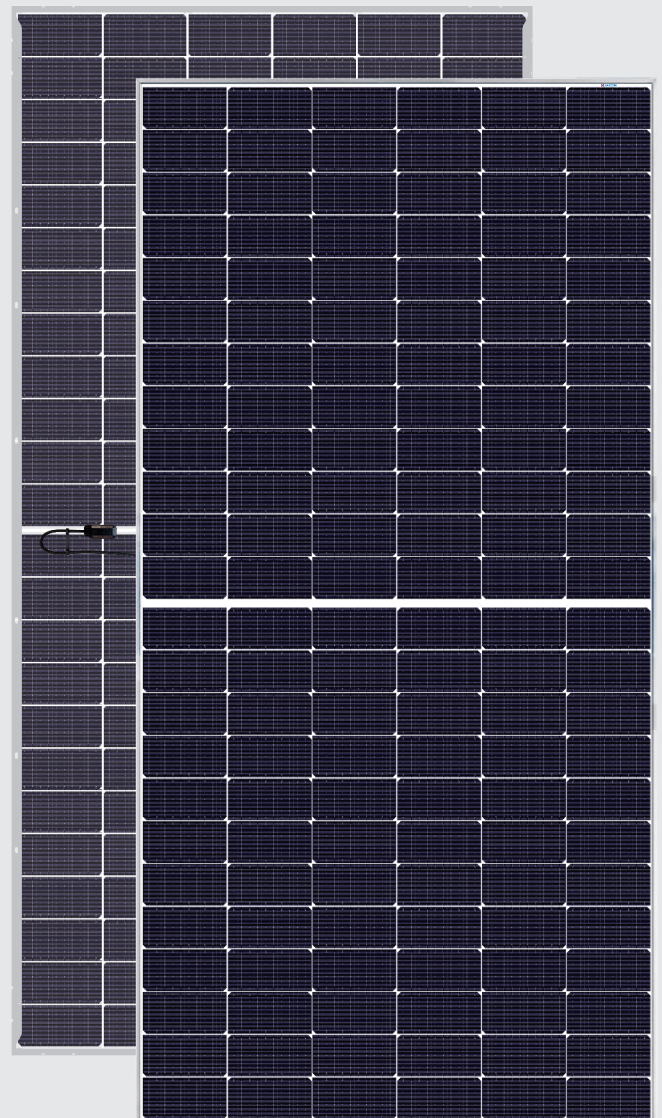
Best in Class Efficiency **21.50%**

MBB Technology **M10 Half Cut (144 Cells)**
Bifacial Module with Transparent Backsheet
(White Grid)

Latest Water-less
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*:

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



BIFACIAL SOLAR PV MODULES WITH TRANSPARENT BACKSHEET (WHITE GRID)
540-555Wp



ELECTRICAL DATA - STC* & NOCT**

Model	Unit	JH-540BW		JH-545BW		JH-550BW		JH-555BW	
		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	Vpm	41.64	39.35	41.80	39.50	41.93	39.62	42.05	39.74
Max. Power Current in A	Ipm	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-540BW	JH-545BW	JH-550BW	JH-555BW
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 / 0.125 in, High Transmission, AR coated tempered glass
Solar Cells	Mono PERC Crystalline - M10 (144 pcs Half Cut)
Cell Encapsulation	PID & UV Resistant
Back Substrate	Transparent Backsheet with 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	-0.27%/°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

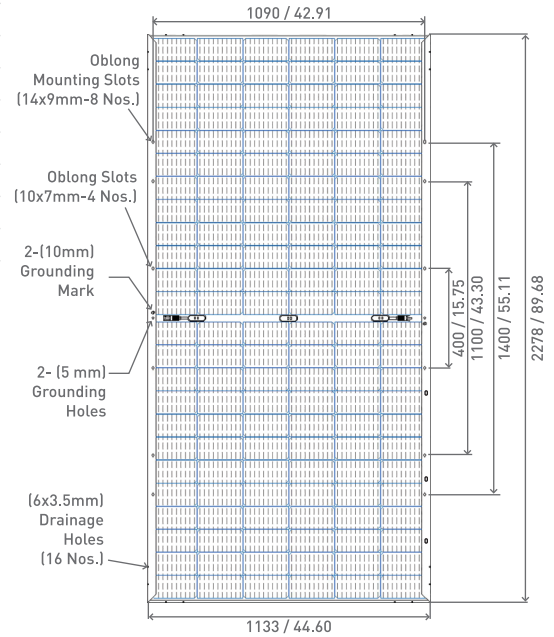
WARRANTY AND CERTIFICATIONS

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

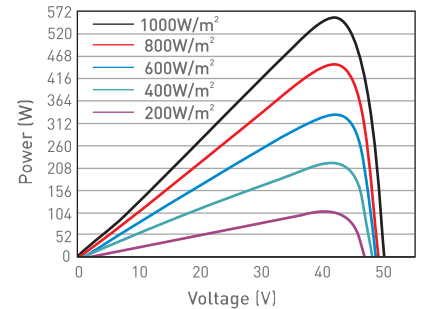
PACKAGING CONFIGURATION

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

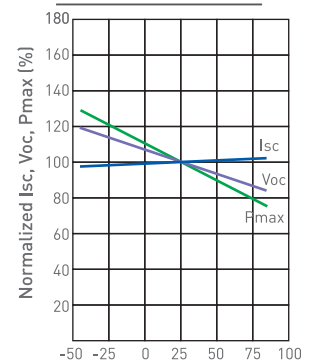
Dimension of PV Module
Unit: mm / in



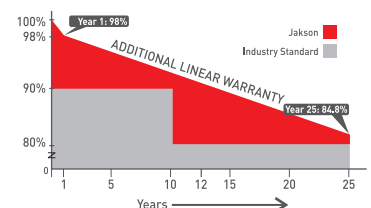
Power-Voltage Curve



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

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