

TRANSFORMING THE POWER OF SUN













BIFACIAL SOLAR PV MODULE 540-555 Wp

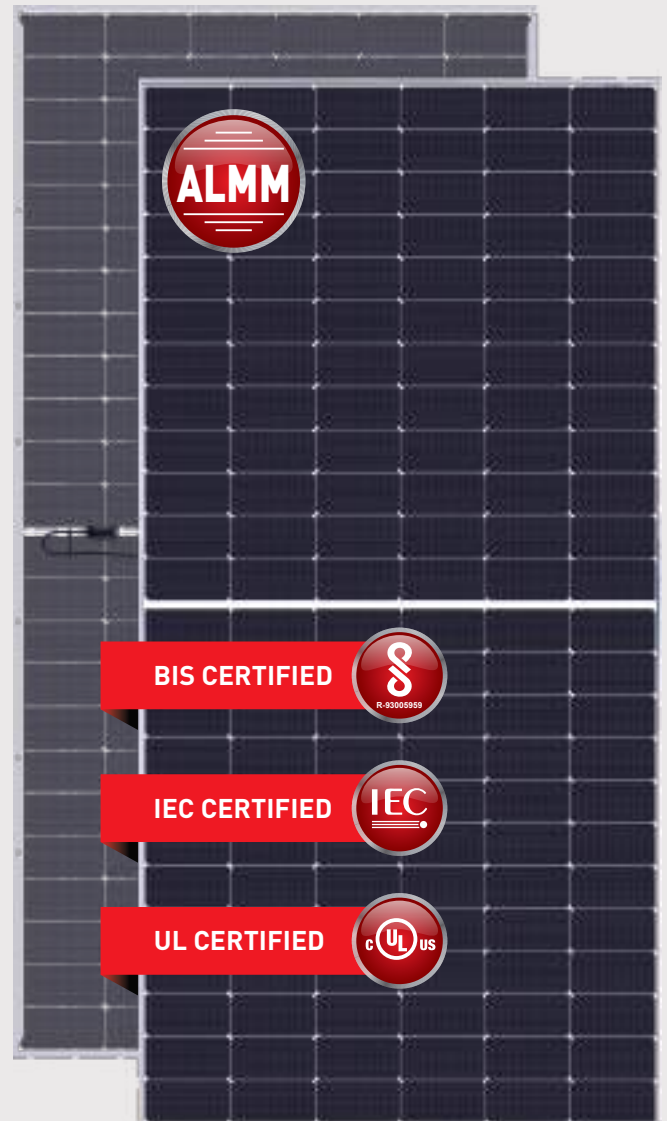
Best in Class Efficiency **21.50%**

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

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



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/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 |

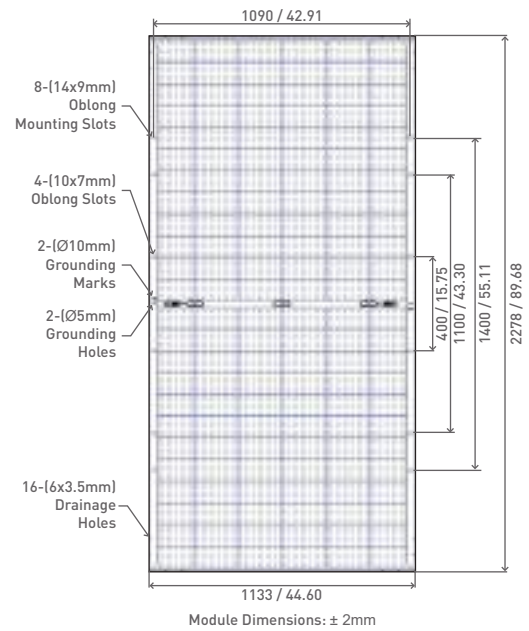
WARRANTY AND CERTIFICATIONS

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

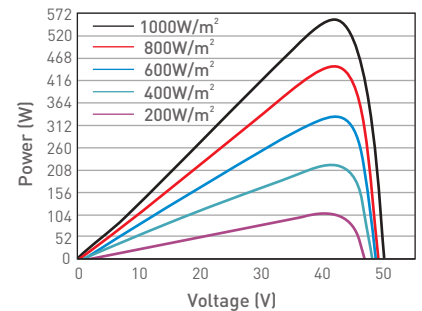
PACKAGING CONFIGURATION

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

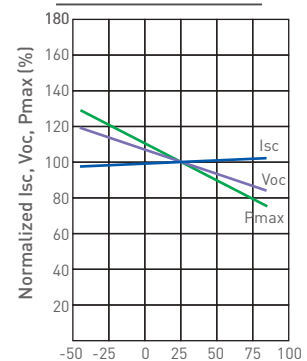
Dimension of PV Module
Unit: mm / in



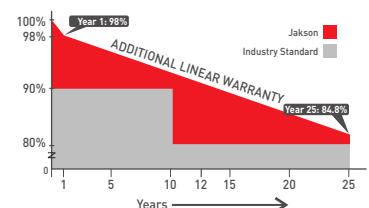
Power-Voltage Curve



Cell Temperature (°C)



Linear Performance Warranty



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