

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 Dual Glass

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



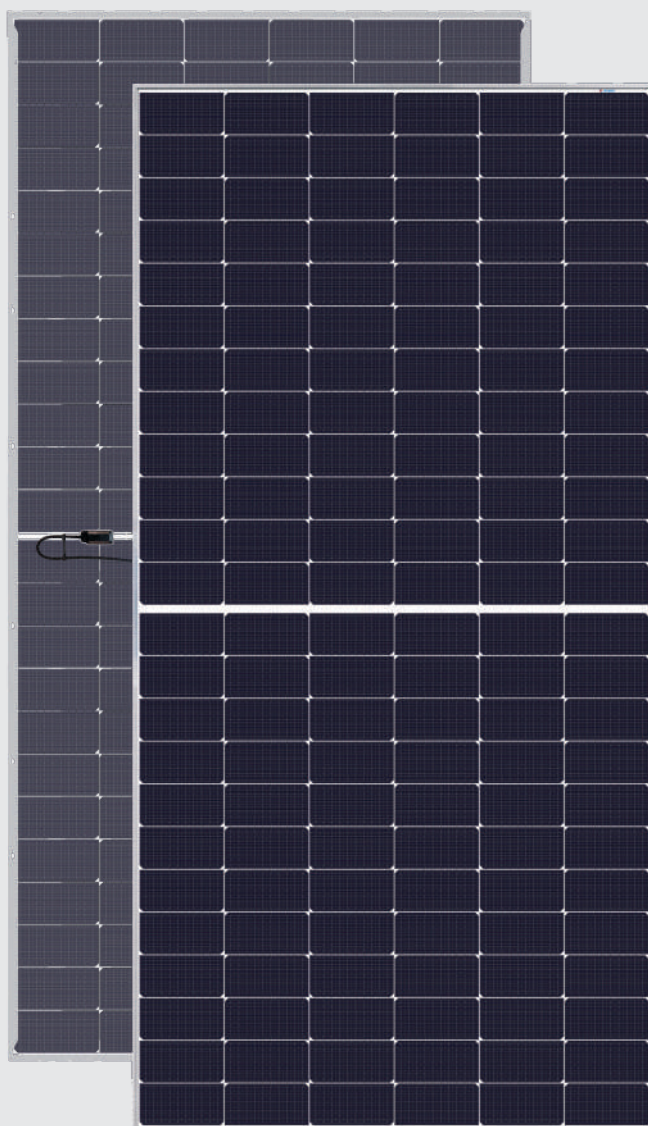
Manufactured using certified Tier 1 BOM Meeting
Highest Quality Standards



Better reliability under Extreme Environmental
Conditions



Bifacial gain of **Up To 25% with Dual Glass 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 DUAL GLASS

540-555Wp



ELECTRICAL DATA - STC*

Model	Unit	JH-540G	JH-545G	JH-550G	JH-555G
Capacity Rating Wp	Pmax	540	545	550	555
Max. Power Voltage in V	Vpm	41.64	41.80	41.93	42.05
Max. Power Current in A	Ipm	12.97	13.04	13.12	13.20
Open Circuit Voltage in V	Voc	49.60	49.75	49.90	50.00
Short Circuit Current in A	Isc	13.86	13.92	13.98	14.05
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%

BI-FACIAL OUTPUT - REAR SIDE POWER GAIN*

		JH-540G	JH-545G	JH-550G	JH-555G
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)	2278 mm x 1133 mm x 35 mm (optional 40 mm)
Weight	33 kgs
Junction Box	Split JB, IP 68 with 3 bypass diodes
Cable	Solar Cable 4.0 mm ² , 400 mm (Higher cable option available on request)
Front Superstrate	2.0 mm, High Transmission, AR coated tempered glass
Solar Cells	Mono PERC Crystalline - M10 (144 pcs Half Cut)
Cell Encapsulation	PID & UV Resistant
Back Substrate	2.0 mm, High Transmission, Heat strengthened glass
Frame	Anodized Aluminium Alloy

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

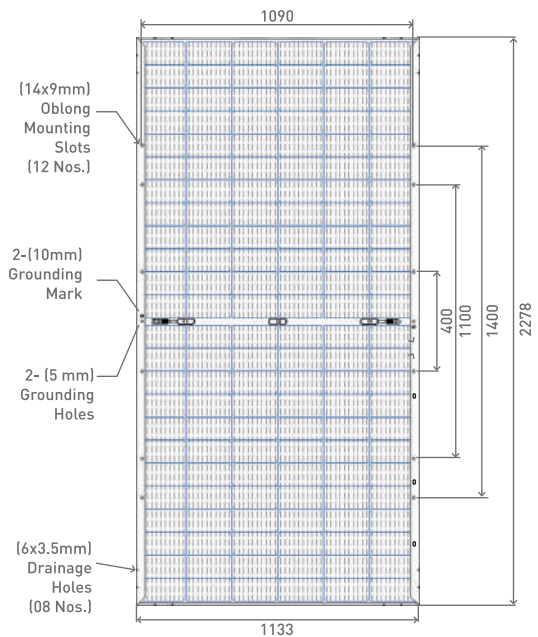
WARRANTY AND CERTIFICATIONS

Product Warranty	12 years Product Warranty
Performance Guarantee	30 year Linear Performance Warranty

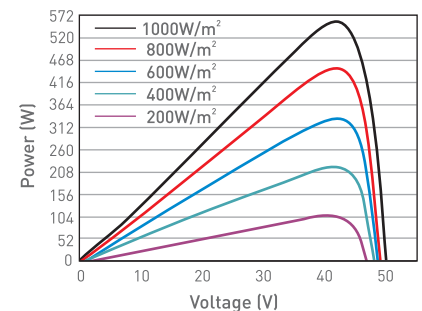
PACKAGING CONFIGURATION

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

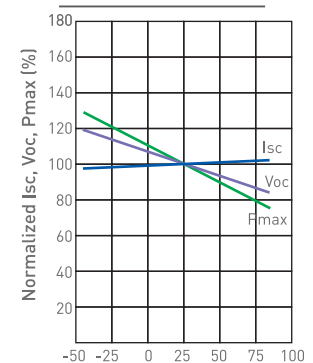
Dimension of PV Module
Unit: mm



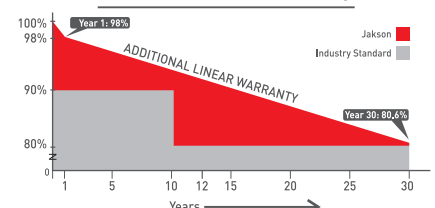
Power-Voltage Curve



Cell Temperature (°C)



Linear Performance Warranty



JAKSON ENGINEERS LIMITED

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TRANSFORMING THE POWER OF SUN



NEXT GEN BIFACIAL SOLAR PV MODULE 490-510 Wp

Best in Class Efficiency **21.50%**

MBB Technology **M10 Half Cut (132 Cells)**
Bifacial Module With Dual Glass

Latest Water-less

Non-Destructive Cell Cutting (NDC)

FEATURES



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Enhanced Power Generation During its Life Cycle



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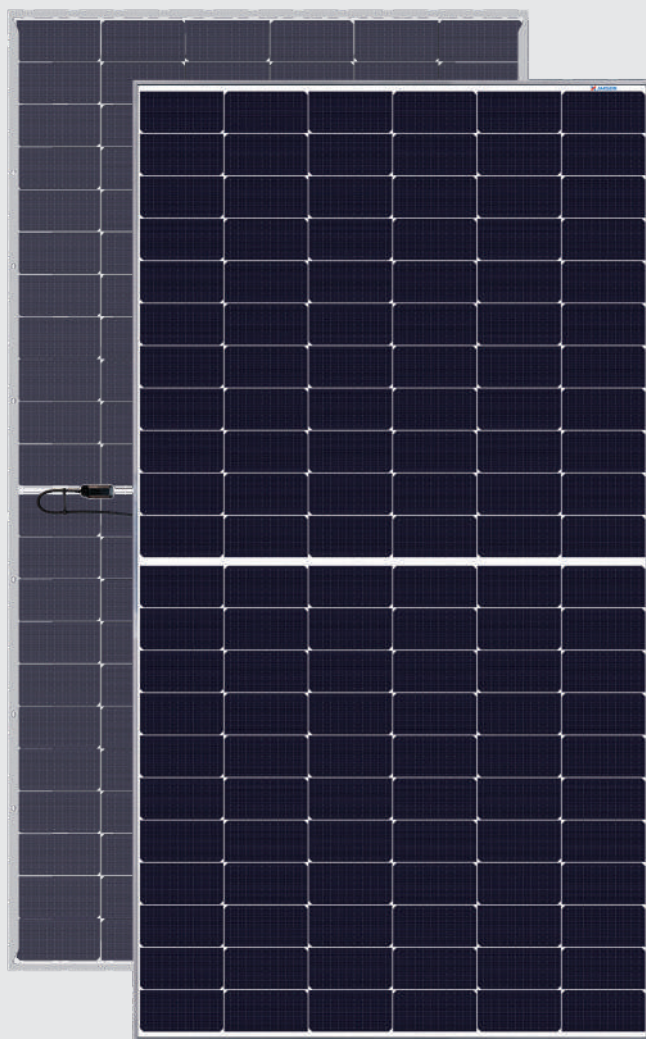
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Conditions



Bifacial gain of **Up To 25% with Dual Glass Module**,
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and reflected sunlight.



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* Under Process



BIFACIAL SOLAR PV MODULES WITH DUAL GLASS 490-510Wp



ELECTRICAL DATA - STC*

Model		JH-490G	JH-495G	JH-500G	JH-505G	JH-510G
Capacity rating Wp	Pmax	490	495	500	505	510
Max. Power Voltage in V	Vmp	38.2	38.3	38.4	38.52	38.64
Max. Power Current in A	Imp	12.83	12.93	13.03	13.12	13.2
Open Circuit Voltage in V	Voc	45.5	45.62	45.75	45.99	46.1
Short Circuit Current in A	Isc	13.74	13.8	13.86	13.9	13.97
Module Efficiency	%	20.65	20.86	21.07	21.29	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%

BI-FACIAL OUTPUT - REARSIDE POWER GAIN*

Model		JH-490G	JH-495G	JH-500G	JH-505G	JH-510G
10%	Power Output (W)	539	545	550	556	561
	Module Efficiency (%)	22.72	22.97	23.18	23.44	23.65
15%	Power Output (W)	564	569	575	581	587
	Module Efficiency (%)	23.77	23.98	24.24	24.49	24.74
20%	Power Output (W)	588	594	600	606	612
	Module Efficiency (%)	24.78	25.04	25.29	25.54	25.80
25%	Power Output (W)	613	619	625	631	638
	Module Efficiency (%)	25.84	26.09	26.34	26.60	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)	2094 mm x 1133 mm x 35 mm (optional 40 mm)
Weight	30.5 kgs
Junction Box	Split JB, IP 68 with 3 bypass diodes
Cable	Solar Cable 4.0 mm ² , 400 mm (Higher cable option available on request)
Front Superstrate	2.0 mm, High Transmission, AR coated tempered glass
Solar Cells	Mono PERC Crystalline - M10 (132 pcs Half Cut)
Cell Encapsulation	PID & UV Resistant
Back Substrate	2.0 mm, High Transmission, Heat strengthened glass
Frame	Anodized Aluminium Alloy

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

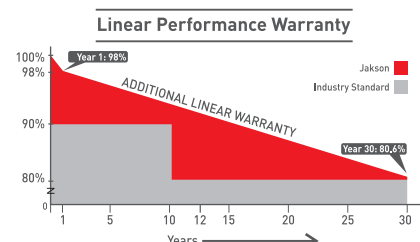
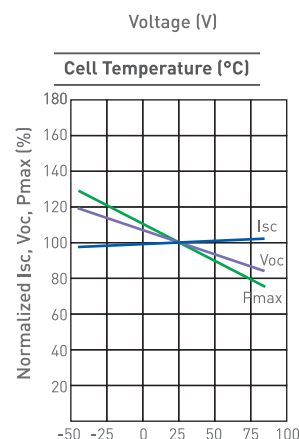
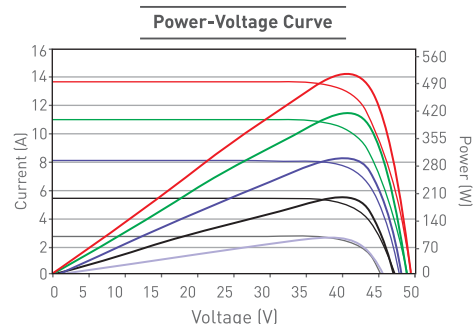
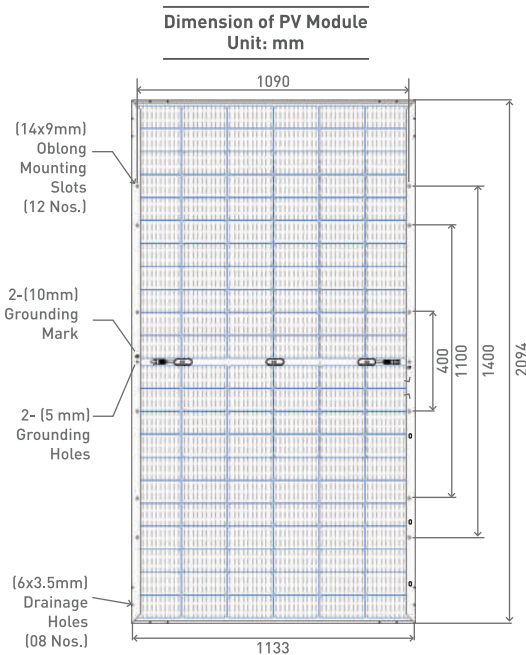
Temperature Range	-40°C to +85°C
Maximum System Voltage	1500 V DC
Max. Series Fuse Rating	30 A

WARRANTY AND CERTIFICATIONS

Product Warranty	12 years Product Warranty
Performance Guarantee	30 year Linear Performance Warranty

PACKAGING CONFIGURATION

Container Size	40' HQ
Modules per Pallet	31
Modules per Container	682



JAKSON ENGINEERS LIMITED

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TRANSFORMING THE POWER OF SUN



NEXT GEN BIFACIAL SOLAR PV MODULE 440-460 Wp

Best in Class Efficiency **21.23%**

MBB Technology **M10 Half Cut (120 Cells)**
Bifacial Module With Dual Glass

Latest Water-less

Non-Destructive Cell Cutting (NDC)

FEATURES



Low LID Degradation using PERC Technology -
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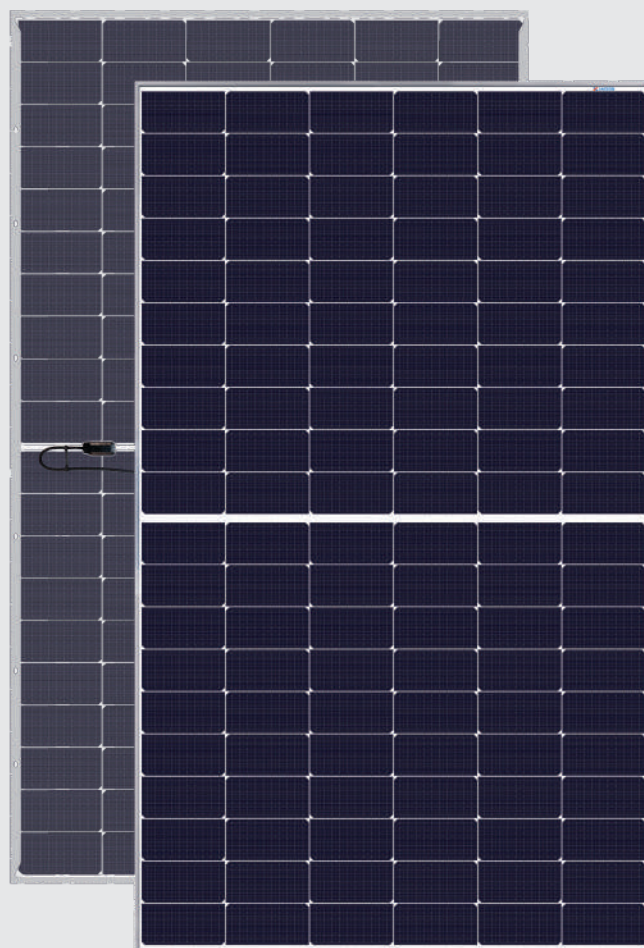
Manufactured using certified Tier 1 BOM Meeting
Highest Quality Standards



Better reliability under Extreme Environmental
Conditions



Bifacial gain of **Up To 25% with Dual Glass Module**,
capable of energy generation with both direct
and reflected sunlight.



Approvals and Certificates:

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* Under Process



BIFACIAL SOLAR PV MODULES WITH DUAL GLASS 440-460Wp



ELECTRICAL DATA - STC*

Model		JH-440G	JH-445G	JH-450G	JH-455G	JH-460G
Capacity rating Wp	Pmax	440	445	450	455	460
Max. Power Voltage in V	Vmp	34.11	34.26	34.43	34.58	34.83
Max. Power Current in A	Imp	12.90	12.99	13.07	13.16	13.21
Open Circuit Voltage in V	Voc	40.85	41.05	41.22	41.40	41.52
Short Circuit Current in A	Isc	13.74	13.80	13.86	13.92	13.99
Module Efficiency	%	20.31	20.54	20.77	21.00	21.23
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%

BI-FACIAL OUTPUT - REARSIDE POWER GAIN*

Model		JH-440G	JH-445G	JH-450G	JH-455G	JH-460G
10%	Power Output (W)	484	490	495	501	506
	Module Efficiency (%)	22.34	22.62	22.85	23.13	23.36
15%	Power Output (W)	506	512	518	523	529
	Module Efficiency (%)	23.36	23.63	23.91	24.14	24.42
20%	Power Output (W)	528	534	540	546	552
	Module Efficiency (%)	24.37	24.65	24.93	25.20	25.48
25%	Power Output (W)	550	556	563	569	575
	Module Efficiency (%)	25.39	25.67	25.99	26.27	26.54
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)	1912 mm x 1133 mm x 35 mm (optional 40 mm)
Weight	28 kgs
Junction Box	Split JB, IP 68 with 3 bypass diodes
Cable	Solar Cable 4.0 mm ² , 400 mm (Higher cable option available on request)
Front Superstrate	2.0 mm, High Transmission, AR coated tempered glass
Solar Cells	Mono PERC Crystalline - M10 (120 pcs Half Cut)
Cell Encapsulation	PID & UV Resistant
Back Substrate	2.0 mm, High Transmission, Heat strengthened glass
Frame	Anodized Aluminium Alloy

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

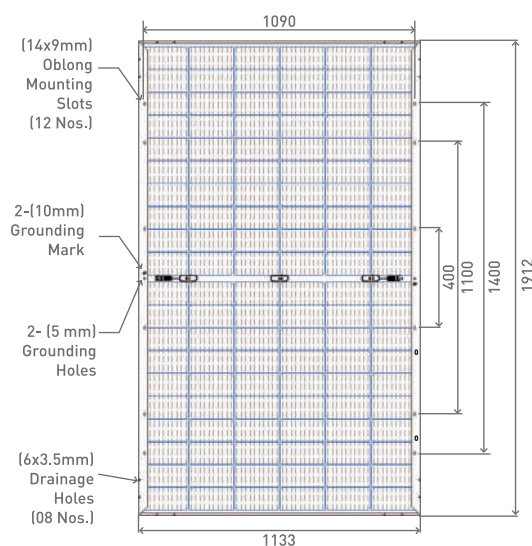
WARRANTY AND CERTIFICATIONS

Product Warranty	12 years Product Warranty
Performance Guarantee	30 year Linear Performance Warranty

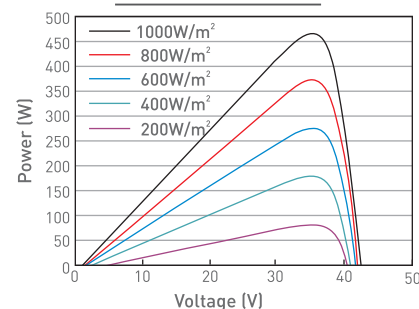
PACKAGING CONFIGURATION

Container Size	40' HQ
Modules per Pallet	31
Modules per Container	744

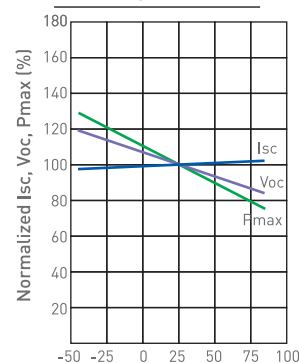
Dimension of PV Module
Unit: mm



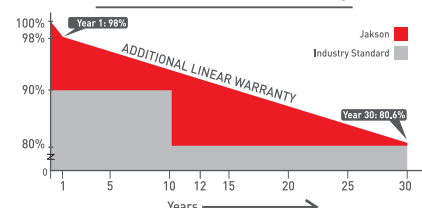
Power-Voltage Curve



Cell Temperature (°C)



Linear Performance Warranty



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TRANSFORMING THE POWER OF SUN



NEXT GEN BIFACIAL SOLAR PV MODULE 400-415 Wp

Best in Class Efficiency **21.27%**

MBB Technology **M10 Half Cut (108 Cells)**
Bifacial Module With Dual Glass

Latest Water-less

Non-Destructive Cell Cutting (NDC)

FEATURES



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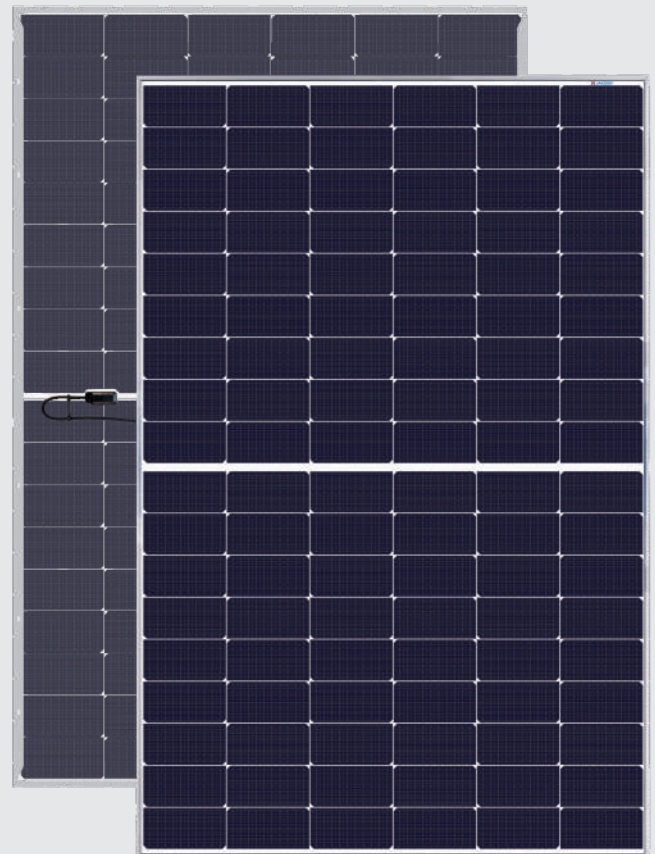
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Bifacial gain of **Up To 25% with Dual Glass Module**,
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Approvals and Certificates:

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* Under Process



BIFACIAL SOLAR PV MODULES WITH DUAL GLASS 400-415Wp



ELECTRICAL DATA - STC*

Model		JH-400G	JH-405G	JH-410G	JH-415G
Capacity rating Wp	Pmax	400	405	410	415
Max. Power Voltage in V	Vmp	30.85	31.06	31.26	31.42
Max. Power Current in A	Imp	12.97	13.04	13.12	13.21
Open Circuit Voltage in V	Voc	36.76	36.94	37.12	37.30
Short Circuit Current in A	Isc	13.86	13.92	13.98	14.05
Module Efficiency	%	20.50	20.76	21.01	21.27
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%

BI-FACIAL OUTPUT - REARSIDE POWER GAIN*

Model		JH-400G	JH-405G	JH-410G	JH-415G
10%	Power Output (W)	440	446	451	457
	Module Efficiency (%)	22.55	22.86	23.12	23.42
15%	Power Output (W)	460	466	472	477
	Module Efficiency (%)	23.58	23.88	24.19	24.45
20%	Power Output (W)	480	486	492	498
	Module Efficiency (%)	24.60	24.91	25.22	25.53
25%	Power Output (W)	500	506	513	519
	Module Efficiency (%)	25.63	25.94	26.29	26.60
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)	1722 mm x 1133 mm x 35 mm (optional 40 mm)
Weight	25 kgs
Junction Box	Split JB, IP 68 with 3 bypass diodes
Cable	Solar Cable 4.0 mm ² , 400 mm (Higher cable option available on request)
Front Superstrate	2.0 mm, High Transmission, AR coated tempered glass
Solar Cells	Mono PERC Crystalline - M10 (108 pcs Half Cut)
Cell Encapsulation	PID & UV Resistant
Back Substrate	2.0 mm, High Transmission, Heat strengthened glass
Frame	Anodized Aluminium Alloy

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

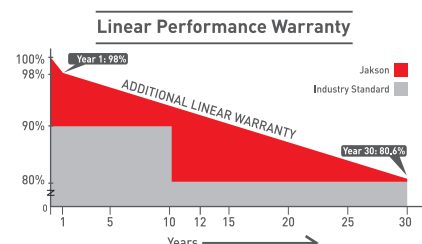
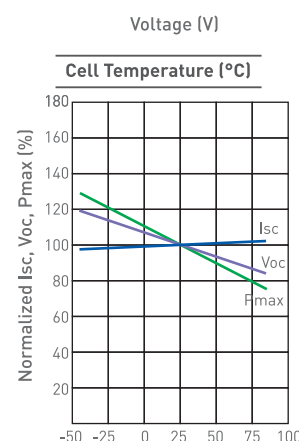
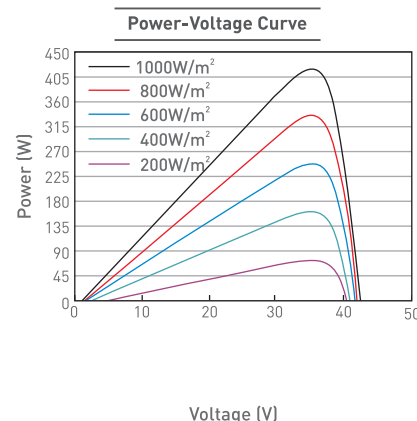
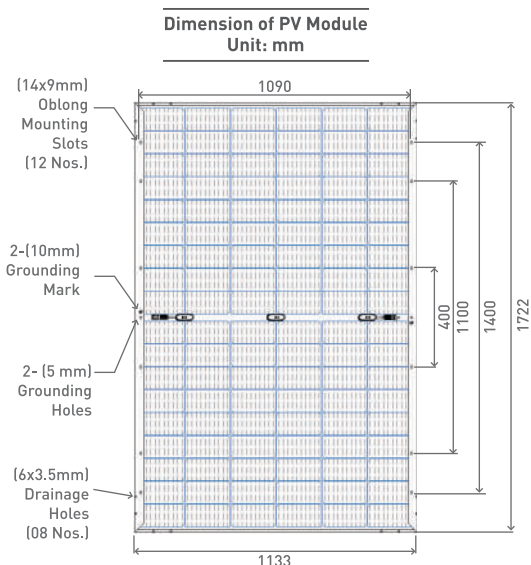
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Max. Series Fuse Rating	30 A

WARRANTY AND CERTIFICATIONS

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Performance Guarantee	30 year Linear Performance Warranty

PACKAGING CONFIGURATION

Container Size	40' HQ
Modules per Pallet	31
Modules per Container	806



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