

MONO PERC HALF CUT SOLAR PV MODULE

540-555 W



The Orient Solar X-Cel range is our 10 BB mono perc module. This product is our 540 W module. Orient Solar prides itself on being a renowned supplier of modules which are rigorously tested in accordance to global testing standards

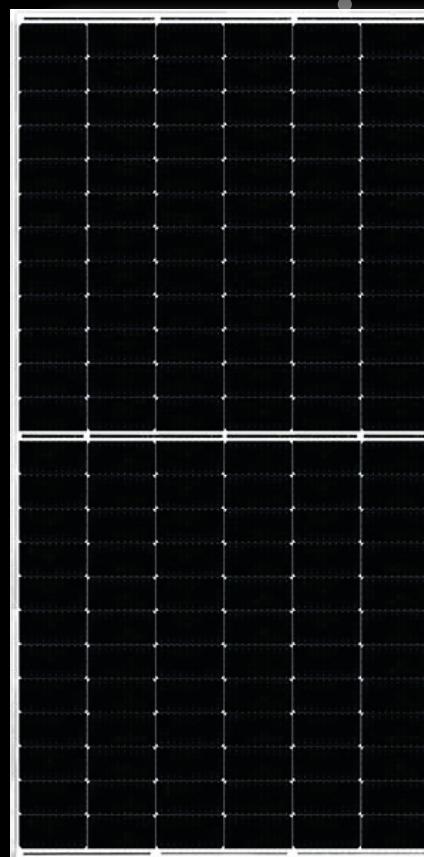
Best in Class Efficiency 21.50%

MBB Technology M10 Half Cut Cells

- Non-Destructive Cell Cutting (NDC)

FEATURES

- High Power Generation
- High Efficiency
- 100% Pre and Post EL Inspection
- Undeniable Reliability
- Lower LID / LETID
- Efficient Temperature Coefficient
- Reduced Degradation
- Enhanced Low Light Performance
- Extraordinary PID Resistance



25 Years
Performance
Warranty¹

Power
Tolerance
up to
4.99W

PID
Resistant

10 Years
Product
Warranty¹



ELECTRICAL DATA - STC* & NOCT**

Model	Unit	Orient-540		Orient-545		Orient-550		Orient-555	
		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.

MECHANICAL DATA

Dimensions (L x W x H)	2277 mm x 1133 mm x 40mm
Weight	30 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 Glass	3.2 mm, High Transmission, AR coated tempered glass
Solar Cells	Mono PERC Crystalline - M10 (144 pcs Half Cut)
Cell Encapsulation	EVA - Ethylene Vinyl Acetate
Backsheet	Composite Film
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	25 A

WARRANTY AND CERTIFICATIONS

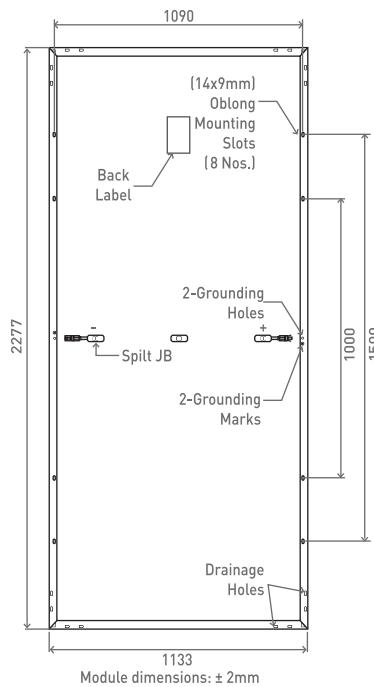
Product Warranty	10 years Product Warranty
Performance Warranty	25 year Linear Performance Warranty
General Terms & Conditions are applied	

PACKAGING CONFIGURATION

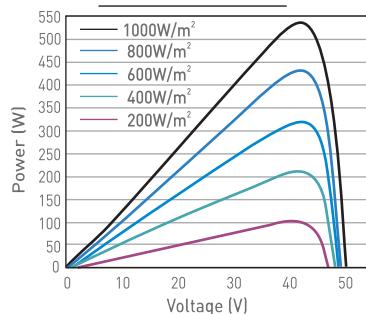
Modules per Pallet	25
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* Module dimension / hole to hole dimensions may vary.

Dimension of PV Module
Unit: mm



Power-Voltage Curve



Cell Temperature (°C)

