

ORIENT

X-AMP SERIES

MONO PERC HALF CUT SOLAR PV MODULE 590 W



The Orient Solar X-Cel range is our 10 BB mono perc module. This product is our 590 W module. ADM Orient 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
Warranty

Power
Tolerance
up to
4.99W

PID
Resistant

10 Years
Product
Warranty



www.orient solar.com

ELECTRICAL DATA - STC*

Model	Unit	ORIENT-590
Parameters		STC
Capacity Rating Wp	Pmax	590
Max. Power Voltage in V	Vpm	45.99
Max. Power Current in A	Ipm	12.85
Open Circuit Voltage in V	Voc	53.51
Short Circuit Current in A	Isc	13.47
Module Efficiency	%	21.5
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)	2460 mm x 1133 mm x 40mm
Weight	31 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 (156 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.

