

590Wp N-Type

TOPCon PV Modules

Bi-Facial | **DCR** & Non-DCR

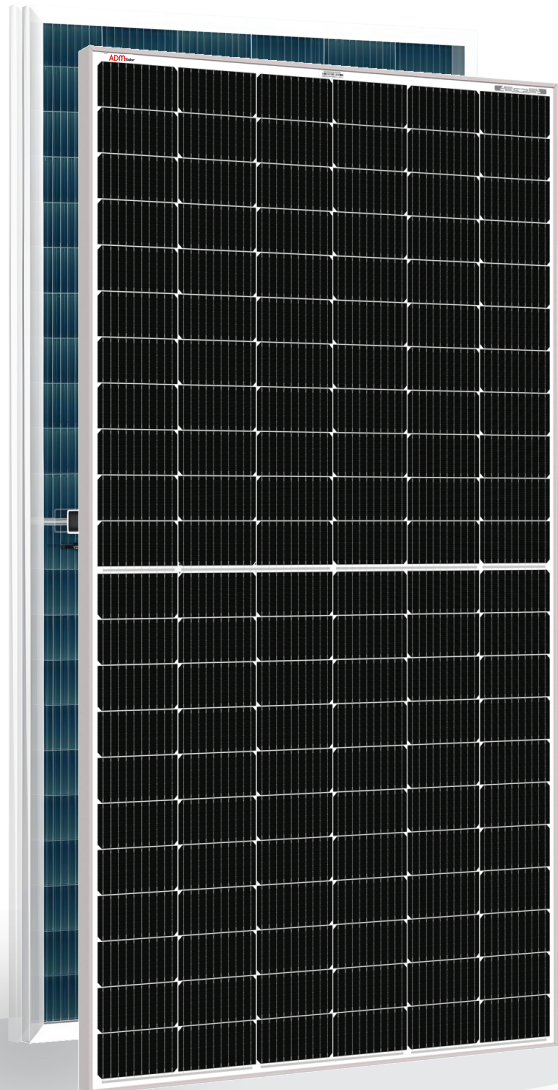
ADm Solar

144 M10
Halfcut Cells

16BB N-Type
TOPCon Technology

22.86%
Max Efficiency

80 ± 10%
Bifaciality Factor



N-TYPE TOPCon Cells

Higher efficiency, lower degradation, excellent low-light performance, and superior temperature stability for reliable, long-term energy generation.



MBB Cell Technology

Reduces conversion losses while enhancing partial shade performance. Ensures improved light absorption & minimizes cell stress for better efficiency.



Round Ribbons

Cylindrical tabbing wires reduce shadowing on the active cell area, allowing greater light absorption and improved module efficiency.



Lower Thermal Coefficients

Optimized temperature coefficients enable higher power generation even in high ambient temperature conditions.



Reduced Degradation

Lower Light-Induced Degradation (LID) & Light & Elevated Temperature-Induced Degradation (LeTID) ensure improved performance stability & long-term energy output.



High Profitability

Lower Balance of System (BOS) costs lead to greater savings, reduced LCOE, and a faster return on investment.



Bifacial Power Gain

Up to 30% power gain, depending on the installation and the albedo of the reflecting surface.



0% Microcracks & Hotspots

Pre & post Electroluminescence (EL) inspections ensure modules are free from defects such as microcracks & hotspots.

25 YEARS
Performance Warranty

10 YEARS
Product Warranty



Know More

Certifications



IEC 61215/IS14286, IEC 61730-1, IEC 61730-2, IEC 62804 (PID), IEC 61701 (Salt Mist), IEC 62716 (Ammonia Corrossion), IEC 61853 (Performance, PAN & IAM), IEC 60068-2 (Sand Dust), IEC 62782 (DMLT), LID, LeTID, BIS Approved, ALMM Enlisted

Applications



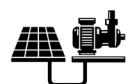
Utility
Projects



Home &
Residential



C & I
Projects



Water
Pumps

Electrical Characteristics (STC)

Model Series	ADMTGG590	ADMTGB590
Maximum Power – Pmax (Wp)	590	590
Maximum Power Voltage – Vmpp (V)	44.63	44.63
Maximum Power Current – Imp (A)	13.22	13.22
Open Circuit Voltage – Voc (V)	51.14	51.14
Short Circuit Current – Isc (A)	13.88	13.88
Module Efficiency (%)	22.86	22.86
Fill Factor (FF)	83.81	83.81

STC: 1000W/m² irradiance, 25°C cell temperature, AM1.5G spectrum according to EN 60904-3
Average relative efficiency reduction of <5% for every 200W/m² reduction in irradiance, according to EN 60904-1

Electrical Characteristics (NOCT)

Maximum Power – Pmax (Wp)	437.78	437.78
Maximum Power Voltage – Vmpp (V)	33.29	33.29
Maximum Power Current – Imp (A)	10.69	10.69
Open Circuit Voltage – Voc (V)	38.15	38.15
Short Circuit Current – Isc (A)	11.23	11.23

NOCT: 800W/m² irradiance, 20°C ambient temperature, Wind Speed 1 m/sec

Electrical Characteristics (BNPI)

Maximum Power – Pmax (Wp)	653.72	653.72
Maximum Power Voltage – Vmpp (V)	44.63	44.63
Maximum Power Current – Imp (A)	14.65	13.52
Open Circuit Voltage – Voc (V)	51.14	51.14
Short Circuit Current – Isc (A)	15.25	15.25
Module Efficiency (%)	25.34	25.34

Temperature Co-Efficient (Tc) and Permissible Operating Conditions

Temperature Co-Efficient of Voc	-0.27 %/°C	-0.27 %/°C
Temperature Co-Efficient of Isc	0.045 %/°C	0.045 %/°C
Temperature Co-Efficient of Power	-0.29%/°C	-0.29%/°C
NOCT	45 ± 2°C	45 ± 2°C
Maximum series fuse ratings	30A	30A
Temperature Range	-40°C to +85°C	-40°C to +85°C
Maximum System Voltage	1500 V DC	1500 V DC
Bifaciality Factor	80 ± 10%	80 ± 10%

Mechanical Characteristics

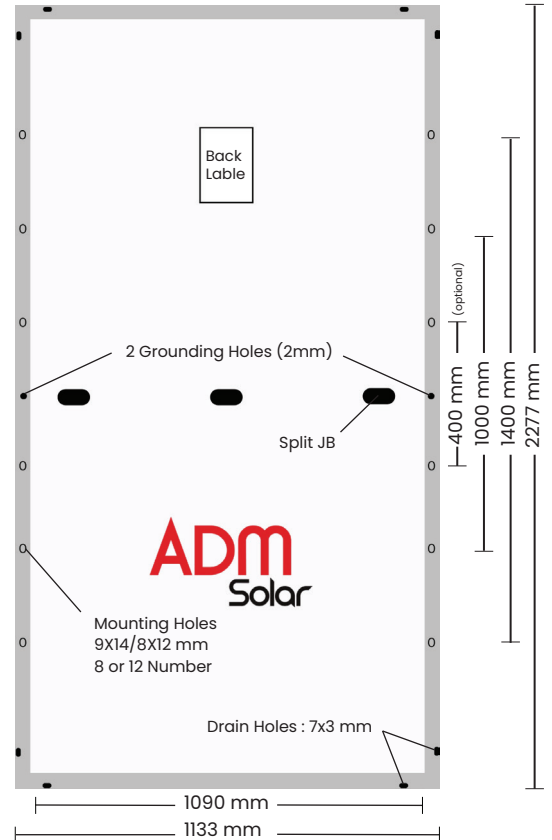
Module Dimensions	2094 mm x 1133 mm x 35 mm
Module Weight	31Kg
Solar Cells (PID Free)	144 (12 x 6 x 2) N-Type TOPCon M10 Cells, 10BB (91 x 183.75)mm
Superstrate	2mm high transmission AR Coated, low Iron, tempered PV glass
Cell Encapsulant	PID Free EVA (Ethylene Vinyl Acetate) - FC / UFC
Frame	Silver Anodized Aluminium Frame with twin wall profile
Substrate	2mm high transmission low iron, tempered PV glass
Junction Box	IP68 Rated, Split Junction Box with Individual bypass Diode
Cables	400 mm (+) / 400 mm (-) with MC4 Compatible Connectors
Application Class	Class A (Safety Class II)
Mechanical Load	5400 Pa (Snow) / 2400 Pa (Wind)
Packaging	Standard 28 Modules per Pallet

Note: Specifications subject to change without prior notice.

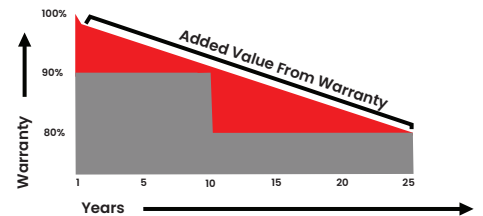
Approvals and certifications

Products:	IEC 61215/IS14286, IEC 61730-1, IEC 61730-2, IEC 62804 (PID), IEC 61701 (Salt Mist), IEC 62716 (Ammonia Corrosion), IEC61853 (Performance, PAN & IAM), IEC 60068-2 (Sand Dust), IEC 62782 (DMLT), LID, LeTID, BIS Approved, ALMM Enlisted
Manufacturing:	ISO 9001:2015, ISO 14001: 2015 ISO 45001:2018

Back Side of Panel



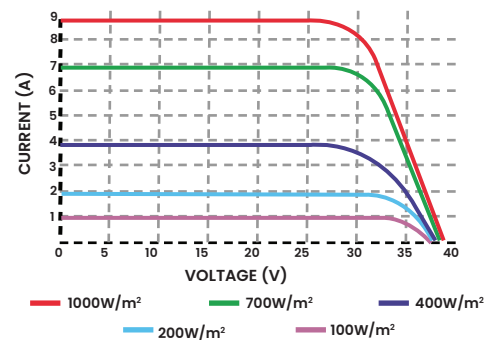
Warranty Graph



Product Warranty : 10 Years

Performance Warranty : Linear Power Warranty for 25 Years with <1% degradation for 1st year and 0.4% from 2 to 25 year.

I-V Curve (for Different Irradiance)



PACKAGING INFORMATION

Truck Type	No. of Pallets	No. of Modules	KW (Approx)
22 ft.	12	336	198
40 ft.	22	616	363
Container Type	No. of Pallets	No. of Modules	KW (Approx)
40 HQ	22	616	363