



# PLATINUM SERIES

High Efficiency TOPCon N-type Bifacial M10R Glass to Glass Module

580 - 600 Wp

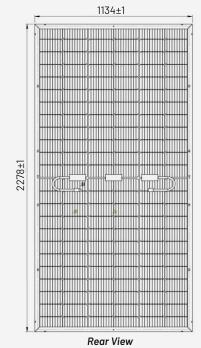
580 Wp | 585 Wp | 590 Wp 595 Wp | 600 Wp INA-144THC-GGF-XXX(XXX = 580-600 Wp)



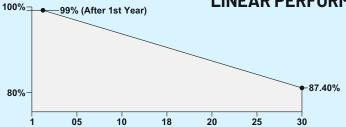
APPLICATION: RESIDENTIAL | COMMERCIAL | INDUSTRIAL | SOLAR PARK

### **KEY FEATURES**

- 1. LCOE is reduced with lower BOS costs, improving the product's value proposition and ensuring a competitive ROI.
- 2. Two peak performance periods for the optimal utilization of bifacial generation.
- 3. Hassle-free installation with the ability to be mounted vertically in the East-West direction, offering improved resistance to soiling.
- 4. Lower internal resistance boosts module power, helping to minimize power loss.
- 5. Excellent PID performance guarantees limited power degradation.
- 6. Reliable quality ensures better sustainability even in harsh environments such as deserts, farms, and coastlines with ammonia exposure.
- 7. Cylindrical tabbing wire is used to minimize shading on the cell's active area.
- 8. A higher number of busbars makes PV modules less prone to efficiency loss and increases tolerance to microcracks.
- 9. Positive Power Tolerance.









12-Year Product Warranty on Materials and Workmanship\*



30-Year Warranty for Linear Performance\*

#### **CERTIFICATIONS & STANDARDS:**

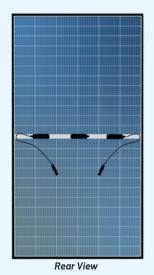
IEC 61215, IEC 61730-1, IEC 61730-2, IS:14286, IEC 62716, IEC 62804, IEC 60068-2-68, IEC 61853, IEC 61701



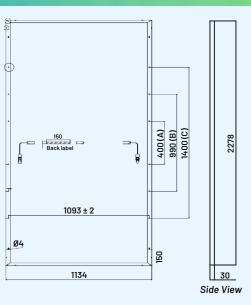


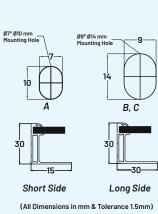












**TECHNICAL DATA** 

\*STC: Irradiance 1000 W/m² module temperature 25°C, Am=1.5;

\*NOCT: Irradiance 800 W/m², ambient teperature 20°C, Am=1.5, Wind speed 1m/sec. Average power reduction of 4.5% at 200 W/m² as per IEC 60904-1. Measuring Uncertainty 0~3%

Module Type	Unit	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOC	T	STC	NOCT	
Peak Power -Pmax	Wp	580	437	585	441	590	445	595	449	)	600	453	
Maximum voltage (Vmpp)	V	45.13	42.02	45.29	42.21	45.46	42.38	45.62	42.56		45.78	42.74	
Maximum current (Impp)	Α	12.86	10.40	12.92	10.45	12.98	10.51	13.05	10.55		13.11	10.60	
Open circuit voltage (Voc)	V	52.60	49.90	52.80	50.10	53.00	50.30	53.20	50.5	0	53.40	50.70	
Short circuit current (Isc)	Α	13.65	11.04	13.72	11.09	13.79	11.14	13.86	11.1	9	13.93	11.24	
Module Efficiency	% 22.45		22.	22.64		22.84		23.03		23.22			
Operating Temperature range (°C)	-40 to +85°C			Po	Power Tolerance						Positive Power Tolerance		
Maximum system voltage	DC1500V (IEC)			N	Nominal operating cell temperature (NOCT)					45 ± 2 °C			
Maximum series fuse rating	30A			А	Application						Class-A		
Temperature coefficients of Isc $(\alpha)$	0.0465%/°C			Sa	Safety Class					Class II			
Temperature coefficients of Pmax (γ)	-0.3023%/°C			А	Application Rating					Class A			
Temperature coefficients of Voc (B)		-0.2114	4%/°C										

<sup>\*</sup>BIFACIAL OUTPUT – BACKSIDE POWER GAIN @STC\* [Bifaciality Factor: 80% ± 10%]

[Note: The bifacial gain depends on the power plant design and site conditions. Electrical component ratings should be selected as per actual Bifacial gain at site (module currents indicated below)] \*\*Power gain from rear side depends upon the ground reflectance (Albedo) 8 Bifaciality factor.

<b>Bifacial Gain</b>	Measurement	Unit	580	585	590	595	600
	Maximum Power (Pmax)	Wp	609.00	614.25	619.50	624.75	630.00
5%	Module Efficiency	%	23.58	23.78	23.98	24.19	24.39
	Maximum Power (Pmax)	WP	638.00	643.50	649.00	654.50	660.00
10%	Module Efficiency	%	24.70	24.91	25.13	25.34	25.55
	Maximum Power (Pmax)	WP	725.00	731.25	737.50	743.75	750.00
25%	Module Efficiency	%	28.07	28.31	28.55	28.79	29.04

#### **MECHANICAL SPECIFICATIONS**

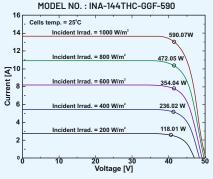
Cell type / No Of Cell	144 Half-Cut N-type TOPCon Bifacial Solar cells
Dimensions	2278(L) x 1134(W) x 30(H)
Weight(kg)	32±0.5 Kg
Front Glass	2.0mm AR-coating heat-strengthened glass
Cell Encapsulant	EPE/POE (Expanded polyethylene foam/Polyolefin Elastomer)
Rear Glass	2.0mm heat-strengthened glass
Junction Box	30A Split Junction Box (3 nos. with individual Bypass Diode) – Weatherproof (IP68)
Solar Cable	4sq mm, 300 mm length x 2 Nos.
Connectors	MC4 Compatible Connector IEC/UL Certified
Frame Material	Anodized aluminum alloy, silver color
Mechanical Load Test	5400 Pa (Snow load), 2400 Pa (Wind load)
Hail Test	Max. diameter of 25 mm with velocity 23 m/s

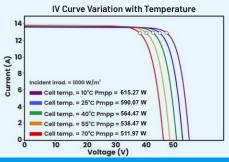
CAUTION: READ SAFETY AND DETAIL INSTALLATION MANUAL BEFORE USING THE PRODUCT (Refer to our Website).

Note: • The specifications included in this datasheet are subject to change without notice.

- The electrical data given here is for reference purpose only. • Please confirm your exact requirements with the sales representative while placing your order. All models sold will betas per INA QAP.
- \*\* Warranty: Please read INA solar warranty documents thoroughly.

## I-V CHARACTERISTICS AT DIFFERENT IRRIDANCE





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