

Navgrun



Nithin Sai Renewables Pvt Ltd

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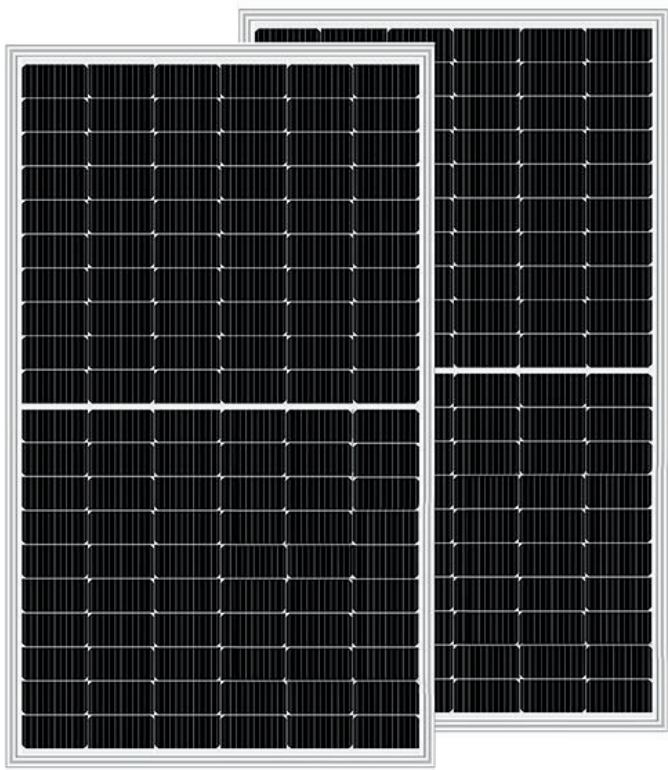


MBB TOPCON N-Type M10R

Halfcut-cell

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NS144B, 560 - 590/1500 V Series Bi-Facial Glass-Glass



POWER

- Module power from **560 W to 590 W**
- Comprehensive LID/Le TID mitigation technology, up to 50% lower degradation
- Cost effective product for utility power plant
- Less shading effect

RELIABILITY

- Heavy snow load up to 5400 Pa
Heavy load up to 2400 Pa
- Low temperature coefficient



LINEAR PERFORMANCE
WARRANTY



PRODUCT WARRANTY

ALMM & BIS Approved

Advanced Technology Features

Cylindrical Tabbing Wire reduces the shadow on active cells and increases the PV module's generation efficiency.	Higher Power Output Enhanced module output 5-25% generally, bringing significantly lower LCOE and higher IRR.	Field Reliability Improved due to multi-contacts in the cell, reducing cell stress.
Minimal Power Loss Optimized through low Internal Resistance.	Industry Leading 30 Years linear performance warranty.	PID Resistance Excellent Anti-PID performance guarantee via optimised mass-production process and materials control.
Bypass Diodes Within split JB enable PV module to perform in partial shadow conditions.	Strong Quality Check and Quality Assurance with Pre and Post EL tests.	

Certifications

IEC 61215:2021, 61730 1-2:2023, 61701 (Sev 6 ed. 3), 62716	BIS IS 14286:2023, IS 61730-1:2016, IS 61730-2:2016 Std
IEC 60068-2-68	CE Certified
IEC TS 62804-1	LeTID
IEC 61853-1	UL 61730:2022
IEC 61853-2	



TECHNICAL DATA

MBB TOPCON N-Type M10R Halfcut-cell

NS144B, 560 - 590/1500 V Series Bi-Facial Glass-Glass

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Electrical Parameters at STC

Model	NS-N16-144HG 560 - 590 Series							
Module Type	UoM	NS-N16-144HG 560	NS-N16-144HG 565	NS-N16-144HG 570	NS-N16-144HG 575	NS-N16-144HG 580	NS-N16-144HG 585	NS-N16-144HG 590
Maximum Power (Pmax)	Wp	560	565	570	575	580	585	590
Maximum Voltage (Vmpp)	V	43.91	43.95	43.99	44.03	44.07	44.11	44.15
Maximum Current (Impp)	A	12.76	12.86	12.96	13.07	13.17	13.27	13.37
Open Circuit Voltage (Voc)	V	51.18	51.22	51.26	51.30	51.34	51.38	51.42
Short Circuit Current (Isc)	A	13.40	13.50	13.61	13.71	13.83	13.93	14.04
Module Efficiency	%	21.66	21.86	22.05	22.24	22.44	22.63	22.83

STC: Irradiance 1000 W/m², module temperature 25°C, air mass 1.5 g, spectrum according to EN 60904-3.
Power measurement tolerance is within -0 ~± 5Wp. Voc and Isc tolerance ±3%.
Maximum system voltage 1500 V, Maximum Fuse Rating 30A.

Electrical Parameters at NOCT

Model	NS-N16-144HG 560 - 590 Series							
Module Type	UoM	NS-N16-144HG 560	NS-N16-144HG 565	NS-N16-144HG 570	NS-N16-144HG 575	NS-N16-144HG 580	NS-N16-144HG 585	NS-N16-144HG 590
Maximum Power (Pmax)	Wp	412	416	419	423	427	430	434
Maximum Voltage (Vmpp)	V	40.74	40.78	40.82	40.86	40.89	40.93	41.00
Maximum Current (Impp)	A	10.11	10.19	10.27	10.35	10.43	10.51	10.59
Open Circuit Voltage (Voc)	V	47.82	47.86	47.9	47.93	47.97	48.01	48.61
Short Circuit Current (Isc)	A	10.68	10.76	10.85	10.93	11.02	11.10	11.19
Module Efficiency	%	15.95	16.09	16.23	16.38	16.52	16.66	16.76

NOCT: Irradiance 800 W/m², ambient temperature 20°C, wind speed 1m/s, tolerance ±3%.

Gain	NS-N16-144HG 560	NS-N16-144HG 565	NS-N16-144HG 570	NS-N16-144HG 575	NS-N16-144HG 580	NS-N16-144HG 585	NS-N16-144HG 590
10%	616.0	621.5	627.0	632.5	638.0	643.5	649.0
20% Power (Pmax)	672.0	678.0	684.0	690.0	696.0	702.0	708.0
30%	728.0	734.0	741.5	747.5	754.0	760.5	767.0

Bifacial gains depend on the power plant design and albedo of the installation site.
Power Bifaciality + Pmax(Rear)/Pmax(Front) are tested under STC.

Mechanical Data

Length x Width x Height	2278 x 1134 x 30 mm, ± 2 mm
Weight	34 kg ± 2 kg
Junction Box	IP68, 3 Split Junction Box with Individual Bypass Diodes
Output Cable	Length: 400 mm / As Per Customer Requirement, Dia: 4 mm ²
Connector	MC4 Compatible
Application Class	Class A (Safety Class II)
Glass Front / Glass Rear	Semi-tempered - High Transmittance ARC Glass 2 mm / High Transmittance Non-ARC Glass 2mm
Solar PV Cells	TOPCON 10BB / 16BB - M10R N Type
Cell Encapsulant	EPE (EVA-POE)
Frame	Anodised (15 µ) Aluminium Frame, Silver
Mechanical Load Test	5400 Pa (Snow Load), 2400 Pa (Wind Load)
Fire Performance	Type 4 (UL 61730) or Class C (IEC 61730)
Country of Origin	India

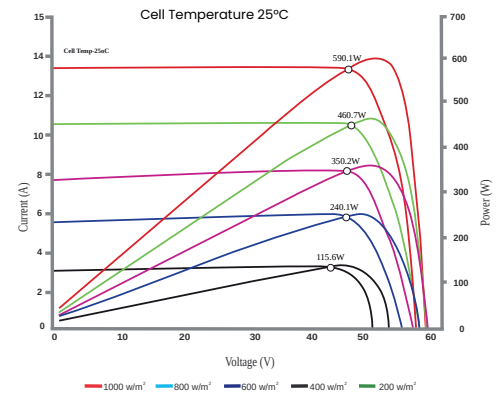
Operating Conditions	
Temperature Coefficient Voc, β	-0.27%/°C
Temperature Coefficient Isc, α	0.04%/°C
Temperature Coefficient Pmax, γ	-0.30%/°C
NOCT	42°C±3°C
Temperature range	-40°C to +85°C

- 30-Year Linear Performance Warranty
- 12-Year Product Warranty

- <1.0% degradation for 1st year
- <0.40% from 2nd year onward to 30th year

Note: The specifications in this data sheet may deviate slightly from our actual products due to the ongoing innovation and product enhancement. We reserve the right to make necessary adjustments to the information described herein at any time without further notice.

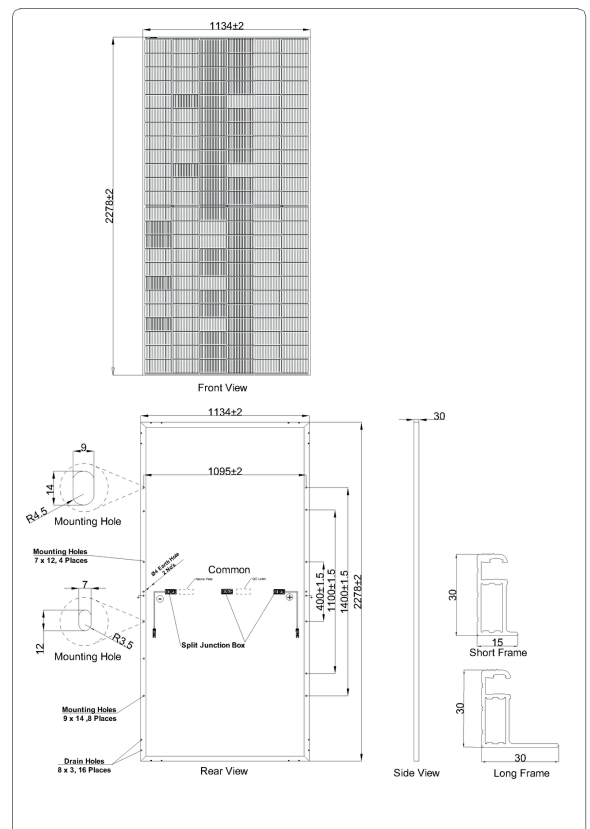
Typical I-V Curves



Packaging Information

Container	20'GP	32'HQ	40'HQ
Quantity per Pallet	36	36	36
Pallet/Container	8	16	20
Quantity/Container	288	576	720

Mechanical Diagrams



Remark: Customized frame colour and length available upon request

***WARRANTY: Please refer the Warranty Card.**

***CAUTION: Please read safety and installation instructions before using the product.**

Contact Us

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Factory

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