

Navgrun



Nithin Sai Renewables Pvt Ltd

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MBB Mono PERC P-Type M10 Halfcut-cell

NS500M, 525 - 550/1500 V Series Mono-Facial

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POWER



Module power from **525 W to 550 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

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

25 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 2016, 61701 (Sev 6 ed. 3), 62716	BIS Certified
IEC 60068	CE Certified
IEC TS 62804	LeTID
IEC 61853-1 & 2	UL 61730 2017



TECHNICAL DATA

MBB Mono PERC M10 Halfcut-cell

NS500M 525- 550/1500 V Series | Mono-Facial

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Electrical Parameters at STC

Model	NS-P10-144HB-525-550 Series						
Module Type	UoM	NS-P10-144HB 525	NS-P10-144HB 530	NS-P10-144HB 535	NS-P10-144HB 540	NS-P10-144HB 545	NS-P10-144HB 550
Maximum Power (Pmax)	Wp	525	530	535	540	545	550
Maximum Voltage (Vmpp)	V	41.80	41.84	41.88	41.92	41.96	41.98
Maximum Current (Impp)	A	12.56	12.67	12.77	12.88	12.99	13.12
Open Circuit Voltage (Voc)	V	49.28	49.32	49.36	49.40	49.44	49.48
Short Circuit Current (Isc)	A	13.38	13.49	13.60	13.72	13.83	13.98
Module Efficiency	%	20.31	20.51	20.70	20.89	21.09	21.28

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

Electrical Parameters at NOCT

Model	NS-P10-144HB-525-550 Series						
Module Type	UoM	NS-P10-144HB 525	NS-P10-144HB 530	NS-P10-144HB 535	NS-P10-144HB 540	NS-P10-144HB 545	NS-P10-144HB 550
Maximum Power (Pmax)	Wp	386	390	394	397	401	405
Maximum Voltage (Vmpp)	V	38.79	38.82	38.86	38.90	38.94	38.98
Maximum Current (Impp)	A	9.96	10.04	10.13	10.21	10.30	10.39
Open Circuit Voltage (Voc)	V	46.05	46.08	46.12	46.16	46.19	46.53
Short Circuit Current (Isc)	A	10.66	10.75	10.85	10.94	11.03	11.14
Module Efficiency	%	14.94	15.09	15.23	15.37	15.51	15.62

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

Mechanical Data

Length x Width x Height	2278 x 1134 x 35 mm, ± 2 mm
Weight	28 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	High Transmittance ARC Glass, 3.2 mm
Solar PV Cells	72 Mono PERC (144 Halfcut-Cells) P Type
Cell Encapsulant	EVA (Ethylene Vinyl Acetate)
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

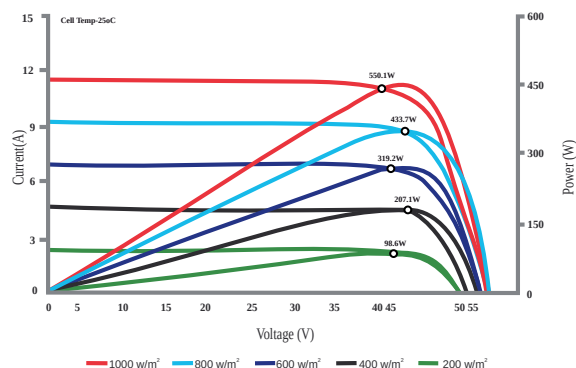
Temperature Coefficient Voc, β	-0.27%/°C
Temperature Coefficient Isc, α	0.05%/°C
Temperature Coefficient Pmax, γ	-0.35%/°C
NOCT	42°C±2°C
Temperature range	-40°C to +85°C

- 25-Year Linear Performance Warranty
- 12-Year Product Warranty

- <2.0% degradation for 1st year
- 0.55% from 2nd year onward to 25th year

Typical I-V Curves

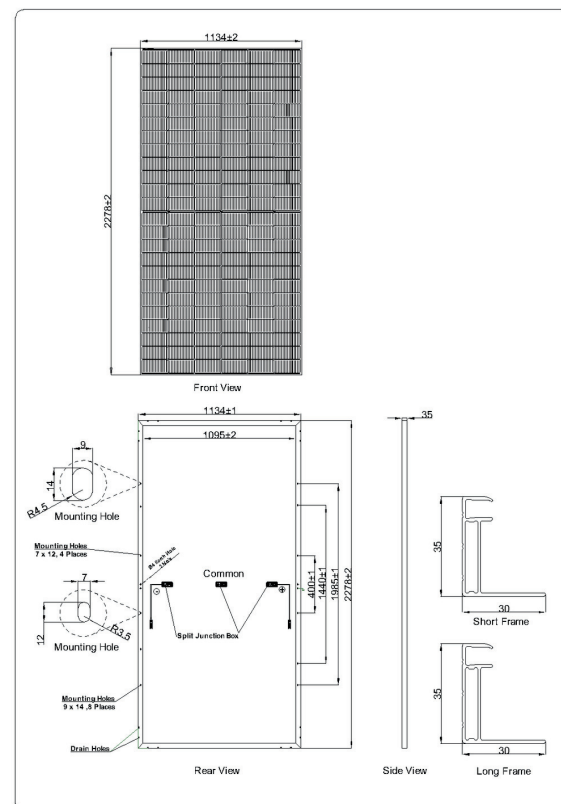
Cell Temperature 25°C



Packaging Information

Container	20'GP	32'HQ	40'HQ
Quantity per Pallet	31	31	31
Pallet/Container	8	16	20
Quantity/Container	248	496	620

Mechanical Diagrams



Remark: Customized frame colour and length available upon request

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.

***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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