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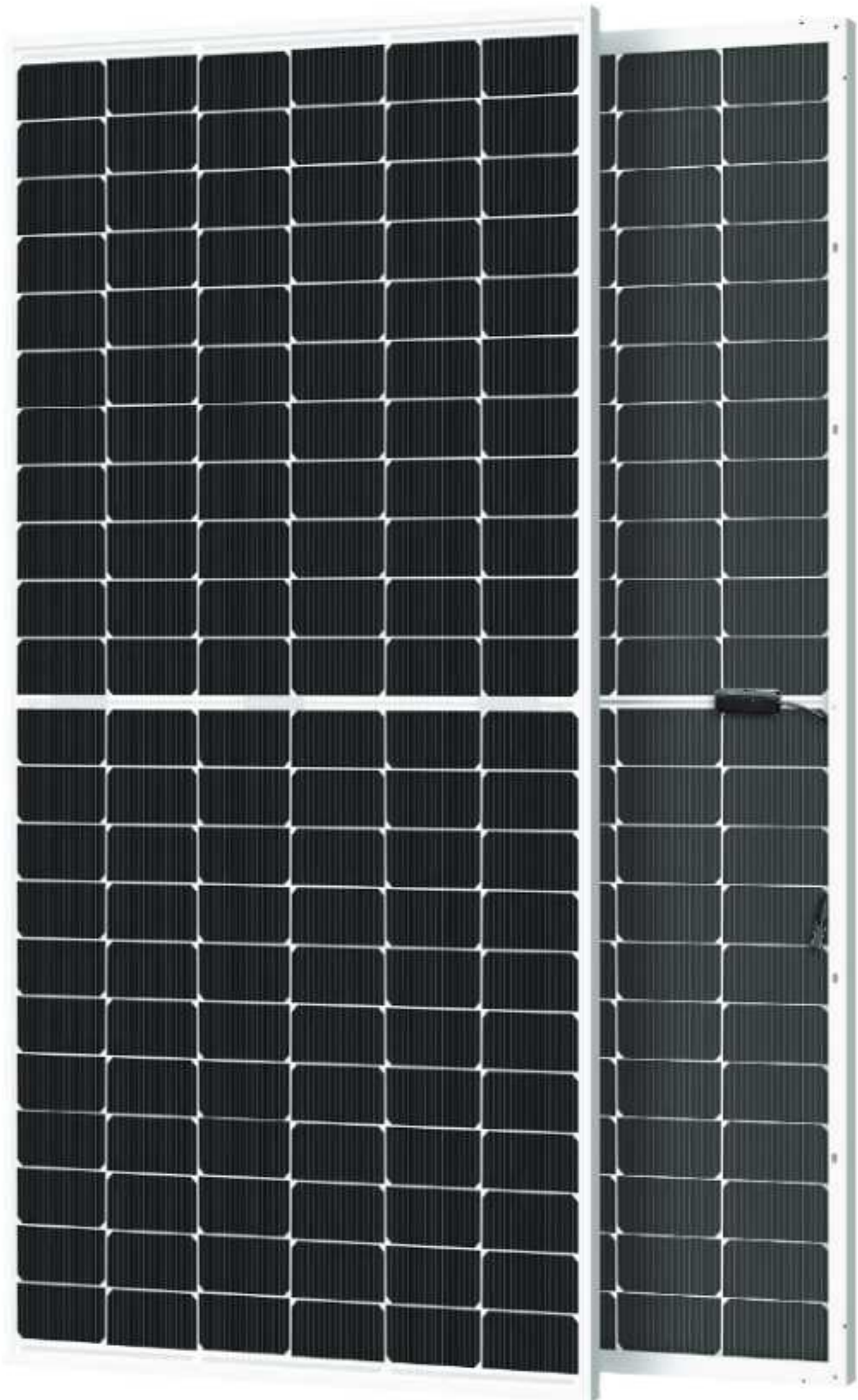


MBB TOPCON N-Type G12R

Half Cut Cell



CAL600B, 620 - 635/1500 V Series
Bi-Facial Glass-Glass



POWER

- Module power from **620 W to 635 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	CE Certified
IEC 60068	LeTID
IEC TS 62804-1	UL 61730 2022
IEC 61853-1 & 2	
BIS IS 14286:2023, IS 61730-1:2016, IS 61730-2:2016	



*Certification in process

Electrical Parameters at STC					
Model					
Module Type	UoM	CAL-N16-132HG 620	CAL-N16-132HG 625	CAL-N16-132HG 630	CAL-N16-132HG 635
Maximum Power (Pmax)	Wp	620	625	630	635
Maximum Voltage (Vmpp)	V	40.82	40.95	41.05	41.18
Maximum Current (Impp)	A	15.19	15.27	15.35	15.42
Open Circuit Voltage (Voc)	V	49.14	49.30	49.43	49.56
Short Circuit Current (Isc)	A	16.04	16.11	16.19	16.26
Module Efficiency	%	22.95	23.14	23.32	23.51

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		Series CAL-N16-132HG 620-635			
Module Type	UoM	CAL-N16-132HG 620	CAL-N16-132HG 625	CAL-N16-132HG 630	CAL-N16-132HG 635
Maximum Power (Pmax)	Wp	470.15	474	477.80	481.50
Maximum Voltage (Vmpp)	V	38.69	38.81	38.91	39.03
Maximum Current (Impp)	A	12.15	12.21	12.28	12.34
Open Circuit Voltage (Voc)	V	46.93	47.08	47.21	47.33
Short Circuit Current (Isc)	A	12.93	12.99	13.05	13.11
Module Efficiency	%	17.41	17.55	17.69	17.83

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

Gain		CAL-N16-132HG 620	CAL-N16-132HG 625	CAL-N16-132HG 630	CAL-N16-132HG 635
10%	Power (Pmax)	682	687.5	693	698.5
20%		744	750	756	762
30%		806	812.5	819	825.5

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	2382 x 1134 x 30/35 mm
Weight	32.5 kgs
Junction Box	IP68, 3 Split Junction Box with Individual Bypass Diodes
Output Cable	Length: 500 mm / As Per Customer Requirement, Dia: 4 mm²
Connector	MC4 Compatible
Application Class	Class A (Safety Class II)
Glass Front/Rear	Semi-tempered - High Transmittance Glass 2 mm / High Transmittance Glass 2 mm
Solar PV Cells	132 Cells G12R N-Type TOPCon Bifacial
Cell Encapsulant	EVA/ EPE/ POE, UV Resistant & PID-free
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

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.

