ENLUME

"N" TOPCon Technology | G12R - G2G

AVAADA

AVN66G12RG | N-type Bifacial - Glass to Glass | 132 Cells | 630 Watt | > 23.30% Efficiency



"N" TOPCON TECHNOLOGY

610 - 630 WATT

Up to 30% Additional Power Generation Gain
Additional power gain from rear side depending on albedo

LOW LID (Light Induced Degradation)
TOPCon cells have low LID, because of its N-Type silicon substrate

Lower LCOE
High bifaciality, high power output, saving BOS cost

Better Weak Illumination Response
Wide spectral response, higher power output even under low-light settings like smog or cloudy days

Better Temperature Coefficient
TOPCon cell has a better temperature coefficient which help in better performance in hot climate

Wider Applicability
Vertical installation, snowfield, high-humid area

630 W	0~+5 W	16 BB
MAXIMUM POWER OUTPUT	POWER OUTPUT TOLERANCE	MULTI BUSBAR

Key Features

- Fully automatic facility with cutting-edge technology
- Guaranteed positive tolerance to ensure power output reliability
- Split junction boxes reduce module temperature resulting increased module reliability

Quality & Reliability

- IP68 rated junction box for long-term weather endurance
- Made with high-graded raw material to achieve Quality, Durability, Efficiency, and through output
- 12 Years Workmanship & 30 Years Linear Performance Warranty

Disclaimer: As part of continuous innovation and R&D improvements, the specifications and key features outlined in this datasheet may be subject to minor changes and are not guaranteed. Avaada Electro Pvt. Ltd. reserves the right to update the information provided at any time without prior notice. To ensure accuracy, please always refer to the latest version of the datasheet, which will be considered a part of the binding contract governing all transactions related to the purchase and sale of the products described herein.

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TECHNICAL DATA

ENLUME

AVN66G12RG | N-type Bifacial - Glass to Glass | 132 Cells | 630 Watt | > 23.30% Efficiency

Electrical Parameter at STC

Module Type	AVN66G12RG				
Capacity rating – Pmax (Wp*)	610	615	620	625	630
Rated voltage - Vmp(V)	40.85	41.05	41.25	41.45	41.65
Rated current - Imp(A)	14.94	14.99	15.04	15.08	15.12
Open circuit voltage - Voc(V)	47.80	48.00	48.20	48.40	48.60
Short circuit current - Isc(A)	15.85	15.90	15.95	16.00	16.05
Module efficiency (%)	22.60	22.80	23.00	23.14	23.30

**STC: Irradiance 1000W/m2, Cell Temperature 25°C, Air Mass AM1.5. *Measuring tolerance: ±3%.*

Electrical Parameter at NOCT

Capacity rating – Pmax (Wp*)	459	462	466	470	474
Rated voltage - Vmp(V)	38.06	38.19	38.39	38.62	38.83
Rated current - Imp(A)	12.06	12.10	12.14	12.17	12.21
Open circuit voltage - Voc(V)	45.41	45.60	45.79	45.98	46.17
Short circuit current - Isc(A)	12.80	12.84	12.88	12.92	12.96

**NOCT: Irradiance at 800 W/m², Ambient Temperature 20°C, Wind Speed 1 m/s. *Power Bifaciality:80±5%*

Mechanical Specification

Specification	Details
Solar cells	N type TOPCon, MBB 132 Cell
Encapsulation	POE/EPE/EVA
Back glass	2.0mm, Semi Tempered Glass
Front glass	2.0mm, Anti-Reflection Coated
Frame	Anodized Aluminum Alloy
Dimensions	(L) 2382 mm x (W) 1134 mm x (H) 35mm
Weight	34 kg
J-box	IP 68 certified, 3 diodes
Cable	Solar cable 4 mm² , length 300 mm / customized
Connectors	MC4-compatible connectors

Operating Properties

Temperature range	-40°C to + 85°C
Maximum system voltage	1500 VDC
Power Tolerance	0 ~ +5 W
Bifaciality factor (As per Lab)	80± 5%

Temperature Coefficient

NOCT(Nominal Operating Cell Temperature)	45°C (±2°C)
Temperature Coefficient of Pmax	- 0.30%/°C
Temperature Coefficient of Voc	- 0.25%/°C
Temperature Coefficient of Isc	0.04%/°C

Certificates†

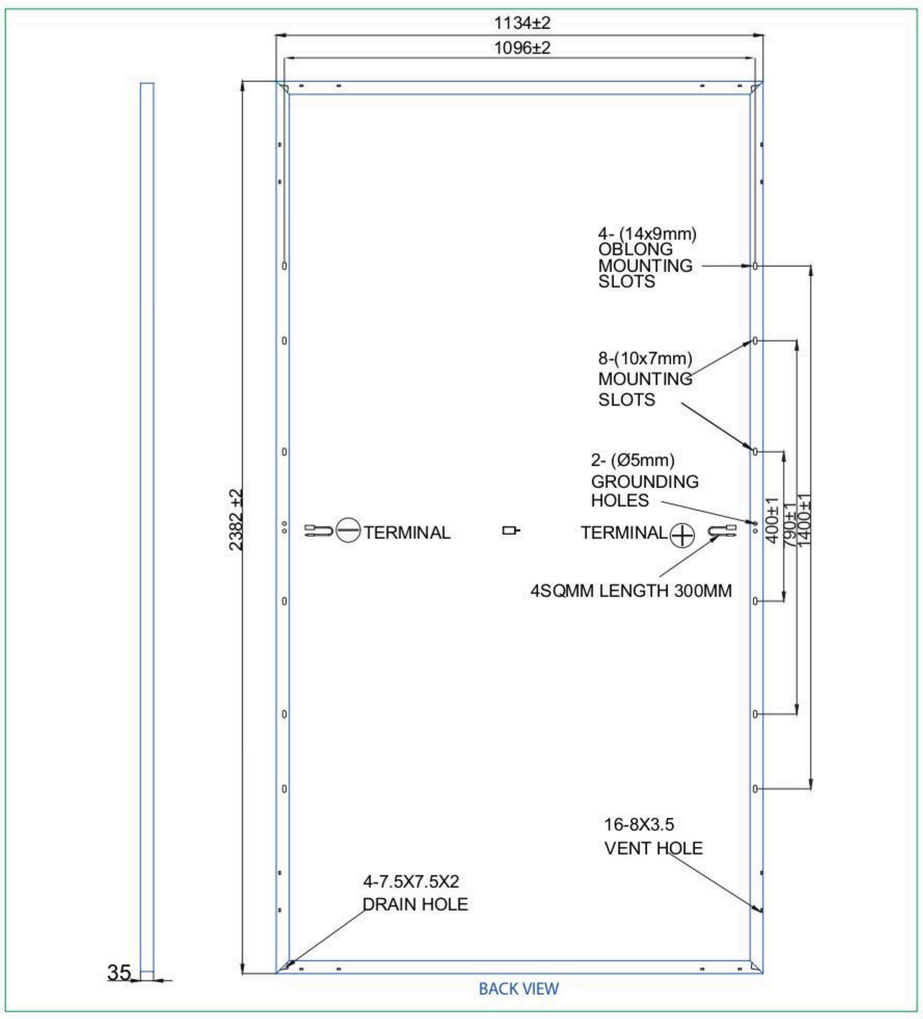
BIS | IEC 61730 | IEC 61215 | UL 61730 | IEC 62804(PID) | IEC 61701 (Salt Mist) | IEC 61716(Ammonia)
IEC 62782 | LID, LeTID | IEC 60068(Sand & Dust) | CEC | CE

† Few Certifications in process

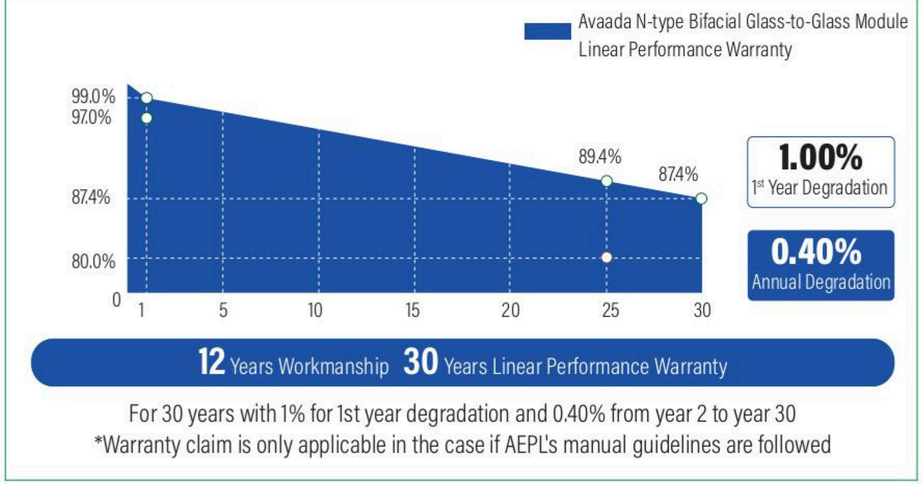
Packing Configuration

Container	40'HQ
Modules per Pallet	31
Pallets per Container	20
Modules per Container	620

Dimensions in mm



Performance Warranty



For 30 years with 1% for 1st year degradation and 0.40% from year 2 to year 30
*Warranty claim is only applicable in the case if AEPL's manual guidelines are followed

IV-Curve

