ENLUME

"N" TOPCon Technology | G12R - G2TB

AVAADA

AVN66G12RTB | N-type Bifacial - Transparent Backsheet | 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

TECHNICAL DATA

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Electrical Parameter at STC

Module Type	AVN66G12RTB				
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
Substrate	Transparent Patterned Backsheet
Front glass	High Transmission ARC glass 3.2 mm
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†

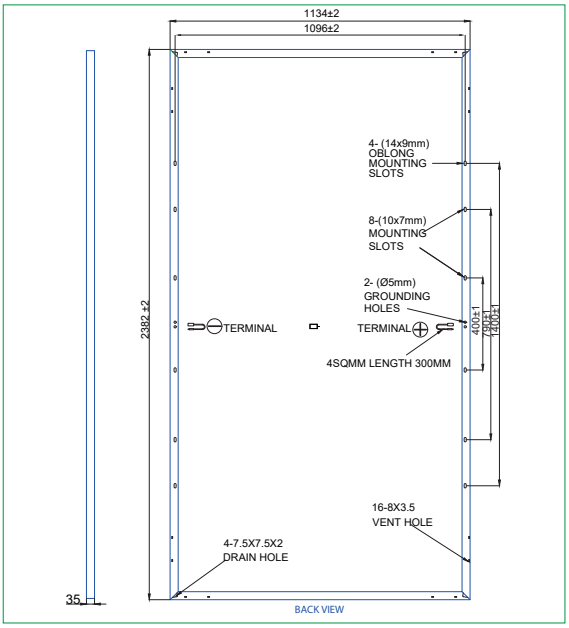
BIS | IEC 61730 | IEC 61215 | UL 61730 | IEC 62804(PID) | IEC 61701 (Salt Mist) | IEC 61716(Ammonia)
IEC 62782 | LID, LeTID | IEC 60068(Sand & Dust) | CEC | CE

† Few Certifications in process

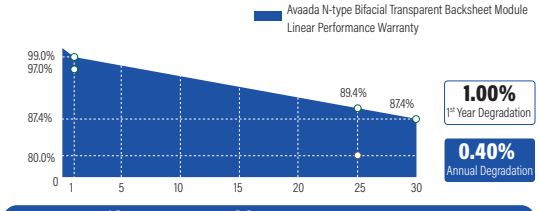
Packing Configuration

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