

Presentation






A premium photovoltaic solar panel, certified for its quality and with high efficiency.

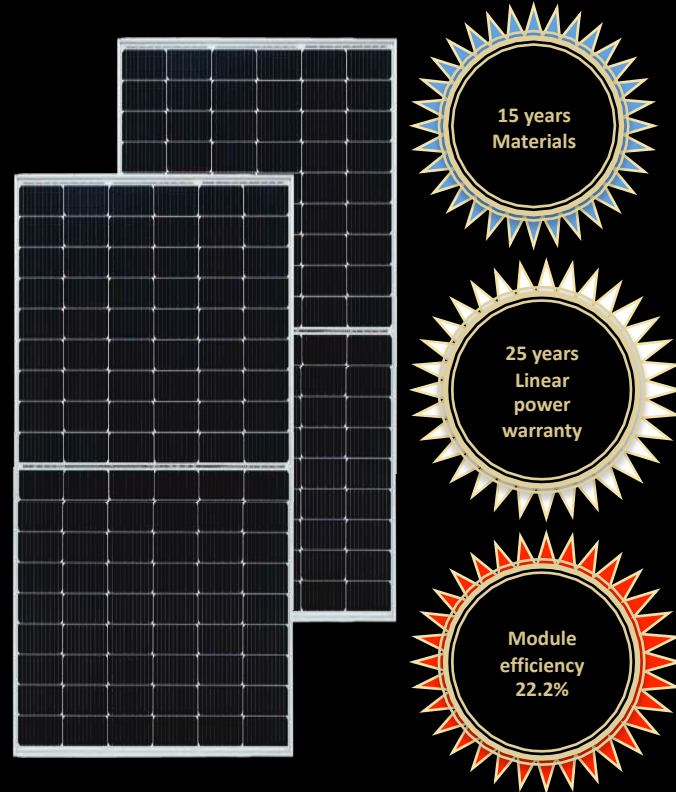
This innovative technology, TOPCon N type solar cells, cell dimensions 182*182 mm

TOPCon cells offer improved efficiency, better low light performance and increased durability compared to other types of solar cells.

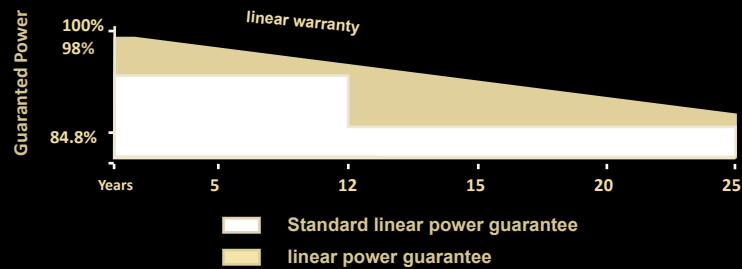
The perfect solution for customers looking for a return on investment.

Product Advantages

-  **MBB half-cut cell technology**
New circuit design, lower internal current, lower Rs loss
-  **Significantly lower the risk of hot spot**
Special circuit design with much lower hot spot temperature
-  **Lower LCOE**
2% more power generation, lower LCOE
-  **Exellent Anti-PID prformance**
2 times of industry standar Anti-PID test by TUV SUD
-  **IP68 junction box**
High waterprof level



Performance Warranty



- 2.00%**
First year power degradation
- 0.55%**
Annual degradation

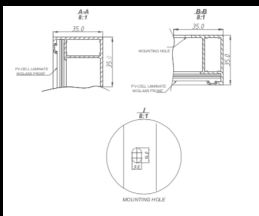
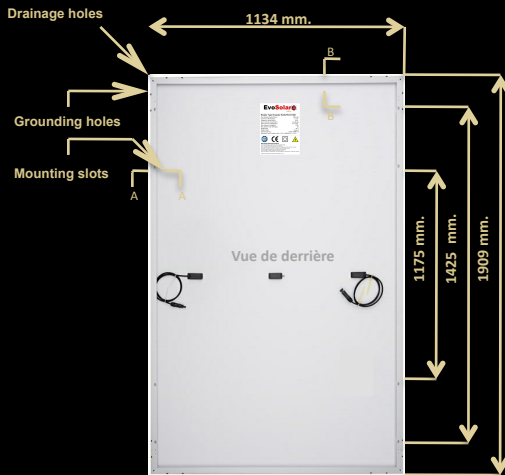
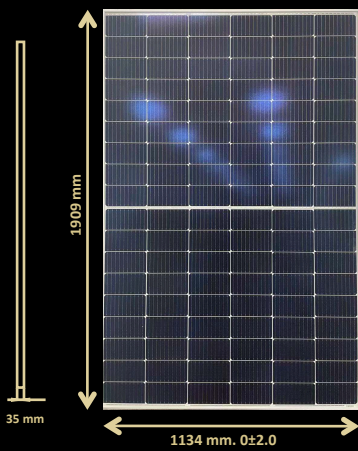
Product Certification

Certification IEC	IEC 61215 & IEC 61730	
Certification ISO	ISO 9001 & ISO 14001	
Certification	CE	
Certification ETN	K2 System SingleRail / SolidRail Renusol MS+ / VS+	Approval pending Approval pending
Static Loading	Snow Loading: 5400Pa/ Wind Loading: 2400Pa	
Power Tolerance(W)	+0/+5	
Garanties	15 years Materials and workmanship warranty 25 years Linear power warranty	
Certification TUV	No. Z2 118390 0001 Rev. 00	

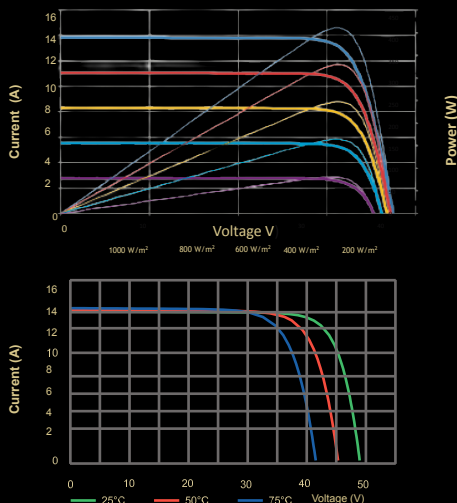


CERTIFICATE N° Z2 118390 0001 Rév. 01

TECHNICAL DRAWINGS



I-V CURVE
Current-Voltage & Power-Voltage Curve



ELECTRICAL PARAMETERS

Maximum Power (Pmax/W)*	460 W	465 W	470 W	475 W	480 W
Operating Voltage (Vmp/V)	35.3	35.5	35.7	35.9	36.1
Operating Current (Imp/A)	13.04	13.10	13.17	13.24	13.30
Open-Circuit Voltage (Voc/V)	42.6	42.8	43.0	43.2	43.4
Short-Circuit Current (Isc/A)	13.74	13.83	13.91	13.99	14.08
Module Efficiency ηm(%)	21.3	21.5	21.7	21.9	22.2
Power Tolerance(W)	0~+5				

STC: Irradiance 1000W/m², module temperature 25 °C, AM=1.5; *Measuring tolerance: ±3%

Performance at NMOT

Maximum Power (Pmax/W)	353 W	357 W	361 W	365 W	369 W
Open-Circuit Voltage (Voc/V)	33.2	33.4	33.6	33.8	34.0
Operating Current (Imp/A)	10.64	10.69	10.75	10.80	10.86
Open-Circuit Voltage (Voc/V)	40.3	40.5	40.7	40.9	41.1
Short-Circuit Current (Isc/A)	11.16	11.23	11.30	11.51	11.44

NMOT : Irradiance 800W/m², température ambiante 20°C, AM=1.5, vitesse du vent 1m/s

MECHANICAL SPECIFICATION

Cell Type	N-Type TOPCon Monocrystalline
Cell Dimensions	182*182mm
Cell Arrangement	120 (6*20)
Weight	24kg
Module Dimensions	1909*1134*35mm
Cable Length	Cable length 350mm or customized length
Cable Cross Section Size	TÜV: 4mm ²
Front Glass	3.2mm AR Coating Tempered Glass
No. of Bypass Diodes	3/6
Packing Configuration	31pcs/Carton, 744pcs/40HQ
Frame	Anodized Aluminium Alloy/ Black Frame / Full Black
Junction Box	IP68

OPERATING CONDITIONS

Maximum System Voltage	1000V/1500V/DC (IEC)
Operating Temperature	-40°C to +85°C
Maximum Series Fuse	25A
Static Loading	Snow Loading: 5400Pa/ Wind Loading: 2400Pa
Conductivity at Ground	≤0.1Ω
Safety Class	II
Resistance	≥100MΩ
Connector	MC4 compatible

TEMPERATURE COEFFICIENT

Temperature Coefficient Pmax	-0.30%/°C
Temperature Coefficient Voc	-0.25%/ °C
Coefficient de température Isc	+0.046%/°C
NMOT	42±2°C