

OYUNGSOLAR

OSM54NTM

435-460 Watt

HALF CELL

N-Type TOPCon

MONOFACIAL MODULE

N-Type Technology

N-Type modules with Tunnel Oxide Passivating Contacts (TOPcon) technology offer lower LID/LeTID degradation and better low light performance.

HOT 3.0 Technology

N-type modules with HOT 3.0 technology offer better reliability and efficiency.

Dual-Sided Power Generation

Dual-sided power generation gain increases with backside exposure to light, significantly reducing LCOE.

Mechanical Load Enhanced

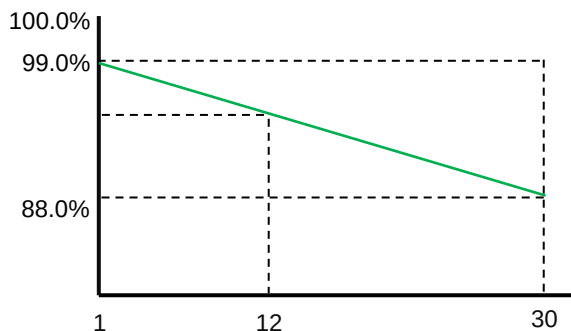
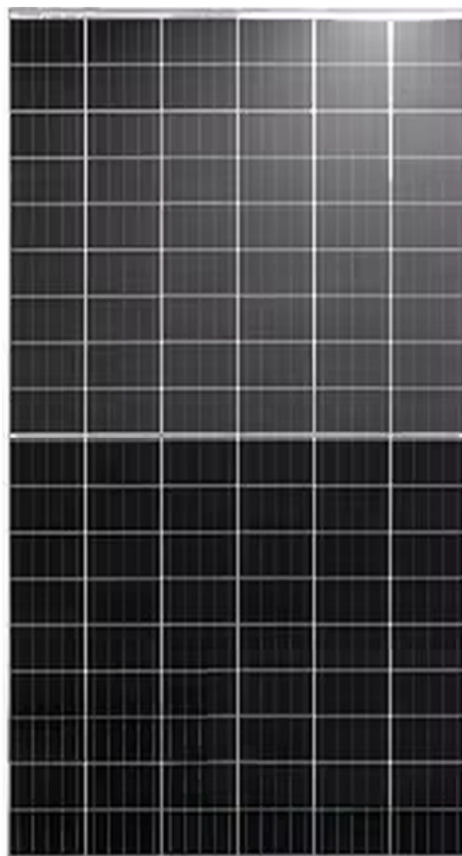
Certified to withstand: 6000 Pa front side max static test load 4000 Pa rear side max static test load

SMBB Technology

Better light trapping and current collection to improve module power output and reliability.

Anti-PID Guarantee

Minimizes the chance of degradation caused by PID phenomena through optimization of cell production technology and material control.



12years
Product
Warranty

30years
Linear Power
Warranty

1.0%
First-year
Degradation

0.40%
Annual Degradation
Over 30 Years

IEC61215:2021 / IEC61730:2023

IEC61701 / IEC62716 / IEC60068 / IEC62804

ISO9001:2015: Quality Management System

ISO14001:2015: Environment Management System

ISO45001:2018: Occupational health and safety management systems



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Mechanical Parameters

Cell Type	N-type TOPCon
No. of cells	108 (54×2)
Dimension	1762×1134×30mm
Weight	21.0kg
Front Glass	3.2 mm, anti-reflection coating
Frame	anodized aluminium alloy
Junction Box	IP68 rated
Protection Class	Class II
IEC Fire Type	Class C
Output Cables	4.0mm ² , (+): 400mm, (-): 200mm, or customized length

Packaging Configuration

Pallet Dimensions	1792×1140×1249 mm
Packing Detail	37 pcs/pallets, 962 pcs/ 40'HC

Specifications (STC)

Maximum Power (Pmax/W)	435	440	445	450	455	460
Maximum Power Voltage (Vmp/V)	32.59	32.81	33.02	33.21	33.41	33.60
Maximum Power Current (Imp/A)	13.35	13.41	13.48	13.55	13.62	13.69
Open-circuit Voltage (Voc/V)	39.16	39.38	39.59	39.78	39.98	40.17
Short-circuit Current (Isc/A)	13.80	13.86	13.93	14.00	14.07	14.14
Module Efficiency (STC/%)	21.77	22.02	22.27	22.52	22.77	23.02
Power Tolerance	0~3%					
Temperature Coefficients of Pmax	-0.29%/°C					
Temperature Coefficients of Voc	-0.25%/°C					
Temperature Coefficients of Isc	0.045%/°C					

STC: Irradiance 1000W/m², Cell Temperature 25°C, AM=1.5

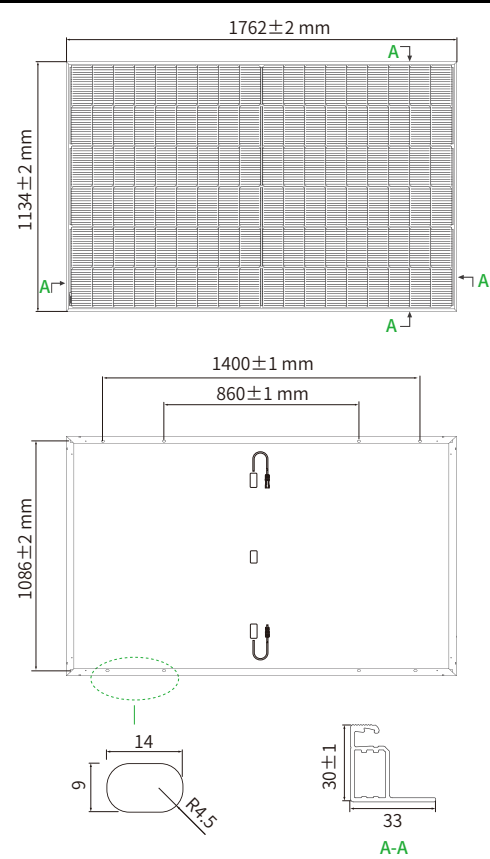
Application Conditions

Operating Temperature	-40°C ~ +70°C
Maximum System Voltage	1000/1500 VDC (IEC)
Maximum Series Fuse Rating	25A

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Engineering Drawings



Electrical Performance

