

# OYUNGSOLAR

## OSM54NTM

430-455 Watt

HALF CELL

N-Type TOPCon

FULL BLACK MONOFACIAL MODUL

### 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

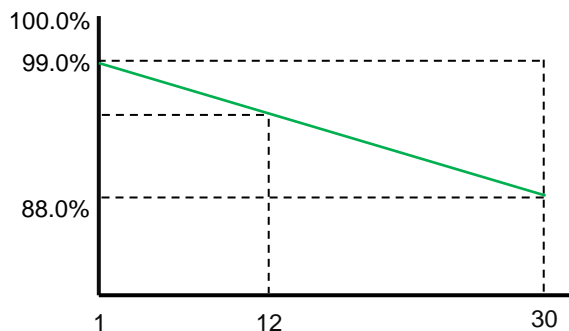
Certified to withstand: 6000 Pa front side max static test load 4000 Pa rear side max static test load

### 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.



**12**years  
Product  
Warranty

**30**years  
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



OSM54NTM 430-455 FB

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# OSM54NTM 430-455 FB

## Mechanical Parameters

Cell Type	N-type TOPCon
No. of cells	108 (54x2)
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 <sup>2</sup> , (+): 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)	430	435	440	445	450	455
Maximum Power Voltage (Vmp/V)	32.58	32.78	32.99	33.19	33.39	33.58
Maximum Power Current (Imp/A)	13.20	13.27	13.34	13.41	13.48	13.55
Open-circuit Voltage (Voc/V)	39.16	39.36	39.57	39.77	39.97	40.17
Short-circuit Current (Isc/A)	13.65	13.72	13.80	13.87	13.94	14.01
Module Efficiency (STC/%)	21.52	21.77	22.02	22.27	22.52	22.77
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/m<sup>2</sup>, Cell Temperature 25°C, AM=1.5

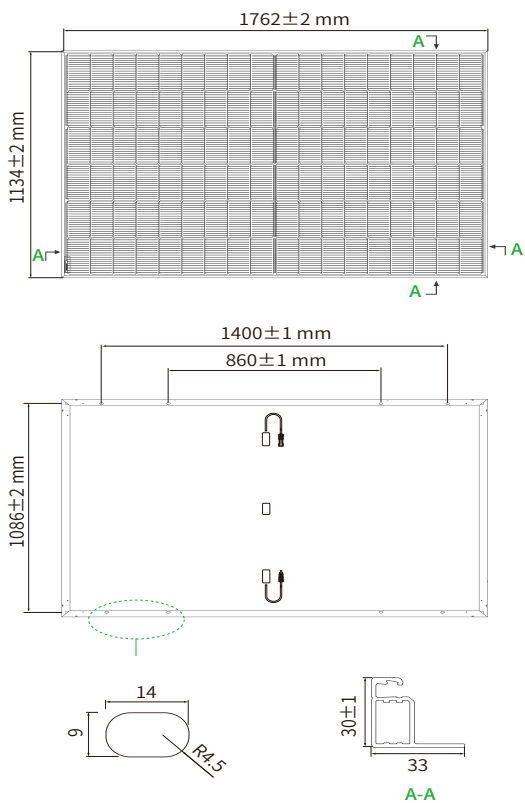
## Application Conditions

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

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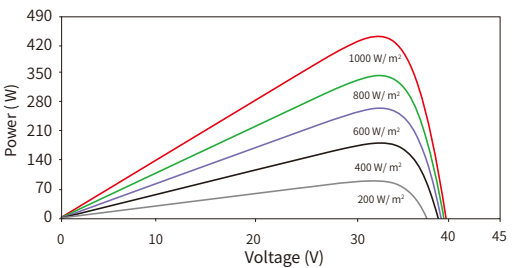
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## Engineering Drawings



## Electrical Performance

Power-Voltage Curves (445W)



Current-Voltage Curves (445W)

