

OYUNGSOLAR

OSM48NHM

440-465 Watt

HALF CELL

N-Type HJT

MONOFACIAL MODULE

Ultra-high Power Output

Power output until the 30th year more than 90.3%.

HJT Technology

Combining gettering process and double-sided $\mu\text{c-Si}$ to improve cell efficiency and module power.

Ultra-low Annual Power Degradation

Annual power degradation less than 0.3%.

No LID, No PID

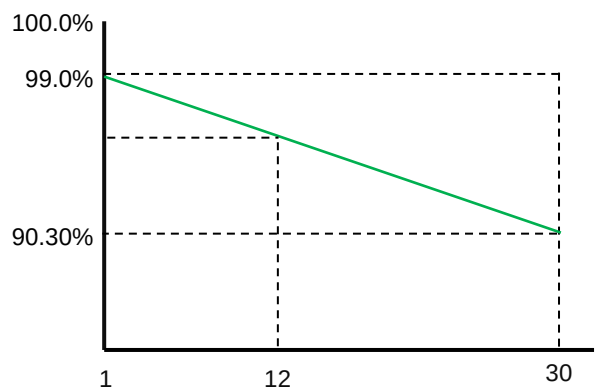
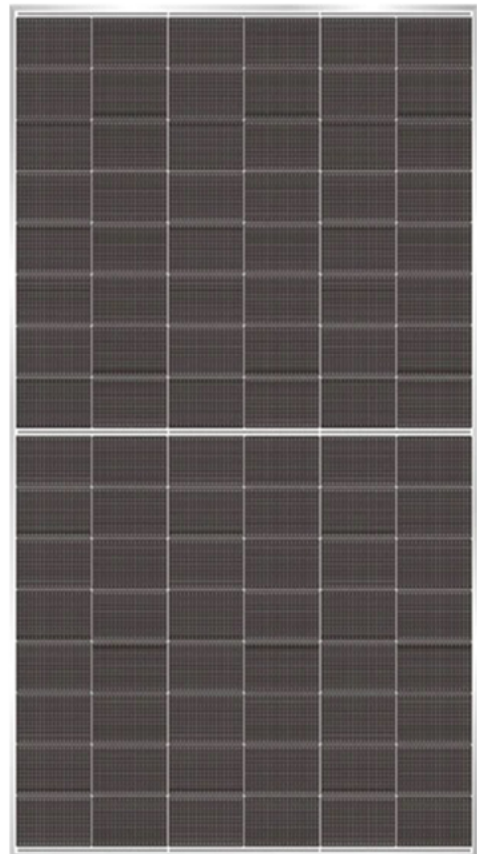
Better performance and efficiency, ultra-high power generation.

Sealing with PIB

Stronger water resistance, greater air impermeability to extend module lifespan.

Suitable for Solar Rooftop System

Lower BOS cost, lower LCOE.



15 years
Product
Warranty

30 years
Linear Power
Warranty

≤1.0%
First-year
Degradation

≤0.30%
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 HJT
No. of cells	96 (48×2)
Dimension	1762×1134×30mm
Weight	21.80kg
Front Glass	2.0 mm, anti-reflection coating
Back Glass	/
Frame	anodized aluminium alloy
Junction Box	IP68 rated
Protection Class	Class II
IEC Fire Type	Class C
Output Cables	4.0mm ² , (+): 1250mm, or customized length

Packaging Configuration

Pallet Dimentions	/
Packaging Detail	36pcs/pallet, 936pcs/40'HC

Specifications (STC)

Maximum Power (Pmax/W)	440	445	450	455	460	465
Maximum Power Voltage (Vmp/V)	30.61	30.72	30.83	30.94	31.05	31.16
Maximum Power Current (Imp/A)	14.38	14.49	14.60	14.71	14.82	14.93
Open-circuit Voltage (Voc/V)	36.52	36.62	36.72	36.82	36.92	37.02
Short-circuit Current (Isc/A)	15.31	15.42	15.53	15.64	15.75	15.86
Module Efficiency (STC/%)	22.00	22.30	22.50	22.80	23.00	23.30
Power Tolerance	0~3%					
Temperature Coefficients of Pmax	-0.24%/°C					
Temperature Coefficients of Voc	-0.22%/°C					
Temperature Coefficients of Isc	0.04%/°C					

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

Specifications (NOCT)

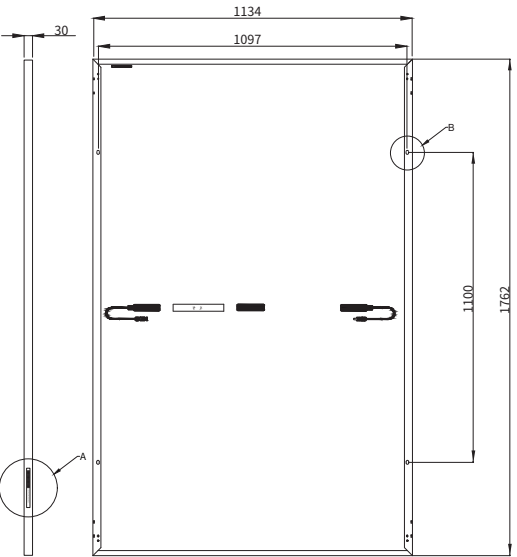
Maximum Power (Pmax/W)	335	339	343	347	351	355
Maximum Power Voltage (Vmp/V)	29.23	29.34	29.45	29.55	29.65	29.76
Maximum Power Current (Imp/A)	11.49	11.58	11.67	11.76	11.84	11.93
Open-circuit Voltage (Voc/V)	34.86	34.95	35.05	35.14	35.24	35.33
Short-circuit Current (Isc/A)	12.24	12.32	12.41	12.50	12.59	12.68

NOCT: Irradiance 1000W/m², Ambient Temperature 20°C, AM=1.5, Wind Speed 1m/s

Application Conditions

Operating Temperature	-40°C ~ +85°C
Maximum System Voltage	1500 VDC (IEC)
Maximum Series Fuse Rating	30A
Nominal Operating Cell Temperature - NOCT	44±2°C
Bifaciality	/

Engineering Drawings



Electrical Performance

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