

445-465W

N-Type Bifacial



Excellent temperature coefficient (Pmax): $-0.29/^{\circ}\text{C}$



Excellent low-light performance: extended power generation up to 1H or so in the morning and evening



Has lower LID/LeTID attenuation



With a bifacial rate of $80\% \pm 10\%$, the bifacial power gain significantly reduces the LCOE as the backside is exposed to more light.



IEC61215:2021/IEC61730:2023

IEC61701/IEC62716/IEC60068/IEC62804

ISO9001:2015(Quality management systems)

ISO14001:2015(Environmental management systems)

ISO45001:2018(Occupational health and safety)

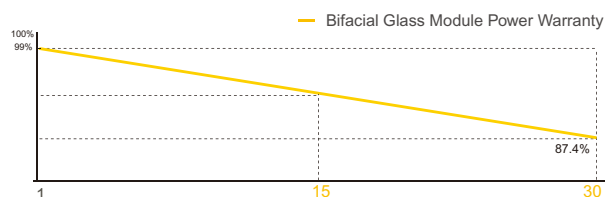
ISO14067:2018/PAS2050:2011



Guarantee



Warranty



SPECIFICATION (STC) Irradiance at 1000 W/m², Cell Temp 25°C, Air Mass

MODEL TYPE	ODA445-27V-MHDBRx	ODA450-27V-MHDBRx	ODA455-27V-MHDBRx	ODA460-27V-MHDBRx	ODA465-27V-MHDBRx
Rated Peak Power-Pmax(Wp)	445.00	450.00	455.00	460.00	465.00
Maximum Power Voltage-Vmp(V)	33.02	33.21	33.41	33.60	33.79
Maximum Power Current-Imp(A)	13.48	13.55	13.62	13.69	13.76
Open Circuit Voltage-Voc(V)	39.59±3%	39.78±3%	39.98±3%	40.17±3%	40.36±3%
Short Circuit Current-Isc(A)	13.93±3%	14.00±3%	14.07±3%	14.14±3%	14.21±3%
Module Efficiency(%)	22.27	22.52	22.77	23.02	23.27

ELECTRICAL DATA(NMOT) Irradiance at 800 W/m², Ambient Temp 20°C, Wind Speed 1 m/s.

Rated Peak Power-Pmax(Wp)	336.00	340.00	344.00	348.00	352.00
Maximum Power Voltage-Vmp(V)	31.24	31.42	31.60	31.78	31.96
Maximum Power Current-Imp(A)	10.76	10.83	10.89	10.96	11.01
Open Circuit Voltage-Voc(V)	37.45±3%	37.63±3%	37.82±3%	38.00±3%	38.18±3%
Short Circuit Current-Isc(A)	11.29±3%	11.36±3%	11.43±3%	11.50±3%	11.57±3%

DOUBLE-SIDED POWER GENERATION PARAMETERS(REAR GAIN)

5%	Maximum Power(Pmax)	467.25	472.50	477.75	483.00	488.25
	Module Efficiency(%)	23.38	23.65	23.91	24.17	24.43
15%	Maximum Power(Pmax)	511.75	517.50	523.25	529.00	534.75
	Module Efficiency(%)	25.61	25.90	26.19	26.47	26.76
25%	Maximum Power(Pmax)	556.25	562.50	568.75	575.00	581.25
	Module Efficiency(%)	27.84	28.15	28.46	28.78	29.09

MECHANICAL CHARACTERISTICS

Cell Type (mm)	182×93.4 N-Type Mono
No. Of Cells	108(12×9)
Module Dimensions(mm)	1762×1134×30
Weight	24.70 kg
Bifacial Glass Front Glass(mm)	2.0mm AR Coating Tempered Glass
Bifacial Glass Back Glass(mm)	2.0mm Glazed Glass
Frame	Anodized Aluminium Alloy(Black)
Junction Box	IP68, 1500VDC, 3 Schottky Bypass Diodes
Cables	4.0mm², Positive(+)350mm, Negative(-)350mm, Or Customized Length
Connector	IP68
Snow Load/Wind Load	5400Pa/2400Pa
Class Of Safety Protection	Class II
IEC Component Fire Rating	Class C

OPERATING PARAMETERS

Maximum System Voltage	1500V
Operational Temp	-40~+85 °C
Max Series Fuse Rating	25A
Nominal Module Operating Temp (NMOT)	45±2°C

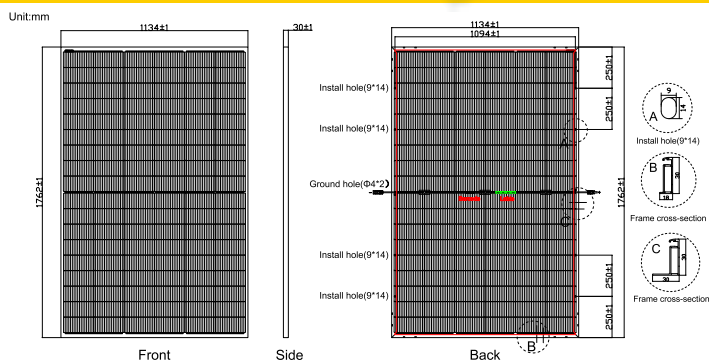
TEMP COEFFICIENT

Temp Coefficient Of Pmax	-0.290%/°C
Temp Coefficient Of Voc	-0.250%/°C
Temp Coefficient Of Isc	+0.045%/°C

PACKING STANDARD 40ft (HQ)

Number Of Modules Per Pallet	37
Number Of Pallets Per Container	26
Number Of Modules Per Container	962

ASSEMBLY DRAWING



IV CURVE (460W)

