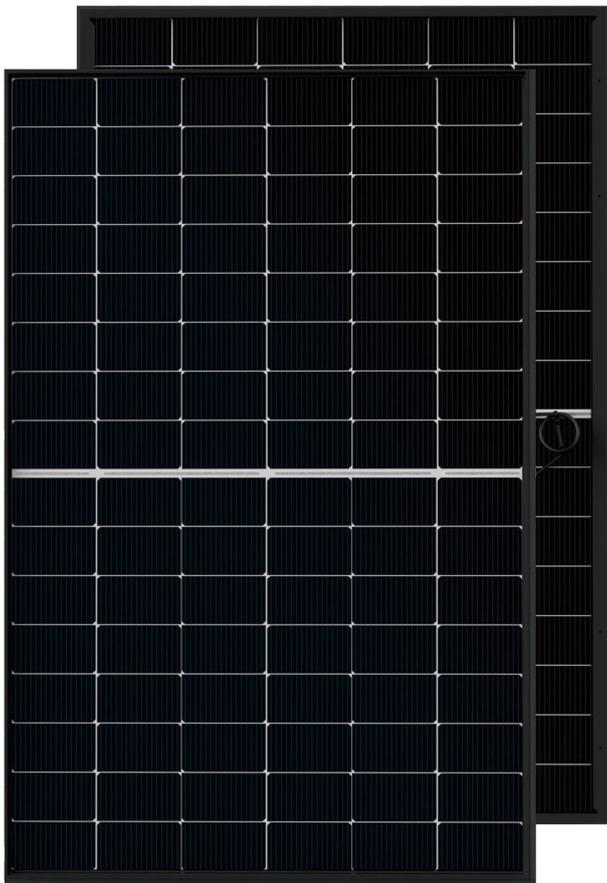


# 470W

## N-Type Bifacial



Excellent temperature coefficient (Pmax):  $-0.290\%/^{\circ}\text{C}$



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



Has lower LID/LeTID attenuation



With a bifacial rate of  $80\% \pm 5\%$ , the bifacial power gain significantly reduces the LCOE as the backside is exposed to more light.

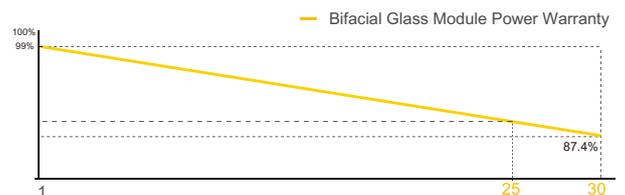


Guarantee



Warranty

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



**SPECIFICATION (STC)** Irradiance at 1000 W/m<sup>2</sup>, Cell Temp 25°C, Air Mass AM1.5

| MODEL TYPE                   | ODA450-24V-MHDRz | ODA455-24V-MHDRz | ODA460-24V-MHDRz | ODA465-24V-MHDRz | ODA470-24V-MHDRz |
|------------------------------|------------------|------------------|------------------|------------------|------------------|
| Rated Peak Power-Pmax(Wp)    | 450.00           | 455.00           | 460.00           | 465.00           | 470.00           |
| Maximum Power Voltage-Vmp(V) | 29.38            | 29.43            | 29.47            | 29.51            | 29.55            |
| Maximum Power Current-Imp(A) | 15.31            | 15.46            | 15.60            | 15.76            | 15.91            |
| Open Circuit Voltage-Voc(V)  | 34.57±3%         | 34.62±3%         | 34.67±3%         | 34.72±3%         | 34.77±3%         |
| Short Circuit Current-Isc(A) | 16.27±3%         | 16.43±3%         | 16.58±3%         | 16.74±3%         | 16.90±3%         |
| Module Efficiency(%)         | 22.52            | 22.77            | 23.01            | 23.27            | 23.53            |

**ELECTRICAL DATA(BNPI)** Irradiance at 1000 W/m<sup>2</sup>, Back irradiance 135 W/m<sup>2</sup>, Cell Temp 25°C, Air Mass AM1.5

|                              |          |          |          |          |          |
|------------------------------|----------|----------|----------|----------|----------|
| Rated Peak Power-Pmax(Wp)    | 499.00   | 504.00   | 510.00   | 515.00   | 521.00   |
| Maximum Power Voltage-Vmp(V) | 29.47    | 29.52    | 29.56    | 29.60    | 29.64    |
| Maximum Power Current-Imp(A) | 16.92    | 17.09    | 17.24    | 17.41    | 17.58    |
| Open Circuit Voltage-Voc(V)  | 34.67±3% | 34.72±3% | 34.77±3% | 34.82±3% | 34.87±3% |
| Short Circuit Current-Isc(A) | 17.98±3% | 18.16±3% | 18.32±3% | 18.50±3% | 18.67±3% |

**MECHANICAL CHARACTERISTICS**

|                                |   |
|--------------------------------|---|
| Cell Type (mm)                 | 182*105 N-Type Mono   |
| No. Of Cells                   | 96(12*8)  |
| 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                         | 4.0mm <sup>2</sup> , Positive(+)300mm, Negative(-)300mm, Or Customized Length |
| Connector                      | IP68  |
| Snow Load/Wind Load            | 5400Pa/2400Pa   |
| Class Of Safety Protection     | Class II  |
| IEC Component Fire Rating      | Class A   |

**OPERATING PARAMETERS**

|                                      |            |
|--------------------------------------|------------|
| Maximum System Voltage               | 1500V      |
| Operational Temp                     | -40~+85 °C |
| Max Series Fuse Rating               | 28A        |
| Nominal Module Operating Temp (NMOT) | 45±2°C     |

**TEMP COEFFICIENT**

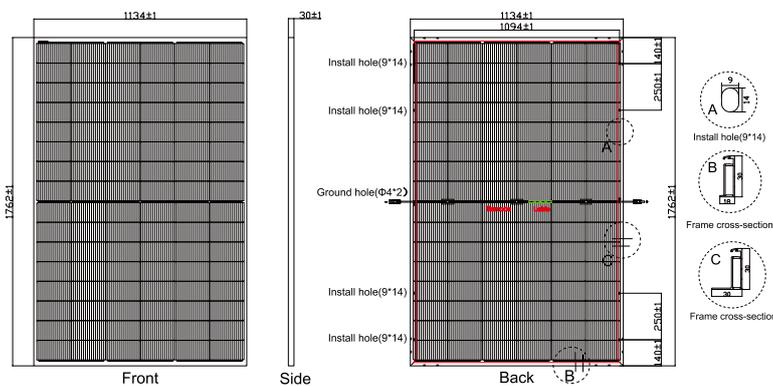
|                          |            |
|--------------------------|------------|
| Temp Coefficient Of Pmax | -0.290%/°C |
| Temp Coefficient Of Voc  | -0.250%/°C |
| Temp Coefficient Of Isc  | +0.045%/°C |

**PACKING STANDARD 40ft (HQ)**

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

**ASSEMBLY DRAWING**

Unit:mm



**IV CURVE (470W)**

