

# NEOSTAR

2P Mono-Glass Module

440W-475W

## Technical Features:

 Partial Shading Optimisation

 Better Temperature Coefficient

 High Temperature Restriction

 Micro-crack Resistance

 Higher Power

 Lower BOS

 More Aesthetic Values



red dot winner 2023

Warranty partner

Munich RE 



Product  
Warranty  
Extendable to 25 years\*



Performance  
Warranty

IEC61215/IEC61730  
IEC61701/IEC62716

ISO9001:ISO Quality Management System  
ISO14001:ISO Environmental Management System  
ISO14064:Greenhouse Gas Verification Statement  
ISO45001:ISO Occupational Health and Safety Management System

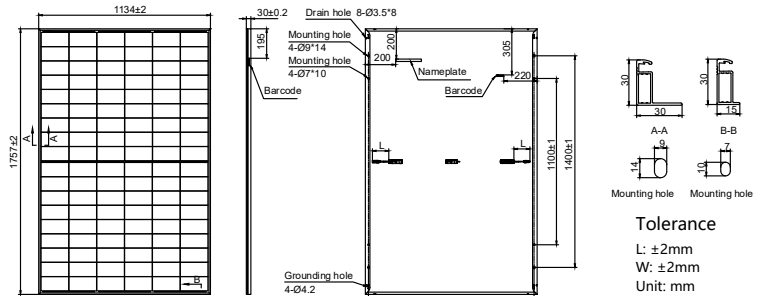
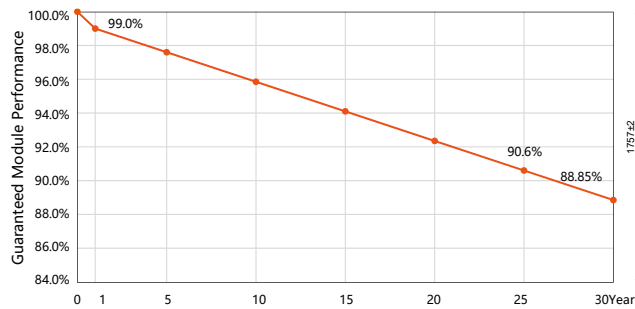
**475W**  
Output

**23.8%**  
Efficiency

**≤1%**  
First-year Degradation

**≤0.35%**  
Annual Degradation from Year 2-30

30-year Linear Performance Warranty



### Electrical Characteristics (STC: AM1.5 1000W/m<sup>2</sup> 25°C NOCT: AM1.5 800W/m<sup>2</sup> 20°C 1m/s)

Power Tolerance: 0~ +3%

| Module Type          | AIKO-A440-MAH54Mw |       | AIKO-A445-MAH54Mw |       | AIKO-A450-MAH54Mw |       | AIKO-A455-MAH54Mw |       | AIKO-A460-MAH54Mw |       | AIKO-A465-MAH54Mw |       | AIKO-A470-MAH54Mw |       | AIKO-A475-MAH54Mw |       |
|----------------------|-------------------|-------|-------------------|-------|-------------------|-------|-------------------|-------|-------------------|-------|-------------------|-------|-------------------|-------|-------------------|-------|
| Test Conditions      | STC               | NOCT  | STC               | NOCT  | STC               | NOCT  | STC               | NOCT  | STC               | NOCT  | STC               | NOCT  | STC               | NOCT  | STC               | NOCT  |
| P <sub>max</sub> [W] | 440               | 331   | 445               | 335   | 450               | 339   | 455               | 343   | 460               | 346   | 465               | 350   | 470               | 354   | 475               | 358   |
| V <sub>oc</sub> [V]  | 40.82             | 38.55 | 40.88             | 38.60 | 40.94             | 38.66 | 41.00             | 38.72 | 41.06             | 38.77 | 41.12             | 38.83 | 41.18             | 38.89 | 41.24             | 38.94 |
| V <sub>mp</sub> [V]  | 34.38             | 32.47 | 34.44             | 32.52 | 34.50             | 32.58 | 34.56             | 32.64 | 34.62             | 32.69 | 34.68             | 32.75 | 34.74             | 32.81 | 34.80             | 32.86 |
| I <sub>sc</sub> [A]  | 13.92             | 11.26 | 14.02             | 11.34 | 14.12             | 11.42 | 14.22             | 11.50 | 14.25             | 11.52 | 14.29             | 11.55 | 14.32             | 11.58 | 14.35             | 11.60 |
| I <sub>mp</sub> [A]  | 12.80             | 10.22 | 12.93             | 10.32 | 13.05             | 10.41 | 13.17             | 10.51 | 13.29             | 10.61 | 13.41             | 10.71 | 13.54             | 10.80 | 13.66             | 10.90 |
| Module Efficiency    | 22.1%             |       | 22.3%             |       | 22.6%             |       | 22.8%             |       | 23.1%             |       | 23.3%             |       | 23.6%             |       | 23.8%             |       |

### Product Specification

|                |                                                        |
|----------------|--------------------------------------------------------|
| Cell Type      | N-Type ABC                                             |
| Glass          | 3.2 mm tempered glass                                  |
| Frame          | Black Anodized aluminum                                |
| Cable          | 4mm <sup>2</sup> (IEC) 12AWG(UL) ±1200mm               |
| No. of Cells   | 108(6*18)                                              |
| Junction Box   | IP68, 3 bypass diodes                                  |
| Connector      | Original MC4-EVO2A                                     |
| Weight         | 20.6kg±3%                                              |
| Dimension      | 1757*1134*30mm                                         |
| Package Detail | 37pcs per pallet / 222pcs per 20'GP / 962pcs per 40'HC |

### Temperature Ratings (STC)

|                                             |             |
|---------------------------------------------|-------------|
| Temperature Coefficient of I <sub>sc</sub>  | + 0.05%/ °C |
| Temperature Coefficient of V <sub>oc</sub>  | - 0.22%/ °C |
| Temperature Coefficient of P <sub>max</sub> | - 0.26%/ °C |

### Installation Guide

|                                               |                               |
|-----------------------------------------------|-------------------------------|
| Operation Temperature                         | -40°C - +70°C                 |
| Maximum Series Fuse Rating                    | 25A                           |
| Protection Class                              | ClassII                       |
| V <sub>oc</sub> and I <sub>sc</sub> Tolerance | ±3%                           |
| Maximum System Voltage                        | DC1500V                       |
| Maximum Static Loading                        | Front 5400Pa Back 2400Pa      |
| Hail Test                                     | 25 mm diameter hail at 23 m/s |
| Fire Rating                                   | IEC Class C                   |

