

# NEOSTAR

2S+ Dual-Glass Module  
440W-470W

## Technical Features:

-  Partial Shading Optimisation
-  Better Temperature Coefficient
-  High Temperature Restriction
-  Micro-crack Resistance
-  Higher Power
-  Lower BOS
-  More Aesthetic Values



reddot winner 2023



Product  
Warranty



Performance  
Warranty



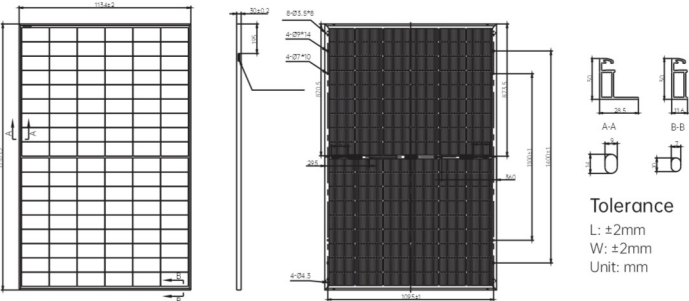
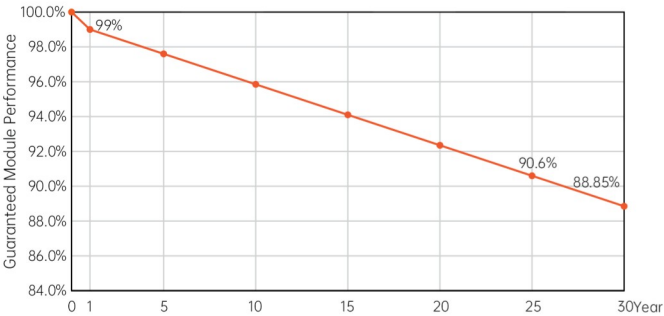
470W  
Output

23.6%  
Efficiency

≤1%  
First-year Degradation

≤0.35%  
Annual Degradation from Year 2-30

30-year Linear Performance Warranty



| Electrical Characteristics (STC: AM1.5 1000W/m² 25°C NOCT: AM1.5 800W/m² 20°C 1m/s) |                   |       |                   |       |                   |       |                   |       |                   |       |                   |       | Power Tolerance:0~ + 3% |       |
|-------------------------------------------------------------------------------------|-------------------|-------|-------------------|-------|-------------------|-------|-------------------|-------|-------------------|-------|-------------------|-------|-------------------------|-------|
| Module Type                                                                         | AIKO-A440-MAH54Db |       | AIKO-A445-MAH54Db |       | AIKO-A450-MAH54Db |       | AIKO-A455-MAH54Db |       | AIKO-A460-MAH54Db |       | AIKO-A465-MAH54Db |       | AIKO-A470-MAH54Db       |       |
| Test Conditions                                                                     | 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   |
| 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 |
| 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 |
| 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 |
| 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 |
| Module Efficiency                                                                   | 22.1%             |       | 22.3%             |       | 22.6%             |       | 22.8%             |       | 23.1%             |       | 23.3%             |       | 23.6%                   |       |

Mechanical Specification

|                |                                                        |
|----------------|--------------------------------------------------------|
| Cell Type      | N-Type ABC                                             |
| Glass          | Dual glass, 2.0 + 2.0mm coated semi tempered glass     |
| Frame          | Black Anodized aluminum                                |
| Cable          | 4mm²(IEC) 12AWG(UL) ±1200mm                            |
| No. of Cells   | 108(6*18)                                              |
| Junction Box   | IP68, 3 bypass diodes                                  |
| Connector      | MC4-Evo2                                               |
| Weight         | 24.5kg                                                 |
| Dimension      | 1757*1134*30mm                                         |
| Package Detail | 36pcs per pallet / 216pcs per 20'GP / 936pcs 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 - +85°C                 |
| Maximum Series Fuse Rating                    | 25A                           |
| Protection Class                              | Class II                      |
| 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 A                   |



www.aikosolar.com  
marketing@aikosolar.com

\*AIKO reserves right to update the specification without notice  
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