



# Neostar 2S

Mono-Glass Module

## 440W-460W

Second Generation  
Comprehensive Upgrade:

 **Partial Shading Optimisation**

 **Better Temperature Coefficient**

 **High Temperature Restriction**

 **Micro-crack Resistance**

 **Higher Power**

 **Lower BOS**

 **Full Black Design**



Product  
Warranty



Performance  
Warranty



reddot winner 2023



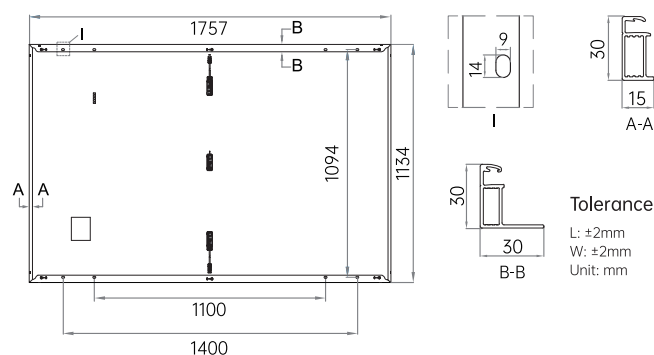
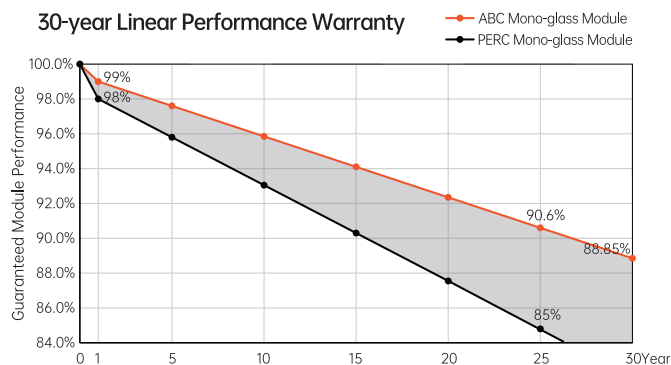
Munich RE



**460W**  
Output

**23.1%**  
Efficiency

 $\leq 1\%$   
First-year Degradation

 $\leq 0.35\%$   
Annual Degradation from Year 2-30

**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-MAH54Mb |       | AIKO-A445-MAH54Mb |       | AIKO-A450-MAH54Mb |       | AIKO-A455-MAH54Mb |       | AIKO-A460-MAH54Mb |       |
|--------------------------|-------------------|-------|-------------------|-------|-------------------|-------|-------------------|-------|-------------------|-------|
| Test Conditions          | STC               | NOCT  | STC               | NOCT  | STC               | NOCT  | STC               | NOCT  | STC               | NOCT  |
| $P_{\max}$ [W]           | 440               | 331   | 445               | 335   | 450               | 339   | 455               | 343   | 460               | 346   |
| $V_{oc}$ [V]             | 40.49             | 38.24 | 40.59             | 38.33 | 40.69             | 38.43 | 40.79             | 38.52 | 40.89             | 38.62 |
| $V_{mp}$ [V]             | 33.50             | 31.64 | 33.60             | 31.73 | 33.70             | 31.83 | 33.80             | 31.92 | 33.90             | 32.02 |
| $I_{sc}$ [A]             | 13.91             | 11.25 | 14.02             | 11.33 | 14.12             | 11.42 | 14.22             | 11.50 | 14.32             | 11.58 |
| $I_{mp}$ [A]             | 13.14             | 10.49 | 13.25             | 10.57 | 13.36             | 10.66 | 13.47             | 10.75 | 13.57             | 10.83 |
| <b>Module Efficiency</b> | <b>22.1%</b>      |       | <b>22.3%</b>      |       | <b>22.6%</b>      |       | <b>22.8%</b>      |       | <b>23.1%</b>      |       |

**Mechanical Specification**

|                        |                                                        |
|------------------------|--------------------------------------------------------|
| Cell Type              | N-Type ABC                                             |
| Front Cover Mono 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              | MC4-Evo2                                               |
| Weight                 | 21.5kg                                                 |
| Dimension              | 1757*1134*30mm                                         |
| Package Detail         | 36pcs per pallet / 216pcs per 20'GP / 936pcs per 40'HC |

**Temperature Ratings (STC)**

|                                       |             |
|---------------------------------------|-------------|
| Temperature Coefficient of $I_{sc}$   | + 0.05%/ °C |
| Temperature Coefficient of $V_{oc}$   | - 0.22%/ °C |
| Temperature Coefficient of $P_{\max}$ | - 0.26%/ °C |

**Installation Guide**

|                                 |                               |
|---------------------------------|-------------------------------|
| Operation Temperature           | -40°C - +85°C                 |
| Maximum Series Fuse Rating      | 25A                           |
| Protection Class                | Class II                      |
| $V_{oc}$ and $I_{sc}$ Tolerance | $\pm 3\%$                     |
| 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                   |

