




# Neostar 2S

Mono-Glass Module

## 440W-470W


Second Generation  
Comprehensive Upgrade:

 **Partial Shading Optimisation**

 **Better Temperature Coefficient**

 **High Temperature Restriction**

 **Micro-crack Resistance**

 **Higher Power**

 **Lower BOS**

 **No Front Grid Design**



Product  
Warranty



Performance  
Warranty



reddot winner 2023

Complete Set of Quality Management System

IEC 61730 (2016) IEC 61215 (2021)

ISO 9001:2015 Quality Management System

ISO 14001:2015 Environmental Management System

ISO 45001:2018 Occupational Safety and Management System

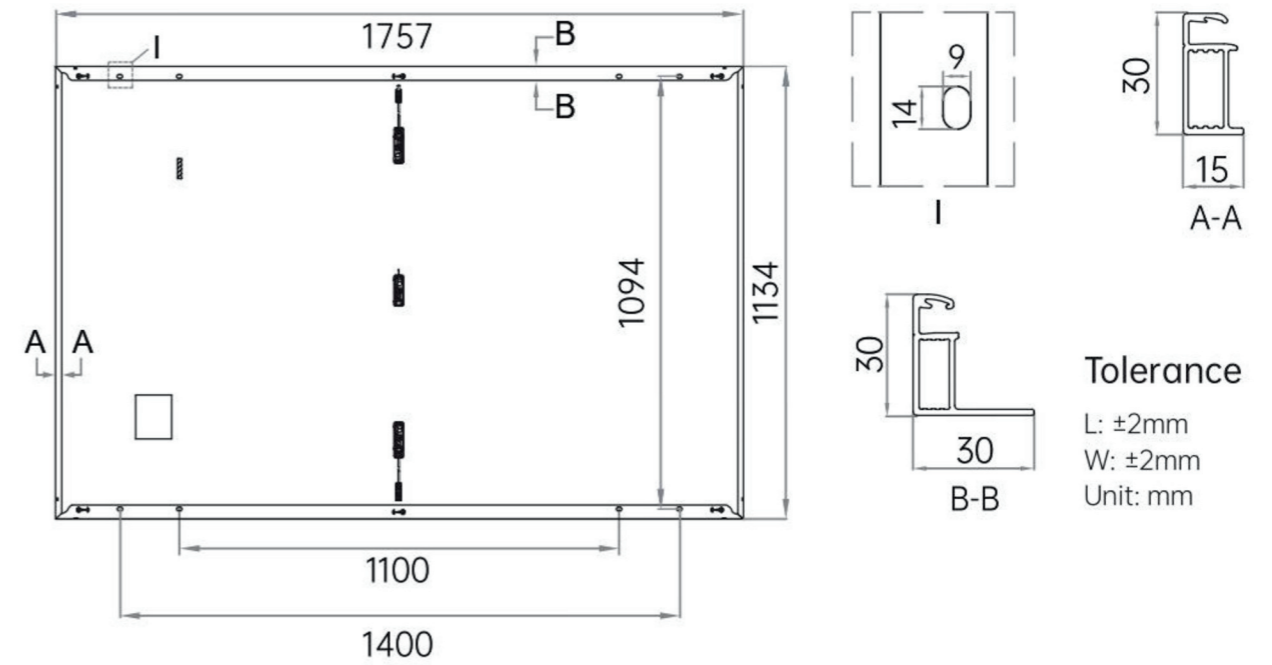
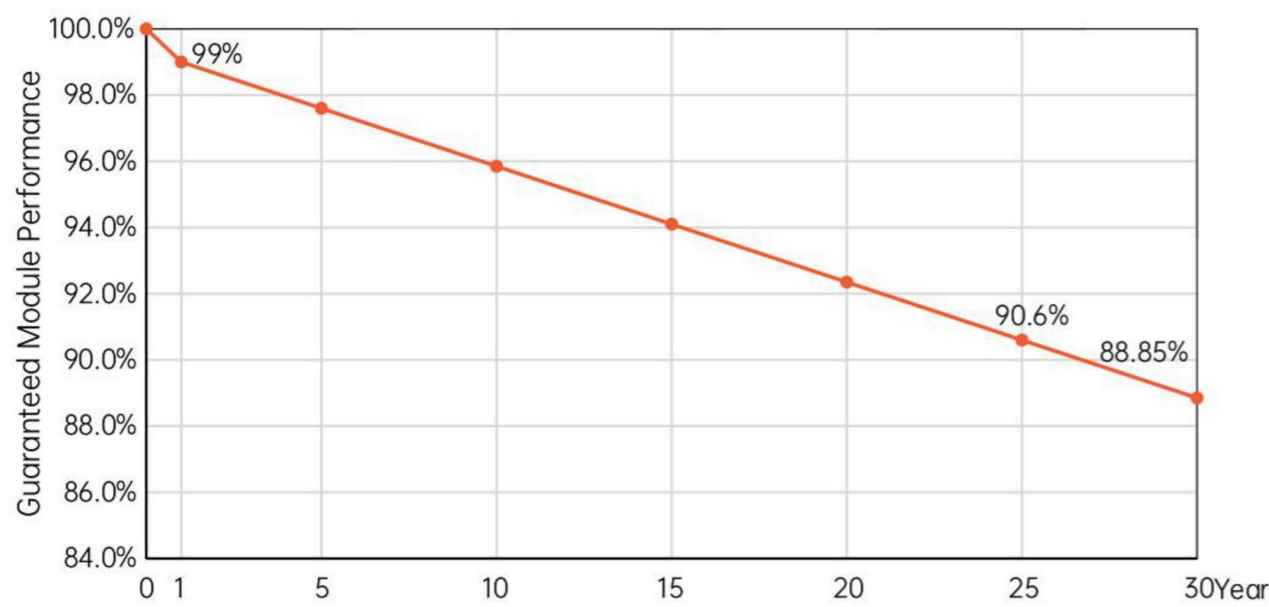
(Made in China)

Munich RE  



**470W**  
Output
**23.5%**  
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-MAH54Mb		AIKO-A445-MAH54Mb		AIKO-A450-MAH54Mb		AIKO-A455-MAH54Mb		AIKO-A460-MAH54Mb		AIKO-A465-MAH54Mb		AIKO-A470-MAH54Mb	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
<b>P<sub>max</sub> [W]</b>	440	331	445	335	450	339	455	343	460	346	465	350	470	358
<b>V<sub>oc</sub> [V]</b>	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	38.94
<b>V<sub>mp</sub> [V]</b>	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	32.86
<b>I<sub>sc</sub> [A]</b>	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	11.60
<b>I<sub>mp</sub> [A]</b>	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	10.90
<b>Module Efficiency</b>	<b>22.1%</b>		<b>22.3%</b>		<b>22.6%</b>		<b>22.8%</b>		<b>23.1%</b>		<b>23.3%</b>		<b>23.5%</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 <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	40 mm diameter hail at 27.5 m/s
Fire Rating	IEC Class C



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\*AIKO Energy reserves right to update the specification without notice DS EN 2404 V1.5