





# Neostar 2S+ Dual-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**

 **PFAS-free**



Product  
Warranty



Performance  
Warranty



reddot winner 2023



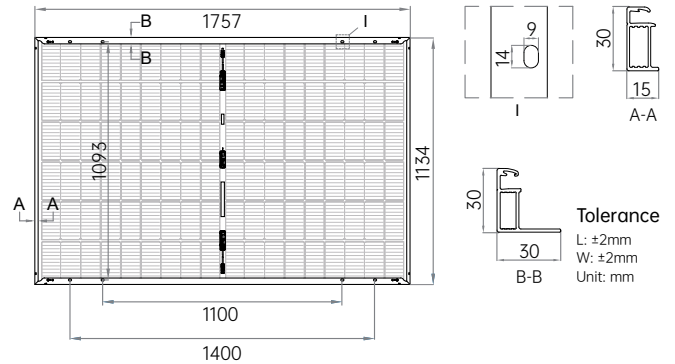
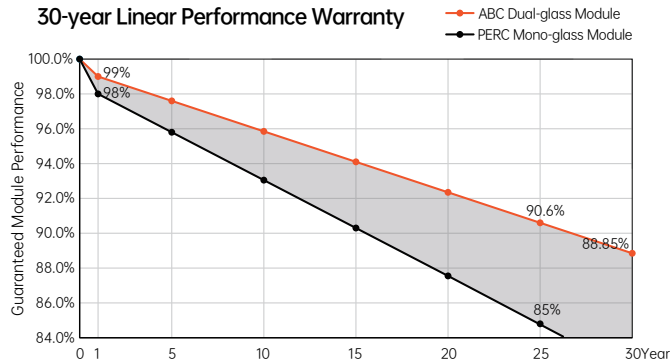
Munich RE 

**460W**  
Output

**23.1%**  
Efficiency

**≤1%**  
First-year Degradation

**≤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-MAH54Db		AIKO-A445-MAH54Db		AIKO-A450-MAH54Db		AIKO-A455-MAH54Db		AIKO-460-MAH54Db		
	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	
V <sub>oc</sub> [V]	40.61	38.35	40.71	38.44	40.81	38.54	40.93	38.65	41.06	38.78	
V <sub>mp</sub> [V]	33.60	31.73	33.70	31.83	33.80	31.92	33.90	32.01	34.00	32.11	
I <sub>sc</sub> [A]	13.85	11.20	13.95	11.28	14.05	11.36	14.15	11.44	14.25	11.52	
I <sub>mp</sub> [A]	13.10	10.46	13.21	10.54	13.32	10.63	13.43	10.72	13.54	10.80	
<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
Glass	Dual glass, 2.0 + 2.0mm coated semi 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	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 C



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\*AIKO Energy reserves right to update the specification without notice  
AEBHD\_EN\_V6.3