



# Neostar 1S

ABC N-Type

Mono-Glass Model

Up to **23.0%**  
**430W-450W**



Product  
Warranty



Performance  
Warranty



reddot winner 2023

## Full Black Design

No front grid lines

## Higher Power Output

Higher efficiency: 23.0%

Lower degradation: 1st year  $\leq 1.0\%$ , Linear Degradation  $\leq 0.35\%$

Better temperature coefficient:  $-0.26\%/^{\circ}\text{C}$

## Optimized Balance of System (BOS)

Significant savings on mounting structure, cabling, and labour cost



## Complete Set of Quality Management System

IEC 61730 (2016) IEC 61215 (2021)

ISO 9001:2015 Quality Management System

ISO 14001:2015 Environmental Management System

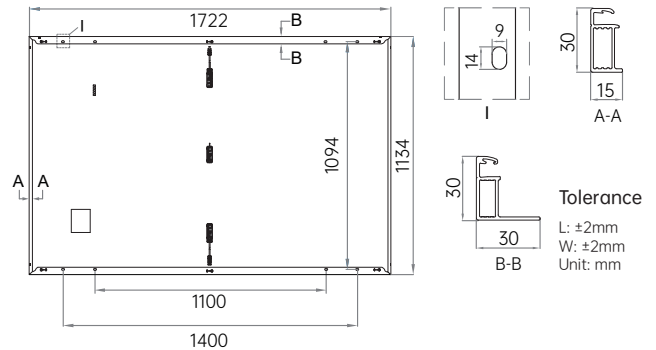
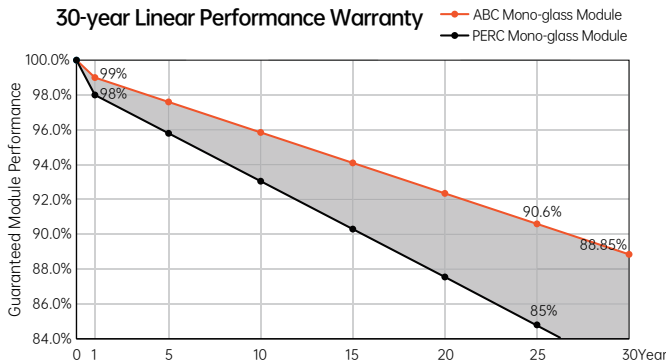
ISO 45001:2018 Occupational Safety and Management System

**450W**  
Output

**23.0%**  
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%	
Model	AIKO-A430-MAH54Mb		AIKO-A435-MAH54Mb		AIKO-A440-MAH54Mb		AIKO-A445-MAH54Mb		AIKO-A450-MAH54Mb			
Test Conditions	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT		
P <sub>max</sub> [W]	430	324	435	327	440	331	445	335	450	339		
V <sub>oc</sub> [V]	40.29	38.05	40.39	38.14	40.49	38.24	40.59	38.33	40.69	38.43		
V <sub>mp</sub> [V]	33.30	31.45	33.40	31.55	33.50	31.64	33.60	31.73	33.70	31.83		
I <sub>sc</sub> [A]	13.69	11.07	13.80	11.16	13.91	11.25	14.02	11.33	14.12	11.42		
I <sub>mp</sub> [A]	12.92	10.31	13.03	10.40	13.14	10.49	13.25	10.57	13.36	10.66		
<b>Module Efficiency</b>	<b>22.0%</b>		<b>22.3%</b>		<b>22.5%</b>		<b>22.8%</b>		<b>23.0%</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	20.5kg
Dimension	1722*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  
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