



Neostar 1S

ABC N-Type

Mono-Glass Model

Up to **23.6%**
435W-460W



Product
Warranty



Performance
Warranty



reddot winner 2023

Full Black Design

No front grid lines

Higher Power Output

Higher efficiency: 23.6%

Lower degradation: 1 year $\leq 1.0\%$, 2-30 year $\leq 0.35\%$

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

(Made in China)

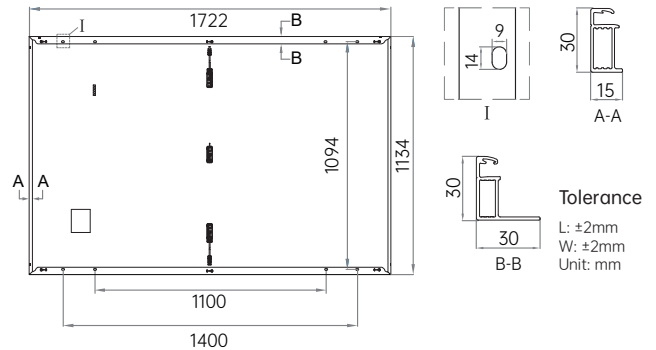
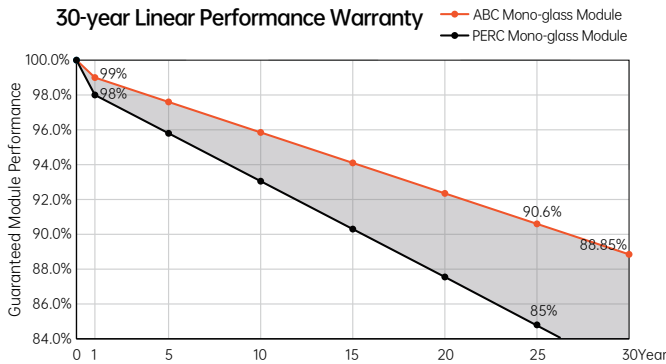


460W
Output

23.6%
Efficiency

≤1%
First-year Degradation

≤0.35%
Annual Degradation from Year 2-30



Electrical Characteristics (STC: AM1.5 1000W/m² 25°C NOCT: AM1.5 800W/m² 20°C 1m/s) Power Tolerance: 0~ +3%

Model	AIKO-A435-MAH54Mb		AIKO-A440-MAH54Mb		AIKO-A445-MAH54Mb		AIKO-A450-MAH54Mb		AIKO-A455-MAH54Mb		AIKO-A460-MAH54Mb	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
P _{max} [W]	435	327	440	331	445	335	450	339	455	343	460	346
V _{oc} [V]	40.76	38.49	40.82	38.55	40.88	38.60	40.94	38.66	41.00	38.72	41.06	38.77
V _{mp} [V]	34.32	32.41	34.38	32.47	34.44	32.52	34.50	32.58	34.56	32.64	34.62	32.69
I _{sc} [A]	13.82	11.17	13.92	11.26	14.02	11.34	14.12	11.42	14.22	11.50	14.25	11.61
I _{mp} [A]	12.68	10.12	12.80	10.22	12.93	10.32	13.05	10.41	13.17	10.51	13.29	10.41
Module Efficiency	22.3%		22.5%		22.8%		23.1%		23.3%		23.6%	

Note: Test uncertainty for P_{max}: ±3%

Mechanical Specification

Cell Type	N-Type ABC
Front Cover Mono glass	3.2mm tempered glass
Frame	Black anodized aluminum
Cable	4mm ² (IEC) 12AWG(UL) 1200mm or Customized Length
No. of Cells	108(6*18)
Junction Box	IP68, 3 bypass diodes
Connector	MC4 EVOA/MC4 EVO2
Weight	20.5kg±3%
Dimension	1722*1134*30mm
Package Detail	36pcs per pallet/216 pcs per 20' GP/936pcs per 40' HQ

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	±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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