




Neostar 2S+ Dual-Glass Module

440W-465W


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

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)

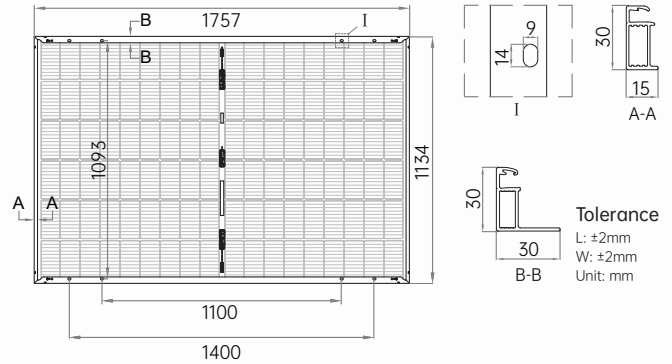
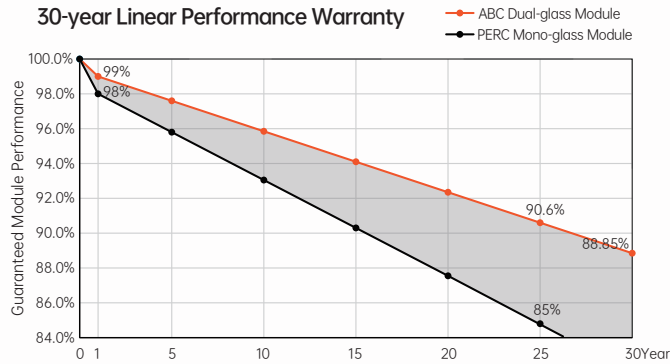


465W
Output

23.3%
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) $\phi_{Voc}=97\%$ $\phi_{Isc}=38\%$ $\phi_{Pmax}=39\%$ Power Tolerance: 0~ + 3%

Module Type	AIKO-A440-MAH54Dw		AIKO-A445-MAH54Dw		AIKO-A450-MAH54Dw		AIKO-A455-MAH54Db		AIKO-A460-MAH54Db		AIKO-A465-MAH54Db	
	STC	BNPI	STC	BNPI	STC	BNPI	STC	BNPI	STC	BNPI	STC	BNPI
P_{max} [W]	440	460	445	465	450	470	455	475	460	480	465	485
V_{oc} [V]	40.82	40.82	40.88	40.88	40.94	40.94	41.00	41.00	41.06	41.06	41.12	41.12
V_{mp} [V]	34.38	34.38	34.44	34.44	34.50	34.50	34.56	34.56	34.62	34.62	34.68	34.68
I_{sc} [A]	13.92	14.53	14.02	14.63	14.12	14.73	14.22	14.83	14.25	14.93	14.29	15.03
I_{mp} [A]	12.80	13.39	12.93	13.51	13.05	13.63	13.17	13.75	13.29	13.87	13.41	13.99
Module Efficiency	22.1%		22.3%		22.6%		22.8%		23.1%		23.3%	

Note: Test uncertainty for Pmax: ±3%

Mechanical Specification

Cell Type	N-Type ABC
Glass	Dual glass, 2.0 + 2.0mm coated semi 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	24.5kg±3%
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	±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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