



# N-Type ABC Dual-glass Module

AIKO-A-MAH54D

Up to **23.8%**  
**440W-465W**



Product  
Warranty



Performance  
Warranty



reddot winner 2023

## Premium Appearance

No grid lines on the front

## 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)



# N-Type ABC Mono-glass Module

# AIKO-A-MAH54Db

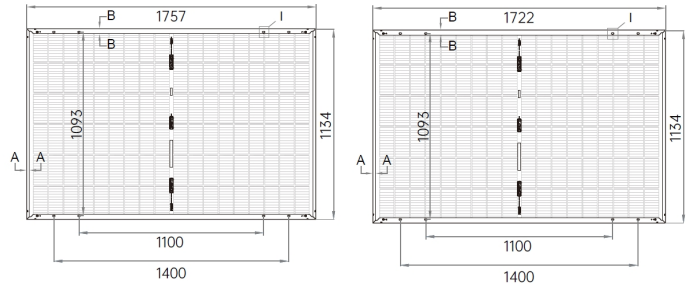
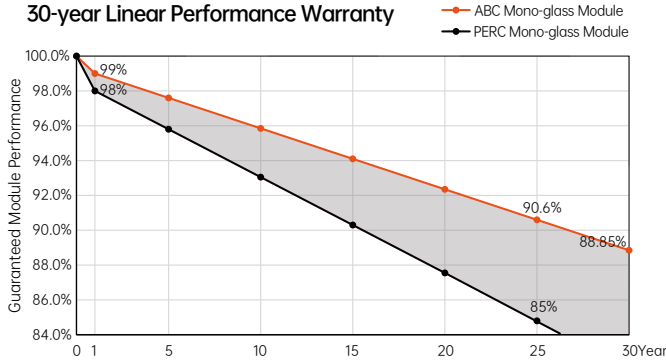
**465W**  
Output

**23.8%**  
Efficiency

**≤1%**  
First-year Degradation

**≤0.35%**  
Annual Degradation from Year 2-30

### 30-year Linear Performance Warranty



Tolerance  
L: ±2mm  
W: ±2mm  
Unit: mm

### Electrical Characteristics (STC: AM1.5 1000W/m<sup>2</sup> 25°C NOCT: AM1.5 800W/m<sup>2</sup> 20°C 1m/s) Voc=97% Isc=38% Pmax=39% Power Tolerance:±3%

Model	AIKO-A440-MAH54Db		AIKO-A445-MAH54Db		AIKO-A450-MAH54Db		AIKO-A455-MAH54Db		AIKO-A460-MAH54Db		AIKO-A465-MAH54Db	
	STC	BNPI	STC	BNPI	STC	BNPI	STC	BNPI	STC	BNPI	STC	BNPI
P <sub>max</sub> [W]	440	460	445	465	450	470	455	475	460	480	465	485
V <sub>oc</sub> [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 <sub>mp</sub> [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 <sub>sc</sub> [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 <sub>mp</sub> [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%/22.5%		22.3%/22.8%		22.6%/23.1%		22.8%/23.3%		23.1%/23.6%		23.3%/23.8%	

### Mechanical Specification

Cell Type	N-Type ABC
Glass	Dual glass, 2.0+2.0mm coated semi tempered glass
Frame	Anodized aluminum
Cable	4mm <sup>2</sup> (IEC) 12AWG(UL) 350mm or Customized Length
No. of Cells	108(6*18)
Junction Box	IP68, three bypass diodes
Connector	MC4 EVOA/MC4 EVO2
Weight	24.5/24.0kg±3%
Dimension	1757*1134*30/35/40mm. 1722*1134*30/35/40mm
Package Detail	36pcs per pallet/216 pcs per 20' GP/936pcs per 40' HQ

### 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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