



# N-Type ABC Dual-glass Module

AIKO-A-MAH54D

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



**Product Warranty**  
Extendable to 25yrs\*



**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

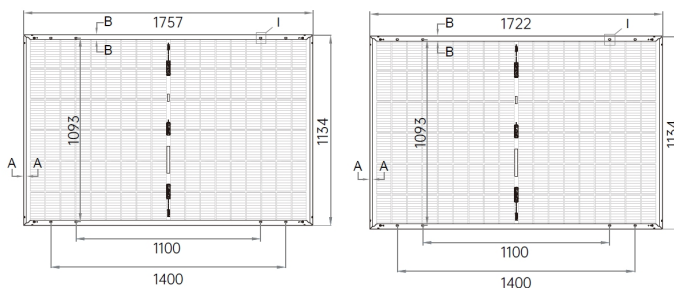
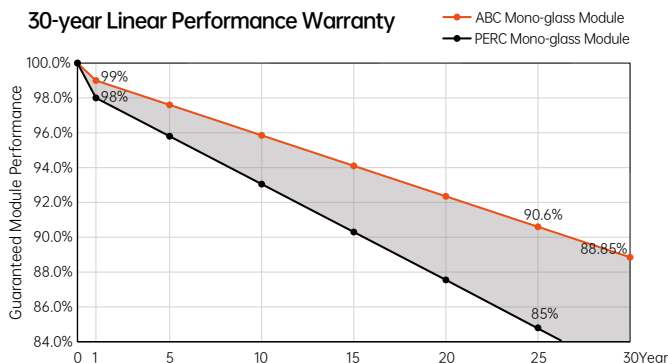
**465W**  
Output

**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]	40.61	40.62	40.71	40.72	40.81	40.82	40.93	40.92	41.06	41.02	41.19	41.12
V <sub>mp</sub> [V]	33.60	33.63	33.70	33.73	33.80	33.83	33.90	33.93	34.00	34.03	34.10	34.13
I <sub>sc</sub> [A]	13.85	14.43	13.95	14.53	14.05	14.63	14.15	14.73	14.25	14.83	14.35	14.93
I <sub>mp</sub> [A]	13.10	13.69	13.21	13.79	13.32	13.90	13.43	14.01	13.54	14.11	13.64	14.22
<b>Module Efficiency</b>	<b>22.1%/22.5%</b>		<b>22.3%/22.8%</b>		<b>22.6%/23.1%</b>		<b>22.8%/23.3%</b>		<b>23.1%/23.6%</b>		<b>23.3%/23.8%</b>	

## 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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