



# N-Type ABC Dual-glass Module

AIKO-A-MAH54Db

Up to **23.3%**  
**440W-455W**



Product  
Warranty



Performance  
Warranty



reddot winner 2023

## Full Black Design

No grid lines on the front

## Higher Power Output

Higher efficiency: 23.3%  
Lower degradation: 1 Year  $\leq$  1.0%, 2 -30 Year  $\leq$  0.35%  
Better Temperature Coefficient:  $-0.29\%/^{\circ}\text{C}$

## 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

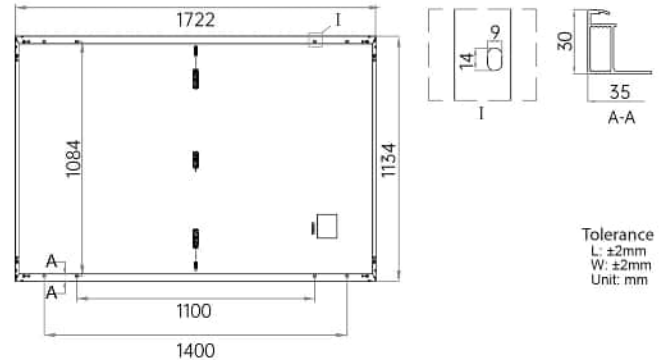
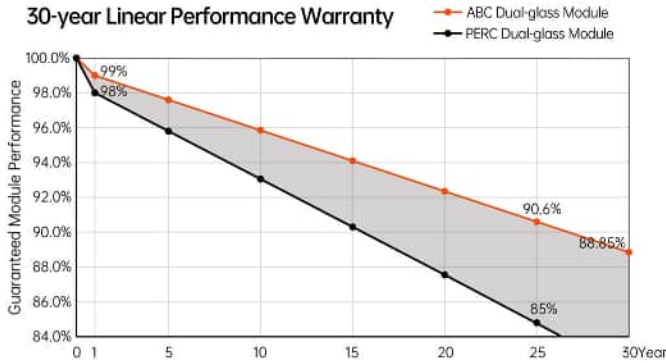


**455W**  
Output

**23.3%**  
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% Max Power Test Uncertainty: ±3%

Model	AIKO-A440-MAH54Db		AIKO-A445-MAH54Db		AIKO-A450-MAH54Db		AIKO-455-MAH54Db	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
$P_{max}$ [W]	440	332	445	336	450	339	455	343
$V_{oc}$ [V]	40.05	37.72	40.15	37.82	40.25	37.91	40.35	38.00
$V_{mp}$ [V]	33.69	31.73	33.79	31.83	33.89	31.92	33.99	32.01
$I_{sc}$ [A]	13.54	10.98	13.60	11.03	13.66	11.08	13.72	11.13
$I_{mp}$ [A]	13.07	10.47	13.18	10.56	13.28	10.65	13.39	10.73
<b>Module Efficiency</b>	<b>22.5%</b>		<b>22.8%</b>		<b>23.0%</b>		<b>23.3%</b>	

**Mechanical Specification**

Cell Type	Mono-crystalline Silicon
Glass	Dual glass, 1.6+1.6mm/2.0+2.0mm coated semi tempered glass
Frame	Black 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 compatible
Weight	21.0/24.0kg±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 $V_{oc}$	- 0.24%/ °C
Temperature Coefficient of $P_{max}$	- 0.29%/ °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