



# N-Type ABC Double-glass Module

AIKO-A-MAH54Db

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



Product  
Warranty



Power  
Warranty



reddot winner 2023

## Higher Power Output

High Efficiency: 23.3%

Low Degradation: 1<sup>st</sup> year ≤ 1%, year-on-year ≤ 0.35%

Long Warranty: 15yrs on quality, 30yrs on power

Low Temperature Coefficient: -0.29%/°C

## Lower BOS Cost

Pure-black Front without Gridlines

## 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

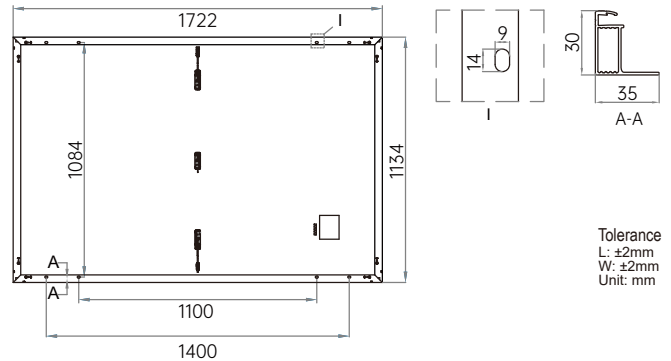
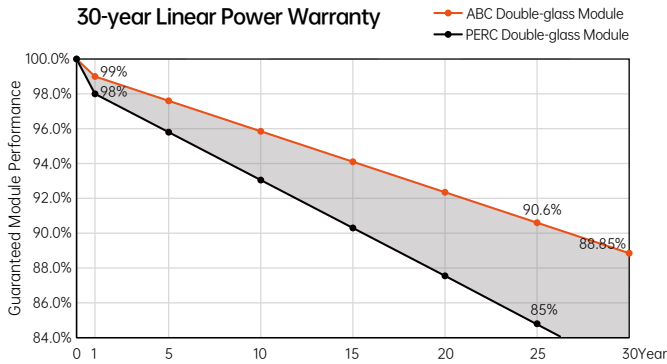


**455W**  
Output

**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 <sub>max</sub> [W]	440	332	445	336	450	339	455	343
V <sub>oc</sub> [V]	40.05	37.72	40.15	37.82	40.25	37.91	40.35	38.00
V <sub>mp</sub> [V]	33.69	31.73	33.79	31.83	33.89	31.92	33.99	32.01
I <sub>sc</sub> [A]	13.54	10.98	13.60	11.03	13.66	11.08	13.72	11.13
I <sub>mp</sub> [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' GQ/936pcs per 40' HQ

**Temperature Ratings (STC)**

Temperature Coefficient of I <sub>sc</sub>	+ 0.05%/K
Temperature Coefficient of V <sub>oc</sub>	- 0.24%/K
Temperature Coefficient of P <sub>max</sub>	- 0.29%/K

**Installation Guide**

Operation Temperature	- 40°C-+85°C
Maximum Series Fuse Rating	25A
Protection Class	Class II
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