



# N-Type ABC Neostar Series

AIKO-A-MAH54Db

Up to **23.1%**  
**445W-460W**



Product  
Warranty



Performance  
Warranty

## Full Black Design

No grid lines on the front

## Higher Power Output

Higher efficiency: 23.1%

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

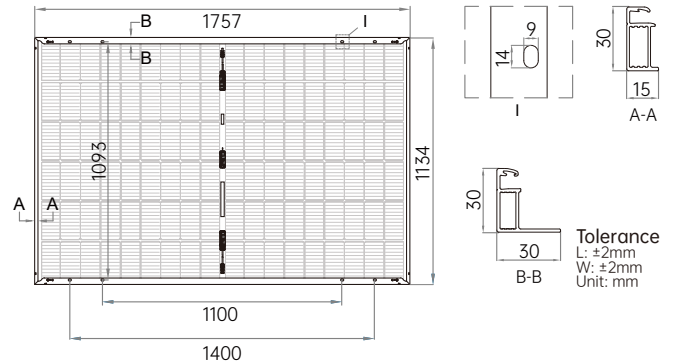
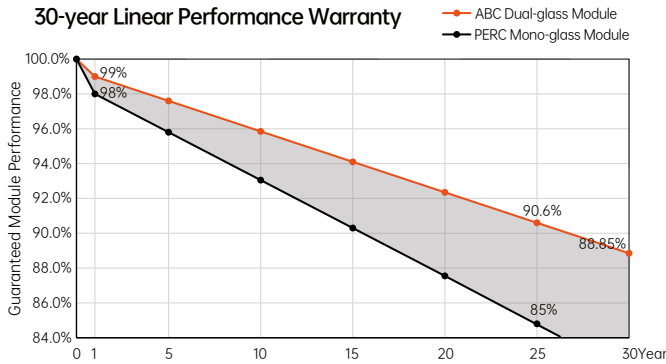
\* The 25 years product warranty applies to Europe

**460W**  
Output

**23.1%**  
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%

Model	AIKO-A445-MAH54Db		AIKO-A450-MAH54Db		AIKO-A455-MAH54Db		AIKO-460-MAH54Db	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
$P_{max}$ [W]	445	335	450	339	455	343	460	346
$V_{oc}$ [V]	40.71	38.44	40.81	38.54	40.93	38.65	41.06	38.78
$V_{mp}$ [V]	33.70	31.83	33.80	31.92	33.90	32.01	34.00	32.11
$I_{sc}$ [A]	13.95	11.28	14.05	11.36	14.15	11.44	14.25	11.52
$I_{mp}$ [A]	13.21	10.54	13.32	10.63	13.43	10.72	13.54	10.80
<b>Module Efficiency</b>	<b>22.3%</b>		<b>22.6%</b>		<b>22.8%</b>		<b>23.1%</b>	

### Mechanical Specification

Cell Type	N-Type ABC
Glass	Dual glass, 2.0+2.0mm coated semi tempered glass
Frame	Black anodized aluminum
Cable	4mm <sup>2</sup> (IEC) 12AWG(UL) 1200mm or Customized Length
No. of Cells	108(6*18)
Junction Box	IP68, three bypass diodes
Connector	MC4 EVO2
Weight	24.5kg±3%
Dimension	1757*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 $V_{oc}$	- 0.22%/ °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