



# N-Type ABC Neostar Series

AIKO-A-MAH54Mb

Up to **23.6%**  
**445W-460W**



Product  
Warranty



Performance  
Warranty



reddot winner 2023

## Full Black Design

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

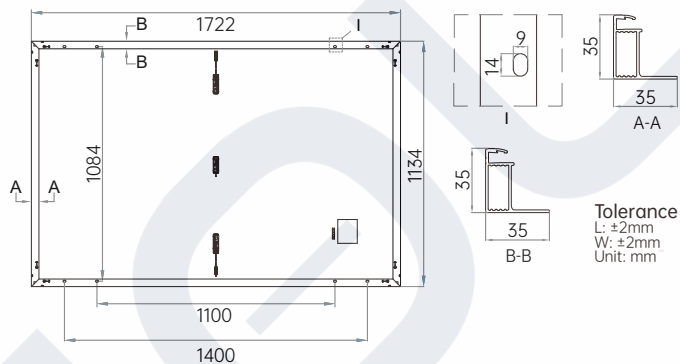
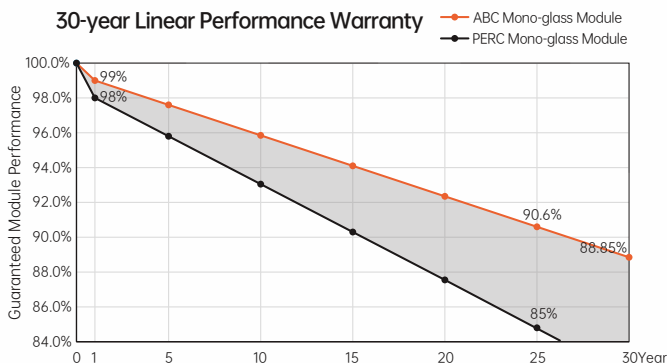


**460W**  
Output

**23.6%**  
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-MAH54Mb		AIKO-A450-MAH54Mb		AIKO-A455-MAH54Mb		AIKO-A460-MAH54Mb		
Test Conditions	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	
$P_{max}$ [W]	445	335	450	339	455	343	460	346	
$V_{oc}$ [V]	40.60	38.34	40.70	38.44	40.80	38.53	40.90	38.63	
$V_{mp}$ [V]	33.60	31.73	33.70	31.82	33.80	31.92	33.90	32.01	
$I_{sc}$ [A]	13.86	11.21	13.92	11.26	13.98	11.31	14.04	11.36	
$I_{mp}$ [A]	13.25	10.57	13.36	10.66	13.47	10.75	13.58	10.84	
<b>Module Efficiency</b>	<b>22.8%</b>		<b>23.0%</b>		<b>23.3%</b>		<b>23.6%</b>		

Mechanical Specification	
Cell Type	N-Type ABC
Front Cover Mono glass	3.2 mm 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	21.6kg±3%
Dimension	1722*1134*35mm
Package Detail	31pcs per pallet/186 pcs per 20' GP/806pcs 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



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\*AIKO Energy reserves right to update the specification without notice  
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