





# Neostar 2N+ Dual-Glass Module

## 440W-465W


Second Generation  
Comprehensive Upgrade:

 **Partial Shading Optimisation**


 Better Temperature Coefficient


 High Temperature Restriction

 Micro-crack Resistance

 Higher Power

 Lower BOS

 No Front Grid Design

 PFAS-free



reddot winner 2023

### 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)

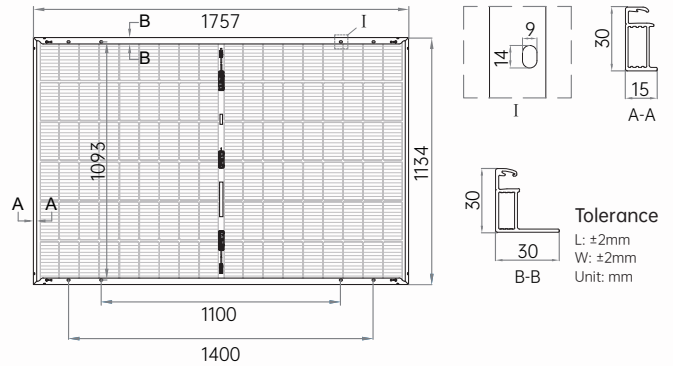
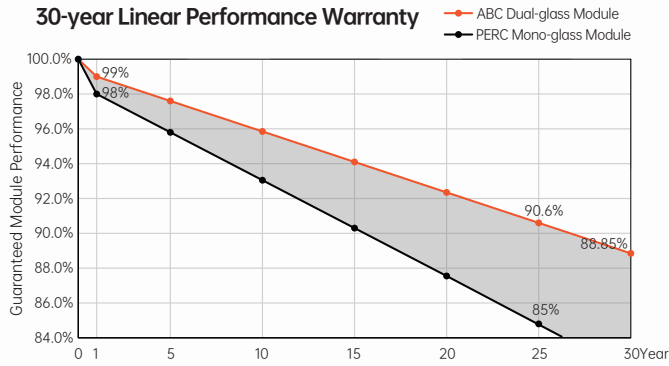


**465W**  
Output

**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) $\phi_{Voc}=97\%$ $\phi_{Isc}=38\%$ $\phi_{Pmax}=39\%$ Power Tolerance: 0~ +3%

Module Type	AIKO-A440-MAH54Dw		AIKO-A445-MAH54Dw		AIKO-A450-MAH54Dw		AIKO-A455-MAH54Db		AIKO-A460-MAH54Db		AIKO-A465-MAH54Db	
	STC	BNPI	STC	BNPI	STC	BNPI	STC	BNPI	STC	BNPI	STC	BNPI
$P_{max}$ [W]	440	460	445	465	450	470	455	475	460	480	465	485
$V_{oc}$ [V]	40.82	40.82	40.88	40.88	40.94	40.94	41.00	41.00	41.06	41.06	41.12	41.12
$V_{mp}$ [V]	34.38	34.38	34.44	34.44	34.50	34.50	34.56	34.56	34.62	34.62	34.68	34.68
$I_{sc}$ [A]	13.92	14.53	14.02	14.63	14.12	14.73	14.22	14.83	14.25	14.93	14.29	15.03
$I_{mp}$ [A]	12.80	13.39	12.93	13.51	13.05	13.63	13.17	13.75	13.29	13.87	13.41	13.99
<b>Module Efficiency</b>	<b>22.1%</b>		<b>22.3%</b>		<b>22.6%</b>		<b>22.8%</b>		<b>23.1%</b>		<b>23.3%</b>	

Note: Test uncertainty for Pmax: ±3%

### 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	IP68,3 bypass diodes
Connector	MC4 EVOA/MC4 EVO2
Weight	24.5kg±3%
Dimension	1757*1134*30mm
Package Detail	36pcs per pallet / 216pcs per 20'GP / 936pcs per 40'HC

### 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

