



Neostar 2S+ Dual-Glass Module

440W-460W

Second Generation
Comprehensive Upgrade:

 **Partial Shading Optimisation**

 **Better Temperature Coefficient**

 **High Temperature Restriction**

 **Micro-crack Resistance**

 **Higher Power**

 **Lower BOS**

 **Full Black Design**

 **PFAS-free**



Product
Warranty



Performance
Warranty



reddot winner 2023



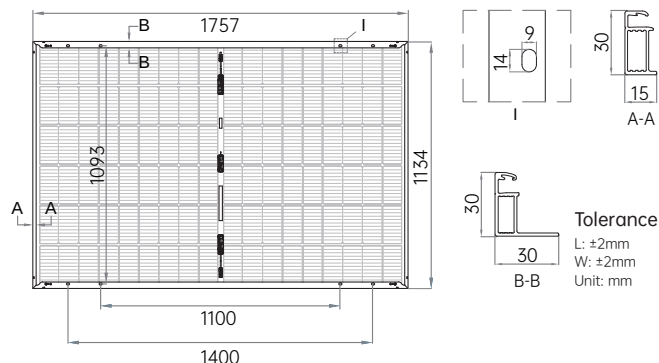
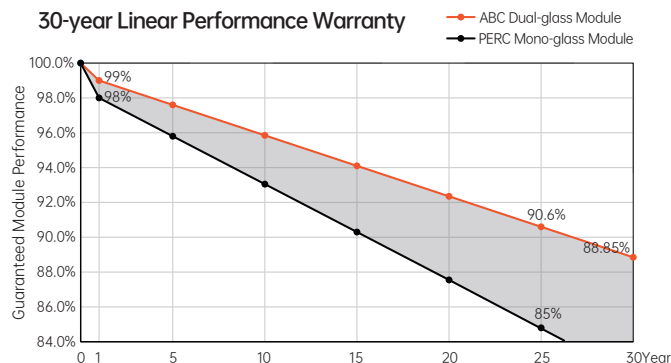
Munich RE



460W
Output

23.1%
Efficiency

 $\leq 1\%$
First-year Degradation

 $\leq 0.35\%$
Annual Degradation from Year 2-30

Electrical Characteristics (STC: AM1.5 1000W/m² 25°C NOCT: AM1.5 800W/m² 20°C 1m/s)

Power Tolerance: 0~ +3%

Module Type	AIKO-A440-MAH54Db		AIKO-A445-MAH54Db		AIKO-A450-MAH54Db		AIKO-A455-MAH54Db		AIKO-460-MAH54Db	
Test Conditions	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
$P_{\max}$ [W]	440	331	445	335	450	339	455	343	460	346
V_{oc} [V]	40.61	38.35	40.71	38.44	40.81	38.54	40.93	38.65	41.06	38.78
V_{mp} [V]	33.60	31.73	33.70	31.83	33.80	31.92	33.90	32.01	34.00	32.11
I_{sc} [A]	13.85	11.20	13.95	11.28	14.05	11.36	14.15	11.44	14.25	11.52
I_{mp} [A]	13.10	10.46	13.21	10.54	13.32	10.63	13.43	10.72	13.54	10.80
Module Efficiency	22.1%		22.3%		22.6%		22.8%		23.1%	

Mechanical Specification

Cell Type	N-Type ABC
Glass	Dual glass, 2.0 + 2.0mm coated semi tempered glass
Frame	Black Anodized aluminum
Cable	4mm ² (IEC) 12AWG(UL) 1200mm
No. of Cells	108(6*18)
Junction Box	IP68,3 bypass diodes
Connector	MC4-Evo2
Weight	24.5kg
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	$\pm 3\%$
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

