

NEOSTAR

2S+ Dual-Glass Module
440W-470W

Technical Features:

-  Partial Shading Optimisation
-  Better Temperature Coefficient
-  High Temperature Restriction
-  Micro-crack Resistance
-  Higher Power
-  Lower BOS
-  More Aesthetic Values



red dot winner 2023



Product
Warranty



Performance
Warranty



Munich RE



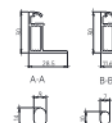
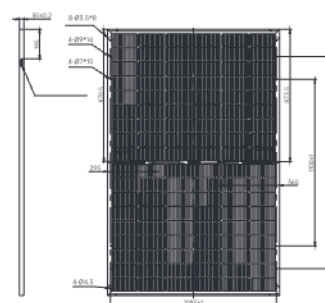
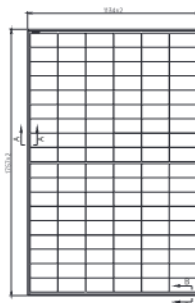
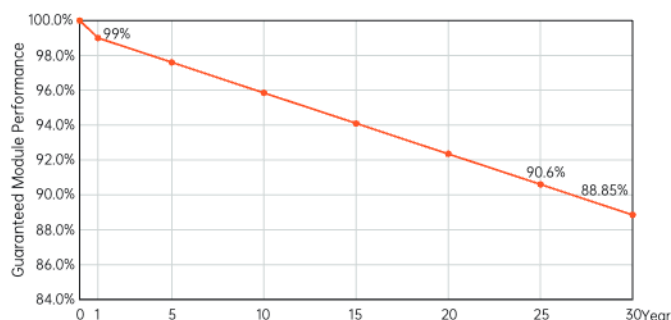
470W
Output

23.6%
Efficiency

 $\leq 1\%$
First-year Degradation

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

30-year Linear Performance Warranty


Tolerance
L: ±2mm
W: ±2mm
Unit: mm

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-A460-MAH54Db		AIKO-A465-MAH54Db		AIKO-A470-MAH54Db	
Test Conditions	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
P _{max} [W]	440	331	445	335	450	339	455	343	460	346	465	350	470	354
V _{oc} [V]	40.82	38.55	40.88	38.60	40.94	38.66	41.00	38.72	41.06	38.77	41.12	38.83	41.18	38.89
V _{mp} [V]	34.38	32.47	34.44	32.52	34.50	32.58	34.56	32.64	34.62	32.69	34.68	32.75	34.74	32.81
I _{sc} [A]	13.92	11.26	14.02	11.34	14.12	11.42	14.22	11.50	14.25	11.52	14.29	11.55	14.32	11.58
I _{mp} [A]	12.80	10.22	12.93	10.32	13.05	10.41	13.17	10.51	13.29	10.61	13.41	10.71	13.54	10.80
Module Efficiency	22.1%		22.3%		22.6%		22.8%		23.1%		23.3%		23.6%	

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	±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 A

