

NEBULAR

2P Mono-Facial Module
435W-450W

Technical Features:

-  Partial Shading Optimisation
-  Better Temperature Coefficient
-  High Temperature Restriction
-  Micro-crack Resistance
-  Higher Power
-  Lower BOS
-  Lower Roof Load-bearing
-  More Aesthetic Values
-  Up to 60% Lighter



red dot winner 2023



Product
Warranty



Performance
Warranty



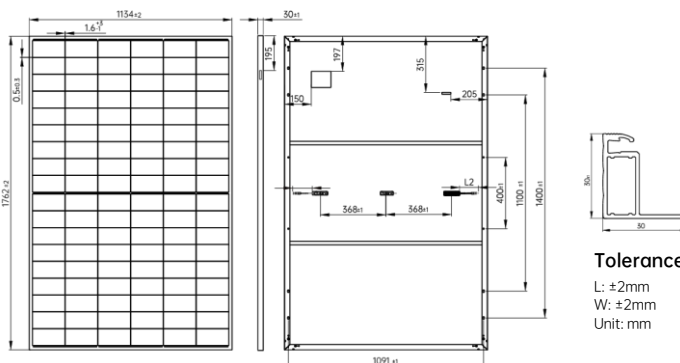
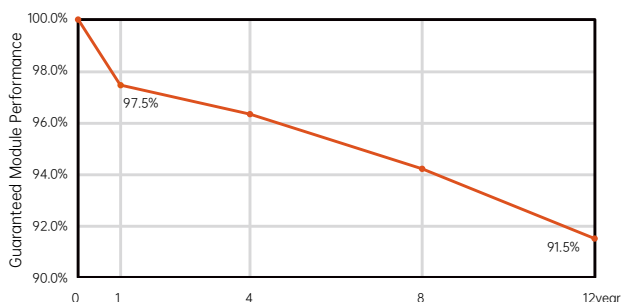
450W
Output

22.5%
Efficiency

≤2.5%
First-year Degradation

≤0.55%
Annual Degradation from Year 2-12

12-year Linear Performance Warranty



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-A435-MAH54Tm		AIKO-A440-MAH54Tm		AIKO-A445-MAH54Tm		AIKO-A450-MAH54Tm	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
P _{max} [W]	435	330	440	334	445	338	450	341
V _{oc} [V]	40.37	38.32	40.47	38.41	40.57	38.51	40.67	38.60
V _{mp} [V]	34.13	32.39	34.23	32.49	34.33	32.58	34.43	32.68
I _{sc} [A]	13.75	11.09	13.84	11.16	13.93	11.24	14.02	11.31
I _{mp} [A]	12.75	10.20	12.86	10.29	12.97	10.38	13.08	10.46
Module Efficiency	21.8%		22.0%		22.3%		22.5%	

Mechanical Specification

Cell Type	N-Type ABC
Front Sheet	Transparent
Back Sheet	White sheet
Frame	Black anodized aluminum
Cable	4mm ² (IEC) 12AWG(UL) ±1200mm
No. of Cells	108(6*18)
Junction Box	IP68, 3bypass diodes
Connector	Staubli EVO2
Weight	8.6kg±3%
Dimension	1762*1134*30mm
Package Detail	36pcs per pallet / 216pcs per 20' GP / 936pcs per 40' HC

Temperature Ratings (STC)

Temperature Coefficient of I _{sc}	+ 0.04%/ °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 3600Pa Back 2400Pa
Hail Test	25 mm diameter hail at 23 m/s
Fire Rating	IEC Class C



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*AIKO reserves right to update the specification without notice
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