



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
Extendable to 25years*



Performance
Warranty



Warranty partner

Munich RE 

450W

Output

22.5%

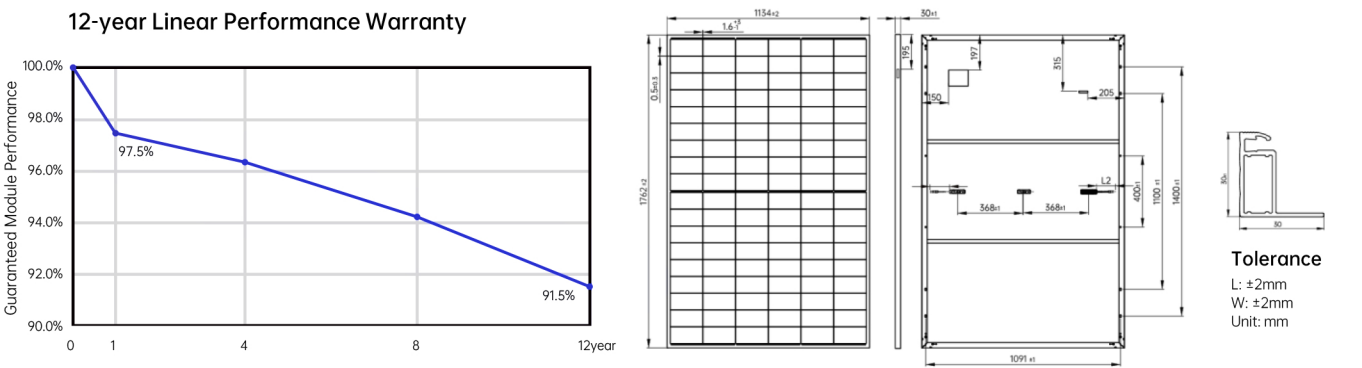
Efficiency

≤2.5%

First-year Degradation

≤0.55%

Annual Degradation from Year 2-12



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		
Test Conditions	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	
Pmax [W]	435	330	440	334	445	338	450	341	
Voc [V]	40.37	38.32	40.47	38.41	40.57	38.51	40.67	38.60	
Vmp [V]	34.13	32.39	34.23	32.49	34.33	32.58	34.43	32.68	
Isc [A]	13.75	11.09	13.84	11.16	13.93	11.24	14.02	11.31	
Imp [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	4mm²(IEC) 12AWG(UL) ±1200mm
No. of Cells	108(6*18)
Junction Box	IP68, 3bypass diodes
Connector	Original MC4
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 Isc	+ 0.04%/ °C
Temperature Coefficient of Voc	- 0.22%/ °C
Temperature Coefficient of Pmax	- 0.26%/ °C
Installation Guide	
Operation Temperature	-40°C - +85°C
Maximum Series Fuse Rating	25A
Protection Class	ClassII
Voc and Isc 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

