

NEBULAR

2P Mono-Facial Module
430W-460W

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



red dot winner 2023



Product
Warranty



Performance
Warranty



Munich RE 

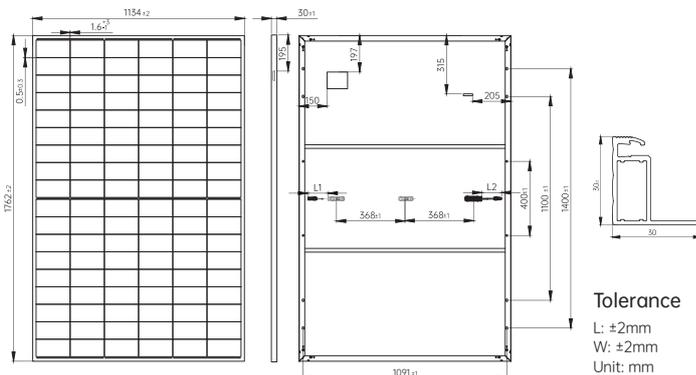
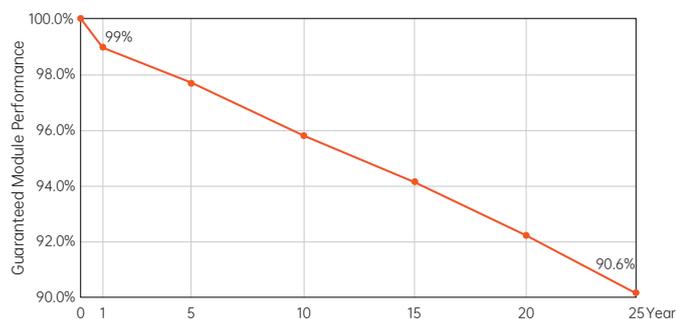
460W
Output

23.0%
Efficiency

≤1%
First-year Degradation

≤0.35%
Annual Degradation from Year

25-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-A430-MAH54Tm		AIKO-A435-MAH54Tm		AIKO-A440-MAH54Tm		AIKO-A445-MAH54Tm		AIKO-A450-MAH54Tm		AIKO-A455-MAH54Tm		AIKO-A460-MAH54Tm	
	STC	NOCT												
P_{max} [W]	430	326	435	330	440	334	445	338	450	341	455	345	460	349
V_{oc} [V]	40.27	38.22	40.37	38.32	40.47	38.41	40.57	38.51	40.67	38.60	40.77	38.70	40.87	38.79
V_{mp} [V]	34.03	32.30	34.13	32.39	34.23	32.49	34.33	32.58	34.43	32.68	34.53	32.77	34.63	32.87
I_{sc} [A]	13.66	11.02	13.75	11.09	13.84	11.16	13.93	11.24	14.02	11.31	14.06	11.34	14.10	11.37
I_{mp} [A]	12.64	10.11	12.75	10.20	12.86	10.29	12.97	10.38	13.08	10.46	13.18	10.55	13.29	10.63
Module Efficiency	21.5%		21.8%		22.0%		22.3%		22.5%		22.8%		23.0%	

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	MC4-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

