



N-Type ABC Dual-glass Module

AIKO-A-MAH54Dw

Up to **23.6%**
445W-460W



Product
Warranty



Performance
Warranty



reddot winner 2023

Premium Appearance

No grid lines on the front

Higher Power Output

Higher efficiency: 23.6%

Lower degradation: 1 Year $\leq 1.0\%$, 2 -30 Year $\leq 0.35\%$

Better Temperature Coefficient: $-0.29\%/^{\circ}\text{C}$

Optimized Balance of System (BOS)

Significant savings on mounting structure, cabling, and labour cost

Complete Set of Quality Management System

IEC 61730 (2016) IEC 61215 (2021)

ISO 9001:2015 Quality Management System

ISO 14001:2015 Environmental Management System

ISO 45001:2018 Occupational Safety and Management System



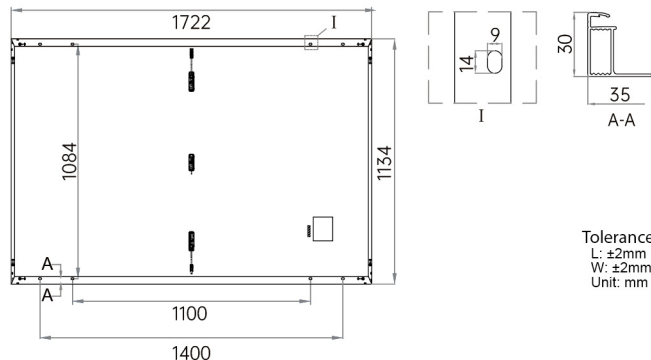
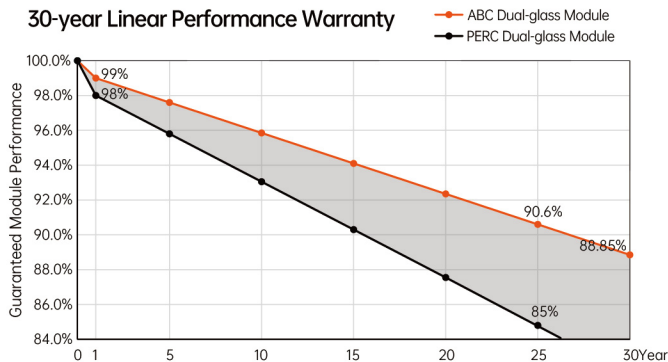
460W
Output

23.6%
Efficiency

≤1%
First-year Degradation

≤0.35%
Annual Degradation from Year 2-30

30-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% Max Power Test Uncertainty: ±3%

| Model | AIKO-A445-MAH54Dw | | AIKO-A450-MAH54Dw | | AIKO-A455-MAH54Dw | | AIKO-A460-MAH54Dw | |
|--------------------------|-------------------|-------|-------------------|-------|-------------------|-------|-------------------|-------|
| | STC | NOCT | STC | NOCT | STC | NOCT | STC | NOCT |
| P_{max} [W] | 445 | 336 | 450 | 339 | 455 | 343 | 460 | 347 |
| V_{oc} [V] | 39.95 | 37.63 | 40.05 | 37.72 | 40.15 | 37.82 | 40.25 | 37.91 |
| V_{mp} [V] | 33.59 | 31.64 | 33.69 | 31.73 | 33.79 | 31.83 | 33.89 | 31.92 |
| I_{sc} [A] | 13.81 | 11.20 | 13.87 | 11.25 | 13.93 | 11.29 | 13.99 | 11.34 |
| I_{mp} [A] | 13.25 | 10.62 | 13.36 | 10.71 | 13.47 | 10.79 | 13.58 | 10.88 |
| Module Efficiency | 22.8% | | 23.0% | | 23.3% | | 23.6% | |

Mechanical Specification

| | |
|----------------|--|
| Cell Type | Mono-crystalline Silicon |
| Glass | Dual glass, 1.6+1.6mm/2.0+2.0mm coated semi tempered glass |
| Frame | Anodized aluminum |
| Cable | 4mm ² (IEC) 12AWG(UL) 350mm or Customized Length |
| No. of Cells | 108(6*18) |
| Junction Box | IP68, three bypass diodes |
| Connector | MC4 compatible |
| Weight | 21.0/24.0kg±3% |
| Dimension | 1722*1134*30mm |
| Package Detail | 36pcs per pallet/216 pcs per 20' GP/936pcs per 40' HQ |

Temperature Ratings (STC)

| | |
|--------------------------------------|-------------|
| Temperature Coefficient of I_{sc} | + 0.05%/ °C |
| Temperature Coefficient of V_{oc} | - 0.24%/ °C |
| Temperature Coefficient of P_{max} | - 0.29%/ °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 C |