



N-Type ABC Black Hole Series

AIKO-A-MAH54Mb

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



Product
Warranty



Performance
Warranty



reddot winner 2023

Full Black Design

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

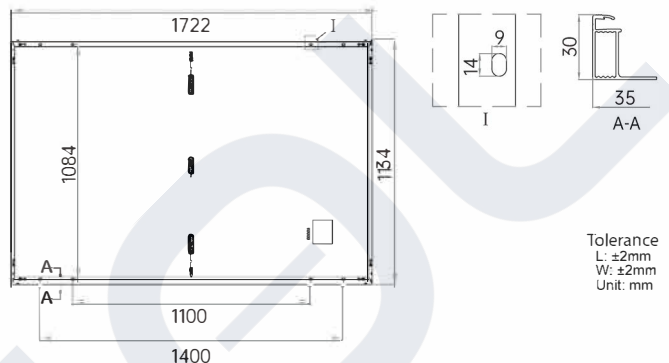
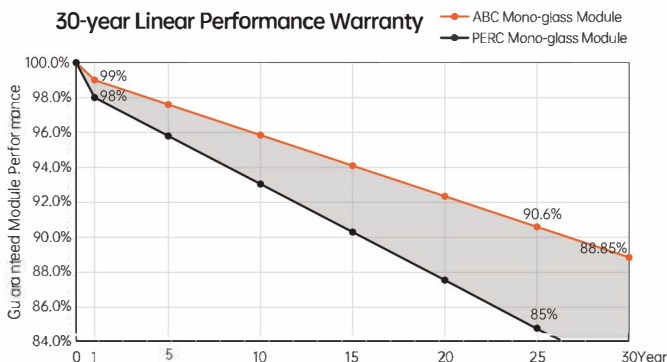


460W
Output

23.6%
Efficiency

≤1%
First-year Degradation

≤0.35%
Annual Degradation from Year 2-30



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-MAH54Mb | | AIKO-A450-MAH54Mb | | AIKO-A455-MAH54Mb | | AIKO-A460-MAH54Mb | |
|--------------------------|-------------------|-------|-------------------|-------|-------------------|-------|-------------------|-------|
| | STC | NOCT | STC | NOCT | STC | NOCT | STC | NOCT |
| P _{max} [W] | 445 | 336 | 450 | 339 | 455 | 343 | 460 | 347 |
| V _{oc} [V] | 40.09 | 37.76 | 40.19 | 37.85 | 40.29 | 37.94 | 40.39 | 38.04 |
| V _{mp} [V] | 33.91 | 31.94 | 34.01 | 32.03 | 34.11 | 32.12 | 34.21 | 32.22 |
| I _{sc} [A] | 13.69 | 11.10 | 13.75 | 11.15 | 13.81 | 11.20 | 13.87 | 11.25 |
| I _{mp} [A] | 13.13 | 10.52 | 13.24 | 10.61 | 13.35 | 10.70 | 13.45 | 10.78 |
| Module Efficiency | 22.8% | | 23.0% | | 23.3% | | 23.6% | |

Mechanical Specification

| | |
|---------------------------|--|
| Cell Type | Mono-crystalline Silicon |
| Front Cover Mono glass | 3.2 mm tempered glass, with anti-reflection coating |
| Frame | Black 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 | 20.5kg±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 |

SOLSOL

SOLSOL s.r.o.
Technická 3029, 616 00, Brno, ČR
sales@solsol.cz
www.solsol.cz

AIKO

Shenzhen Aiko Digital Energy Technology o., Ltd
16-28 floor, Building A, Terraity Building, Terra 4 Road No. 66,
Futian District, Shenzhen
marketing@aikosolar.com