

AIKO-A475-MCE54Db 3S+ 475W Full black Bifacial

Product code: PV.aiko.bf.475.3s



AIKO-A475-MCE54Db 3S+ 475W Full Black Bifacial – N-Type Bifacial Module with Top Aesthetics and Performance

The AIKO-A475-MCE54Db is a premium N-Type photovoltaic module, based on advanced ABC (All Back Contact) technology and a bifacial design. It delivers exceptional energy performance while maintaining an elegant, uniform Full Black finish. With resistance to microcracks, high system voltage, and optimized performance under partial shading, this panel is an excellent choice for residential, commercial, and architecturally demanding rooftop projects.

Product variants

Index	Price
AIKO-A475-MCE54Db 3S+ 475W Full black Bifacial PV.aiko.bf.475.3s	Product prices only visible after login. If you do not have an account, please register.

Product description

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Key Advantages of the AIKO-A475-MCE54Db:

23.8% efficiency at 475 W – N-Type ABC cell technology ensures higher energy yield throughout the module’s lifetime.

Bifacial technology – generates additional power from reflected light (rear-side gain), increasing total system output.

Low temperature coefficient Pmax: -0.26%/°C – improved performance in high-temperature conditions.

Resistance to microcracks and hail – maximum durability thanks to double-tempered glass and mechanical strength up to 5400 Pa.

Attractive Full Black design – black cells, frame, and junction box blend perfectly with modern architecture.

Long lifespan and warranties – 25-year product warranty and 30-year linear performance warranty ($\leq 0.35\%$ annual degradation).

Technical Specifications:

General Mechanical Data:

Cell type: N-Type ABC

Number of cells: 108 (6×18)

Dimensions: 1762 × 1134 × 30 mm

Weight: 24.2 kg $\pm 3\%$

Frame: Anodized aluminum, black color

Glass: Dual glass, semi-tempered, 2.0 mm + 2.0 mm

Connector: Original MC4

Junction box: IP68, 3 bypass diodes

Cables: 4 mm², length ± 1200 mm

Electrical Characteristics (STC):

Maximum power (Pmax): 475 W

Open-circuit voltage (Voc): 40.80 V

Short-circuit current (Isc): 14.76 A

Voltage at maximum power (Vmp): 34.40 V

Current at maximum power (Imp): 13.81 A

Module efficiency: 23.8%

Power tolerance: 0~+3%

Maximum system voltage: 1500 V DC

Maximum series fuse rating: 30 A

Temperature and Environmental Data:

Operating temperature range: -40°C ~ +85°C

Temperature coefficient of Pmax: -0.26%/°C

Temperature coefficient of Voc: -0.22%/°C

Temperature coefficient of I_{sc} : +0.05%/°C

Mechanical Load Resistance:

Front load: 5400 Pa

Rear load: 2400 Pa

Hail resistance: 35 mm hailstones at 23 m/s

Fire rating: IEC Class A

Protection class: II

Maximum Efficiency and Aesthetics in One Panel

The AIKO-A475-MCE54Db module combines cutting-edge technology with outstanding visual appeal, offering a solution for customers seeking top-tier quality and long-term reliability. It's an ideal choice for both prosumer installations and sophisticated architectural or commercial projects where performance, appearance, and durability are essential.