

AXIworldblackpremium XXL HC 450 - 460 Wp

High performance bifacial solar modul
120 halfcell, monocrystalline



German-American-Engineering

The advantages:



25 years Manufacturer's warranty



High module performance through Half-Cut-technology and selected materials



Guaranteed positive power tolerance from 0-5 Wp by individual measurement



100 % visual electroluminescence inspection in production

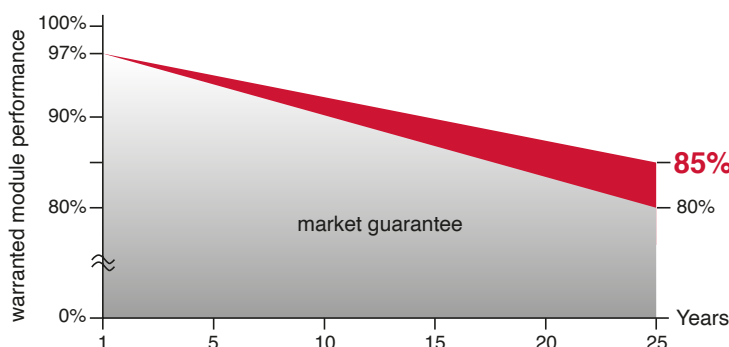


25 years Performance guarantee



Fig. similar 120MBTUSA240523UAE-153

Exclusive linear AXITEC high performance guarantee!



85% AXITEC Warranty Added Value: up to 5% more power after 25 years



5026791
Conforms to UL STD No.1703
Certified to ULC/ORD Std. C1703

AXIworldblackbipremium XXL HC 450 - 460 Wp

Electrical data (at standard conditions (STC) irradiance 1000 W/m². spectrum AM 1.5 at a cell temperature of 25°C)

Type	AC-450MBT/120V	AC-455MBT/120V	AC-460MBT/120V
Nominal output	450 Wp	455 Wp	460 Wp
Nominal voltage U _{mpp}	33.91 V	35.20 V	35.50 V
Nominal current I _{mpp}	13.27 A	12.93 A	12.97 A
Short circuit current I _{sc}	13.85 A	13.72 A	13.78 A
Open circuit voltag U _{oc}	41.18 V	41.80 V	42.00 V
Module conversion efficiency	20.82 %	21.05 %	21.28 %

Bifacial output - Backside Power gain

	AC-450MBT/120V	AC-455MBT/120V	AC-460MBT/120V
10% Power output	495 Wp	500Wp	506 Wp
Module Efficiency	22.90 %	23.16 %	23.41 %
15% Power output	518 Wp	523 Wp	529 Wp
Module Efficiency	23.94 %	24.21 %	24.47 %
20% Power output	540 Wp	546 Wp	552 Wp
Module Efficiency	24.98 %	25.25 %	25.54 %
25% Power output	563 Wp	569 Wp	575 Wp
Module Efficiency	26.02 %	26.31 %	26.60 %

Design

Frontside	0.13 inch (3.2 mm) hardened, low-reflection white glass
Backside	Composite film, cell spaces black
Cells	120 bifacial monocrystalline high efficiency cells
Frame	1.38 inch (35 mm) black aluminium frame

Mechanical data

L x W x H	75.04 x 44.64 x 1.38 inch (1906 x 1134 x 35 mm)
Weight	52.91 lbs (24 kg) with frame

Mechanical load

Design load (pressure/suction)	75.3 PSF / 33.3 PSF *
Test load (pressure/suction)	113 PSF / 50 PSF *

* depending on the type of installation according to the installation instructions

Power connection

Socket	Protection Class IP68
Wire	51.18 inch, AWG 12
Plug-in system	Plug/socket IP68, Stäubli EVO2

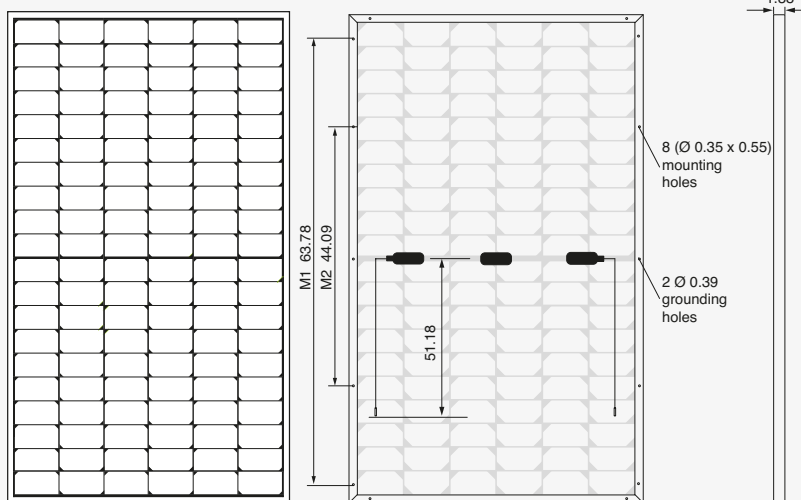


Fig. principle sketch

All dimensions in inch

Limit values

System voltage	1500 VDC (UL) 1500 VDC (IEC)
Module Fire Performance	TYPE 1 (UL 1703) or CLASS C (IEC 61730)
NOCT (nominal operating cell temperature)*	45°C +/-2K
Reverse current feed IR	25.0 A

Permissible operating temperature -40°C to 85°C / -40F to 185F

Bifaciality 70 % ± 10 %

(No external voltages greater than V_o may be applied to the module)

* NOCT, irradiance 800 W/m²; AM 1.5; wind speed 1 m/s; Temperature 20°C

Temperature coefficients

Voltage U _{oc}	-0.28 %/K
Current I _{sc}	0.045 %/K
Output P _{mpp}	-0.35 %/K

Low-light performance without Bifacial-effect

(Example for AC-460MBT/120V)

I-U characteristic curve	Current I _{pp}	Voltage U _{pp}
200 W/m ²	2.65 A	34.17 V
400 W/m ²	5.35 A	34.56 V
600 W/m ²	7.99 A	34.83 V
800 W/m ²	10.56 A	35.13 V
1000 W/m ²	12.97 A	35.50 V

Packaging

Module pieces per pallet	31
Module pieces per HC-container	744