

AXIbipremium XXL HC MT 530 - 555 Wp

High performance bifacial solar module
144 halfcell, monocrystalline



German-American-Engineering

The advantages:



15 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



High stability due to innovative frame design



High quality junction box and connector systems

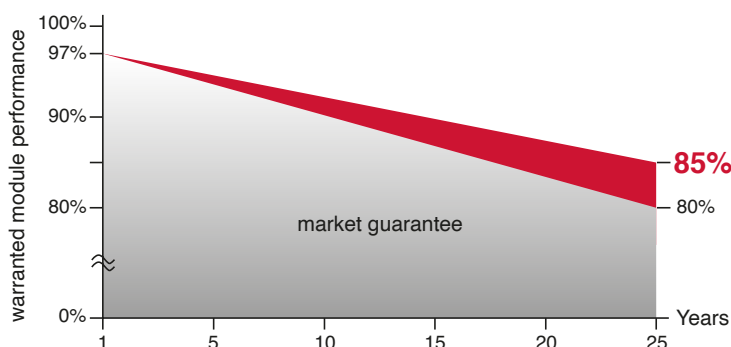


25 years Performance guarantee



Fig. similar 144MHUSA240805A

Exclusive linear AXITEC high performance guarantee!



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



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

AXIbipremium XXL HC MT 530 - 555 Wp

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

Type	AC-530MBT/144V	AC-535MBT/144V	AC-540MBT/144V	AC-545MBT/144V	AC-550MBT/144V	AC-555MBT/144V
Nominal output	530 Wp	535 Wp	540 Wp	545 Wp	550 Wp	555 Wp
Nominal voltage U _{mpp}	41.31 V	41.47 V	41.64 V	41.80 V	41.96 V	42.11 V
Nominal current I _{mpp}	12.83 A	12.91 A	12.97 A	13.04 A	13.11 A	13.18 A
Short circuit current I _{sc}	13.72 A	13.79 A	13.86 A	13.93 A	14.00 A	14.07 A
Open circuit voltag U _{oc}	49.30 V	49.45 V	49.60 V	49.75 V	49.90 V	50.05 V
Module conversion efficiency	20.52 %	20.71 %	20.90 %	21.10 %	21.29 %	21.48 %

Bifacial output - Backside Power gain

10% Power output	583.00 Wp	588.50 Wp	594.00 Wp	599.50 Wp	605.00 Wp	610.50 Wp
Module Efficiency	22.57 %	22.78 %	22.99 %	23.21 %	23.41 %	23.62 %
15% Power output	609.50 Wp	615.25 Wp	621.00 Wp	626.75 Wp	632.50 Wp	638.25 Wp
Module Efficiency	23.59 %	23.82 %	24.04 %	24.26 %	24.47 %	24.70 %
20% Power output	636.00 Wp	642.00 Wp	648.00 Wp	654.00 Wp	660.00 Wp	666.00 Wp
Module Efficiency	24.62 %	24.85 %	25.08 %	25.32 %	25.54 %	25.77 %
25% Power output	662.50 Wp	668.75 Wp	675.00 Wp	681.25 Wp	687.50 Wp	693.75 Wp
Module Efficiency	25.65 %	25.89 %	26.13 %	26.37 %	26.60 %	26.84 %

Design

Frontside	0.13 inch (3.2 mm) hardened, low-reflection white glass
Backside	Composite film, cell spaces transparent
Cells	144 monocrystalline high efficiency cells
Frame	1.38 inch (35 mm) silver aluminium frame

Mechanical data

L x W x H	89.68 x 44.64 x 1.38 inch (2278 x 1134 x 35 mm)
Weight	61.73 lbs (28 kg) with frame

Mechanical load

Design load (pressure/suction)	33.3 PSF / 33.3 PSF
Test load (pressure/suction)	50 PSF / 50 PSF

Power connection

Socket	Protection Class IP68, 3 bypass diodes
Wire	51.18 inch, AWG 12
Plug-in system	IP68, Stäubli EVO2

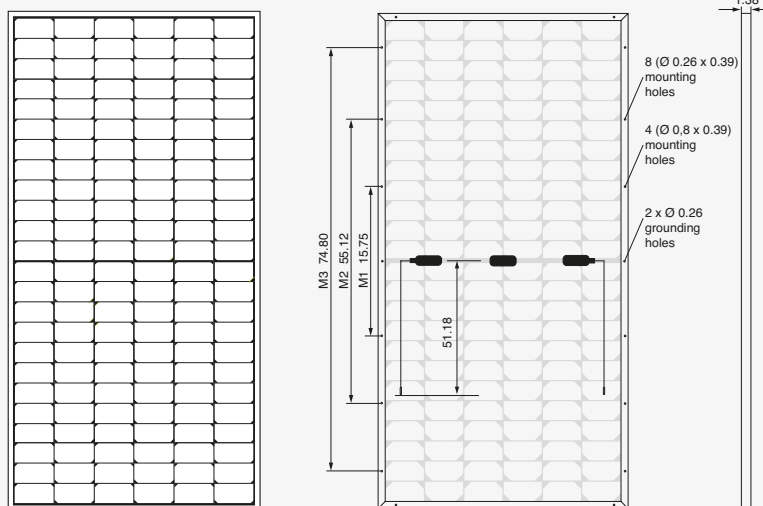


Fig. principle sketch

All dimensions in inch

Limit values

System voltage	1500 VDC (UL) 1000 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	30.0 A

Permissible operating temperature	-40°C to 85°C / -40F to 185F
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Bifaciality	70 % ± 10 %
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(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}	-0.29 %/K
Current I _{sc}	0.048 %/K
Output P _{mpp}	-0.35 %/K

Low-light performance (Example for AC-555MH/144V)

I-U characteristic curve	Current I _{pp}	Voltage U _{pp}
200 W/m ²	2.69 A	40.53 V
400 W/m ²	5.43 A	40.99 V
600 W/m ²	8.12 A	41.31 V
800 W/m ²	10.73 A	41.67 V
1000 W/m ²	13.18 A	42.11 V

Packaging

Module pieces per pallet	31
Module pieces per HC-container	620

