



520 - 540 Wp

AXITEC
high quality german solar brand

AXIbipremium XXL HC MW

High performance bifacial solar module
144 halfcell, monocrystalline

The advantages:

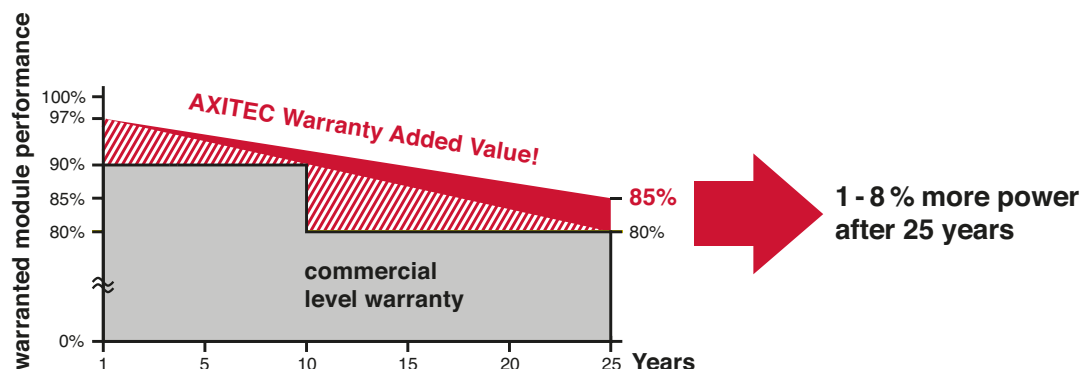
- 15** Years 15 years Manufacturer's warranty
- +25%** Up to 25 % more power output by Bifacial-Technology
- Wp** Guaranteed positive power tolerance from 0-5 Wp by individual measurement
- 100%** 100% visual electroluminescence inspection in production
- Frame** High stability due to innovative frame design
- IP 68** High quality junction box and connector systems

25
YEARS
85%



Exclusive linear AXITEC high performance guarantee!

- 15 years manufacturer's guarantee on 90 % of the nominal performance
- 25 years manufacturer's guarantee on 85 % of the nominal performance



AXIbipremium XXL HC MW 520 - 540 Wp



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

Type	AC-520MBT/144V	AC-525MBT/144V	AC-530MBT/144V	AC-535MBT/144V	AC-540MBT/144V
Nominal output	520 Wp	525 Wp	530 Wp	535 Wp	540 Wp
Nominal voltage U _{mpp}	41.12 V	41.25 V	41.40 V	41.55 V	41.70 V
Nominal current I _{mpp}	12.65 A	12.73 A	12.81 A	12.88 A	12.95 A
Short circuit current I _{sc}	13.60 A	13.66 A	13.73 A	13.79 A	13.85 A
Open circuit voltag U _{oc}	48.95 V	49.10 V	49.25 V	49.40 V	49.55 V
Module conversion efficiency	20.13 %	20.32 %	20.52 %	20.71 %	20.90 %

Bifacial output - Backside Power gain

	AC-520MBT/144V	AC-525MBT/144V	AC-530MBT/144V	AC-535MBT/144V	AC-540MBT/144V
10% Power output	572.00 Wp	577.50 Wp	583.00 Wp	588.50 Wp	594.00 Wp
Module Efficiency	22.14 %	22.36 %	22.57 %	22.78 %	22.99 %
15% Power output	598.00 Wp	603.75 Wp	609.50 Wp	615.25 Wp	621.00 Wp
Module Efficiency	23.15 %	23.37 %	23.59 %	23.82 %	24.04 %
20% Power output	624.00 Wp	630.00 Wp	636.00 Wp	642.00 Wp	648.00 Wp
Module Efficiency	24.19 %	24.39 %	24.62 %	24.85 %	25.08 %
25% Power output	650.00 Wp	656.25 Wp	662.50 Wp	668.85 Wp	675.00 Wp
Module Efficiency	25.16 %	25.40 %	25.65 %	25.89 %	26.13 %

Design

Frontside	3.2 mm hardened, low-reflection white glass
Backside	Composite film, cell gaps white
Cells	144 monocrystalline high efficiency cells
Frame	35 mm silver aluminium frame

Mechanical data

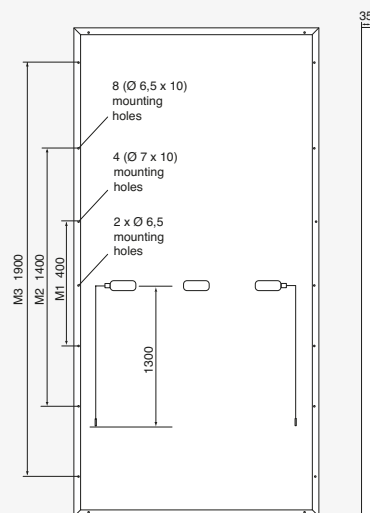
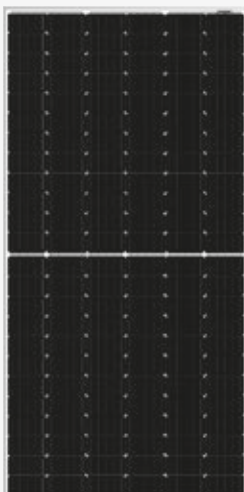
L x W x H	2278 x 1134 x 35 mm
Weight	28.5 kg with frame

Mechanical load

Design load (pressure/suction)	1600 Pa / 1600 Pa
Test load (pressure/suction)	2400 Pa / 2400 Pa

Power connection

Socket	Protection Class IP68
Wire	approx. 1.3 m, 4 mm ²
Plug-in system	Plug/socket IP68, Stäubli EVO2 / EVO2 pluggable



All dimensions in mm

Limit values

System voltage	1500 VDC
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 U_{oc} 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 without Bifacial-effect

(Example for AC-540MBT/144V)

I-U characteristic curve	Current I _{pp}	Voltage U _{pp}
200 W/m ²	2.65 A	40.13 V
400 W/m ²	5.34 A	40.59 V
600 W/m ²	7.98 A	40.91 V
800 W/m ²	10.55 A	41.26 V
1000 W/m ²	12.95 A	41.70 V

Packaging

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