

AXIblackbiperfect GL 425 - 440 Wp

High performance bifacial solar module
108 halfcell, glass/glass, N-Type TOPCon

The advantages:







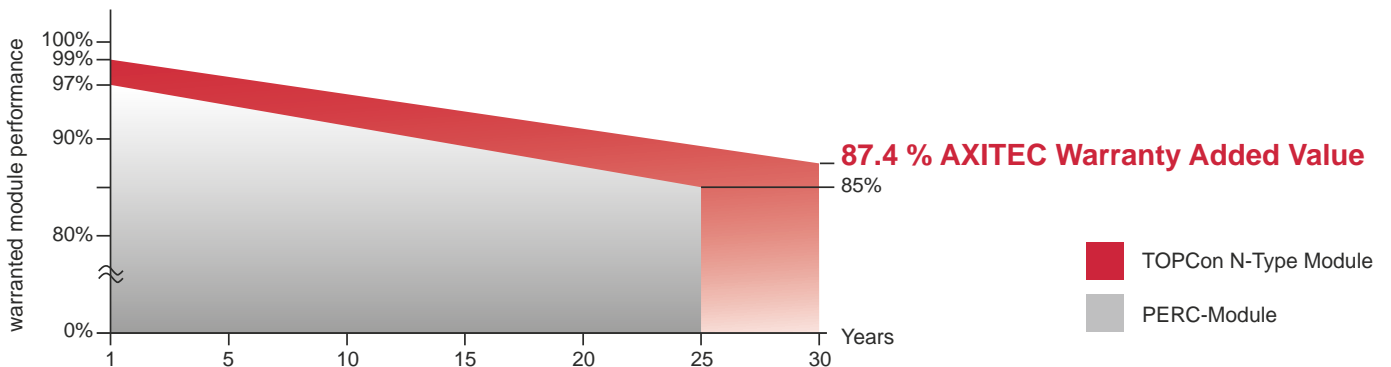
-  30 years Manufacturer's warranty and Performance guarantee
-  Up to 30 % more power output by Bifacial-Technology
-  More performance through innovative N-Type TOPCon-Technology
-  PID reduced through glass/glass-Technology
-  Increased safety through improved fire protection
-  Guaranteed positive power tolerance from 0-5 Wp by individual measurement



Fig. similar 108TGBEN231205A

Exclusive linear AXITEC high performance guarantee!



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

Type	AC-425TGB/108BB	AC-430TGB/108BB	AC-435TGB/108BB	AC-440TGB/108BB
Nominal output	425 Wp	430 Wp	435 Wp	440 Wp
Nominal voltage U _{mpp}	32.55 V	32.85 V	33.14 V	33.44 V
Nominal current I _{mpp}	13.06 A	13.09 A	13.13 A	13.16 A
Short circuit current I _{sc}	13.56 A	13.57 A	13.58 A	13.59 A
Open circuit voltag U _{oc}	39.04 V	39.53 V	40.02 V	40.31 V
Module conversion efficiency	21.27 %	21.52 %	21.77 %	22.02 %

Bifacial output - Backside Power gain

10% Power output	468 Wp	473 Wp	479 Wp	484 Wp
Module Efficiency	23.40 %	23.67 %	23.95 %	24.22 %
20% Power output	510 Wp	516 Wp	522 Wp	528 Wp
Module Efficiency	25.52 %	25.82 %	26.12 %	26.42 %
30% Power output	553 Wp	559 Wp	566 Wp	572 Wp
Module Efficiency	27.65 %	27.98 %	28.30 %	28.63 %

Design

Frontside	1.6 mm hardened, low-reflection white glass
Backside	1.6 mm hardened glass, cell spaces black
Cells	108 N-Type TOPCon bifacial high efficiency cells
Frame	30 mm black aluminium frame

Mechanical data

L x W x H	1762 x 1134 x 30 mm
Weight	22.0 kg with frame

Mechanical load

Design load (pressure/suction)	3600 Pa / 1600 Pa
Test load (pressure/suction)	5400 Pa / 2400 Pa

Power connection

Socket	Protection Class IP68, 3 bypass diodes
Wire	approx. 1.2 m, 4 mm ²
Plug-in system	IP68, MC4-EVO 2, MC4-EVO 2A, JM608

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	80 % ± 5 %
Fire class / Protection class	C (UL790) / II

(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}	-0.26 %/K
Current I _{sc}	0.046 %/K
Output P _{mpp}	-0.31 %/K

Low-light performance without Bifacial-effect

(Example for 440TGB/108BB)

I-U characteristic curve	Current I _{pp}	Voltage U _{pp}
200 W/m ²	2.69 A	32.18 V
400 W/m ²	5.43 A	32.55 V
600 W/m ²	8.11 A	32.81 V
800 W/m ²	10.72 A	33.09 V
1000 W/m ²	13.16 A	33.44 V

Packaging

Module pieces per pallet	36
Module pieces per HC-container	864

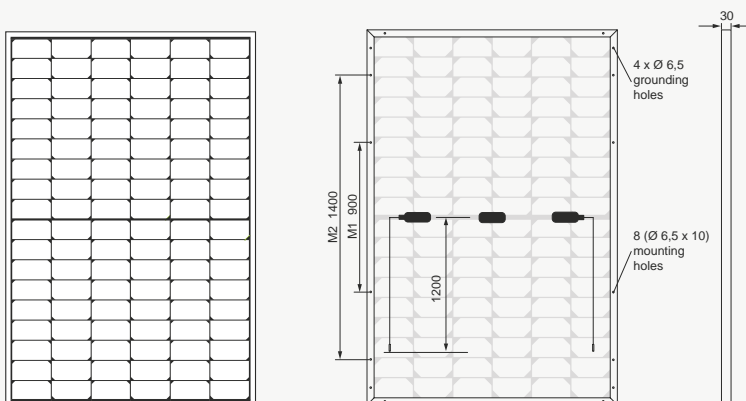


Fig. principle sketch

All dimensions in mm

