

AXIbiperfect GQ WB 445 - 460 Wp

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

The advantages:







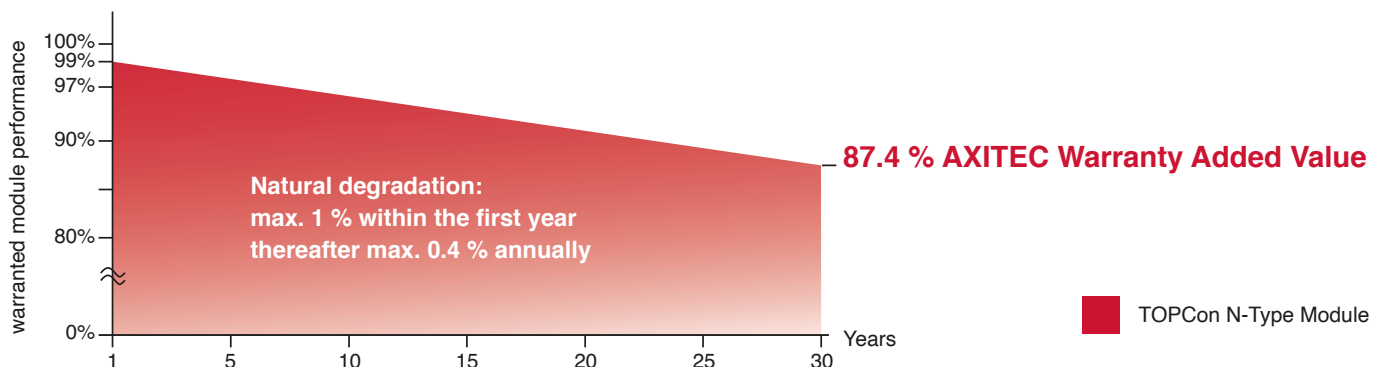
- 
30 Years
 30 years Manufacturer's warranty and Performance guarantee
- 
+30%
 Up to 30 % more power output by Bifacial-Technology
- 
TOP
 More performance through innovative N-Type TOPCon-Technology
- 
PID less
 PID reduced through glass/glass-Technology
- 
Safe
 Increased safety through improved fire protection
- 
Wp
 Positive power sorting from 0-5 Wp



Fig. similar 108TGBEN250813A

Exclusive linear AXITEC high performance guarantee!



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Electrical data

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

Type	AC-445TGB/96WB	AC-450TGB/96WB	AC-455TGB/96WB	AC-460TGB/96WB
Nominal output	445 Wp	450 Wp	455 Wp	460 Wp
Nominal voltage U _{mpp}	29.55 V	29.79 V	30.03 V	30.27 V
Nominal current I _{mpp}	15.06 A	15.11 A	15.16 A	15.21 A
Short circuit current I _{sc}	15.76 A	15.82 A	15.88 A	15.94 A
Open circuit voltag U _{oc}	35.75 V	36.02 V	36.30 V	36.57 V
Module conversion efficiency	22.27 %	22.52 %	22.77 %	23.02 %

at BNPI test conditions: irradiance frontside 1000 W/m², backside 135 W/m², with spectrum AM 1,5 at a cell temperature of 25°C

Nominal output P _{mpp}	491 Wp	496 Wp	502 Wp	507 Wp
Short circuit current I _{sc}	17.38 A	17.44 A	17.51 A	17.57 A
Open circuit voltag U _{oc}	35.75 V	36.02 V	36.30 V	36.57 V

Bifacial coefficients: φU_{oc} 0,98±5%; φI_{sc} 0,80±10%; φP_{mpp} 0,80±10%

Design

Frontside	2.0 mm semi tempered AR Solar glass
Backside	2.0 mm glass, cell spaces white
Cells	96 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	25.0 kg with frame

Mechanical load

Design load (pressure/suction) 3600 Pa / 1600 Pa *

Test load (pressure/suction) 5400 Pa / 2400 Pa *

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

Power connection

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

Limit values

System voltage	1500 VDC
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
Fire class / Protection class	C (UL790) / II
Hail resistance	HW3 (Ø 30 mm, 23.6 m/s)

(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 460TGB/96WB)

I-U characteristic curve	Current I _{pp}	Voltage U _{pp}
200 W/m ²	3.11 A	29.13 V
400 W/m ²	6.27 A	29.47 V
600 W/m ²	9.37 A	29.70 V
800 W/m ²	12.39 A	29.95 V
1000 W/m ²	15.21 A	30.27 V

Packaging

Module pieces per pallet	36
Module pieces per HC-container	936

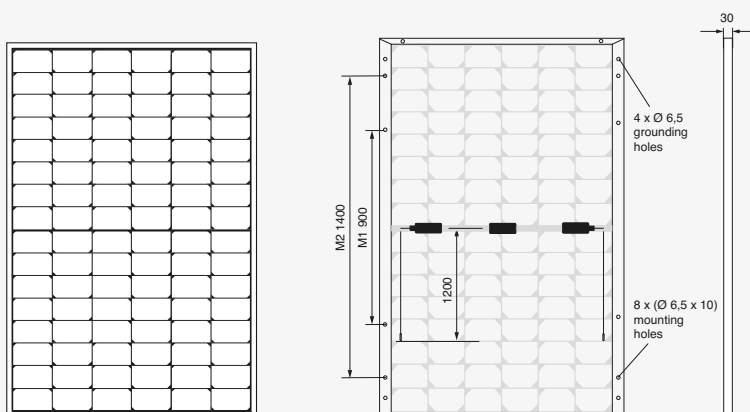


Fig. principle sketch

All dimensions in mm

