

AXIbiperfect GXXL TB Extreme 580 - 590 Wp

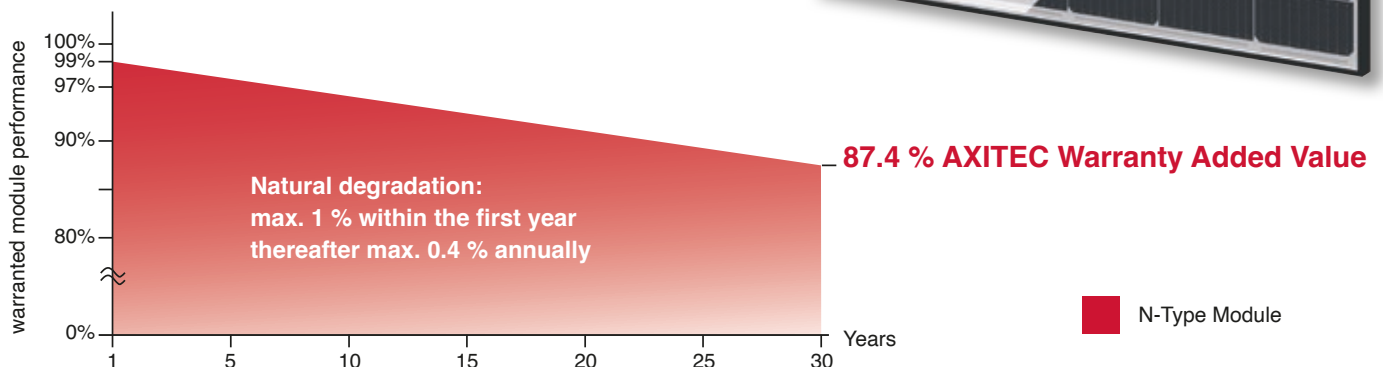
High performance bifacial solar module
144 halfcell, glass/glass, N-Type

The advantages:

- 30 Years** 30 years Manufacturer's warranty and Performance guarantee
- +30%** Up to 30 % more power output by Bifacial-Technology
- PID less** PID reduced through glass/glass-Technology
- + Wp** Guaranteed positive power tolerance from 0-5 Wp by individual measurement
- 3000 m** Suitable for extreme weather conditions and alpine applications up to 3000 m
- 35 mm** High stability thanks to reinforced frame design



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-580TGB/144TB-ALP	AC-585TGB/144TB-ALP	AC-590TGB/144TB-ALP	
Nominal output	580 Wp	585 Wp	590 Wp	
Nominal voltage U _{mpp}	43.94 V	44.15 V	44.36 V	
Nominal current I _{mpp}	13.20 A	13.25 A	13.30 A	
Short circuit current I _{sc}	14.11 A	14.17 A	14.23 A	
Open circuit voltage U _{oc}	52.03 V	52.10 V	52.31 V	
Module conversion efficiency	21.63 %	21.81 %	22.00 %	

at BNPI test conditions: irradiance frontside 1000W/m². backside 135W/m². with spectrum AM 1.5 at a cell temperature of 25°C

Nominal output P _{mpp}	640 Wp	645 Wp	651 Wp	
Short circuit current I _{sc}	15.56 A	15.62 V	15.69 V	
Open circuit voltage U _{oc}	52.03 V	52.10 A	52.13 A	

Bifacial coefficients: ϕU_{oc} 0.98±5%; ϕI_{sc} 0.80±10%; ϕP_{mpp} 0.80±10%

Design

Frontside	2,8 mm tempered AR Solar glass
Backside	2,8 mm tempered Solar glass, cell spaces transparent
Cells	144 N-Type bifacial high efficiency cells
Frame	35 mm black aluminium frame

Mechanical data

L x W x H	2324 x 1154 x 35 mm
Weight	43.0 kg with frame

Mechanical load

Design load (pressure/suction) **5600 Pa / 4400 Pa ***

Test load (pressure/suction) **8400 Pa / 6600 Pa ***

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

Power connection

Socket	Protection Class IP68, 3 bypass diodes
Wire	approx. 1,65 m, 4 mm ²
Plug-in system	IP68, MC4-EVO 2A

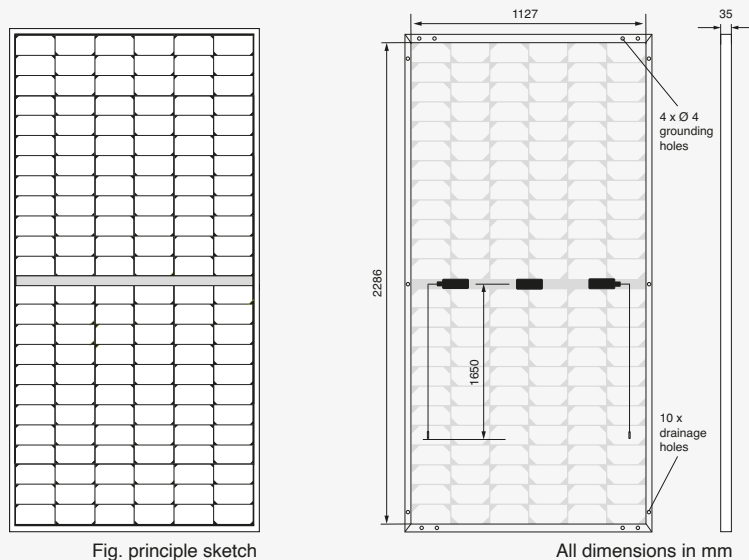


Fig. principle sketch

All dimensions in mm

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 / -40°F to 185°F
Fire class / Protection class	C (UL790) / II
Hail resistance	HW4 (Ø 40 mm, 27,5 m/s)
Maximum installation height	3000 m

(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 AC-590TGB/144TB-ALP)

I-U characteristic curve	Current I _{pp}	Voltage U _{pp}
200 W/m ²	2.72 A	42.69 V
400 W/m ²	5.48 A	43.18 V
600 W/m ²	8.19 A	43.52 V
800 W/m ²	10.83 A	43.89 V
1000 W/m ²	13.30 A	44.36 V

Packaging

Module pieces per pallet	31
Module pieces per HC-container	496

