

AXIbiperfect GXXL TS

570 - 590 Wp

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

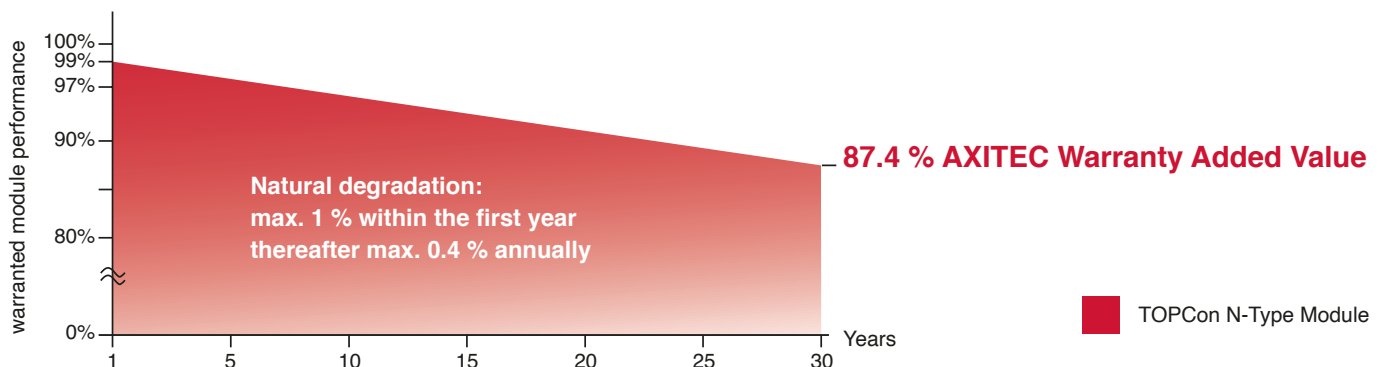
The advantages:

- 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 144TGBEN250807A

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-570TGB/144TS	AC-575TGB/144TS	AC-580TGB/144TS	AC-585TGB/144TS	AC-590TB/144TS
Nominal output	570 Wp	575 Wp	580 Wp	585 Wp	590 Wp
Nominal voltage U _{mpp}	43.52 V	43.73 V	43.94 V	44.16 V	44.37 V
Nominal current I _{mpp}	13.10 A	13.15 A	13.20 A	13.25 A	13.30 A
Short circuit current I _{sc}	13.99 A	14.05 A	14.11 A	14.17 A	14.23 A
Open circuit voltage U _{oc}	51.55 V	51.80 V	52.03 V	52.26 V	52.31 V
Module conversion efficiency	22.07 %	22.26 %	22.45 %	22.65 %	22.84 %

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}	628 Wp	634 Wp	640 Wp	645 Wp	651 Wp
Short circuit current I _{sc}	15.43 A	15.49 A	15.56 A	15.62 A	15.69 A
Open circuit voltage U _{oc}	51.55 V	51.80 V	52.03 V	52.26 V	52.31 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 transparent
Cells	144 N-Type TOPCon bifacial high efficiency cells
Frame	30 mm silver aluminium frame

Mechanical data

L x W x H	2278 x 1134 x 30 mm
Weight	31.2 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. 1.3 m, 4 mm ²
Plug-in system	IP68, MC4-EVO 2A, JM608

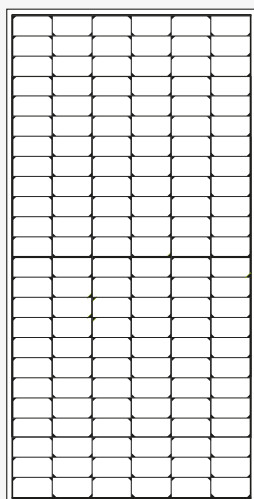
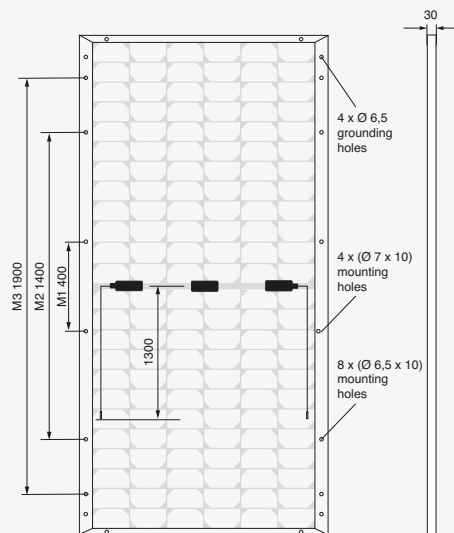


Fig. principle sketch



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 temp.	-40°C to 85°C / -40°F to 185°F
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 AC-590TGB/144TS)

I-U characteristic curve	Current I _{pp}	Voltage U _{pp}
200 W/m ²	2.72 A	42.70 V
400 W/m ²	5.48 A	43.19 V
600 W/m ²	8.19 A	43.53 V
800 W/m ²	10.83 A	43.90 V
1000 W/m ²	13.30 A	44.37 V

Packaging

Module pieces per pallet	36
Module pieces per HC-container	720

