AXIworldbiperfect GXXL TS

580 - 595 Wp

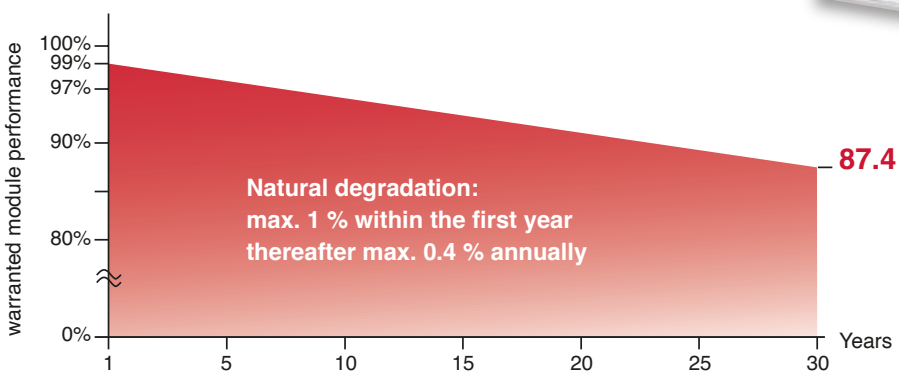
High performance bifacial solar module
144 halfcell, glass/glass, N-Type

Fig. similar 144TGBIN260302A-161/1

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-Technology
- PID less — PID reduced through glass/glass-Technology
- Safe — Increased safety through improved fire protection
- Wp — Positive power sorting from 0-5 Wp

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-580TGB/144TS	AC-585TGB/144TS	AC-590TGB/144TS	AC-595TGB/144TS	
Nominal output	**580 Wp**	**585 Wp**	**590 Wp**	**595 Wp**	
Nominal voltage Umpp	43.10 V	43.30 V	43.50 V	43.70 V	
Nominal current Impp	13.46 A	13.52 A	13.57 A	13.62 A	
Short circuit current Isc	14.40 A	14.46 A	14.51 A	14.57 A	
Open circuit voltag Uoc	52.20 V	52.40 V	52.60 V	52.80 V	
Module conversion efficiency	22.45 %	22.65 %	22.84 %	23.03 %	

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 Pmpp	638 Wp	643 Wp	649 Wp	655 Wp	
Short circuit current Isc	14.93 A	15.00 A	15.05 A	15.10 A	
Open circuit voltag Uoc	52.20 V	52.40 V	52.60 V	52.80 V	

Bifacial coefficients: φUoc 0.98±5%; φIsc 0.80±10%; φPmpp 0.80±10%

Design

Frontside	2.0 mm mm semi tempered AR Solar glass
Backside	2.0 mm glass, cell spaces transparent
Cells	144 N-Type bifacial high efficiency cells
Frame	35 mm silver aluminium frame

Mechanical data

L x W x H	2278 x 1134 x 35 mm
Weight	32.5 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. 0.4 m, 4 mm²
Plug-in system	IP68, DS01

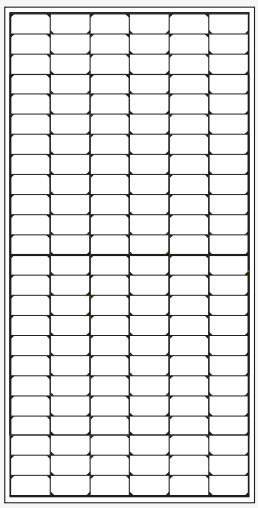
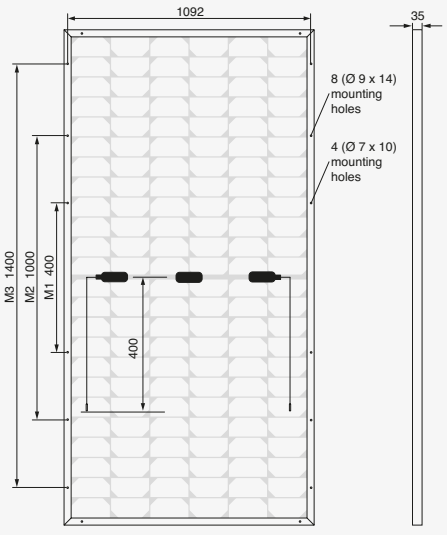


Fig. principle sketch



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 / -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 Uoc 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 Uoc	-0.25 %/K
Current Isc	0.048 %/K
Output Pmpp	-0.29 %/K

Low-light performance without Bifacial-effect

(Example for AC-595TGB/144TS)

I-U characteristic curve	Current Ipp	Voltage Upp
200 W/m²	2.78 A	42.06 V
400 W/m²	5.62 A	42.54 V
600 W/m²	8.39 A	42.87 V
800 W/m²	11.09 A	43.24 V
1000 W/m²	13.62 A	43.70 V

Technical data are subject to change without prior notice. errors excepted. The measurement tolerances are +/-3%. Please be aware: All technical data provided in our data sheets are property of Axitec Energy GmbH & Co. KG and intended for information purposes for our customers only. We cannot accept any guarantee of completeness or accuracy. These data are prohibited for any kind of commercial use.