







## AXIworldbiperfect GXXL TS 580 - 595 Wp

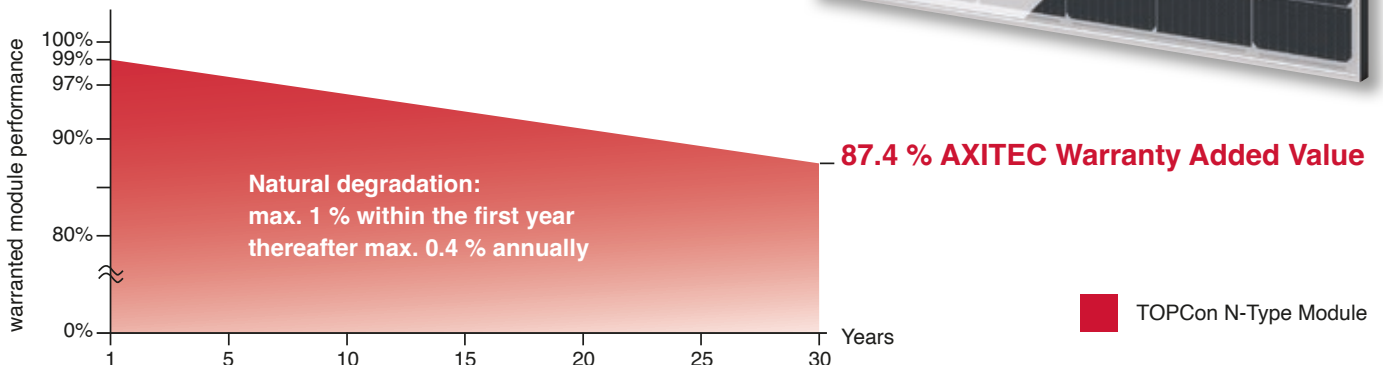
High performance bifacial solar module  
144 halfcell, glass/glass, N-Type

### 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-Technology
-  PID reduced through glass/glass-Technology
-  Increased safety through improved fire protection
-  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/m<sup>2</sup>, 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	<b>580 Wp</b>	<b>585 Wp</b>	<b>590 Wp</b>	<b>595 Wp</b>
Nominal voltage U <sub>mpp</sub>	43.10 V	43.30 V	43.50 V	43.70 V
Nominal current I <sub>mpp</sub>	13.46 A	13.52 A	13.57 A	13.62 A
Short circuit current I <sub>sc</sub>	14.40 A	14.46 A	14.51 A	14.57 A
Open circuit voltag U <sub>oc</sub>	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/m<sup>2</sup>, backside 135 W/m<sup>2</sup>, with spectrum AM 1.5 at a cell temperature of 25°C

Nominal output P <sub>mpp</sub>	638 Wp	643 Wp	649 Wp	655 Wp
Short circuit current I <sub>sc</sub>	14.93 A	15.00 A	15.05 A	15.10 A
Open circuit voltag U <sub>oc</sub>	52.20 V	52.40 V	52.60 V	52.80 V

Bifacial coefficients: φU<sub>oc</sub> 0.98±5%; φI<sub>sc</sub> 0.80±10%; φP<sub>mpp</sub> 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 mm <sup>2</sup>
Plug-in system	IP68, DS01

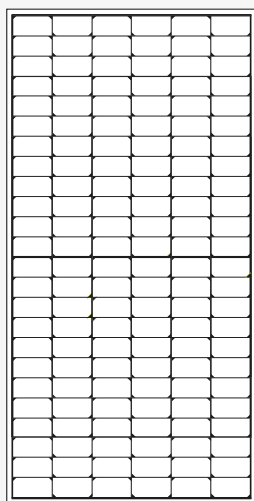
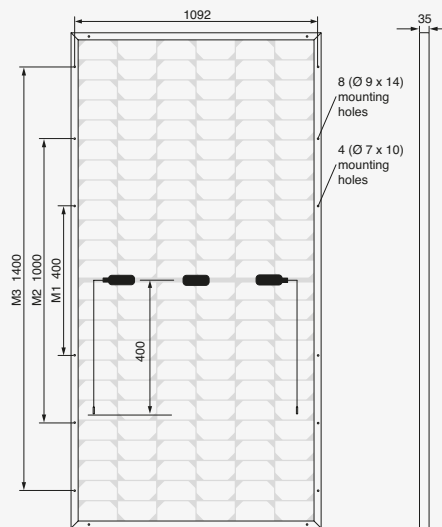


Fig. principle sketch



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 U<sub>oc</sub> may be applied to the module)

\* NOCT: irradiance 800 W/m<sup>2</sup>; AM 1.5; wind speed 1 m/s; Temperature 20°C

### Temperature coefficients

Voltage U <sub>oc</sub>	-0.25 %/K
Current I <sub>sc</sub>	0.048 %/K
Output P <sub>mpp</sub>	-0.29 %/K

### Low-light performance without Bifacial-effect

(Example for AC-595TGB/144TS)

I-U characteristic curve	Current I <sub>pp</sub>	Voltage U <sub>pp</sub>
200 W/m <sup>2</sup>	2.78 A	42.06 V
400 W/m <sup>2</sup>	5.62 A	42.54 V
600 W/m <sup>2</sup>	8.39 A	42.87 V
800 W/m <sup>2</sup>	11.09 A	43.24 V
1000 W/m <sup>2</sup>	13.62 A	43.70 V

