

AXIbiperfect GL TS 580 - 600 Wp

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

The advantages:







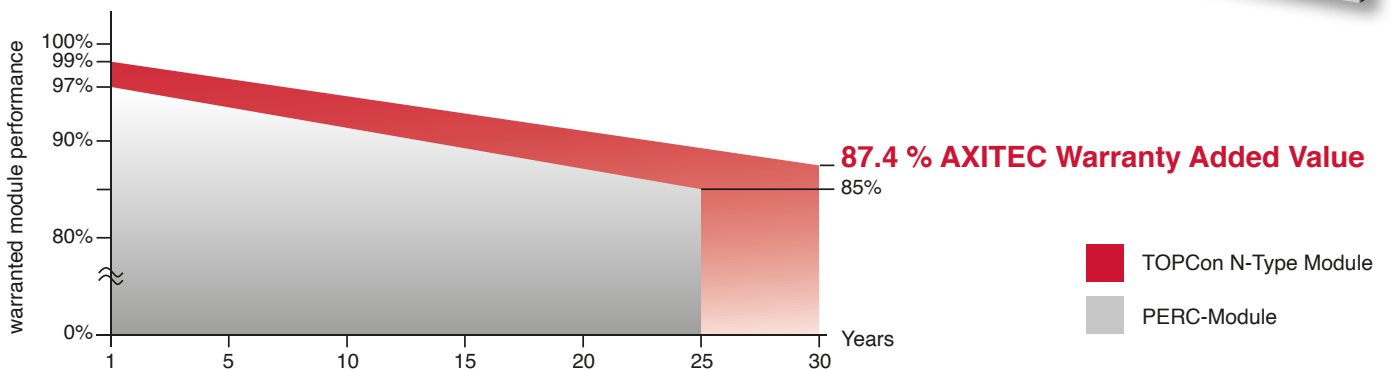
-  30 years Manufacturer's warranty and Performance guarantee
-  Up to 30 % more power output by Bifacial-Technology
-  More performance through innovative N-Type TOPCon-Technology
-  PID reduced through glass/glass-Technology
-  Increased safety through improved fire protection
-  Guaranteed positive power tolerance from 0-5 Wp by individual measurement



Fig. similar 144TGBLEN231214A

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-580TGBL/144TS	AC-585TGBL/144TS	AC-590TGBL/144TS	AC-595TGBL/144TS	AC-600TGBL/144TS
Nominal output	580 Wp	585 Wp	590 Wp	595 Wp	600 Wp
Nominal voltage U _{mpp}	42.74 V	42.79 V	43.11 V	43.44 V	43.76 V
Nominal current I _{mpp}	13.72 A	13.75 A	13.77 A	13.80 A	13.83 A
Short circuit current I _{sc}	14.3 A	14.33 A	14.37 A	14.4 A	14.44 A
Open circuit voltag U _{oc}	51.82 V	52.14 V	52.47 V	52.79 V	53.12 V
Module conversion efficiency	21.92 %	22.11 %	22.30 %	22.49 %	22.68 %

Bifacial output - Backside Power gain

10% Power output	638 Wp	644 Wp	649 Wp	655 Wp	660 Wp
Module Efficiency	24.12 %	24.32 %	24.53 %	24.74 %	24.95 %
20% Power output	696 Wp	702 Wp	708 Wp	714 Wp	720 Wp
Module Efficiency	26.31 %	26.53 %	26.76 %	26.99 %	27.21 %
30% Power output	754 Wp	761 Wp	767 Wp	774 Wp	780 Wp
Module Efficiency	28.50 %	28.75 %	28.99 %	29.24 %	29.48 %

Design

Frontside	2.0 mm hardened, low-reflection white glass
Backside	2.0 mm hardened 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	2333 x 1134 x 30 mm
Weight	32.0 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. 1.3 m, 4 mm ²
Plug-in system	IP68, JM608

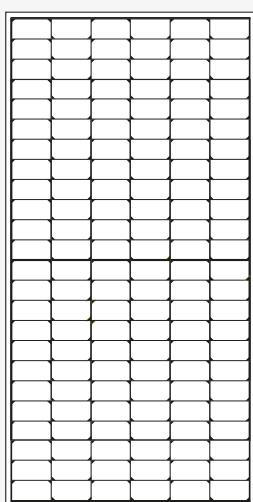
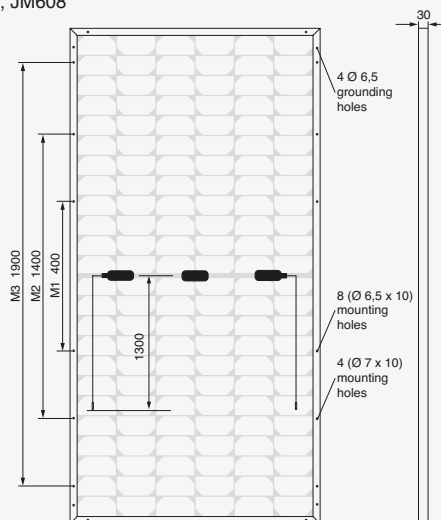


Fig. principle sketch



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 temperature	-40°C to 85°C / -40F to 185F
Bifaciality	80 % ± 5 %
Fire class / Protection class	C (UL790) / II

(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-600TGBL/144TS)

I-U characteristic curve	Current I _{pp}	Voltage U _{pp}
200 W/m ²	2.83 A	42.11 V
400 W/m ²	5.70 A	42.60 V
600 W/m ²	8.52 A	42.93 V
800 W/m ²	11.26 A	43.30 V
1000 W/m ²	13.83 A	43.76 V

Packaging

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

