

AXIworldbiperfect GQ TS

610 - 650 Wp

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

ALMM Enlisted Products

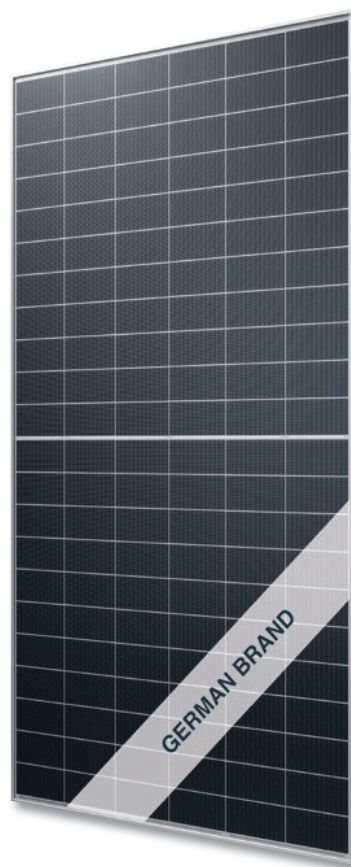
SGE - G12R132T16G-610
SGE - G12R132T16G-615
SGE - G12R132T16G-620
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SGE - G12R132T16G-635
SGE - G12R132T16G-640
SGE - G12R132T16G-645
SGE - G12R132T16G-650

SOLITECH

Equivalent Products

AC-610TGB/132TS
AC-615TGB/132TS
AC-620TGB/132TS
AC-625TGB/132TS
AC-630TGB/132TS
AC-635TGB/132TS
AC-640TGB/132TS
AC-645TGB/132TS
AC-650TGB/132TS

AXITEC



ALMM Declaration

- The AXITEC Products mentioned above are manufactured by SOLITECH Green Energy Pvt. Ltd: at the following address covered under the ALMM list: Block No 210, Chhamuchhal Village, Behind Karanj Textile Park,

Karanj, Surat-394 110, Gujarat, India.

- SOLITECH Green Energy Products mentioned above are both BIS approved and ALMM enlisted.

This product has been manufactured under the technical supervision of AXITEC. For further information on warranty and installation procedures, please visit www.axitecsolar.com

Warranty by

AXITEC Energy GmbH & Co. KG

Otto-Lilienthal-Str.5, 71034 Böblingen, Germany

+49 (0)7031 6288-5186,

energy@axitecsolar.com

www.axitecsolar.com

Manufactured by:

SOLITECH Green Energy Pvt. Ltd:

Block No 210, Chhamuchhal Village, Behind Karanj Textile Park, Karanj, Surat - 394 110, Gujarat, India.

www.solitechsolar.com



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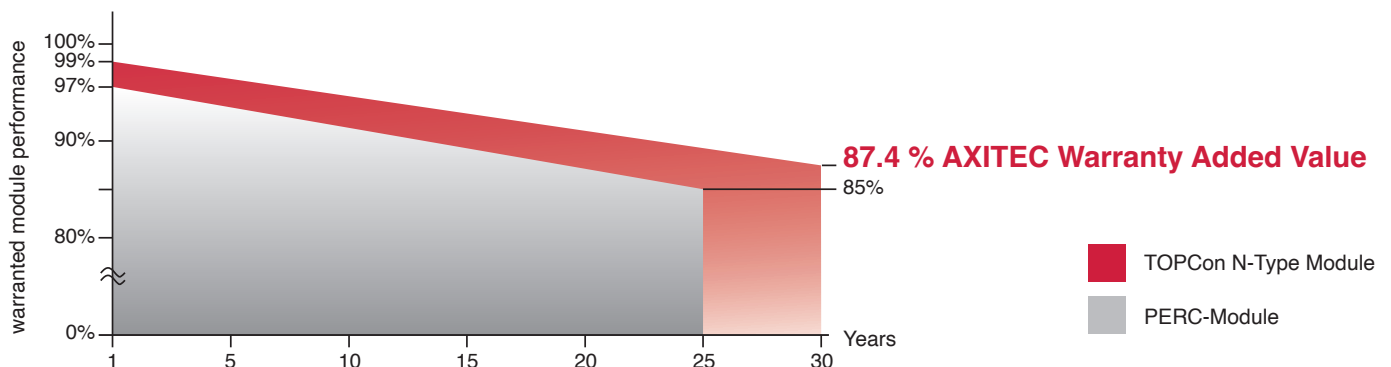
The advantages:

- 30 Years** 30 years Manufacturer's warranty
- 30 Years** 30 years 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** Guaranteed positive power tolerance from 0-5 Wp by individual measurement



Fig. similar 132TGBIN250930A-166/1

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	SGE G12R132T16G 610	SGE G12R132T16G 615	SGE G12R132T16G 620	SGE G12R132T16G 625	SGE G12R132T16G 630	SGE G12R132T16G 635	SGE G12R132T16G 640	SGE G12R132T16G 645	SGE G12R132T16G 650
Nominal output	610 Wp	615 Wp	620 Wp	625 Wp	630 Wp	635 Wp	640 Wp	645 Wp	650 Wp
Nominal voltage U _{mpp}	41.31 V	41.40 V	41.49 V	41.57 V	41.64 V	41.72 V	41.82 V	41.90 V	41.98 V
Nominal current I _{mpp}	14.77 A	14.86 A	14.95 A	15.04 A	15.136 A	15.225 A	15.31 A	15.40 A	15.49 A
Short circuit current I _{sc}	15.69 A	15.78 A	15.87 A	15.96 A	16.05 A	16.135 A	16.22 A	16.305 A	16.39 A
Open circuit voltag U _{oc}	48.94 V	49.03 V	49.12 V	49.21 V	49.30 V	49.39 V	49.48 V	49.56 V	49.66 V
Module conversion efficiency	22.56 %	22.75 %	22.93 %	23.12 %	23.30 %	23.49 %	23.67 %	23.86 %	24.04 %

Bifacial output - Backside Power gain

5% Power output	641 W	644 W	649 W	654 W	660 W	665 W	670 W	675 W	681 W
Module Efficiency	23.69%	23.81%	24.01%	24.20%	24.39%	24.59%	24.78%	24.98%	25.17%
10% Power output	671 W	673 W	678 W	684 W	689 W	695 W	700 W	706 W	711 W
Module Efficiency	24.82%	24.88%	25.08%	25.28%	25.49%	25.69%	25.89%	26.10%	26.30%
15% Power output	702 W	701 W	707 W	713 W	719 W	724 W	730 W	736 W	742 W
Module Efficiency	25.95%	25.94%	26.15%	26.36%	26.58%	26.79%	27%	27.22%	27.43%
20% Power output	732 W	730 W	736 W	742 W	748 W	754 W	760 W	766 W	772 W
Module Efficiency	27.08%	27%	27.22%	27.45%	27.67%	27.89%	28.11%	28.33%	28.56%

Design

Frontside	2.0 mm hardened, low-reflection white glass
Backside	2.0 mm hardened glass, cell spaces transparent
Cells	132 N-Type TOPCon bifacial high efficiency cells
Frame	35 mm silver aluminium frame

Mechanical data

L x W x H	2382 x 1134 x 35 mm
Weight	32.4 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. 300mm, 4 mm ²
Plug-in system	MC4 compatible

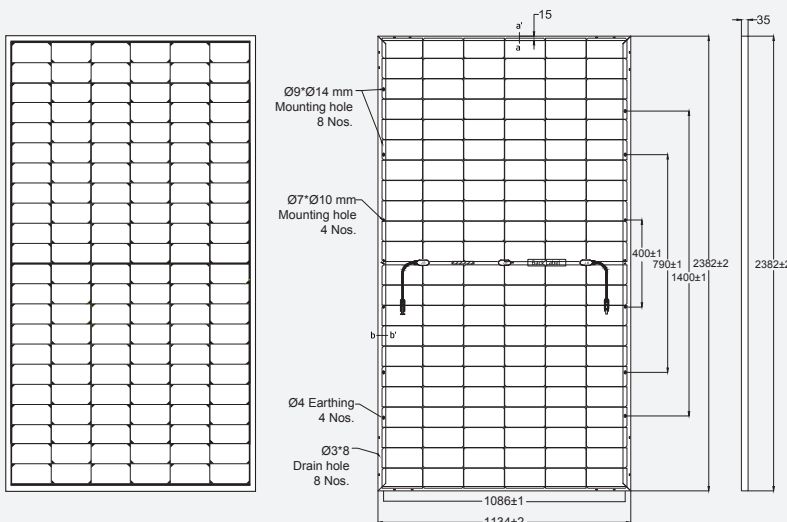


Fig. principle sketch

All dimensions in mm

Limit values

System voltage	1500 VDC
NOCT (nominal operating cell temperature)*	45°C +/-2K
Reverse current feed IR	25.0 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 (Example for AC-580TGB/144TS)

I-U characteristic curve	Current I _{pp}	Voltage U _{pp}
200 W/m ²	2.74 A	41.58 V
400 W/m ²	5.54 A	42.06 V
600 W/m ²	8.27 A	42.38 V
800 W/m ²	10.94 A	42.75 V
1000 W/m ²	13.43 A	43.20 V

Packaging

Module pieces per pallet	31
Module pieces per HC-container	620

