

AXIbiperfect GXXL TS

570 - 600 Wp

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



ALMM Enlisted Products	Equivalent Products
KNACK-NG2G-16B-144-570	AC-570TGB/144TS
KNACK-NG2G-16B-144-575	AC-575TGB/144TS
KNACK-NG2G-16B-144-580	AC-580TGB/144TS
KNACK-NG2G-16B-144-585	AC-585TGB/144TS
KNACK-NG2G-16B-144-590	AC-590TGB/144TS
KNACK-NG2G-16B-144-595	AC-595TGB/144TS
KNACK-NG2G-16B-144-600	AC-600TGB/144TS

ALMM Declaration

- The AXITEC Products mentioned above are manufactured by Knack Energy Pvt. Ltd.: at following address covered under the ALMM list: Survey Number 291 & 292, Besides Kamla Amut Industrial Estate, Near Hitachi Johnson, Budasan, Kadi, Mahesana, Gujarat - 384440, India.
- Knack 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
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Manufactured by:

KNACK ENERGY PRIVATE LIMITED
Survey Number 291 and 292, Besides Kamla Amut Industrial Estate, Near Hitachi Johnson, Budasan, Kadi, Mahesana, Gujarat - 384440 | www.knackenergy.com



KNACK ENERGY Pvt. Ltd.
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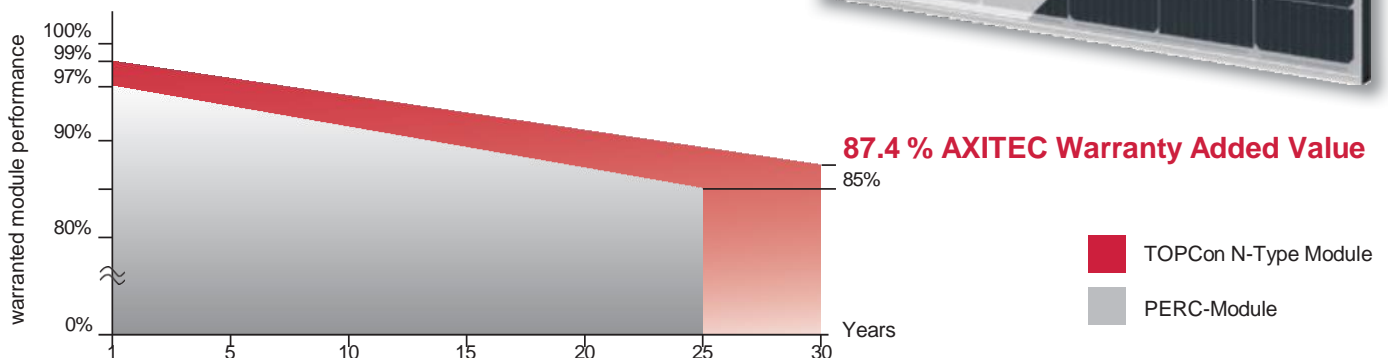
The advantages:

-  30 years Manufacturer's warranty
-  30 years 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 144TGBEN231030A

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	KNACK-NG2G-16B-144-570	KNACK-NG2G-16B-144-570	KNACK-NG2G-16B-144-580	KNACK-NG2G-16B-144-585	KNACK-NG2G-16B-144-590	KNACK-NG2G-16B-144-595	KNACK-NG2G-16B-144-570
Nominal output	570 Wp	575 Wp	580 Wp	585 Wp	590 Wp	595 Wp	600 Wp
Nominal voltage U _{mpp}	42.70 V	42.90 V	43.10 V	43.30 V	43.50 V	43.70 V	43.90 V
Nominal current I _{mpp}	13.35 A	13.41 A	13.46 A	13.52 A	13.57 A	13.62 A	13.68 A
Short circuit current I _{sc}	14.28 A	14.34 A	14.40 A	14.46 A	14.51 A	14.57 A	14.63 A
Open circuit voltag U _{oc}	51.80 V	52.00 V	52.20 V	52.40 V	52.60 V	52.80 V	53.00 V
Module conversion efficiency	22.10%	22.30%	22.50%	22.60%	22.80%	23.00%	23.20%

Bifacial output - Backside Power gain

5% Power output	599 W	604 W	609 W	614 W	620 W	625 W	630 W
Module Efficiency	23.19%	23.38%	23.57%	23.77%	24%	24.20%	24.39%
15% Power output	656 W	661 W	667 W	673 W	679 W	6.84 W	690 W
Module Efficiency	25.40%	25.59%	25.82%	26.05%	26.28%	26.48%	26.71%
25% Power output	713 W	719 W	725 W	731 W	738 W	744 W	750 W
Module Efficiency	27.60%	27.83%	28.06%	28.30%	28.57%	28.80%	29.03%

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	35 mm silver aluminium frame

Mechanical data

L x W x H	2278 x 1134 x 35 mm
Weight	32.5 Kg 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

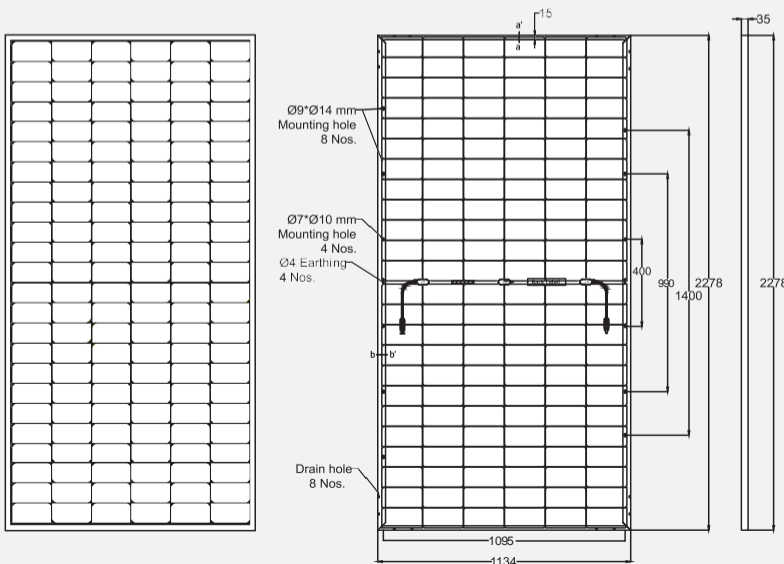


Fig. principle sketch

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
Pallet/Container (40' HC)	20
Module pieces per HC-container	620

