

AXIworldbiperfect GXXL 570 - 590 Wp

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



German-American-Engineering

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

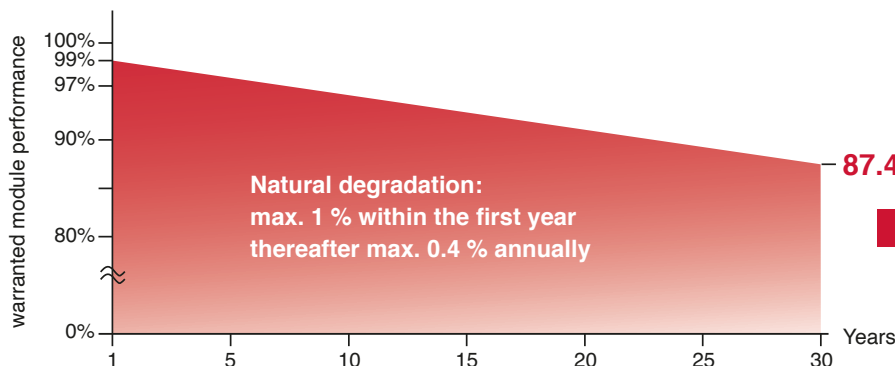


Positive power sorting from 0-5 Wp



Fig. similar 144TGBUSA250515MUA-E-153/1

Exclusive linear AXITEC high performance guarantee!



87.4 % AXITEC Warranty Added Value



TOPCon N-Type Module



5026791

Conforms to UL STD No.1703
Certified to ULC/ORD Std. C1703

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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-570TGB/144TS	AC-575TGB/144TS	AC-580TGB/144TS	AC-585TGB/144TS	AC-590TGB/144TS
Nominal output	570 Wp	575 Wp	580 Wp	585 Wp	590 Wp
Nominal voltage U_{mpp}	43,47 V	43,66 V	43,85 V	44,04 V	44,23 V
Nominal current I_{mpp}	13,12 A	13,18 A	13,24 A	13,30 A	13,36 A
Short circuit current I_{sc}	13,87 A	13,93 A	13,99 A	14,05 A	14,11 A
Open circuit voltage U_{oc}	52,10 V	52,30 V	52,50 V	52,70 V	52,90 V
Module conversion efficiency	22,07 %	22,26 %	22,45 %	22,65 %	22,84 %

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 P_{mpp}	628 Wp	634 Wp	640 Wp	645 Wp	651 Wp
Short circuit current I_{sc}	15,29 A	15,36 A	15,43 A	15,49 A	15,56 A
Open circuit voltage U_{oc}	52,10 V	52,30 V	52,50 V	52,70 V	52,90 V

Bifacial coefficients: ϕU_{oc} 0.98±5%; ϕI_{sc} 0.80±10%; ϕP_{mpp} 0.80±10%

Design

Frontside	2.0 mm low-reflection white glass
Backside	2.0 mm glass, cell spaces black
Cells	144 N-Type TOPCon bifacial high efficiency cells
Frame	1.18 inch (30 mm) black aluminium frame

Mechanical data

L x W x H	89.69 x 44.65 x 1.18 inch (2278 x 1134 x 30 mm)
Weight	69.45 lbs (31.5 kg) with frame

Mechanical load

Design load (pressure/suction) 75.3 PSF / 33.3 PSF *
 Test load (pressure/suction) 113 PSF / 50 PSF *

* depending on the type of installation according to the installation instructions

Power connection

Socket	Protection Class IP68, 3 bypass diodes
Wire	51.18 inch, AWG 12
Plug-in system	Plug/socket IP68, Stäubli MC4-EVO 2A

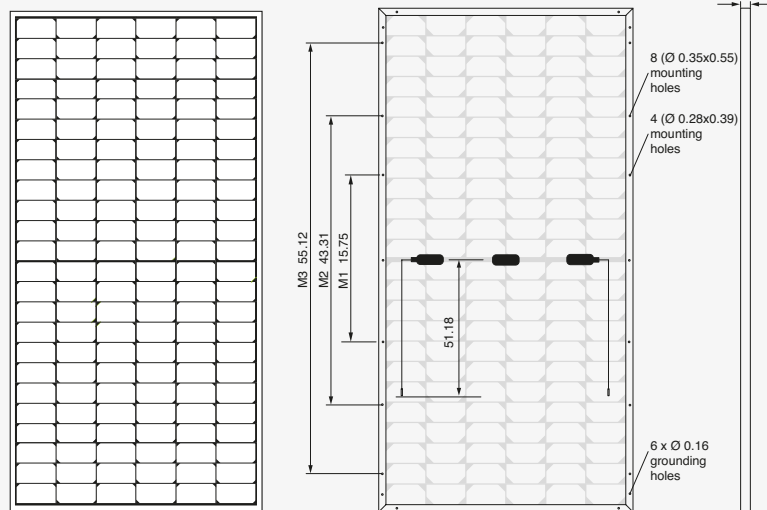


Fig. principle sketch

All dimensions in inch

Limit values

System voltage	1500 VDC (UL) 1500 VDC (IEC)
Module Fire Performance	TYPE 29 (UL 1703) or CLASS C (IEC 61730)
Protection class	C (UL790) / II

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

(No external voltages greater than V_o
 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}	-0.28 %/K
Current I_{sc}	0.046 %/K
Output P_{mpp}	-0.31 %/K

Low-light performance without Bifacial-effect

(Example for AC-590TGB/144TS)

I-U characteristic curve	Current I_{pp}	Voltage U_{pp}
200 W/m²	2.73 A	42.57 V
400 W/m²	5.51 A	43.06 V
600 W/m²	8.23 A	43.39 V
800 W/m²	10.88 A	43.77 V
1000 W/m²	13.36 A	44.23 V

Packaging

Module pieces per pallet	36
Module pieces per HC-container	720

