

## AXIworldblackbiperfect GXXL 430 - 450 Wp

High performance bifacial solar modul  
108 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

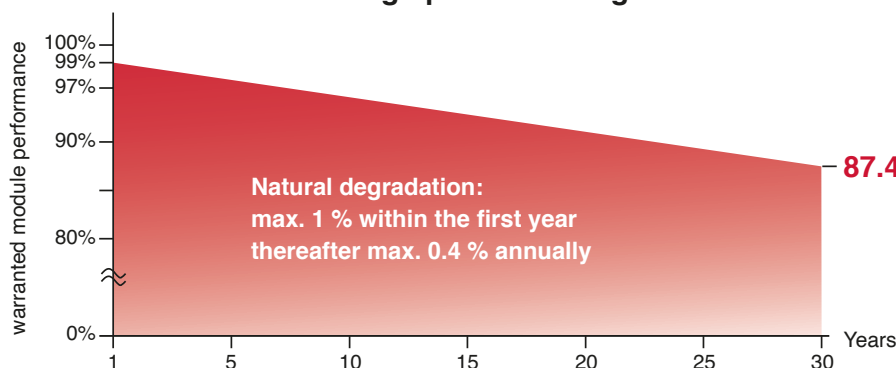


Positive power sorting from 0-5 Wp



Fig. similar 108TGBUSA250603MIA-164/1

### Exclusive linear AXITEC high performance guarantee!



TOPCon N-Type Module

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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-430TGB/108BB	AC-435TGB/108BB	AC-440TGB/108BB	AC-445TGB/108BB	AC-450TGB/108BB
Nominal output	<b>430 Wp</b>	<b>435 Wp</b>	<b>440 Wp</b>	<b>445 Wp</b>	<b>450 Wp</b>
Nominal voltage $U_{mpp}$	31.79 V	31.94 V	32.09 V	32.25 V	32.41 V
Nominal current $I_{mpp}$	13.53 A	13.62 A	13.72 A	13.80 A	13.89 A
Short circuit current $I_{sc}$	14.25 A	14.34 A	14.43 A	14.53 A	14.63 A
Open circuit voltage $U_{oc}$	38.34 V	38.43 V	38.55 V	38.64 V	38.75 V
Module conversion efficiency	22.02 %	22.28 %	22.53 %	22.58 %	22.63 %

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 $P_{mpp}$	477 Wp	480 Wp	485 Wp	494 Wp	499 Wp
Short circuit current $I_{sc}$	15.80 A	15.89 A	15.99 A	16.11 A	16.22 A
Open circuit voltage $U_{oc}$	38.36 V	38.45 V	38.55 V	38.66 V	38.77 V

Bifacial coefficients:  $\phi U_{oc}$  0.98±5%;  $\phi I_{sc}$  0.80±10%;  $\phi P_{mpp}$  0.80±10%

### Design

Frontside	2.0 mm low-reflection white glass
Backside	2.0 mm glass, cell spaces black
Cells	108 N-Type TOPCon bifacial high efficiency cells
Frame	1.18 inch (30 mm) black aluminium frame

### Mechanical data

L x W x H	67.80 x 44.65 x 1.18 inch (1722 x 1134 x 30 mm)
Weight	51.37 lbs (23.3 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	47.24 inch, AWG 12
Plug-in system	Plug/socket IP68, Stäubli MC4-EVO 2

### Limit values

System voltage	1500 VDC (UL) 1500 VDC (IEC)
Module Fire Performance	TYPE 29 (UL 1703) or CLASS C (IEC 61730)
Protection class	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 $U_{oc}$	-0.25 %/K
Current $I_{sc}$	0.046 %/K
Output $P_{mpp}$	-0.30 %/K

### Low-light performance without Bifacial-effect

(Example for AC-450TGB/108BB)

I-U characteristic curve	Current $I_{pp}$	Voltage $U_{pp}$
200 W/m²	2.84 A	31.19 V
400 W/m²	5.73 A	31.55 V
600 W/m²	8.56 A	31.80 V
800 W/m²	11.31 A	32.07 V
1000 W/m²	13.89 A	32.41 V

### Packaging

Module pieces per pallet	36
Module pieces per HC-container	936

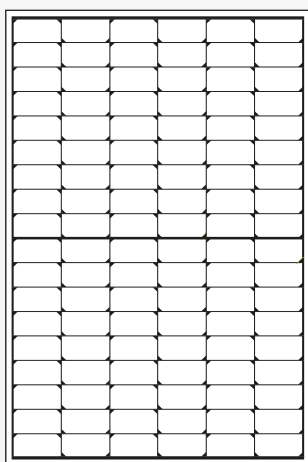
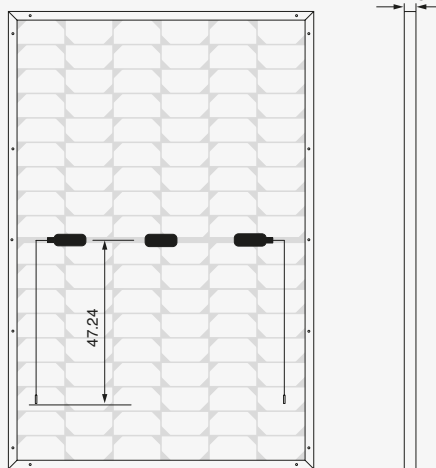


Fig. principle sketch



All dimensions in inch