

## AXIblackbiperfect GXXL 440 Wp

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



German-Australian-Engineering

### The advantages:

- 
**30**  
Years
 

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
- 

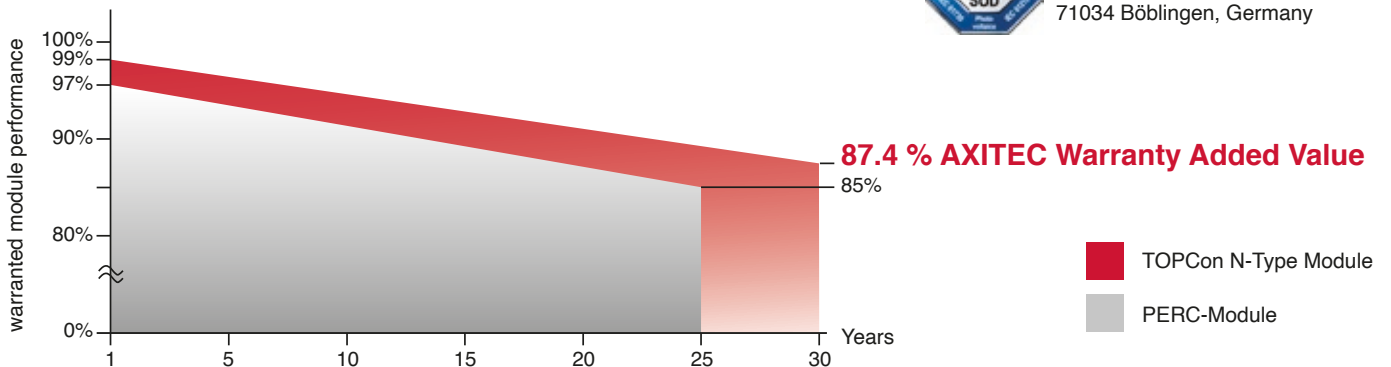
PID reduced through glass/glass-Technology
- 

Increased safety through improved fire protection



Fig. similar 108TGBAUS231219A

### Exclusive linear AXITEC high performance guarantee!



Lisence holder:  
AXITEC Energy GmbH & Co. KG  
Otto-Lilienthal-Str. 5  
71034 Böblingen, Germany

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**Electrical data** (at standard conditions (STC) irradiance 1000 watt/m<sup>2</sup>, spectrum AM 1.5 at a cell temperature of 25°C)

|   |                  |  |  |  |
|---|------------------|--|--|--|
| Type  | AC-440TGB/108BBA |  |  |  |
| Nominal output (± 3 %)                        | <b>440 Wp</b>    |  |  |  |
| Nominal voltage U <sub>mpp</sub>              | 33.44 V          |  |  |  |
| Nominal current I <sub>mpp</sub>              | 13.16 A          |  |  |  |
| Short circuit current I <sub>sc</sub> (± 3 %) | 13.59 A          |  |  |  |
| Open circuit voltag U <sub>oc</sub> (± 3 %)   | 40.31 V          |  |  |  |
| Module conversion efficiency                  | 22.53 %          |  |  |  |

### Bifacial output - Backside Power gain

|                   |           |  |  |  |
|-------------------|-----------|--|--|--|
| 10% Power output  | 484.00 Wp |  |  |  |
| Module Efficiency | 24.79 %   |  |  |  |
| 20% Power output  | 528.00 Wp |  |  |  |
| Module Efficiency | 27.04 %   |  |  |  |
| 30% Power output  | 572.00 Wp |  |  |  |
| Module Efficiency | 29.29 %   |  |  |  |

### Design

|           |   |
|-----------|---|
| Frontside | 1.6 mm hardened, low-reflection white glass       |
| Backside  | 1.6 mm hardened glass, intercellular spaces black |
| Cells     | 108 N-Type TOPCon bifacial high efficiency cells  |
| Frame     | 30 mm black aluminium frame                       |

### Mechanical data

|           |                     |
|-----------|---------------------|
| L x W x H | 1722 x 1134 x 30 mm |
| Weight    | 21.3 kg with frame  |

### Mechanical load

|                                |                   |
|--------------------------------|-------------------|
| Design load (pressure/suction) | 3600 Pa / 1600 Pa |
| Test load (pressure/suction)   | 5400 Pa / 2400 Pa |

### Power connection

|                |   |
|----------------|---|
| Socket         | Protection Class IP68                     |
| Wire           | approx. 1.2 m, 4 mm <sup>2</sup>          |
| Plug-in system | Stäubli MC4 PV-KST4-EVO 2 / PV-KBT4-EVO 2 |

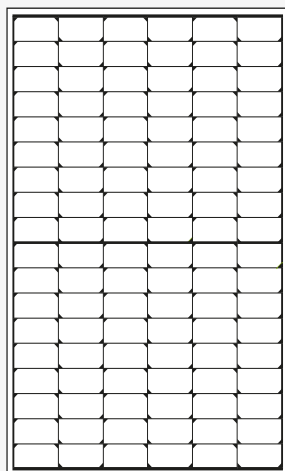
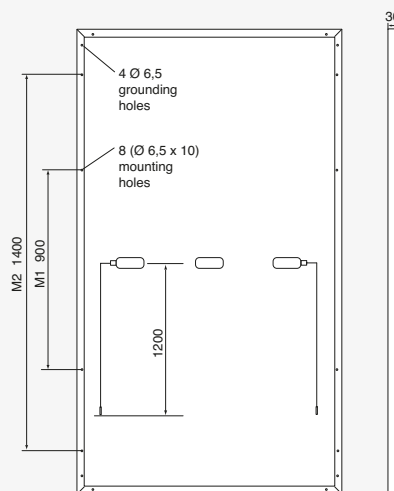


Fig. principle sketch



All dimensions in mm

### Limit values

|  |            |
|--|------------|
| System voltage                             | 1500 VDC   |
| Module Fire Performance                    | CLASS C    |
| 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 %

(No external voltages greater than U<sub>oc</sub> may be applied to the module)

\* NOCT, irradiance 800 W/m<sup>2</sup>; AM 1.5; wind speed 1 m/s; Temperature 20°C

### Temperature coefficients

|                         |           |
|-------------------------|-----------|
| Voltage U <sub>oc</sub> | -0.26 %/K |
| Current I <sub>sc</sub> | 0.046 %/K |
| Output P <sub>mpp</sub> | -0.31 %/K |

### Low-light performance without Bifacial-effect

(Example for 440TGB/108BBA)

| I-U characteristic curve | Current I <sub>pp</sub> | Voltage U <sub>pp</sub> |
|--------------------------|-------------------------|-------------------------|
| 200 W/m <sup>2</sup>     | 2.69 A                  | 32.18 V                 |
| 400 W/m <sup>2</sup>     | 5.43 A                  | 32.55 V                 |
| 600 W/m <sup>2</sup>     | 8.11 A                  | 32.81 V                 |
| 800 W/m <sup>2</sup>     | 10.72 A                 | 33.09 V                 |
| 1000 W/m <sup>2</sup>    | 13.16 A                 | 33.44 V                 |

### Packaging

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

country of origin:  
made in People's Republic of China

