

## AXIbiperfect GL WB 430 - 450 Wp

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

### The advantages:



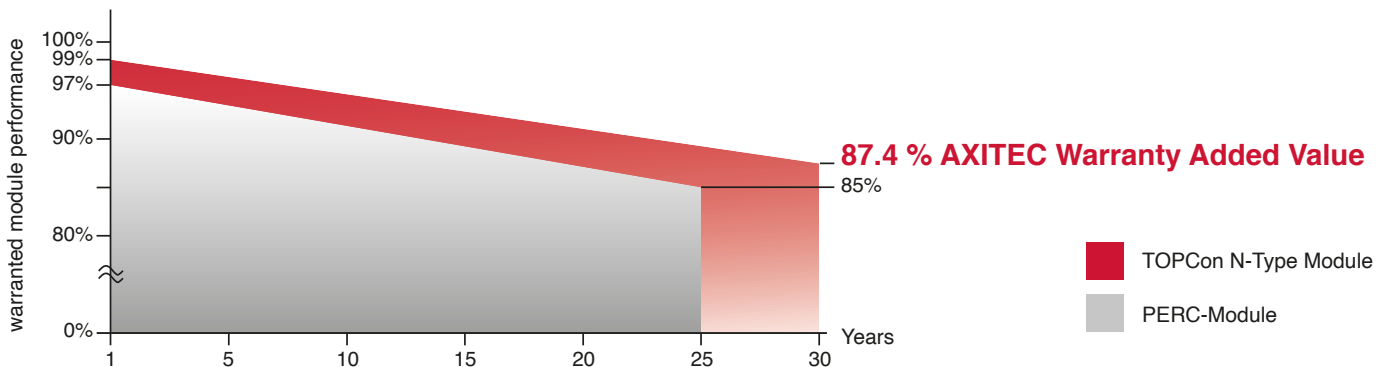
-  30 years Manufacturer's warranty and Performance guarantee
-  Up to 30 % more power output by Bifacial-Technology
-  More performance through innovative N-Type TOPCon-Technology
-  PID reduced through glass/glass-Technology
-  Increased safety through improved fire protection
-  Guaranteed positive power tolerance from 0-5 Wp by individual measurement



Fig. similar 108TGBLEN231205A

### Exclusive linear AXITEC high performance guarantee!



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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-430TGBL/108WB | AC-435TGBL/108WB | AC-440TGBL/108WB | AC-445TGBL/108WB | AC-450TGBL/108WB |
|---------------------------------------|------------------|------------------|------------------|------------------|------------------|
| Nominal output                        | 430 Wp           | 435 Wp           | 440 Wp           | 445 Wp           | 450 Wp           |
| Nominal voltage U <sub>mpp</sub>      | 32.85 V          | 33.14 V          | 33.44 V          | 33.75 V          | 34.05 V          |
| Nominal current I <sub>mpp</sub>      | 13.09 A          | 13.13 A          | 13.16 A          | 13.19 A          | 13.22 A          |
| Short circuit current I <sub>sc</sub> | 13.57 A          | 13.58 A          | 13.59 A          | 13.6 A           | 13.61 A          |
| Open circuit voltag U <sub>oc</sub>   | 39.53 V          | 40.02 V          | 40.31 V          | 40.60 V          | 41.90 V          |
| Module conversion efficiency          | 21.52 %          | 21.77 %          | 22.02 %          | 22.27 %          | 22.52 %          |

### Bifacial output - Backside Power gain

|                   |         |         |         |         |         |
|-------------------|---------|---------|---------|---------|---------|
| 10% Power output  | 473 Wp  | 479 Wp  | 484 Wp  | 490 Wp  | 495 Wp  |
| Module Efficiency | 23.67 % | 23.95 % | 24.22 % | 24.50 % | 24.77 % |
| 20% Power output  | 516 Wp  | 522 Wp  | 528 Wp  | 534 Wp  | 540 Wp  |
| Module Efficiency | 25.82 % | 26.12 % | 26.42 % | 26.73 % | 27.03 % |
| 30% Power output  | 559 Wp  | 566 Wp  | 572 Wp  | 579 Wp  | 585 Wp  |
| Module Efficiency | 27.98 % | 28.30 % | 28.63 % | 28.95 % | 29.28 % |

### Design

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

### Mechanical data

|           |                     |
|-----------|---------------------|
| L x W x H | 1762 x 1134 x 30 mm |
| Weight    | 22.0 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, 3 bypass diodes |
| Wire           | approx. 1.2 m, 4 mm <sup>2</sup>       |
| Plug-in system | IP68, MC4-EVO 2, MC4-EVO 2A, JM608     |

### Limit values

|  |            |
|--|------------|
| System voltage                             | 1500 VDC   |
| 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 %                   |
| Fire class / Protection class     | C (UL790) / II               |

(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 450TGBL/108WB)

| I-U characteristic curve | Current I <sub>pp</sub> | Voltage U <sub>pp</sub> |
|--------------------------|-------------------------|-------------------------|
| 200 W/m <sup>2</sup>     | 2.70 A                  | 32.77 V                 |
| 400 W/m <sup>2</sup>     | 5.45 A                  | 33.15 V                 |
| 600 W/m <sup>2</sup>     | 8.14 A                  | 33.41 V                 |
| 800 W/m <sup>2</sup>     | 10.77 A                 | 33.69 V                 |
| 1000 W/m <sup>2</sup>    | 13.22 A                 | 34.05 V                 |

### Packaging

|                                |     |
|--------------------------------|-----|
| Module pieces per pallet       | 36  |
| Module pieces per HC-container | 864 |

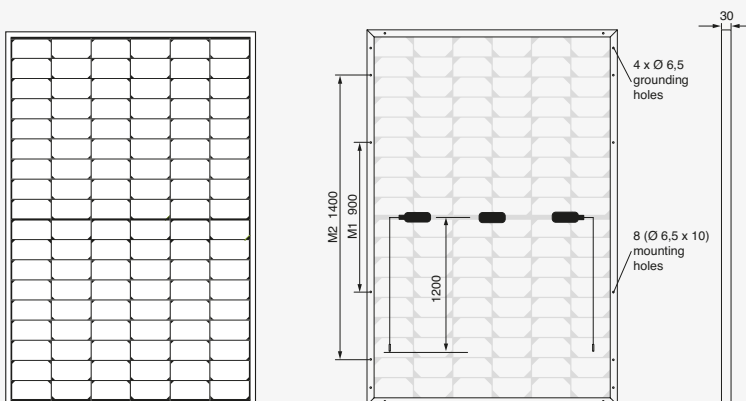


Fig. principle sketch

All dimensions in mm

