

AXIbiperfect GXQ TS 680 - 700 Wp

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

The advantages:







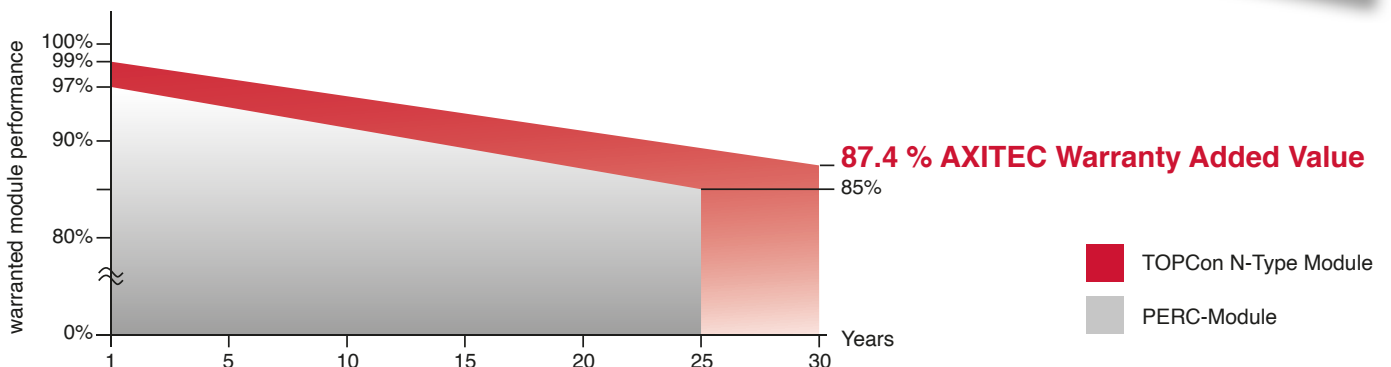
-  30 years Manufacturer's warranty and Performance guarantee
-  Up to 30 % more power output by Bifacial-Technology
-  More performance through innovative N-Type TOPCon-Technology
-  PID reduced through glass/glass-Technology
-  Increased safety through improved fire protection
-  Guaranteed positive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



Fig. similar 132TGBEN240219A

Exclusive linear AXITEC high performance guarantee!



AXIbiperfect GXQ TS 680 - 700 Wp

Electrical data (at standard conditions (STC) irradiance 1000 watt/m², spectrum AM 1.5 at a cell temperature of 25°C)

| Type | AC-680TGB/132TS | AC-685TGB/132TS | AC-690TGB/132TS | AC-695TGB/132TS | AC-700TGB/132TS |
|---------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Nominal output | 680 Wp | 685 Wp | 690 Wp | 695 Wp | 700 Wp |
| Nominal voltage U _{mpp} | 39.92 V | 40.12 V | 40.32 V | 40.52 V | 40.72 V |
| Nominal current I _{mpp} | 17.04 A | 17.08 A | 17.12 A | 17.16 A | 17.20 A |
| Short circuit current I _{sc} | 17.80 A | 17.84 A | 17.88 A | 17.93 A | 17.97 A |
| Open circuit voltag U _{oc} | 47.90 V | 48.14 V | 48.38 V | 48.82 V | 48.86 V |
| Module conversion efficiency | 21.90 % | 22.06 % | 22.22 % | 22.38 % | 22.55 % |

Bifacial output - Backside Power gain

| | | | | | |
|-------------------|---------|---------|---------|---------|---------|
| 10% Power output | 748 Wp | 754 Wp | 759 Wp | 765 Wp | 770 Wp |
| Module Efficiency | 24.08 % | 24.26 % | 24.43 % | 24.61 % | 24.79 % |
| 20% Power output | 816 Wp | 822 Wp | 828 Wp | 834 Wp | 840 Wp |
| Module Efficiency | 26.27 % | 26.46 % | 26.66 % | 26.85 % | 27.04 % |
| 30% Power output | 884 Wp | 891 Wp | 897 Wp | 904 Wp | 910 Wp |
| Module Efficiency | 28.46 % | 28.67 % | 28.88 % | 29.09 % | 29.29 % |

Design

| | |
|-----------|--|
| Frontside | 2.0 mm hardened, low-reflection white glass |
| Backside | 2.0 mm hardened glass, cell spaces transparent |
| Cells | 132 N-Type TOPCon bifacial high efficiency cells |
| Frame | 35 mm silver aluminium frame |

Mechanical data

| | |
|-----------|---------------------|
| L x W x H | 2384 x 1303 x 35 mm |
| Weight | 39.2 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. 1.3 m, 4 mm ² |
| Plug-in system | IP68, JM608 |

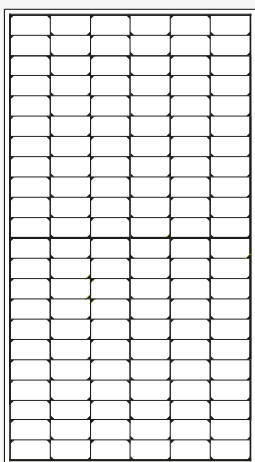
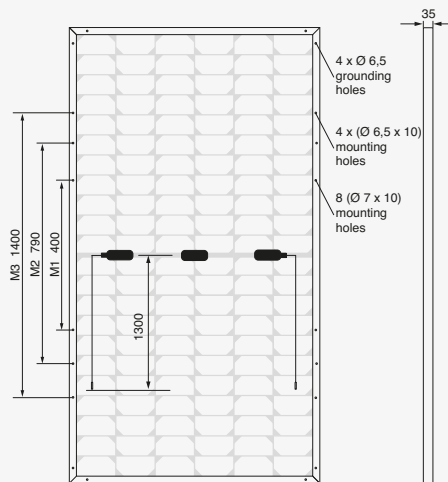


Fig. principle sketch



All dimensions in mm

Limit values

| | |
|--|------------|
| System voltage | 1500 VDC |
| NOCT (nominal operating cell temperature)* | 45°C +/-2K |
| Reverse current feed IR | 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_{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} | -0.32 %/K |

Low-light performance (Example for AC-700TGB/132TS)

| I-U characteristic curve | Current I _{pp} | Voltage U _{pp} |
|--------------------------|-------------------------|-------------------------|
| 200 W/m ² | 3.51 A | 39.19 V |
| 400 W/m ² | 5.54 A | 42.06 V |
| 600 W/m ² | 10.60 A | 39.95 V |
| 800 W/m ² | 14.01 A | 40.29 V |
| 1000 W/m ² | 17.20 A | 40.72 V |

Packaging

| | |
|--------------------------------|-----|
| Module pieces per pallet | 31 |
| Module pieces per HC-container | 527 |

