

AXIbiperfect GXXL TS

570 - 590 Wp

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

The advantages:







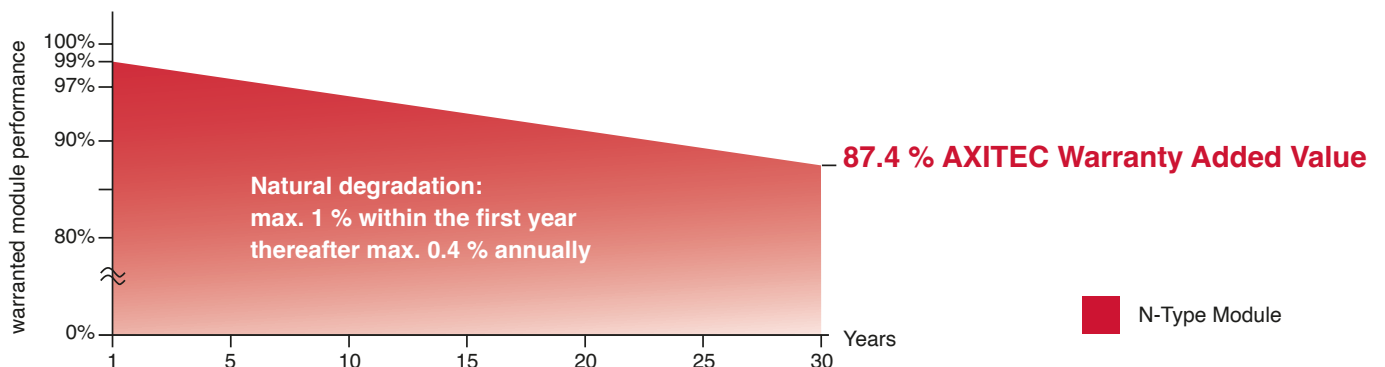
-  30 years Manufacturer's warranty and Performance guarantee
-  Up to 30 % more power output by Bifacial-Technology
-  More performance through innovative N-Type-Technology
-  PID reduced through glass/glass-Technology
-  Increased safety through improved fire protection
-  Positive power sorting from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



Fig. similar 144TGBEN260303A

Exclusive linear AXITEC high performance guarantee!



AXIbiperfect GXXL TS 570 - 590 Wp

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-590TB/144TS |
|---------------------------------------|-----------------|-----------------|-----------------|-----------------|----------------|
| Nominal output | 570 Wp | 575 Wp | 580 Wp | 585 Wp | 590 Wp |
| Nominal voltage U _{mpp} | 43.52 V | 43.73 V | 43.94 V | 44.16 V | 44.37 V |
| Nominal current I _{mpp} | 13.10 A | 13.15 A | 13.20 A | 13.25 A | 13.30 A |
| Short circuit current I _{sc} | 13.99 A | 14.05 A | 14.11 A | 14.17 A | 14.23 A |
| Open circuit voltag U _{oc} | 51.55 V | 51.80 V | 52.03 V | 52.26 V | 52.31 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} | 15.43 A | 15.49 A | 15.56 A | 15.62 A | 15.69 A |
| Open circuit voltag U _{oc} | 51.55 V | 51.80 V | 52.03 V | 52.26 V | 52.31 V |

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

Design

| | |
|-----------|---|
| Frontside | 2.0 mm semi tempered AR Solar glass |
| Backside | 2.0 mm glass, cell spaces transparent |
| Cells | 144 N-Type bifacial high efficiency cells |
| Frame | 30 mm silver aluminium frame |

Mechanical data

| | |
|-----------|---------------------|
| L x W x H | 2278 x 1134 x 30 mm |
| Weight | 31.2 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, MC4-EVO 2A, JM608 |

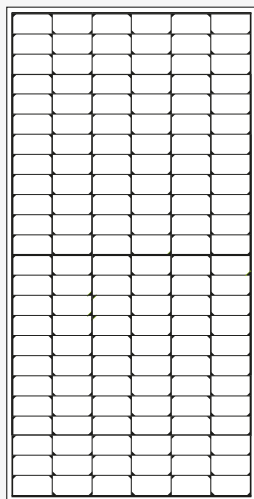
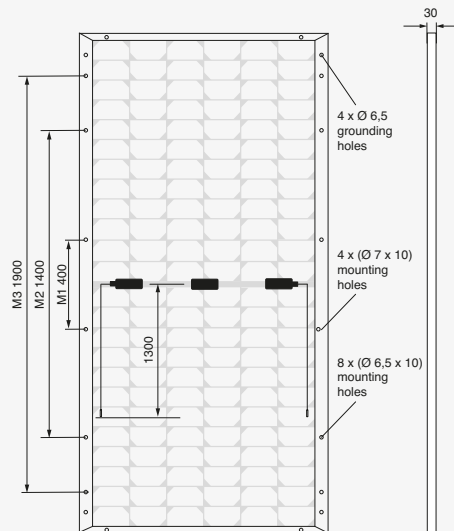


Fig. principle sketch



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 temp. | -40°C to 85°C / -40F to 185F |
| Fire class / Protection class | C (UL790) / II |
| Hail resistance | HW3 (Ø 30 mm, 23.6 m/s) |

(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} | -0.31 %/K |

Low-light performance without Bifacial-effect

(Example for AC-590TGB/144TS)

| I-U characteristic curve | Current I _{pp} | Voltage U _{pp} |
|--------------------------|-------------------------|-------------------------|
| 200 W/m ² | 2.72 A | 42.70 V |
| 400 W/m ² | 5.48 A | 43.19 V |
| 600 W/m ² | 8.19 A | 43.53 V |
| 800 W/m ² | 10.83 A | 43.90 V |
| 1000 W/m ² | 13.30 A | 44.37 V |

Packaging

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

