

AXIbipremium XQ HC MT 650 - 670 Wp

High performance bifacial solar module
132 halfcell, monocrystalline

The advantages:








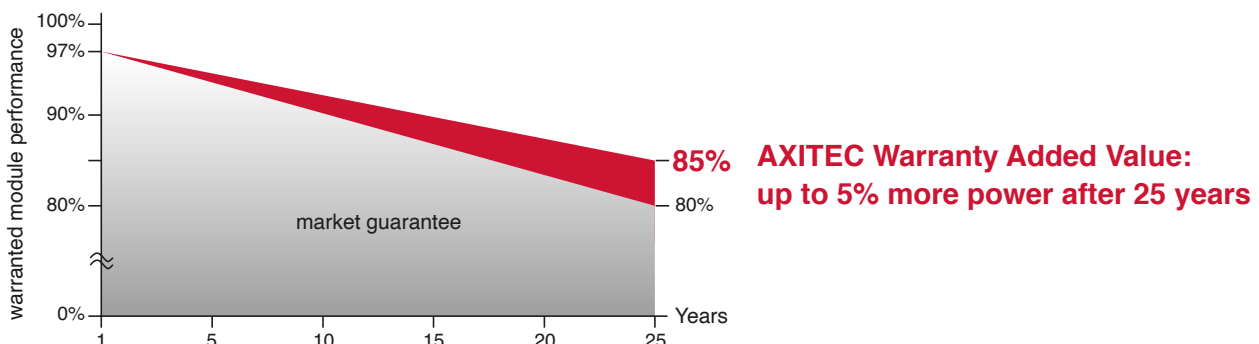
- 
15 Years
15 years Manufacturer's warranty
- 
+25%
Up to 25 % more power output by Bifacial-Technology
- 
Wp
Guaranteed positive power tolerance from 0-5 Wp by individual measurement
- 
100%
100 % visual electroluminescence inspection in production
- 
Frame
High stability due to innovative frame design
- 
IP 68
High quality junction box and connector systems
- 
25 Years
25 years Performance guarantee



Fig. similar 132MBTEN231018A

Exclusive linear AXITEC high performance guarantee!



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

| Type | AC-650MBT/132V | AC-655MBT/132V | AC-660MBT/132V | AC-665MBT/132V | AC-670MBT/132V |
|---------------------------------------|----------------|----------------|----------------|----------------|----------------|
| Nominal output | 650 Wp | 655 Wp | 660 Wp | 665 Wp | 670 Wp |
| Nominal voltage U _{mpp} | 37.40 V | 37.60 V | 37.80 V | 38.00 V | 38.20 V |
| Nominal current I _{mpp} | 17.38 A | 17.43 A | 17.47 A | 17.50 A | 17.55 A |
| Short circuit current I _{sc} | 18.45 A | 18.50 A | 18.55 A | 18.60 A | 18.62 A |
| Open circuit voltag U _{oc} | 45.20 V | 45.40 V | 45.60 V | 45.80 V | 46.10 V |
| Module conversion efficiency | 20.93 % | 21.10 % | 21.26 % | 21.41 % | 21.58 % |

Bifacial output - Backside Power gain

| | AC-650MBT/132V | AC-655MBT/132V | AC-660MBT/132V | AC-665MBT/132V | AC-670MBT/132V |
|-------------------|----------------|----------------|----------------|----------------|----------------|
| 10% Power output | 715.00 Wp | 720.50 Wp | 726.00 Wp | 731.50 Wp | 737.00 Wp |
| Module Efficiency | 23.02 % | 23.19 % | 23.37 % | 23.55 % | 23.73 % |
| 15% Power output | 747.50 Wp | 753.25 Wp | 759.00 Wp | 764.75 Wp | 770.50 Wp |
| Module Efficiency | 24.06 % | 24.25 % | 24.43 % | 24.62 % | 24.80 % |
| 20% Power output | 780.00 Wp | 786.00 Wp | 792.00 Wp | 798.00 Wp | 804.00 Wp |
| Module Efficiency | 25.11 % | 25.30 % | 25.50 % | 25.69 % | 25.88 % |
| 25% Power output | 812.50 Wp | 818.75 Wp | 825.00 Wp | 831.25 Wp | 837.50 Wp |
| Module Efficiency | 26.16 % | 26.36 % | 26.56 % | 26.76 % | 26.96 % |

Design

| | |
|-----------|--|
| Frontside | 3.2 mm hardened, low-reflection white glass |
| Backside | Composite film, cell spaces transparent |
| Cells | 132 bifacial-monocrystalline high efficiency cells |
| Frame | 35 mm silver aluminium frame |

Mechanical data

| | |
|-----------|---------------------|
| L x W x H | 2384 x 1303 x 35 mm |
| Weight | 34,0 kg with frame |

Mechanical load

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

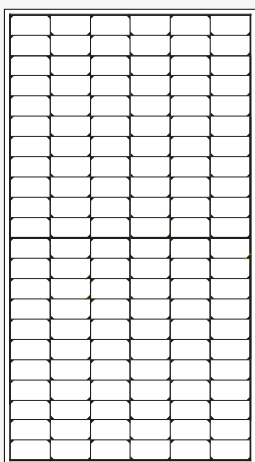
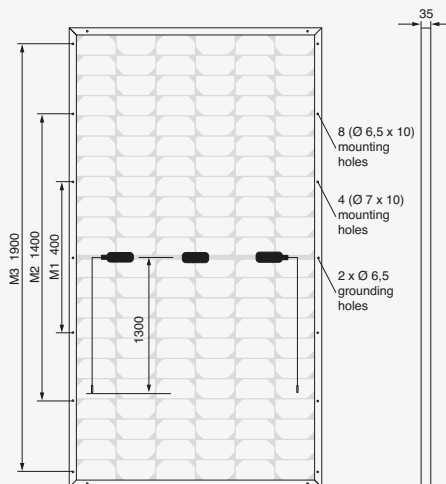


Fig. principle sketch



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 | 70 % ± 10 % |
| 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} | -0.28 %/K |
| Current I _{sc} | 0.045 %/K |
| Output P _{mpp} | -0.34 %/K |

Low-light performance without Bifacial-effect

(Example for AC-670MBT/132V)

| I-U characteristic curve | Current I _{pp} | Voltage U _{pp} |
|--------------------------|-------------------------|-------------------------|
| 200 W/m ² | 3,59 A | 36,76 V |
| 400 W/m ² | 7,24 A | 37,19 V |
| 600 W/m ² | 10,81 A | 37,48 V |
| 800 W/m ² | 14,29 A | 37,80 V |
| 1000 W/m ² | 17,55 A | 38,20 V |

Packaging

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

