








AXIbipremium XXL HC MT 530 - 555 Wp

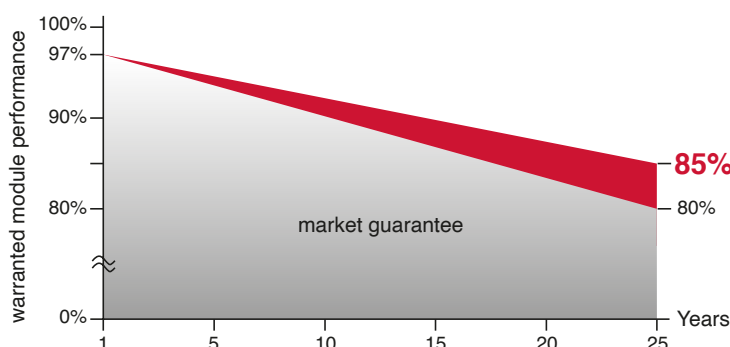
High performance bifacial solar module
144 halfcell, monocrystalline

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



Exclusive linear AXITEC high performance guarantee!



85% AXITEC Warranty Added Value:
up to 5% more power after 25 years

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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-530MBT/144V | AC-535MBT/144V | AC-540MBT/144V | AC-545MBT/144V | AC-550MBT/144V | AC-555MBT/144V |
|---------------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Nominal output | 530 Wp | 535 Wp | 540 Wp | 545 Wp | 550 Wp | 555 Wp |
| Nominal voltage U _{mpp} | 41.40 V | 41.55 V | 41.70 V | 41.80 V | 41.96 V | 42.11 V |
| Nominal current I _{mpp} | 12.81 A | 12.88 A | 12.95 A | 13.04 A | 13.11 A | 13.18 A |
| Short circuit current I _{sc} | 13.73 A | 13.79 A | 13.85 A | 13.93 A | 14.00 A | 14.07 A |
| Open circuit voltag U _{oc} | 49.25 V | 49.40 V | 49.55 V | 49.75 V | 49.90 V | 50.05 V |
| Module conversion efficiency | 20.52 % | 20.71 % | 20.90 % | 21.09 % | 21.29 % | 21.48 % |

Bifacial output - Backside Power gain

| | | | | | | |
|-------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| 10% Power output | 583.00 Wp | 588.50 Wp | 594.00 Wp | 599.50 Wp | 605.00 Wp | 610.50 Wp |
| Module Efficiency | 22.57 % | 22.78 % | 22.99 % | 23.20 % | 23.41 % | 23.62 % |
| 15% Power output | 609.50 Wp | 615.25 Wp | 621.00 Wp | 626.75 Wp | 632.50 Wp | 638.25 Wp |
| Module Efficiency | 23.59 % | 23.82 % | 24.04 % | 24.25 % | 24.47 % | 24.70 % |
| 20% Power output | 636.00 Wp | 642.00 Wp | 648.00 Wp | 654.00 Wp | 660.00 Wp | 666.00 Wp |
| Module Efficiency | 24.62 % | 24.85 % | 25.08 % | 25.31 % | 25.54 % | 25.77 % |
| 25% Power output | 662.50 Wp | 668.85 Wp | 675.00 Wp | 681.25 Wp | 687.50 Wp | 693.75 Wp |
| Module Efficiency | 25.65 % | 25.89 % | 26.13 % | 26.36 % | 26.60 % | 26.84 % |

Design

| | |
|-----------|--|
| Frontside | 3.2 mm hardened, low-reflection white glass |
| Backside | Composite film, cell gaps transparent |
| Cells | 144 bifacial-monocrystalline high efficiency cells |
| Frame | 35 mm silver aluminium frame |

Mechanical data

| | |
|-----------|---------------------|
| L x W x H | 2278 x 1134 x 35 mm |
| Weight | 28.5 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 |
| Wire | approx. 1.3 m, 4 mm ² |
| Plug-in system | Plug/socket IP68, JM608 |

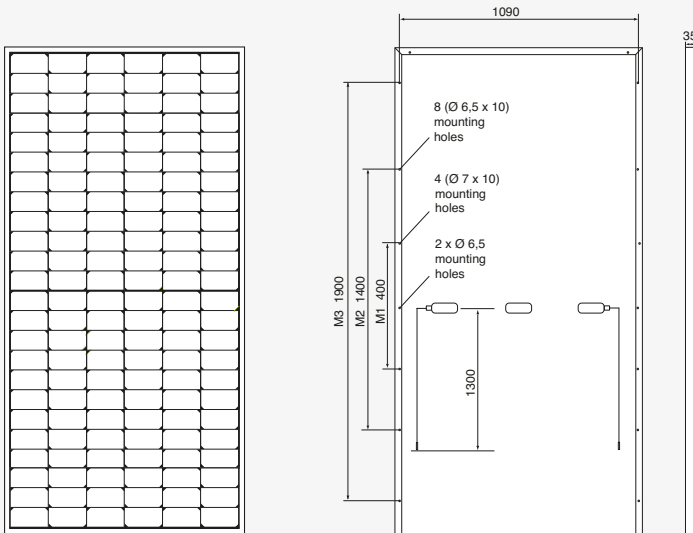


Fig. principle sketch

All dimensions in mm

Limit values

| | |
|--|------------|
| System voltage | 1500 VDC |
| NOCT (nominal operating cell temperature)* | 45°C +/-2K |
| Reverse current feed IR | 25.0 A |

Permissible operating temperature -40°C to 85°C / -40F to 185F

Bifaciality 70 % ± 10 %

(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} | -0.29 %/K |
| Current I _{sc} | 0.048 %/K |
| Output P _{mpp} | -0.35 %/K |

Low-light performance without Bifacial-effect

(Example for AC-555MBT/144V)

| I-U characteristic curve | Current I _{pp} | Voltage U _{pp} |
|--------------------------|-------------------------|-------------------------|
| 200 W/m ² | 2.69 A | 40.53 V |
| 400 W/m ² | 5.43 A | 40.99 V |
| 600 W/m ² | 8.12 A | 40.31 V |
| 800 W/m ² | 10.73 A | 41.67 V |
| 1000 W/m ² | 13.18 A | 42.11 V |

Packaging

| | |
|--------------------------------|-----|
| Module pieces per pallet | 31 |
| Module pieces per HC-container | 620 |

