

PREMIUM

BISOL Laminate

Monocrystalline PV Laminates / BBO 520-540 Wp



Designed & manufactured in EU



Strictly positive output power tolerances



PID free



Ideal for integration



Module presorting for higher profitability



Supremely low degradation



Module efficiency up to 22.3 %

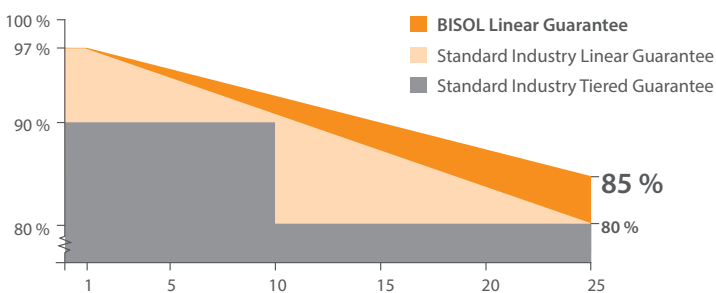


Up to 13 % higher real-life performance



Excellent low light performance

Guarantees:



Linear Guarantee
85 % power output in 25th year



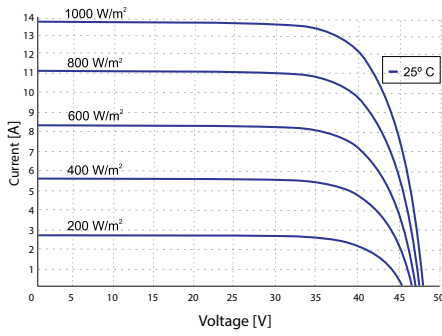
Product Guarantee
Standard: 15 years
Extra: 20 years

In compliance with:

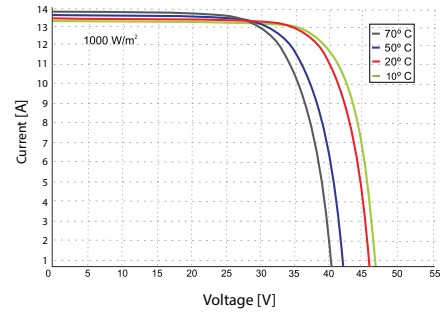


Certificates available upon request. Additional charges may apply. Laminates are manufactured according to IEC 61730 Ed.1 and IEC 61215 Ed.2 standards, but require a certification together with each specific frame or mounting system that the customer decides to use.

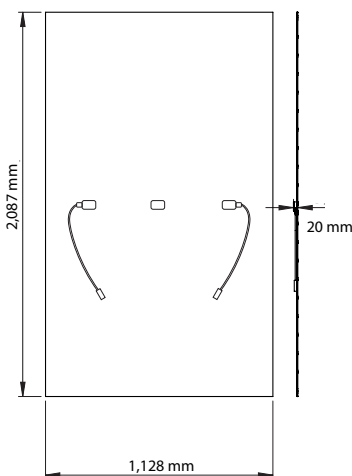
I-V Curve at Various Irradiation Levels



I-V Curve at Various Cell Temperatures



Dimensions



Electrical Specifications @ STC (1,000 W/m², AM 1.5, 25 °C):

| Module Type | BBO | 520 | 525 | 530 | 540 |
|-------------------------|---------------|----------|------|------|------|
| Nominal Power | P_{MPP} [W] | 520 | 525 | 530 | 540 |
| Short Circuit Current | I_{SC} [A] | 14.3 | 14.4 | 14.4 | 14.6 |
| Open Circuit Voltage | V_{OC} [V] | 46.4 | 46.6 | 46.7 | 47.0 |
| MPP Current | I_{MPP} [A] | 13.6 | 13.7 | 13.8 | 13.9 |
| MPP Voltage | V_{MPP} [V] | 38.5 | 38.6 | 38.8 | 39.1 |
| Module Efficiency | η_M [%] | 21.9 | 22.1 | 22.3 | 22.7 |
| Cell Efficiency | η_C [%] | 23.8 | 24.0 | 24.2 | 24.7 |
| Power Output Tolerance | | 0/+5 W | | | |
| Maximum System Voltage | | 1,500 V | | | |
| Maximum Reverse Current | | 25 A | | | |
| Protection Class | | Class II | | | |

Additional power classes available upon request. I Efficiency at irradiation 200 W/m²: 99.3 % of STC efficiency or higher. I Tolerances for V_{OC} and I_{SC} and other electrical parameters are ± 3 %.

Electrical Specifications @ NOCT (800 W/m², AM 1.5, 42 °C, Wind 1 m/s):

| Module Type | BBO | 520 | 525 | 530 | 540 |
|-----------------------|---------------|-------|-------|-------|-------|
| Nominal Power | P_{MPP} [W] | 398.0 | 402.0 | 405.0 | 413.0 |
| Short Circuit Current | I_{SC} [A] | 11.53 | 11.61 | 11.61 | 11.77 |
| Open Circuit Voltage | V_{OC} [V] | 44.4 | 44.6 | 44.7 | 45.0 |
| MPP Current | I_{MPP} [A] | 10.96 | 11.04 | 11.12 | 11.21 |
| MPP Voltage | V_{MPP} [V] | 36.4 | 36.5 | 36.5 | 36.9 |

Thermal Specifications:

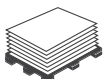
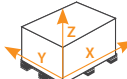



| | | |
|---------------------------------|----------|--------------------|
| Current Temperature Coefficient | α | + 0.045 %/°C |
| Voltage Temperature Coefficient | β | - 0.250 %/°C |
| Power Temperature Coefficient | γ | - 0.300 %/°C |
| NOCT | | 42 \pm 3 °C |
| Temperature Range | | - 40 °C to + 85 °C |

Mechanical Specifications:

| | |
|-----------------------------------|---|
| Length x Width x Thickness | 2,087 x 1,128 x 20 mm |
| Weight | 23.5 kg |
| Solar Cells | 132 Half-Cut c-Si / 182 mm x 91 mm |
| Junction Box / Connectors / IP | 3 bypass diodes / MC4 compatible / IP 68 |
| Cable Length | Default: 1,200 mm On demand (for portrait orientation): 300 mm |
| Glass | 3.2 mm AR coating tempered glass / high-transparency / low-iron content |
| Certified Test Load (Snow / Wind) | Depending on Laminate fixation system* |
| Impact Resistance | Hailstone / Φ 25 mm / 83 km/h (51 mph) |

*Certification process can be provided by BISOL upon special request. Additional charges may apply. Tolerances of values are ± 5 %. Unspecified product properties remain under full discretion of BISOL Production.

Packaging Information:

| | | | | |
|---|---|---|---|---|
|  |  |  |  |  |
| Modules per Pallet | Packing Dimension: Length/Width/Height | Stackable | Packing Weight | Tot. Nr. of Pallets/Load |
| 30 | 228 x 120 x 136 cm | 2 pallets | 748 kg | 22* |

*Loading of laminates requires the use of truck with loading opening higher than 272 cm.