

PREMIUM

BISOL Laminate

Monocrystalline PV Laminates / BDO 430-440 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 %

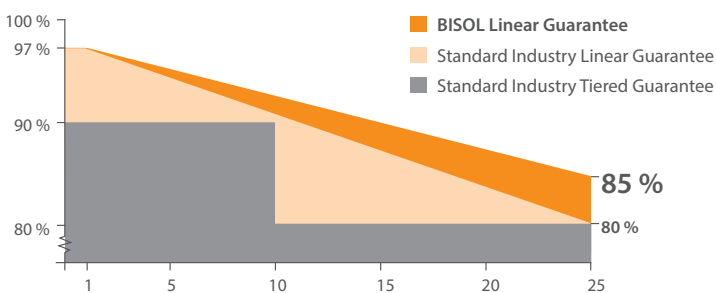


Up to 13 % higher real-life performance



Excellent low light performance

Guarantees:



Linear Guarantee
85 % power output in 25th year



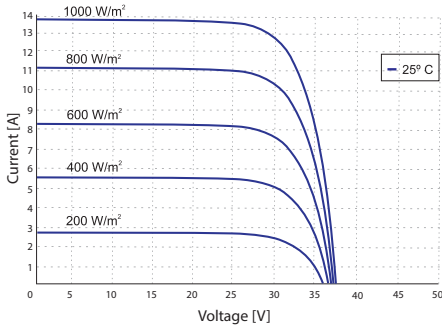
Product Guarantee
Standard: 15 years
Extra: 20 years

In compliance with:

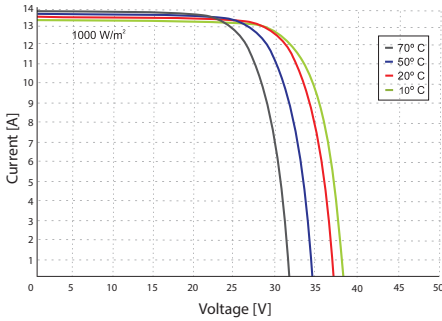


Certificates available upon request. Additional charges may apply. Laminates are manufactured according to IEC 61730 Ed.1 and IEC 61215 Ed.2 standards, but require a certification together with each specific frame or mounting system that the customer decides to use.

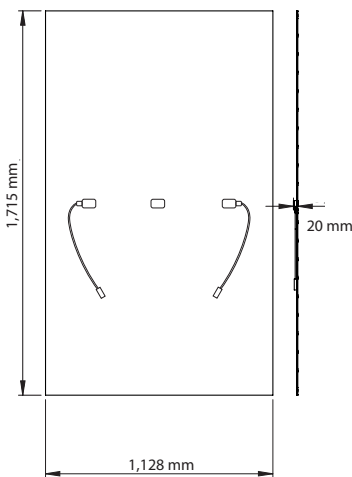
I-V Curve at Various Irradiation Levels



I-V Curve at Various Cell Temperatures



Dimensions



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

Module Type	BDO	430	435	440
Nominal Power	P_{MPP} [W]	430	435	440
Short Circuit Current	I_{SC} [A]	14.4	14.4	14.6
Open Circuit Voltage	V_{OC} [V]	38.1	38.2	38.4
MPP Current	I_{MPP} [A]	13.7	13.8	13.9
MPP Voltage	V_{MPP} [V]	31.4	31.6	31.7
Module Efficiency	η_M [%]	22.0	22.3	22.5
Cell Efficiency	η_C [%]	24.0	24.3	24.6
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. | Efficiency at irradiation 200 W/m²: 99.3 % of STC efficiency or higher. | 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	BDO	430	435	440
Nominal Power	P_{MPP} [W]	329.0	333.0	337.0
Short Circuit Current	I_{SC} [A]	11.61	11.61	11.77
Open Circuit Voltage	V_{OC} [V]	36.5	36.6	36.8
MPP Current	I_{MPP} [A]	11.04	11.12	11.21
MPP Voltage	V_{MPP} [V]	29.8	30.0	30.1

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	1,715 x 1,128 x 20 mm
Weight	20 kg
Solar Cells	108 Half-Cut c-Si / 182 x 91 mm
Junction Box / Connectors	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	191 x 120 x 136 cm	2 pallets	640 kg	28*

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