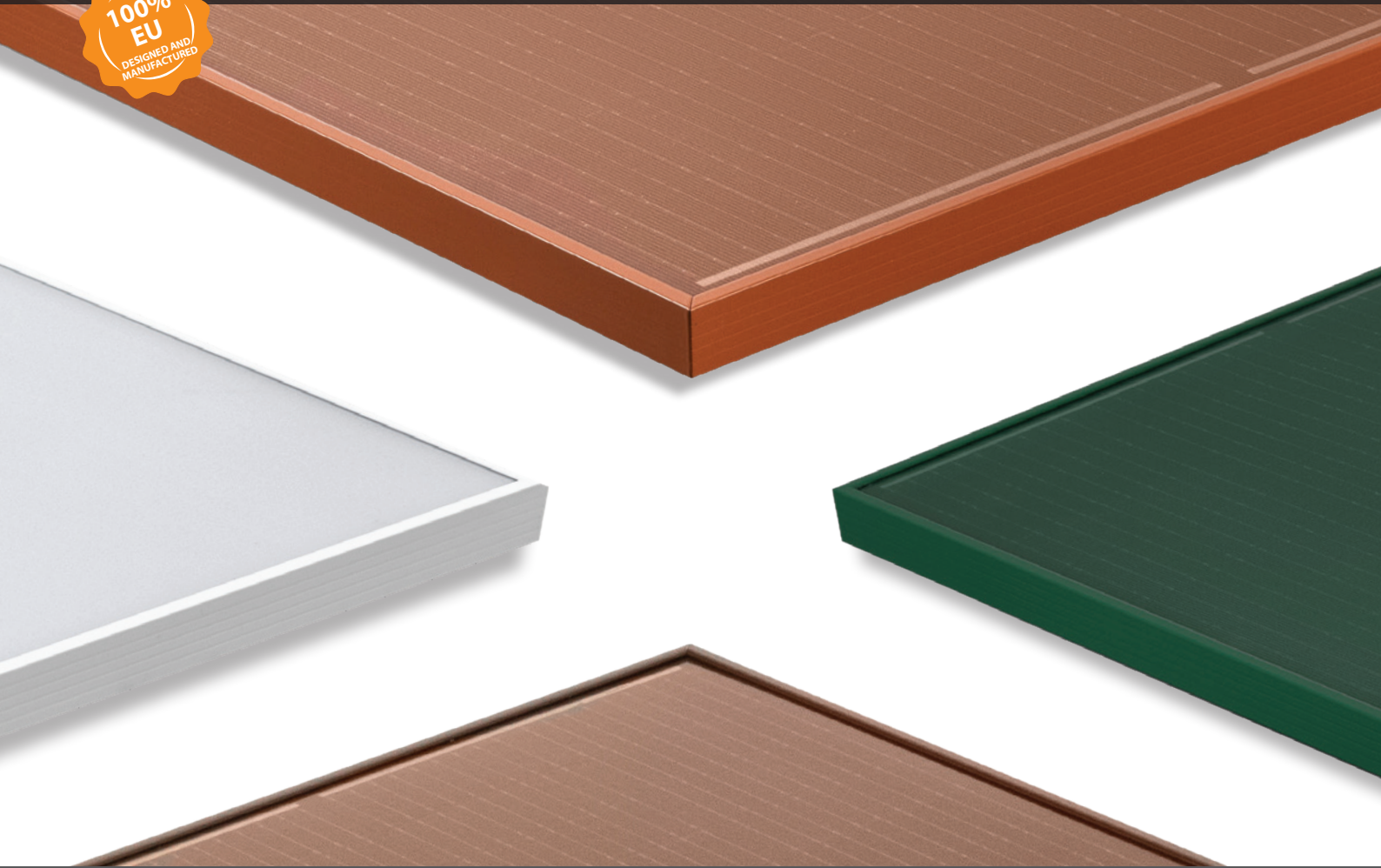


PREMIUM

BISOL Spectrum

Monocrystalline PV Modules With Coloured Glass



Designed & manufactured in EU



Double insulation



On-roof or BIPV



PID free



Module presorting for higher profitability



Supremely low degradation



A perfect colour match to your roof

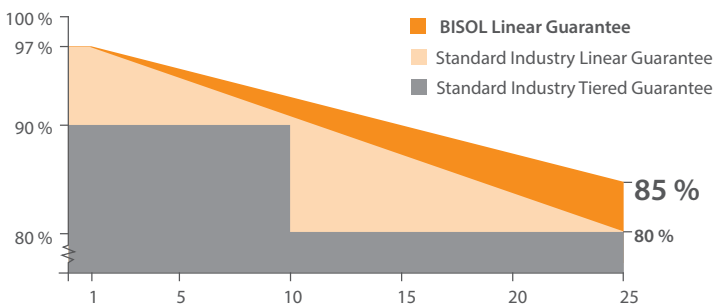


Available in variety of colours



Excellent low light performance

Guarantees:



Linear Guarantee
85% power output in 25th year



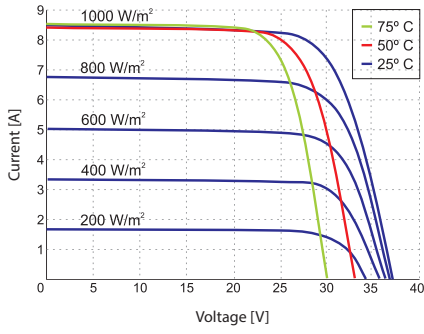
Product Guarantee
15 years

In compliance with:

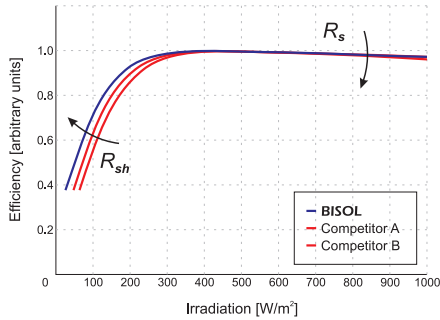


Certificates available upon special request. Additional charges may apply.

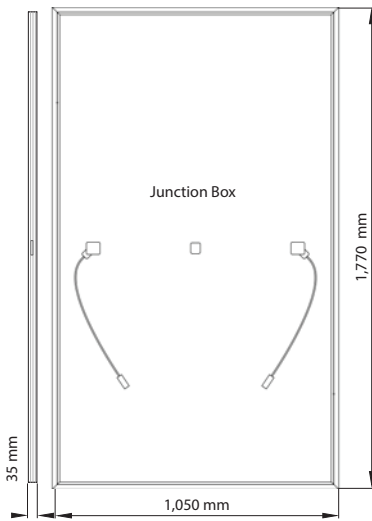
I-V Curve at Various Irradiation Levels and Various Cell Temperatures



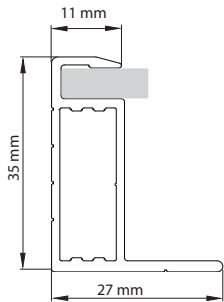
Effective Efficiency



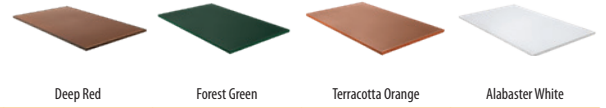
Dimensions



Frame Cross Section



Electrical Specifications @ STC (AM1.5, 1,000 W/m², 25 °C):



Module Type	BDO	320	300	280	220
Nominal Power	P_{MPP} [W]	320	300	280	220
Short Circuit Current	I_{SC} [A]	9.55	9.30	8.30	6.55
Open Circuit Voltage	V_{OC} [V]	41.5	41.1	43.2	40.9
MPP Current	I_{MPP} [A]	9.10	8.70	7.55	6.20
MPP Voltage	V_{MPP} [V]	35.2	34.5	37.1	35.5
Power Output Tolerance		±3 %			
Maximum Reverse Current		20 A			
Protection Class		Class II			

Efficiency at irradiation 200 W/m²: 99.3 % of STC efficiency or higher. | Tolerances for V_{oc} and I_{sc} are 3 %.

Electrical Specifications @ NOCT (AM1.5, 800 W/m², 20 °C, wind: 1m/s; Cell Temperature 44 °C):

Module Type	BDO	320	300	280	220
Nominal Power	P_{MPP} [W]	239	224	209	164
Short Circuit Current	I_{SC} [A]	7.73	7.52	6.72	5.30
Open Circuit Voltage	V_{OC} [V]	39.4	39.0	41.0	38.8
MPP Current	I_{MPP} [A]	7.36	7.04	6.11	5.02
MPP Voltage	V_{MPP} [V]	32.5	31.8	34.2	32.8

Power measurement tolerance: ±3 %.

Thermal Specifications:

Current Temperature Coefficient	α	+ 0.06 %/C
Voltage Temperature Coefficient	β	- 0.27 %/C
Power Temperature Coefficient	γ	- 0.35 %/C
NOCT		44 ± 2 °C
Temperature Range		- 40 °C to + 85 °C

Mechanical Specifications:

Length x Width x Thickness	1,770 x 1,050 x 35 mm
Weight	20.5 kg
Solar Cells	120 Half-Cut mono c-Si / 166 mm x 166 mm
Junction Box / Connectors / IP	Three bypass diodes / MC4 compatible / IP 68
Cable Length	Default: 1,200 mm On demand (for portrait orientation): 300 mm
Frame	Standard frame (anodized AL with drainage holes and rigid anchored corners)
Backsheet Colour	Black
Glass	3.2 mm glass with anti-reflective coating / tempered / high-transparency / low-iron content
Certified Test Load (Snow/Wind)	5,400 Pa / 2,400 Pa
Impact Resistance	Hailstone / Φ 25 mm / 83 km/h (51 mph)

Tolerances of values are ±5 %. Unspecified product properties remain under full discretion of BISOL.

Packaging Information:

Modules per Pallet	Packing Dimension: Length/Width/Height	Stackable	Packing Weight	Tot. Nr. of Pallets/Load
30	181 x 109 x 128 cm	3 pallets	653 kg	28

Additional terms & conditions apply. Please see *Standard Limited Guarantee* and *General Sales Terms & Conditions*.

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