

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

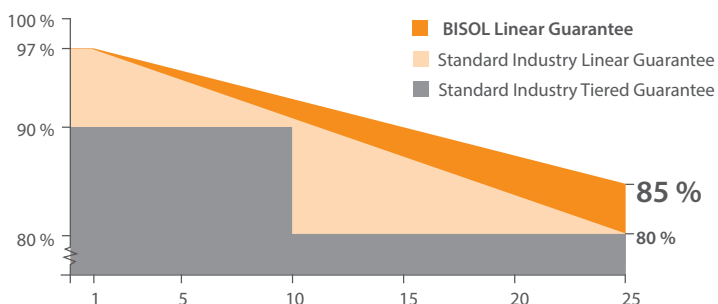


Available in variety of colours



Excellent low light performance

## Guarantees:



Linear guarantee  
85% power output in 25<sup>th</sup> year



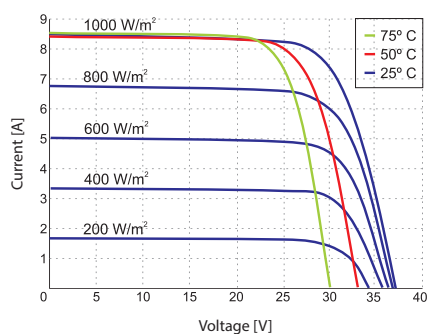
Product guarantee  
15 years

## In compliance with:

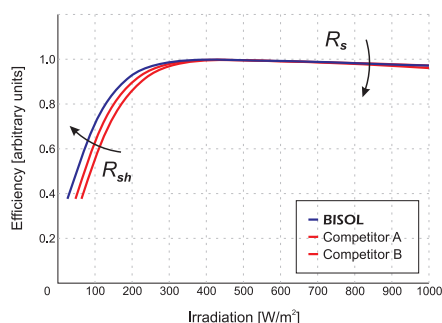


Certificates available upon special request. Additional charges may apply.

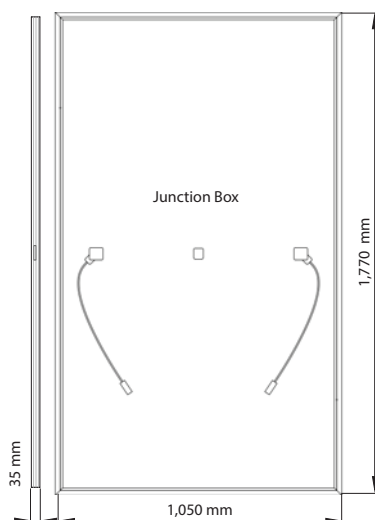
## I-V Curve at Various Irradiation Levels and Various Cell Temperatures



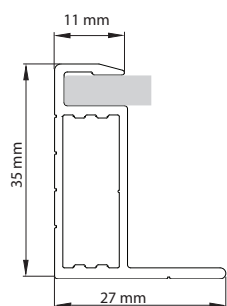
## Effective Efficiency



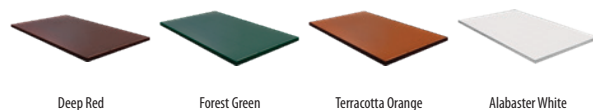
## Dimensions



## 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		$\pm 3 \%$			
Maximum Reverse Current		18 A			
Maximum System Voltage		1,500 V (Application Class A)			

Efficiency at irradiation 200 W/m²: 99.3 % of STC efficiency or higher. | Power measurement tolerance:  $\pm 3 \%$ .

## Electrical Specifications @ NOCT (AM1.5, 800 W/m², 20 °C, wind: 1 m/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:  $\pm 3 \%$ .

## Thermal Specifications:

Current Temperature Coefficient	$\alpha$	+ 0.06 %/C
Voltage Temperature Coefficient	$\beta$	- 0.27 %/C
Power Temperature Coefficient	$\gamma$	- 0.35 %/C
NOCT		44 $\pm$ 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)
Back Sheet Colour	Black
Glass	3.2 mm glass with anti-reflective coating / tempered / high-transparency / low-iron content
Packaging	30 modules per pallet / stackable 3 pallets high
Certified Test Load (snow/wind)	5,400 Pa / 2,400 Pa
Impact resistance	Hailstone / $\Phi$ 25 mm / 83 km/h (51 mph)

Tolerances of values are  $\pm 5 \%$ . Unspecified product properties remain under full discretion of BISOL.

## Dealer Information

[www.bisol.com](http://www.bisol.com)



Solar company!

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

© BISOL Group d.o.o. October 2021. All rights reserved. All information presented in this document is subject to change without prior notice and serve for informative purposes only.