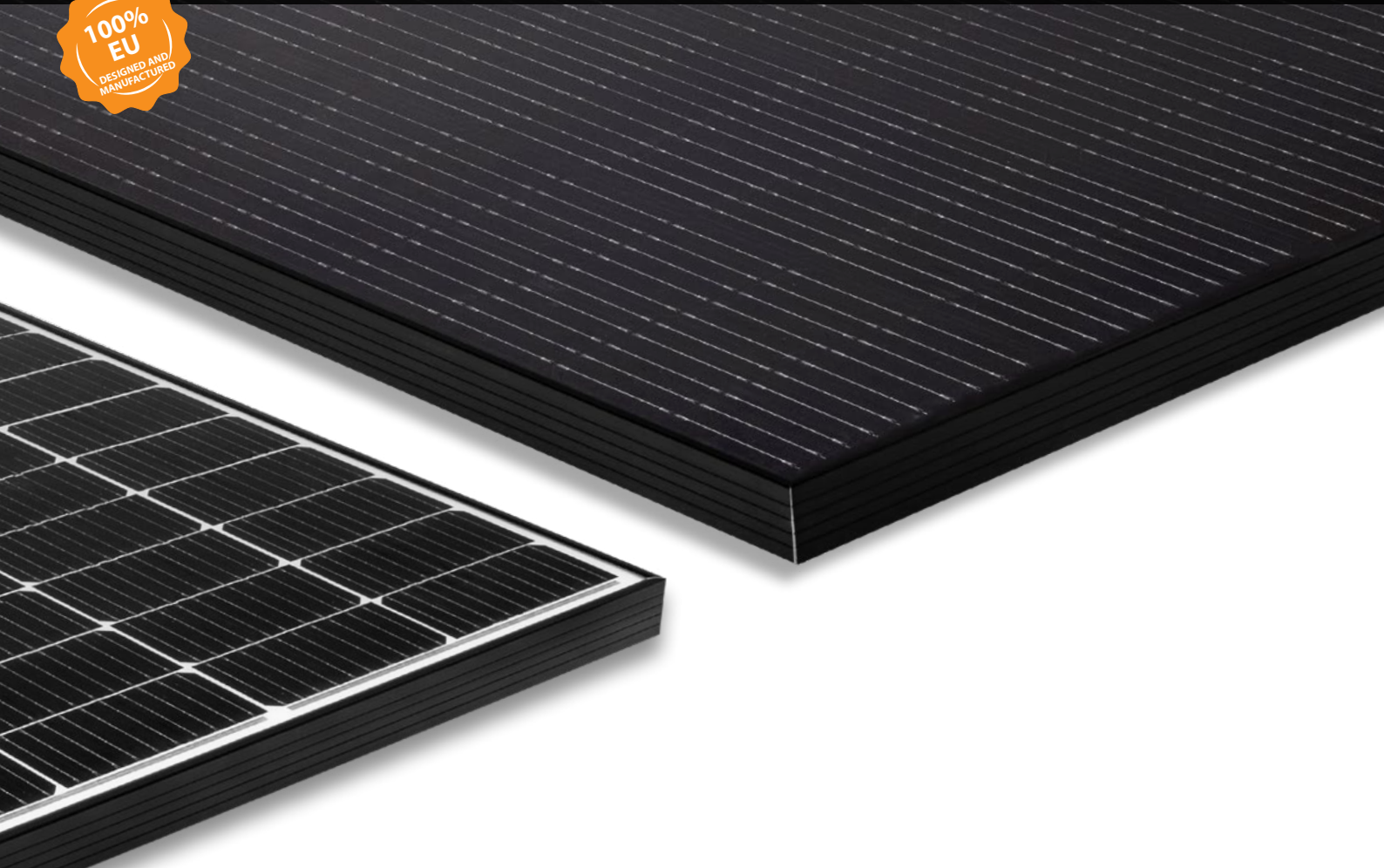


PREMIUM

# BISOL Duplex

Monocrystalline Half-Cut PV Modules (108 Cells) / BDO 430-440 Wp



Designed and manufactured in EU



Higher power



Lower losses



All relevant certificates



Limited shading



Module presorting for higher profitability



Module efficiency up to 22.3 %

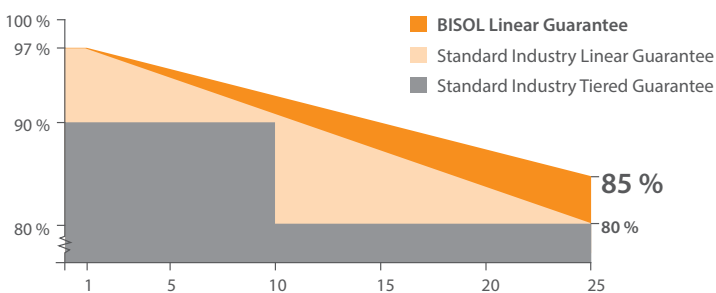


Strictly positive output power tolerances



Excellent low light performance

## Guarantees:



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



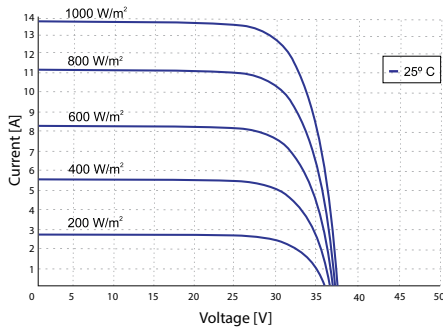
Product Guarantee  
Standard: 15 years  
Extra: 20 years

## In compliance with:

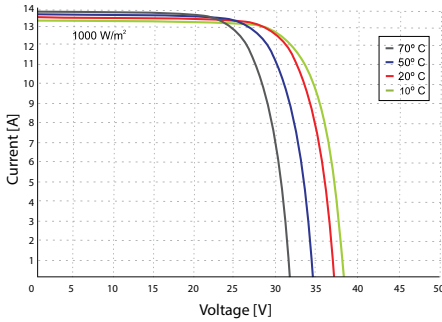


Certificates available upon special request. Additional charges may apply.

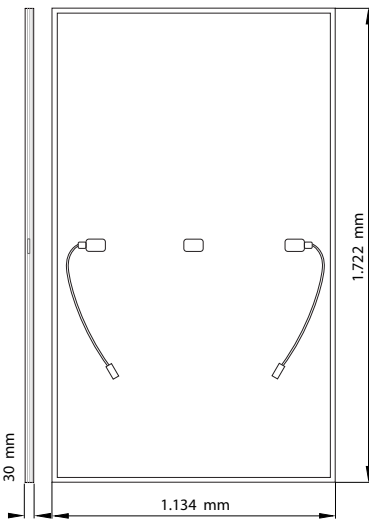
### I-V Curve at Various Irradiation Levels



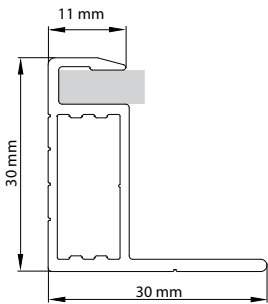
### I-V Curve at Various Cell Temperatures



### Dimensions



### Frame Cross Section



### Electrical Specifications @ STC (1,000 W/m<sup>2</sup>, 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	$\eta_M$ [%]	22.0	22.3	22.5
Cell Efficiency	$\eta_C$ [%]	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/m<sup>2</sup>: 99.3 % of STC efficiency or higher. | Tolerances for  $V_{OC}$  and  $I_{SC}$  and other electrical parameters are  $\pm 3$  %.

### Electrical Specifications @ NOCT (800 W/m<sup>2</sup>, 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:

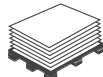
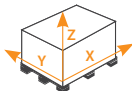



Current Temperature Coefficient	$\alpha$	+ 0.045 %/°C
Voltage Temperature Coefficient	$\beta$	- 0.250 %/°C
Power Temperature Coefficient	$\gamma$	- 0.300 %/°C
NOCT		42 $\pm$ 3 °C
Temperature Range		- 40 °C to + 85 °C

### Mechanical Specifications:

Length x Width x Thickness	1,722 x 1,134 x 30 mm
Weight	22 kg
Solar Cells	108 Half-Cut c-Si / 182 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
Frame	Anodized Al with drainage holes / rigid anchored corners
Glass	3.2 mm AR coating tempered glass / high-transparency / low-iron content
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 Production.

### Packaging Information:

				
Modules per Pallet	Packaging Dimension: Length/Width/Height	Stackable	Packaging Weight	Tot. Nr. of Pallets/Load
35	175 x 116 x 128 cm	3 pallets	794 kg	30