

PREMIUM

BISOL Bifacial

Bifacial Half-Cut PV Modules with Transparent Backsheet /
BDO 440-460 Wp (+ Bifacial Gain)



Designed and
manufactured in EU



Higher power



Lower losses



Module presorting
for higher profitability



Excellent low light
performance



Natural light transmission



Available with or
without frame

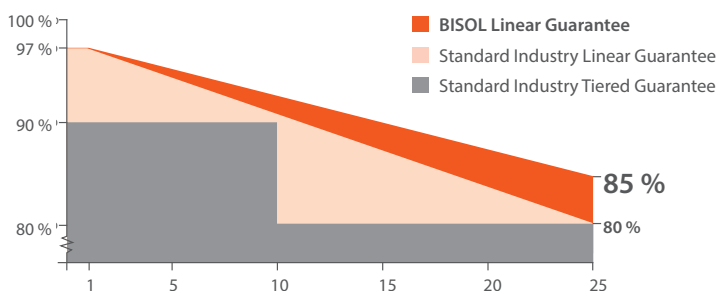


Transparent back foil



Bifacial module

Guarantees:



Linear Guarantee
85 % power output
in 25th year



Product Guarantee
Standard: 15 years
Extra: 20 years

In compliance with:



Certificates available upon special request. Additional charges may apply.

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

Module Type	BDO	440	450	460
Nominal Power	P_{MPP} [W]	440	450	460
Short Circuit Current	I_{SC} [A]	16.0	16.1	16.2
Open Circuit Voltage	V_{OC} [V]	34.9	35.3	35.9
MPP Current	I_{MPP} [A]	15.0	15.2	15.4
MPP Voltage	V_{MPP} [V]	29.3	29.6	29.9
Module Efficiency	η_M [%]	22.0	22.5	23.0
Cell Efficiency	η_C [%]	24.0	24.5	25.1
Power Output Tolerance		± 3 %		
Maximum System Voltage		1,500 V		
Maximum Reverse Current		30 A		
Protection Class		Class II		
Bifaciality		72 % $\pm$ 5 %		

Electrical specifications at STC (1,000 W/m², AM 1.5, 25 °C), NOCT (800 W/m², AM 1.5, 42 °C, Wind 1 m/s), BSTC (1000 W/m² front side, 135 W/m² back side, AM 1.5, 25 °C). 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 %. I Additional power classes available upon request.

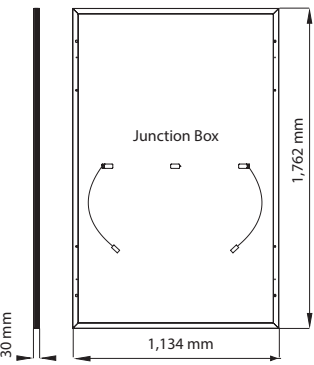
Electrical Specifications @ NOCT (800 W/m², AM 1.5, 42 °C, Wind 1 m/s):

Module Type	BDO	440	450	460
Nominal Power	P_{MPP} [W]	338	346	353
Short Circuit Current	I_{SC} [A]	12.9	13.0	13.1
Open Circuit Voltage	V_{OC} [V]	33.4	33.8	34.4
MPP Current	I_{MPP} [A]	12.1	12.3	12.4
MPP Voltage	V_{MPP} [V]	27.9	28.2	28.4
Module Efficiency	η_M [%]	22.0	22.5	23.0
Cell Efficiency	η_C [%]	24.0	24.5	25.1
Power Output Tolerance		± 3 %		
Maximum System Voltage		1,500 V		
Maximum Reverse Current		30 A		

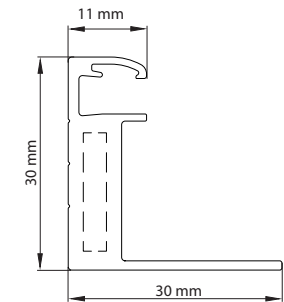
Electrical Specifications @ BSTC (1,000 W/m² front, 135 W/m² back, AM 1.5, 25 °C):

Module Type	BDO	440	450	460
Nominal Power	P_{MPP} [W]	499.4	510.8	522.1
Short Circuit Current	I_{SC} [A]	17.9	18.2	18.6
Open Circuit Voltage	V_{OC} [V]	34.9	35.3	35.9
MPP Current	I_{MPP} [A]	17.0	17.3	17.5
MPP Voltage	V_{MPP} [V]	29.3	29.6	29.9
Module Efficiency	η_M [%]	22.0	22.5	23.0
Cell Efficiency	η_C [%]	24.0	24.5	25.1
Power Output Tolerance		± 3 %		
Maximum System Voltage		1,500 V		
Maximum Reverse Current		30 A		
Protection Class		Class II		
Bifaciality		72 % $\pm$ 5 %		

Dimensions



Frame Cross Section



Thermal Specifications:

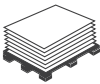
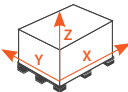
Current Temperature Coefficient	α	+ 0.05 %/°C
Voltage Temperature Coefficient	β	- 0.25 %/°C
Power Temperature Coefficient	γ	- 0.29 %/°C
NOCT		42 °C (±3 °C)
Temperature Range		- 40 °C to + 85 °C

Mechanical Specifications:

Length x Width x Thickness	1,762 x 1,134 x 30 mm
Weight	21 kg
Solar Cells	96 Half-Cut Bifacial c-Si / 182.25 x 105 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 / Φ 25 mm / 83 km/h (51 mph)

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
35	178 x 116 x 128 cm	3 pallets	759 kg	28

