PREMIUM

BISOL Lumina

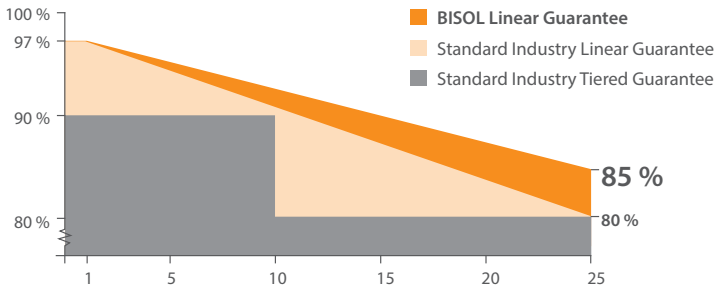
Bifacial PV Modules with Transparent Backsheet / BBO 410 Wp (+ Bifacial Gain)

BISOL
Solar company!

100% EU DESIGNED AND MANUFACTURED

- Designed and manufactured in EU
- All relevant certificates
- 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:



25 Linear Guarantee
85 % power output in 25th year

up to 20 Product Guarantee
Standard: 15 years
Extra: 20 years

In compliance with:

HW3 · certisolis CRE4 · European Recycling Platform · ÖVE · CE · AIT Austrian Institute of Technology · IEC 61730 Ed.1 61215 Ed.2 · IEC 62804-1 · IEC 62716 Ammonia resistance · Istituto Giordano · TÜV SÜD · ISO 9001 SGS · ISO 45001 SGS · ISO 14001 SGS · MCS CERTIFIED · REACH · RoHS

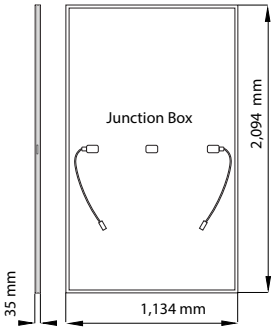
Certificates available upon special request. Additional charges may apply.

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

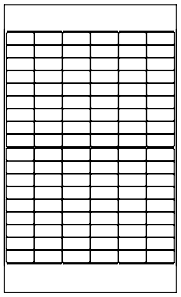
Module Type	BBO	410				
Number of Cells		108				
Cell Matrix		6 x 9 + 6 x 9				
Transparent Area	m²	0.52				
	%	22.5				
		Front	Bifacial Gain			
Light Source	%	100	10	20	30	40
Nominal Power	P_{MPP} [W]	410	451	492	533	574
Short Circuit Current	I_{SC} [A]	13.3	14.6	15.8	17.1	18.4
Open Circuit Voltage	V_{OC} [V]	39.6	39.7	40.0	40.0	40.1
MPP Current	I_{MPP} [A]	12.5	13.7	14.9	16.1	17.3
MPP Voltage	V_{MPP} [V]	32.8	33.0	33.1	33.2	33.2
Module Efficiency	η_M [%]	17.3				
Power Output Tolerance		±3 %				
Maximum Reverse Current		25 A				
Maximum System Voltage		1,500 V				
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} are 3 %.

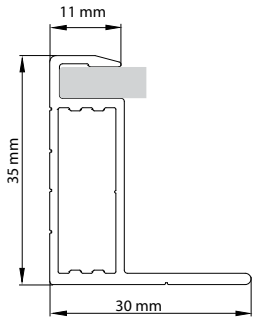
Dimensions



Matrix



Frame Cross Section



Thermal Specifications:

Current Temperature Coefficient	α	+ 0.05 %/°C
Voltage Temperature Coefficient	β	- 0.26 %/°C
Power Temperature Coefficient	γ	- 0.34 %/°C
NOCT		43 ± 2 °C
Temperature Range		- 40 °C to + 85 °C

Mechanical Specifications:

Length x Width x Thickness	2,094 x 1,134 x 35 mm
Weight	26 kg
Solar Cells	108 Half-Cut Bifacial c-Si / 182 mm 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 / 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
30	212 x 116 x 127 cm	3 Pallets	807 kg	24

BISOL
Solar company!