

# BISOL Lumina Series

## High-Transparency Multicrystalline PV Modules



Made in EU



Sets of 28 to 60 cells available



Transparent back foil



Available with or without frame

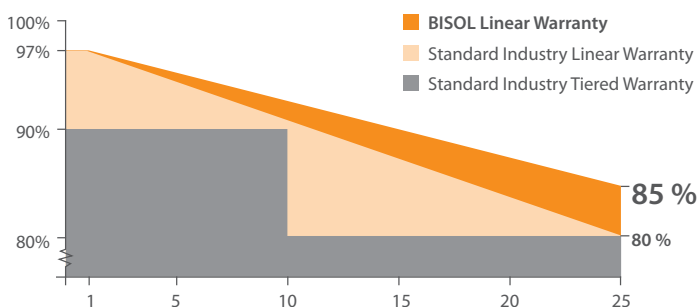


Choice of standard or BIPV frame



Natural light transmission

### Warranties:



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



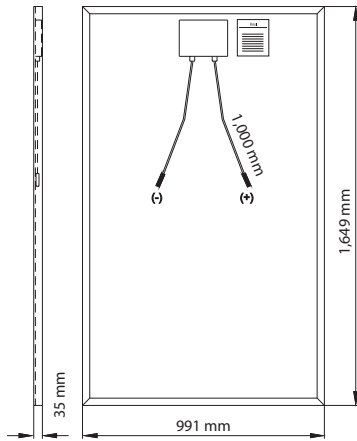
Product warranty  
10 years

### In compliance with:

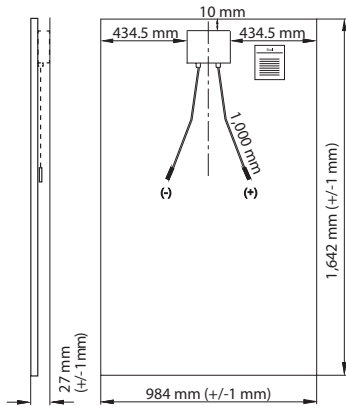


Certificates available upon special request. Additional charges may apply.

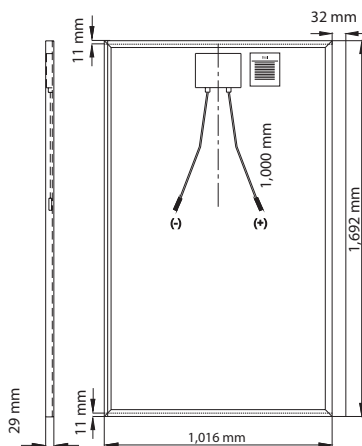
### Dimensions of module type BMO (standard frame)



### Dimensions of laminate type BLO (without frame)



### Dimensions of module type BSO (Solrif® frame)



### Electrical Specifications @ STC (AM1.5, 1,000 W/m<sup>2</sup>, 25 °C):

Module Type BMU / BSU / BLU		130	145	165	185	165	195	220	250	275
Nominal Power	$P_{MPP}$ [W]	130	145	165	185	165	195	220	250	275
Number of cells		28	32	36	40	36	42	48	54	60
Cell matrix		4 x 7	4 x 8	4 x 9	4 x 10	6 x 6	6 x 7	6 x 8	6 x 9	6 x 10
Transparent area	in cm <sup>2</sup>	8,537	7,563	6,590	5,617	6,590	5,130	3,671	2,211	751
	in %	52.2	46.3	40.3	34.4	40.3	31.4	22.5	13.5	4.6
Short Circuit Current	$I_{SC}$ [A]	9.35	9.35	9.35	9.35	9.35	9.35	9.35	9.35	9.35
Open Circuit Voltage	$V_{OC}$ [V]	18.5	21.1	23.8	26.4	23.8	27.7	31.7	35.6	39.6
MPP Current	$I_{MPP}$ [A]	8.95	8.95	8.95	8.95	8.95	8.95	8.95	8.95	8.95
MPP Voltage	$V_{MPP}$ [V]	14.5	16.2	18.4	20.7	18.4	21.8	24.6	27.9	30.7
Solar Cell Efficiency	$\eta_C$ [%]	18.9	18.4	18.7	18.8	18.7	18.9	18.7	18.8	18.7
Module Efficiency	$\eta_M$ [%]	8.0	8.9	10.1	11.3	10.1	11.9	13.5	15.3	16.8
Power Output Tolerance		+/- 3 %								
Maximum Reverse Current		18 A								
Maximum System Voltage		1,000 V (Application Class A)								

Additional power classes available upon request. | Efficiency at irradiation 200 W/m<sup>2</sup>: 99.3 % of STC efficiency or higher. | Power measurement tolerance: +/- 3 %.

### Thermal Specifications:

Current Temperature Coefficient	$\alpha$	+ 0.049 %/K
Voltage Temperature Coefficient	$\beta$	- 0.31 %/K
Power Temperature Coefficient	$\gamma$	- 0.40 %/K
NOCT		44 °C
Temperature range		-40 °C to +85 °C

### Mechanical Specifications:

Length x Width x Thickness	BMU: 1,649 mm x 991 mm x 35 mm / BSU (Solrif®): 1,692 mm x 1,016 mm x 29 mm / BLU: 1,642 mm x 984 mm x 27 mm
Weight	BMU: 18.3 kg / BSU (Solrif®): 18.4 kg / BLU 15.8 kg
Solar Cells	Multi c-Si in series / 156 mm x 156 mm (6+)
Junction Box / Connectors	Three bypass diodes / MC4 compatible / IP 67
Frame	Standard frame (anodized AL with drainage holes and rigid anchored corners) or BIPV (Solrif®) frame or laminate
Frame Colour	Any RAL colour code, black or silver
Back Sheet Colour	Transparent
Glass	3.2 mm glass with anti-reflective coating / tempered / high-transparency / low-iron content
Packaging	BMU: 28 modules per pallet / stackable 3 pallets high BSU (Solrif®): 24 modules per pallet / stackable 2 pallets high BLU: 30 laminates per pallet / stackable 2 pallets high
Certified Nominal Load (snow/wind)	5,400 Pa / 2,400 Pa for BMU   2,400 Pa / 2,400 Pa for BSU (Solrif®)   Maximum nominal load for BLU depends on Laminate fixation system
Impact resistance	Hailstone / $\Phi$ 25 mm / 83 km/h (51 mph)

All unspecified tolerances are  $\pm$  5 %. Unspecified product properties remain under full discretion of BISOL.

### Dealer Information

[www.bisol.com](http://www.bisol.com) | [www.bisol.co.uk](http://www.bisol.co.uk)



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

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