



M7 Ultra Black
GlasGlas Bifacial


410W | 210^W/_{M²}

- 


Ultra Black Solar Cell Technology

Eliminates the color difference on the solar panels and increase the effectiveness of the panels by up to 5%
- 


DLAR Glass Coating Technology

Boosting solar glass transmission and therefore increase panel efficiency by up to 5%
- 


Bifacial Technology

Uses reflected light to increase energy generation by an additional 10-30%
- 

Fire Safety Class A

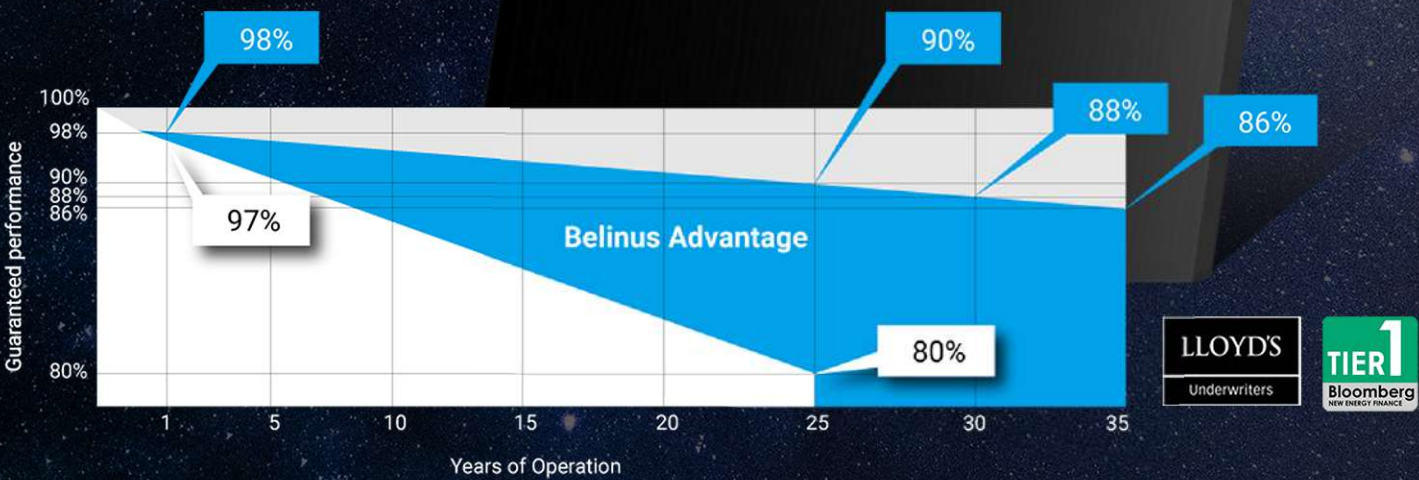
The Belinus panels on your roofs meet the highest safety standards and the most certainty on fire resistance
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Bloomberg Tier 1 Production

Both the Belinus solar cells and solar modules are produced by certified suppliers in the 2022 Bloomberg Tier 1 List
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European Quality

Each Belinus panels are made by certified materials and they go through rigorous three steps European quality assurance process



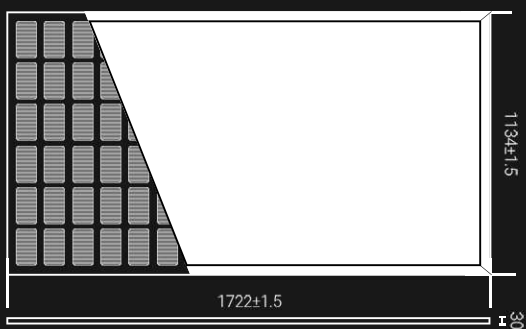
35^{yr} | 35^{yr} | 35^{yr}

Product warranty | Performance warranty | Service warranty

“The most comprehensive warranty in the entire solar industry.”

MECHANICAL SPECIFICATION

Dimension	1722 × 1134 × 30mm ± 1.5 mm
Weight	23 kg
Frame	Anodized aluminium alloy
Cell Encapsulation	POE
Front and Rear glass	2.0 mm x 2 pcs, DLAR glass coating technology
Back sheet	Normal tempered glass
Cells	6*20 pieces, 166*83mm
Junction box	IP68 rated
Output cables	4.0 mm2 , 1200mm
Connection technology	Stäubli Electrical MC4-connectors



ELECTRICAL CHARACTERISTIC

	Front	Extra Power (depends on the % of reflected light to the back)		
Light Source (%)	410	10	20	30
Peak Power (Pmax) (W)	410	432	464	496
MPP Voltage (Vmp) (V)	31.6V	31.2	31.3	31.3
MPP Current (Imp) (A)	13.0A	13.8	14.8	15.8
Open Circuit Voltage (Voc) (V)	37.5V	37.1	37.2	37.2
Short Circuit Current (Isc) (A)	13.9A	14.5	15.8	16.9
Module Efficiency (%)	21.0%	23.7	25.5	27.2
Operating Module Temperature	-40 °C to +85 °C			
Maximum System Voltage	1500 V DC (IEC)			
Maximum Series Fuse Rating	20 A			
Power Tolerance	0 / + 5 W			

STC: Irradiance 1000 W/m2, module temperature 25 °C, AM=1.5; Tolerances of Pmax, Voc and Isc are all within +/- 5%

TEMPERATURE CHARACTERISTICS

Rated cell operating temperture	45±2°C	Temperature Coefficient (Pmax)	+0.04%/°C
Temperature Coefficient (Isc)	-0.31%/°C	Temperature Coefficient (Voc)	-0.27%/°C

QUALIFICATIONS AND CERTIFICATES



PACKAGING INFORMATION

Container	40'HC
Pieces per pallet	36
Pallets per container	26
Pieces per container	936

Certificates available upon special requests. Additional charges may apply.

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Belinus All-In-One Warranty	vs	Conventional Solar Panel Warranty
35 years	Service Warranty	×
✓	Shipping - new part	×
✓	Shipping - old part	×
✓	Intallation	×
35 years	Product Warranty	12 years
98%	Power Warranty	
0.34%	Start point	97%
88%	Yearly decline	0.7%
86%	End point (30 years)	80%
	End point (35 years)	×

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