

NOVA 54 Glass-Glass | HJT technology

450 Wp - 230 W/m²

Efficient under the toughest conditions



High bifacial factor

The HJT technology is the most efficient in using reflected sunlight from the surface underneath, which can significantly increase the power output.



Low chance at micro-cracks

HJT cells are thinner and therefore more flexible and less susceptible to micro-cracks.



Low temperature coefficient

With a low temperature coefficient this panel loses just a low percentage of efficiency when the cell temperature rises above 25°C.



High performances under low light

Thanks to an added thin layer of amorphous silicon, HJT cells only need a little bit of sunlight to start producing electricity. This makes them ideal for cloudy climates.



Ultra black

The black cells, black frame, black spacings and matt finish make this panel a true aesthetic enhancement for your roof. Only the darkest cells are selected to use in our panels.



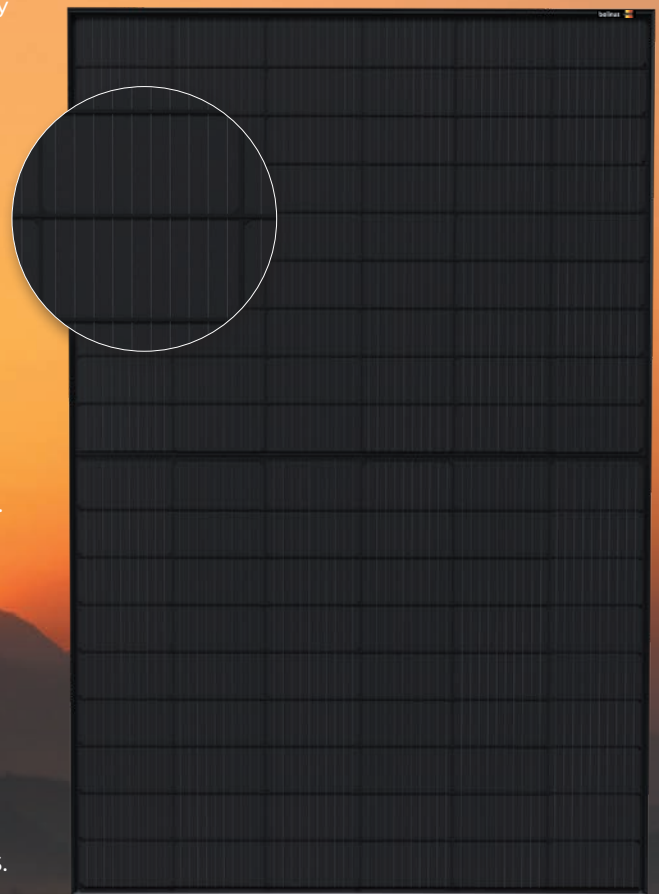
Glass-Glass

Glass at the front and at the rear for a longer longevity, lower degradation and less chance of micro-cracks. They are also more weather-, water- and fire-resistant and contain no PFAS.

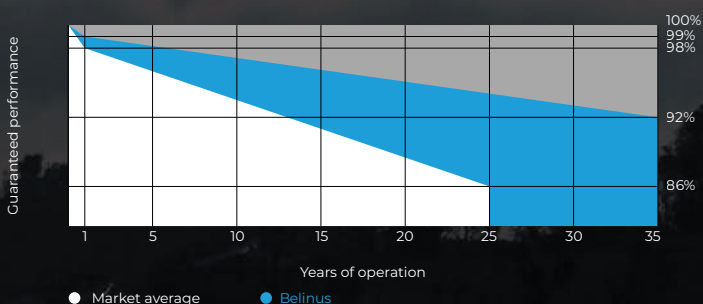


Belgian quality

Designed and engineered in the heart of Europe using only parts that meet the highest European requirements for quality and safety.



Degradation



LLOYD'S
Underwriters

For more information visit www.belinus.com/warranty

Mechanical characteristics

Dimensions	1722 x 1134 x 30 mm ± 1.5 mm (1.95 m ²)
Weight	25 kg
Cell technology	Heterojunction (HJT)
N° of cells	108 (6 substrings of 18 half-cut cells)
Cell size	182 x 182 mm
Bifaciality factor	90% (± 5%)
Front cover	2.0 mm tempered solar glass with DLAR coating
Back cover	2.0 mm tempered solar glass
Spacings transparency	Not transparent, full black
Frame	Black anodized aluminium alloy
Junction boxes	3 with 1 bypass diode per box, IP 68
Output cables	4 mm ² 1200 mm
Connectors	Stäubli MC4 Evo-2

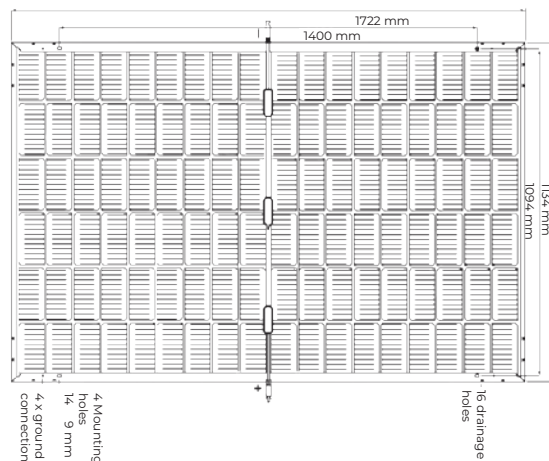
Electrical characteristics¹

Power (P _{max}) ²	430 Wp	440 Wp	450 Wp
Module power density	220 W/m ²	225 W/m ²	230 W/m ²
Module efficiency %	22.0 %	22.5 %	23.0 %
Voltage at max. power [V _{mpp}]	34.6 V	35.1 V	35.6 V
Current at max. power [I _{mpp}]	12.4 A	12.5 A	12.6 A
Open circuit voltage [V _{oc}]	41.4 V	41.9 V	42.4 V
Short circuit current [I _{sc}]	13.0 A	13.1 A	13.2 A
Bifaciality performance increase	10% (P _{mpp})	468.7 Wp	479.6 Wp
	20% (P _{mpp})	507.4 Wp	519.2 Wp
	30% (P _{mpp})	546.1 Wp	558.8 Wp

¹Measured under standard test conditions (STC): 1000 W/m² irradiance, 25°C cell temperature, AM=1,5 and rear side covered for monofacial measurement.

²Power class sorting tolerance: 0 to +5W.

Technical characteristics



Specifications for system design

Maximum system voltage	1500 V
Maximum reverse current	25 A
Max. test load snow/wind	5400 Pa/-2400 Pa
Impact resistance	Ø 45 mm hail at 23 m/s
Safety class	II
Fire class	Class C according to UL790
Operating temperature	-40 to 85°C

Warranty	Belinus	Market Average
Product	35 years	12-15 years
Performance	35 years	25 years
Service	35 years	0 years

Temperature characteristics

Nominal Operating Cell Temperature (NOCT)	44°C ± 2°C	Temperature coefficient of V _{oc}	-0.23%/C°
Temperature coefficient of P _{max}	-0.24%/C°	Temperature coefficient of I _{sc}	+0.04%/C°

Packaging information

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

Certificates and tests

IEC 61215, IEC 61730



Residential



Commercial



Industrial

Product reference: BE-Nova-HJT-UB-GG-xxx/BE-Nova-UB-GG-54-xxx

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BELINUS SOLAR BV | THOR PARK 8300, 3600 GENK, BELGIUM | TEL +32 89 27 19 99 | EMAIL INFO@BELINUS.COM | WEB WWW.BELINUS.COM