

NOVA

DOUBLE GLASS

450 Wp | 230 W/m²

Efficient under the toughest conditions



HJT technology

A thin layer of silicium is added to the monocrystalline cells so they only need a little bit of sunlight to start generating power.



Bifacial cells

By using an open grid structure, the back of the cells are not covered and can also absorb the reflected sunlight from the surface underneath.



Longterm optimal performance

The panel is divided into 6 segments with 3 separate bypass diodes so shadows will only impact the segment it is on with a lower chance of defects due to hot spots.



High efficiency

Maximize your return with a minimum surface of solar panels. Enjoy more energy output per m².



Low temperature coefficient

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



Black beauty

The black cells, black frame, black spacings and matt finish make this panel a true aesthetic enhancement for your roof top.



Glass-glass

Glass at the front and at the back for a longer longevity and better resistance to hail, snow or storm.

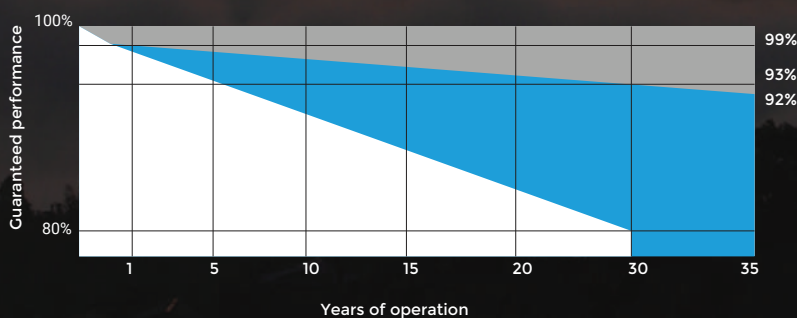


PFAS free

Our solar panels do not contaminate the environment with PFAS because we care about our planet.



Belinus warranty



35-year warranty on product, performance and service.
For more information visit www.belinus.com/warranty.

Mechanical characteristics

Dimensions	1722 x 1134 x 30 mm ± 1.5mm (1,953 m2)
Weight	25 kg
Cell type	HJT bifacial
N° of cells	54 x 2 (half-cut)
Cell size	182 x 182 mm
Front cover	2.0 mm tempered solar glass with DLAR coating
Back cover	2.0 mm tempered solar glass
Encapsulant	2 x Polyolefin Elastomer (POE)
Spacings transparency	Not transparent with black tape
Frame	Black anodized aluminium alloy
Junction boxes	IP68
Output cables	4 mm ² 1200 mm
Connectors	Stäubli MC4 Evo-2

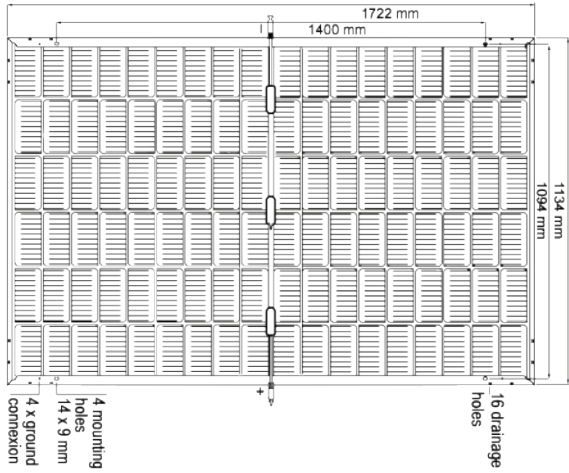
Electrical characteristics¹

Power (Pmax) [~]		440 Wp	445 Wp	450 Wp
Power Density		225 W/m ²	228 W/m ²	230 W/m ²
Module efficiency %		22.5%	22.8%	23.0%
Voltage at max. power (Vmpp)		35,1 V	35,4 V	35,6 V
Current at max. power (Impp)		12,5 A	12,6 A	12,6 A
Open circuit voltage (Voc)		41,9 V	42,2 V	42,4 V
Short circuit current (Isc)		13,0 A	13,1 A	13,2 A
Bifaciality performance increase	10% (Pmpp)	484 Wp	489 Wp	494 Wp
	20% (Pmpp)	528 Wp	533 Wp	538 Wp
	30% (Pmpp)	550 Wp	555 Wp	560 Wp

¹Measured under standard test conditions (STC): 1000 W/m² irradiance, 25°C module 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
Overcurrent protection rating	20 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 A according to UL790
Operating temperature	-40 to 85°C

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



Model name: BE-Nova-HJT-UB-GG-(440-450)

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Publication date and version: 2023-09-25 GLv1

