



Transform  
Buildings into  
Power Stations

belinus®



## BELINUS IN A GLANCE



Started in 2015 as a solar panel engineering and quality inspection service company, Belinus is a Belgian solar panel and battery manufacturer with its headquarters in Genk, Belgium, and a reputable presence in over 10 countries spread across Europe.

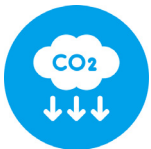
Belinus specializes in the research, development, production of innovative high efficiency ultra-black solar double glass solar, home battery and BIPV solutions.

## EUROPEAN PRODUCTION



### AN ECO-MANUFACTURING FACTORY

All of our solar cells and solar panels at Belinus are made in Bloomberg Tier 1 factories in Europe that utilize solar panels on their roofs as their source of energy. This reduces the building's total carbon footprint by up to 40% and helps to conserve the environment and planet from the detrimental effects of mass production.



### A REDUCED CARBON FOOTPRINT

There is no environmental impact because no gases or other dangerous chemicals are released into the atmosphere. Every day, our teams work constantly to preserve the environment by decreasing the overall environmental effect of their work. The technicians at our European manufacturing site are working on a strategy for effective environmental management.



### ENERGY-EFFICIENT MANUFACTURING

Sustainable energy accounts for over 60% of the total energy required to manufacture Belinus cells and solar panels. Our factory's entire 45,000m<sup>2</sup> is purely heated with geothermal energy. Our Belinus solar panels are installed on the plant's whole roof. The electricity generated is used entirely to power the production cycle.



### EUROPEAN PRODUCTION

Our solar panels are made with raw materials sourced from exquisite European sources or developed in-house. As a result, our plants are much closer to end-users, reducing environmental impact through a transit network that is always proximal.

# 35 YEARS ALL-IN-ONE WARRANTY

The industry's longest and most comprehensive warranty

The Belinus All-in-One warranty is the only home solar warranty to offer an outstanding 35-year coverage for new parts shipping, old parts shipping, as well as installation fees. This ingenious warranty plan saves you from additional costs on your purchases for 35 years.



## PERFORMANCE



Our solar panels have the highest DC power output protection in the whole solar industry with as high as 88% DC power in year 30 of use; and 86% DC power in year 35 of use.

## PRODUCT



Total protection for flaws caused by workmanship errors and faulty materials for 35 years.

## SERVICE



Seamless replacement, repairs, and compensation for any defective panel.

Belinus All-in-One Warranty	vs	Conventional Panel Warranty
35 years	Service Warranty	X
✓	Verzending - nieuw onderdeel	X
✓	Verzending - oud onderdeel	X
✓	Installatie	X
35 years	Productgarantie	10 years
	Prestatiegarantie	
98%	Beginpunt	97.5%
0.34%	Jaarlijkse afname	0.55%
92%	Eindpunt (25 jaar)	84%
86%	Eindpunt (35 jaar)	No

## ULTRA BLACK SOLAR CELL TECHNOLOGY



The Belinus engineers have developed an ultra-black solar cell that absorbs 99.7% of available sunlight using the IBC, HJT or N-type Perc solar cell technology. This is a huge step forward over the anti-reflective coatings that are currently used on solar panels.

The Ultra black solar cells are aesthetically pleasing and beautiful, delivering outstanding performance and profitability. The solar cells have a slick black color, making this a fantastic rooftop option for families that want to emphasize their sense of style in their living space.

The hue undoubtedly represents - power, money, health, success, and wisdom.

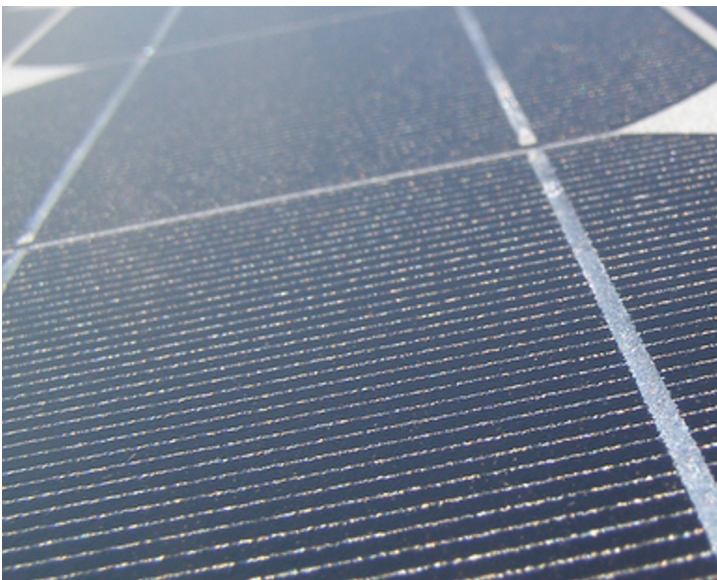
## DLAR (DUAL-LAYER ANTI-REFLECTIVE) COATING TECHNOLOGY

Dual-Layer Anti-Reflective Glass Coating is used on Belinus modules (DLAR). According to our current manufacturing findings, the average standard test condition (STC) flash power boost owing to Anti Reflective Coating on glass is 3.7 percent.

The energy production gain from DLARC glass modules is 4.5-6 percent depending on the type of installation and location after more than three years of outdoor testing in varied conditions. The enhanced coating gain in diffuse and off-angled light due to the influence of the refractive index and light dispersion inside the coating accounts for the larger energy gain when compared to STC flash gain.



## N-TYPE IBC AND HJT SOLAR CELL TECHNOLOGY



The most powerful solar cells today available on the market are the N-type IBC and HJT solar cells.

We announced in January 2022 our record of 25.09% for N-Type solar cell efficiency and, one month later, the Belinus testing lab has confirmed that the conversion efficiency of N-type monocrystalline bifacial solar cells developed at Belinus' solar cell R&D Center has now reached 25.21%.

With the ambitious goals we have set for ourselves, our approach is to stay close to the essence of technology by selecting the best technical route, maximizing product performance potential and proactively ushering in the changes needed to achieve the technical transformation.



# PRODUCTS

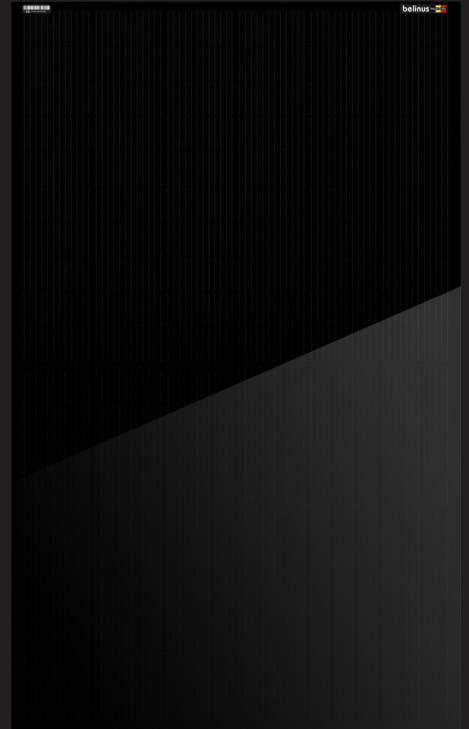
M8  
N-NIGHT ULTRA BLACK  
GLASGLAS 380W



M8  
HJT ULTRA BLACK  
GLASGLAS



M7  
N-PERC ULTRA BLACK  
GLASGLAS 410W



## TECHNICAL DATA

Model: M8-IBC-UB-GG-380

Power: 380W

Efficiency: 22.8%

Size: 1727 X 1039 X 30 MM

Weight: 23.5 KG

Model: M8-HJT-UB-GG-390

Power: 390W

Efficiency: 21.4%

Size: 1755 X 1038 X 30 MM

Weight: 23.5 KG

Model: M7-UB-GG-410

Power: 410W

Efficiency: 21.0%

Size: 1722 X 1134 X 30 MM

Weight: 21 KG



# GLASS - FOIL PRODUCTS

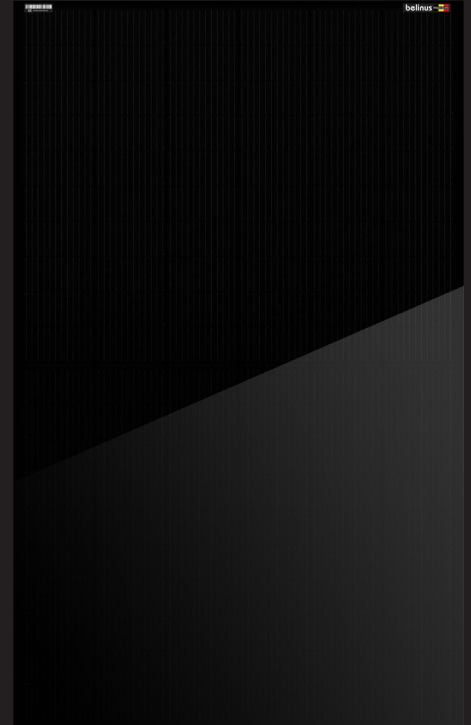
M8  
ULTRA BLACK N-NIGHT  
425W



M7  
MWT ULTRA BLACK  
390W



M7  
ULTRA BLACK  
410W



## TECHNICAL DATA

Model: M8-IBC-UB-425

Power: 425W

Efficiency: 21.6%

Size: 1895 X 1039 X 30 MM

Weight: 21.0 KG

Model: M8-IBC-UB-GG-380

Power: 380W

Efficiency: 21.2%

Size: 1727 X 1039 X 30 MM

Weight: 23.5 KG

Model: M7-UB-410

Power: 410W

Efficiency: 21.0%

Size: 1722 X 1134 X 30 MM

Weight: 21 KG





## WHOLESALE AND INSTALLERS REFERENCES



"We have been working with Belinus since last year. Both the fact that it is an European product and that quality is of paramount importance to Belinus makes it important for us to keep this supply chain partnership last and strong. The 30-year All-in-One guarantee is a huge advantage in the sales pitches compared to the competitors... and it also confirms the quality of the product. The wide range of Belinus ultra black M7 and M8 series that are available also means that there is a good choice for every possible situation. With Belinus we have everything we need to be able to work towards a greener future."

Kazim Yasar, Soloya, Belgium and the Netherlands



We have been distributing the Belinus solar panels at Solar-4all. The collaboration has been smooth and professional. The partnership that we have entered into with Belinus enables us to provide added value to our existing installers and attract new installers. This helps us grow and become a leading wholesaler in the Netherlands. Belinus is a European brand with high quality products. Because they do a lot of quality checks during the workflow, they can provide us with the best panels and give 30-year All-in-one warranties. Belinus is specialized in developing ultra-black double glass solar panels and is constantly trying to go the extra mile.

Roel Ars  
Managing Director



"Belinus Ultra Black solar modules have been installed. We found a terrific provider, who matches our needs, thanks to Belinus Solar' efficacy and experience. Our customers are pleased with the Belinus Solar modules that have been put on their homes, and we look forward to continuing our relationship with Belinus in the future."

Frank Plomp  
Managing Director



Belinus Solar BV  
Thor Park 8300  
3600 Genk  
Belgium

+32 16 91 03 14  
[info@belinus.be](mailto:info@belinus.be)

[www.belinus.be](http://www.belinus.be)

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AND QUALITY** 