

# Power. Heat. Mobility.

# SOLARWATT Home.



# The solar pioneer from Germany.

With more than 30 years of experience as a photovoltaic pioneer, **Solarwatt** is the European market leader in glass-glass solar panels and one of the world's largest suppliers of electricity storage. The company was founded in 1993 in **Dresden, Germany**. Solarwatt has more than 600 employees worldwide and cooperates with international organisations such as Stiebel Eltron, the BMW Group, Bosch, and E.ON.



over 30 years experience  
over 20,000 active energy managers  
over 100,000 intelligently managed assets  
over 700,000 installations with Solarwatt DNA

Map of active SOLARWATT Managers in Europe. Each dot represents one system.

# A partnership to drive forward Europe's energy transition.



Solarwatt is almost entirely owned by **Stefan Quandt**, who is also a major shareholder in the BMW Group. Through close collaboration with BMWi and the **BMW Group Designworks** in Los Angeles, USA, SOLARWATT offers the innovative battery storage solution: **SOLARWATT Battery vision**.

## The BMW Group and Solarwatt: The perfect technological partnership.

With the BMW Group, Solarwatt have the perfect partner on board. Leveraging over a century of technical innovation, the BMW Group and Solarwatt developed the Battery flex in 2020. By 2025, Solarwatt's energy manager network had grown to almost 20,000 active systems, intelligently controlling and optimising over 100,000 smart appliances.

## Designed to meet the BMW Group's rigorous quality standards.

Achieving the perfect balance between safety and performance is the hallmark of our close collaboration with the BMW Group. The SOLARWATT Battery vision offers comprehensive safety and fulfills the VDE application rule VDE-AR-E 2510-50 as well as the current and future European Battery Regulation (EU-BattVO).



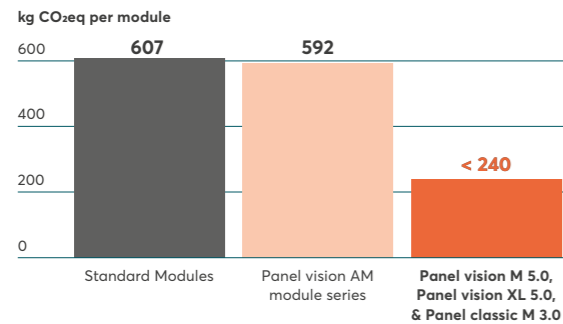
BMW Welt in Munich, Germany, with panels integrated into the roof structure



**Low CO<sub>2</sub> footprint**

SOLARWATT panels have a very low CO<sub>2</sub> footprint. This means that after less than one year and three months, the electricity generated has already saved as much CO<sub>2</sub> as was generated during the manufacturing and delivery of the module. From this point onwards, the PV system is CO<sub>2</sub>-neutral and actively contributes to climate protection.

In some European countries, there are already tendering and subsidy conditions that stipulate a maximum CO<sub>2</sub> value per module, e.g. the PPE2 standard in France. SOLARWATT panels fulfil these requirements and are also prepared for future standards and subsidies in Germany.

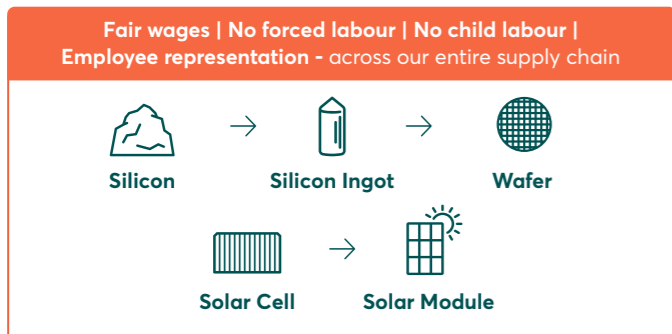


**Fair working conditions**

With our commitment to environmentally friendly products and fair working conditions, we at Solarwatt emphasise our claim to be a pioneer in sustainable photovoltaics.

We go far beyond the legal requirements and make an important contribution to a sustainable energy supply. We purchase raw materials exclusively from suppliers who are committed to the employment standards of the International Labour Organisation (a United Nations institution).

In all international production facilities, we not only guarantee the exclusion of child and forced labour, but also appropriate payment and organised representation of employee interests. Through regular inspections of working conditions and ongoing checks on product quality, we ensure that all standards are met.



**< 220** kg CO<sub>2</sub>eq  
per module

(without frame,  
with frame: <math>\leq 240</math> kg CO<sub>2</sub>eq)



**Zero-Carbon Factories**

Our modules are produced in zero-carbon factories. These are production facilities that do not produce any CO<sub>2</sub> emissions. This is achieved through various measures, such as:

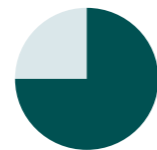
- Use of renewable energies to power our factories, such as solar and wind power
- Energy-efficient production processes
- Offsetting unavoidable emissions, such as through reforestation projects

Confirmed by TÜV SÜD



**Made from recyclables**

Recycling is important to us. Even today, a large proportion of raw materials can be replaced with high-quality recycled materials. Many materials get a second life in our modules:



**75%**  
recycled **aluminium** in our module frames



**45%**  
recycled **silicon** for the production of our solar cells



**20%**  
recycled **glass** used in our PV modules

**Disposal & Recycling secured**

At the end of their long service life, photovoltaic modules should be disposed of responsibly, ensuring that their raw materials are effectively recycled and reintroduced into the production cycle.

In accordance with the EU WEEE Directive, Solarwatt already deposits a sum of money for each module sold in order to guarantee future disposal and recycling. Homeowners or installation companies can dispose of defective modules free of charge at all electronic waste collection centres.

**Original premium-quality glass-glass panels**



**Fire safety**

Solarwatt is continually testing various types of glass-glass solar panels to the toughest standard. These solar panels have easily passed the tests and have been awarded the highest fire category, **class A**.



**Higher performance classes with new TOPCon technology**

**TOPCon cells** offer higher efficiency and have a lower annual degradation rate, are lower temperature coefficient (better power performance in hot weather) and have a higher bifacial performance resulting in more energy yield. Our TOPCon glass-glass series are more durable and with a flexibility that makes them more resistant to microcracks with all component parts rigorously tested for quality.



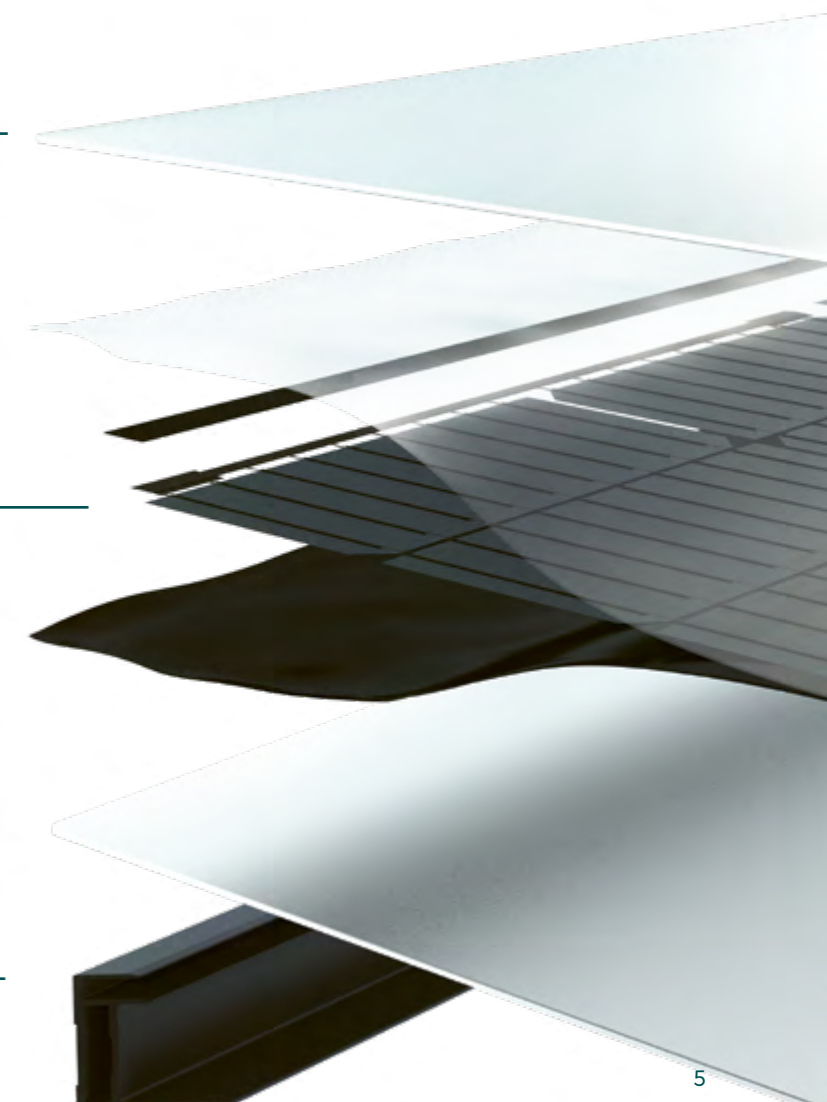
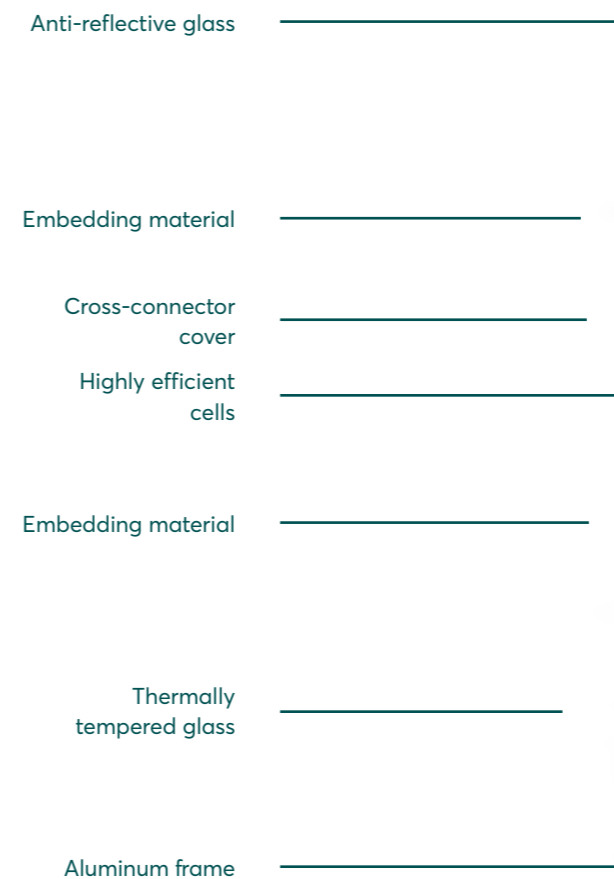
**Our warranty services include**

- Repair by Solarwatt on site at the customer's premises
- Repair at Solarwatt or a third party
- Delivery of additional panels
- Exchange for replacement panels



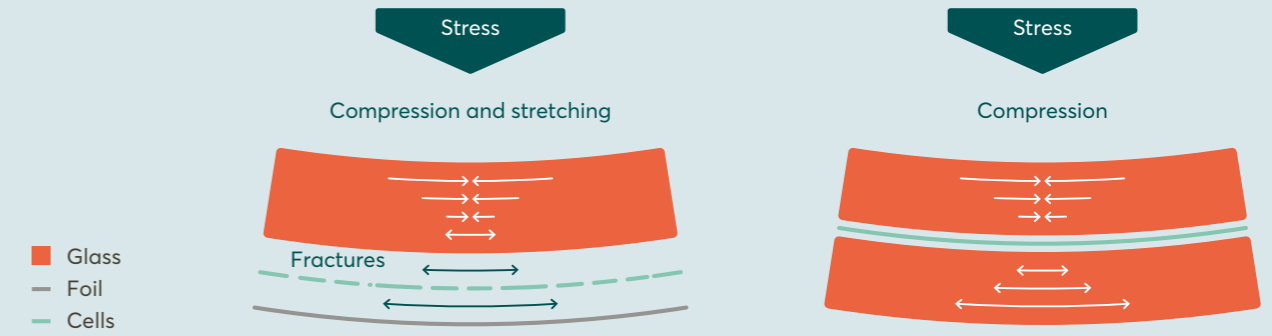
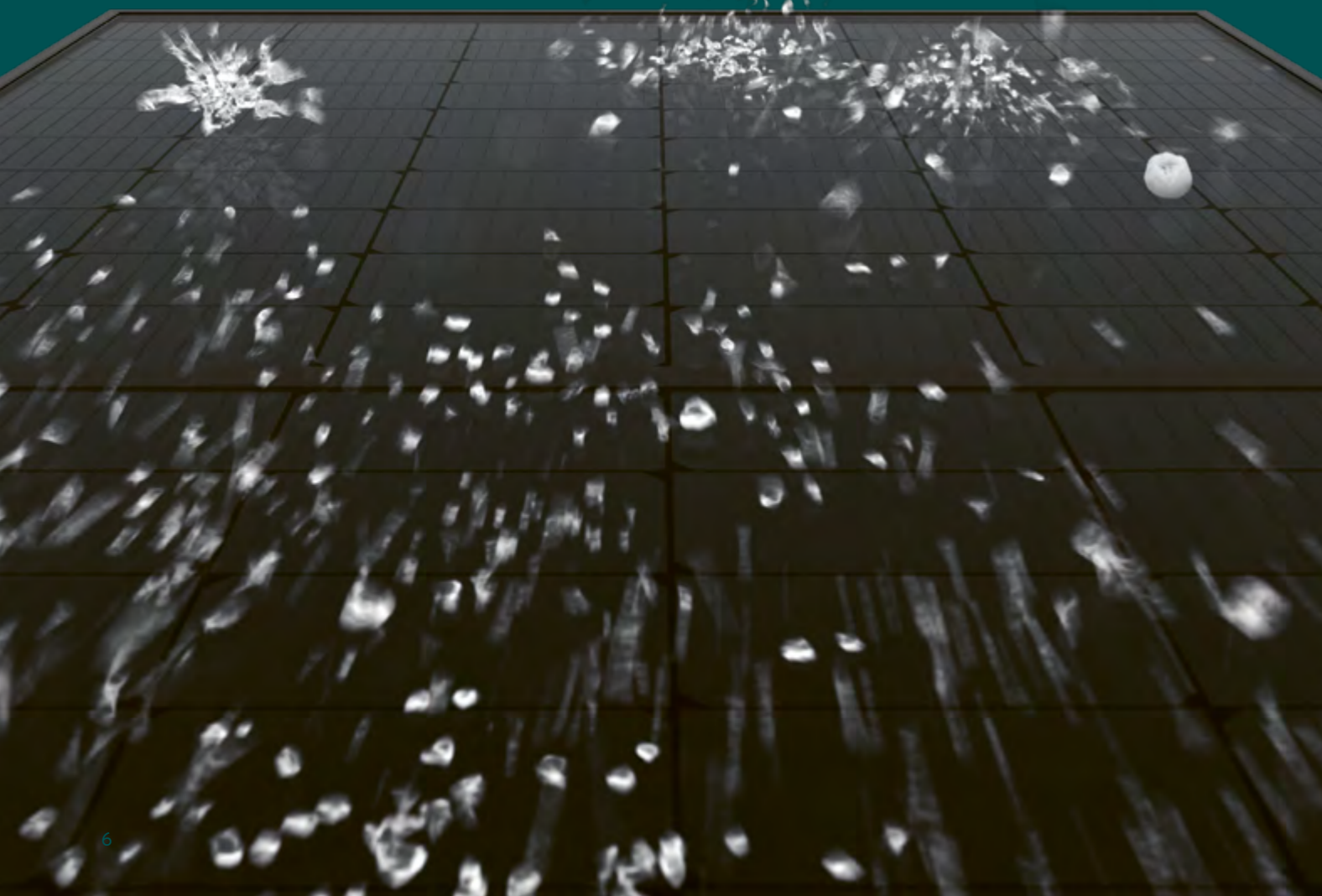
**Guarantee conditions**

- The power of the solar panels decreases to a **maximum of 97%** in year 1
- From the 2nd to the 29th year, the power of the panels decreases by **no more than 0.345%** per year
- In the 30th year, the **guaranteed power is at least equal to 90%** of year 1 on all current product generation



# Panels that top every test. Even the test of time.

Powerful TOPCon cells are sensitive by nature – so, in our state-of-the-art manufacturing processes, we enclose them on both sides with thermally tempered glass. This makes our glass-glass modules significantly more robust than traditional glass-foil modules. With this protection, mechanical stresses caused by hail, harsh weather or snow won't lead to microcracks and the cells are generally less susceptible to damage. Steam and other highly aggressive agents such as salt spray or ammonia are also unable to penetrate the glass. And because glass doesn't really age like other materials, even time itself would struggle to take its toll.

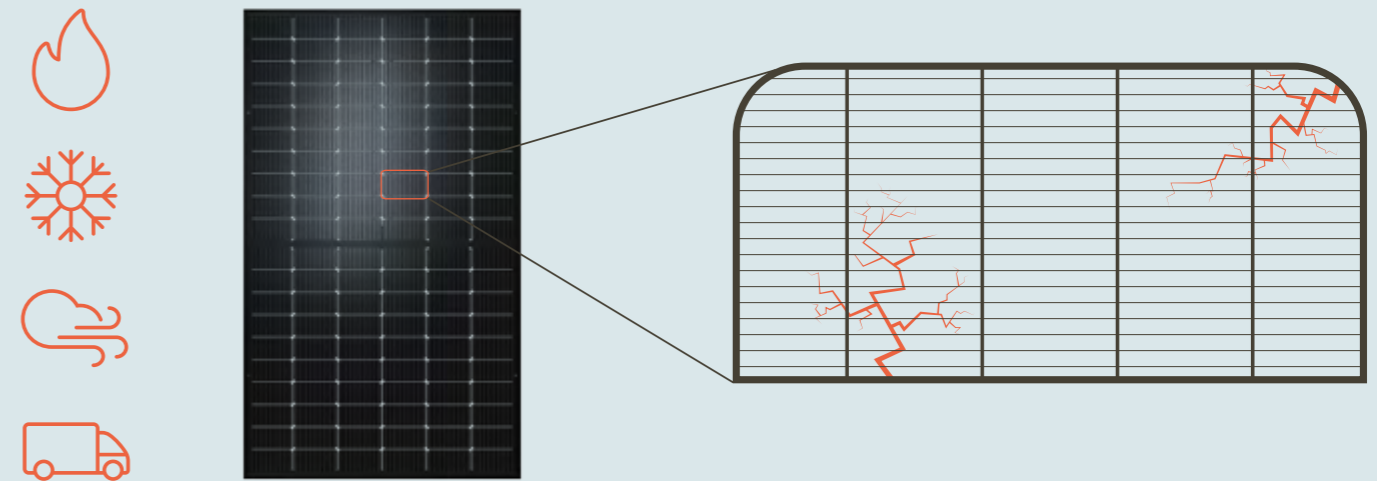


## Glass-foil modules

When glass-foil modules are subjected to mechanical stress, such as wind or snow, cells can crack. These cracks permanently reduce the module's energy yield.

## Glass-glass modules

In glass-glass modules, the sensitive cells are situated within the neutral fiber of the composite, where they are only bent and never stretched or compressed. This prevents any cracking of the cells.



## Microcracks

Microcracks are tiny hairline cracks in a solar cell that are invisible to the naked eye. Even though you cannot see them and adverse effects are unlikely to be produced immediately, microcracks are broken solar cells held in place by the solar module laminate.

After a time, the solar modules will be affected by various pressures such as bending and flexing, caused by external pressure and fluctuating temperatures. During the day, solar panels expand because of higher temperatures. Small imperfections in the silicon cell can lead to larger microcracks. The length of microcracks can vary; some span the whole cell, whereas others appear in only small sections.

Microcracks not only lead to significant loss of yield in a solar panel, the performance of panels without microcracks in the same string is also likely to be affected, which consequently affects the lifetime of a solar PV system.

Solar cells are very fragile and unless they're properly protected, microcracks can develop quickly. The chance of microcracks occurring in a glass-glass panel is nil, provided it leaves the factory without them. A manufacturer can verify this with an electroluminescence (EL) test, similar to an X-ray.

Solarwatt's high quality standards ensure that any solar panel with microcracks is rejected.

With glass-foil panels, solar cells are much less protected. During transport, installation or, for example, a major hailstorm, microcracks can occur faster. Their effects, however, are not noticed until much later, due to reduced performance following continued deterioration. Microcracks are always outside guarantees provided by manufacturers.

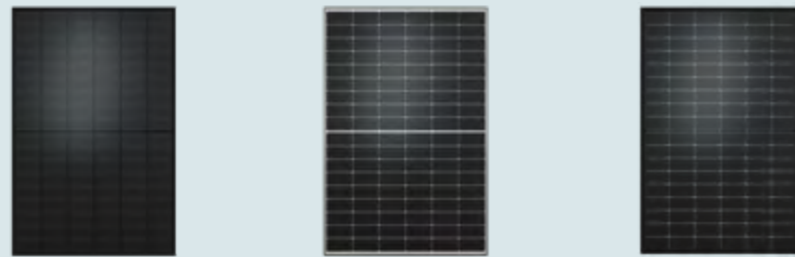
# Collect solar energy

Get to know our modules and find exactly the right solution for your requirements.

- ✓ Designed in Germany
- ✓ 30 year glass-glass product and performance warranty (15 year product on XL panels)
- ✓ 25 year glass-foil performance warranty (20 year product)

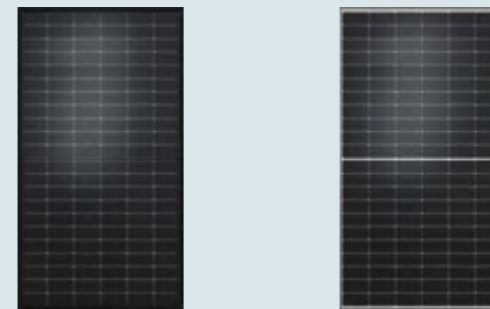


## Panels that pass every test. Even the test of time. Framed glass-glass



### TOPCon Panel vision M

	Panel vision M 5.0 black	Panel vision M 5.0 pure	Panel vision M 5.0 style
<b>Power</b>	Up to 455 Wp	Up to 455 Wp	Up to 460 Wp
<b>Technology</b>	Glass-glass	Glass-glass	Glass-glass
<b>Properties</b>	Bifacial Low CO <sub>2</sub> footprint High Recycling Rate Black frame Black between cells	Bifacial Low CO <sub>2</sub> footprint High Recycling Rate Silver frame White between cells	Bifacial Low CO <sub>2</sub> footprint High Recycling Rate Black frame Transparent between cells
<b>Cell Type</b>	Cell format M10 182mm TOPCon technology half-cut + multiwire	Cell format M10 182mm TOPCon technology half-cut + multiwire	Cell format M10 182mm TOPCon technology half-cut + multiwire
<b>Dimensions (mm)</b>	1,762 x 1,134 x 35	1,762 x 1,134 x 35	1,762 x 1,134 x 35
<b>Weight (kg)</b>	24.8	24.8	24.8

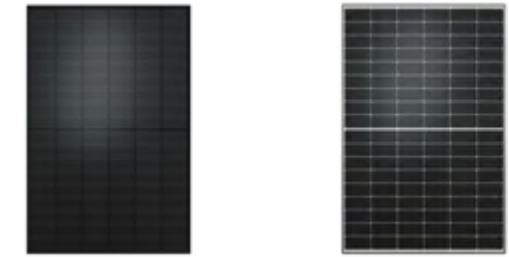


### TOPCon Panel vision XL

	Panel vision XL 5.0 style	Panel vision XL 5.0 pure
<b>Power</b>	Up to 615 Wp	Up to 615 Wp
<b>Technology</b>	Glass-glass	Glass-glass
<b>Properties</b>	Larger module surface Bifacial Low CO <sub>2</sub> footprint High Recycling Rate Black frame Transparent between cells	Larger module surface Bifacial Low CO <sub>2</sub> footprint High Recycling Rate Silver frame White between cells
<b>Cell Type</b>	Cell format M10 182mm TOPCon technology half-cut + multiwire	Cell format M10 182mm TOPCon technology half-cut + multiwire
<b>Dimensions (mm)</b>	2,382 x 1,134 x 30	2,382 x 1,134 x 30
<b>Weight (kg)</b>	33.4	33.4



## The next generation of glass-foil panels. Framed glass-foil



### TOPCon Panel classic M

	Panel classic M 3.0 black	Panel classic M 3.0 pure
<b>Power</b>	Up to 455 Wp	Up to 455 Wp
<b>Technology</b>	Glass-foil laminate	Glass-foil laminate
<b>Properties</b>	Low CO <sub>2</sub> footprint High Recycling Rate Black frame Black between cells	Low CO <sub>2</sub> footprint High Recycling Rate Silver frame White between cells
<b>Cell Type</b>	Cell format M10 182mm TOPCon technology half-cut + multiwire	Cell format M10 182mm TOPCon technology half-cut + multiwire
<b>Dimensions (mm)</b>	1,762 x 1,134 x 35	1,762 x 1,134 x 35
<b>Weight (kg)</b>	20.9	20.9

# Convert solar energy

With the available single-phase (3 to 6 kW) and three-phase (5 to 15 kW) models, SOLARWATT Inverter vision covers a wide range of power requirements.



## Your partner for every phase. High-performance inverters

- ✓ Versatile & efficient, with configurations from 3 to 15 kW
- ✓ One supplier, one system
- ✓ 10 year warranty



### SOLARWATT Inverter vision

	Inverter vision one 1.0	Inverter vision three 1.0
<b>Configurations</b>	3.0, 3.7, 4.6, 5.0, & 6.0 kW	5.0, 6.0, 8.0, 9.9, 10.0, 12.0, & 15.0 kW
<b>Phases</b>	Single-phase	Three-phase
<b>Compatibility</b>	SOLARWATT Battery vision, Manager flex Max of 3 inverters running in parallel	SOLARWATT Battery vision, Manager flex Max of 10 inverters running in parallel
<b>DC</b>	6-12 kW max input power (PV), 2 MPPT 16 A / 16 A max input current 360 V rated input voltage, 75 V startup	11-22.5 kW max input power (PV), 3 MPPT 20 A / 20 A / 20 A max input current 620 V rated input voltage, 140 V startup
<b>AC</b>	6-12 kVA max input power 27.3-54.5 A max input current 3-6 kW max output	6-16 kVA max input power 9.1-24.2 A max input current (per phase) 5-15 kW max output
<b>Backup</b>	3-6 kVA max apparent power 13.6-27.3 A max current < 20ms switch time	5-15 kVA max apparent power 7.2-21.7 A max current (per phase) < 20ms switch time
<b>Efficiency</b>	97.0%~ max efficiency	98.2%~ max efficiency
<b>Dimensions (mm)</b>	472 x 426.5 x 188	630 x 456 x 228
<b>Weight (kg)</b>	22.0	33.5

# Store solar energy



SOLARWATT Battery vision combines state-of-the-art storage technology with outstanding design. Make optimal use of your self-generated solar power and reduce energy costs.



## Battery storage from Solarwatt. In cooperation with the BMW Group.

- ✓ Designed in cooperation with the BMW Group Designworks, Los Angeles, USA.
- ✓ Modular design, configurable up to a capacity of 18.2 kWh
- ✓ 10 year product warranty  
12 year performance warranty<sup>1</sup>

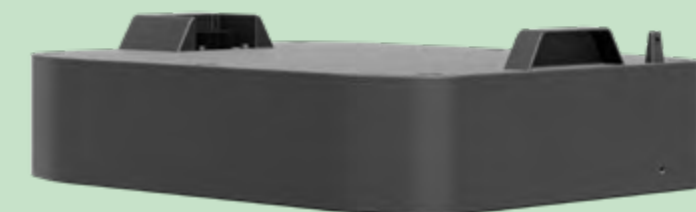


### SOLARWATT Battery vision

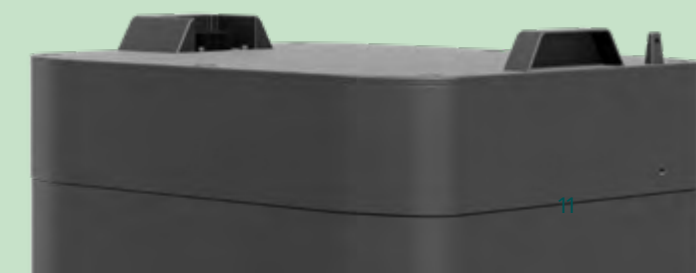
<b>Battery vision top pack 1.0</b> <b>Battery vision pack 1.0</b>	
<b>Possible tower configurations</b>	1 top pack + 1-6 packs 2.6 kWh per pack (5.2-18.2 kWh per tower)
<b>Charge and discharge rate</b>	0.9 kW per kWh (Inverter vision one) 1.1 kW per kWh (Inverter vision three)
<b>Enclosure</b>	Robust industrial design metal enclosure Passive cooling system (silent operation)
<b>Cell technology</b>	LiFePO <sub>4</sub>
<b>Installation</b>	Floor stacking on included feet Installable indoors or outdoors (IP65)
<b>Dimensions (mm)</b>	570 x 182 x 436 (top pack) 570 x 120 x 436 (pack)
<b>Weight (kg)</b>	36.7 (top pack) 33.5 (pack)



Battery vision top pack.



Battery vision pack.



<sup>1</sup> 12 year performance warranty in UK, 10 year performance warranty in ROI.

# Optimise & control solar energy use

With the SOLARWATT Manager, you can connect as many appliances as you need to carefully monitor & optimize energy usage at every level of your household.

- ✓ Monitor your system on the go (Home app), or on your PC/tablet (Manager portal)
- ✓ Data stored in European servers, in compliance with UK GDPR and the Data Protection Act
- ✓ Remote maintenance is possible by installer partners via the Installer Centre



## Control power, heat, & mobility intelligently. SOLARWATT Manager: The heart & brain of your entire system.

The SOLARWATT Manager optimises your entire energy system by intelligently linking power, heat and mobility. This allows you to efficiently control all consumer appliances in your household and keep an eye on energy flows and devices at all times.

- ✓ Decide whether you want to charge your electric car first or prioritise the battery storage system when there is a power surplus.
- ✓ Adjust the flow temperature of your heat pump.
- ✓ Integrate smart household appliances seamlessly into your energy system.

This flexibility allows you to use energy according to your individual needs. By increasing your own consumption of clean, self-generated solar power, you simultaneously save money and reduce your carbon footprint.



### Local optimisation: Maximise your self-consumption.

The SOLARWATT Home app and SOLARWATT Manager portal let you optimise based on a usage schedule, weather trends, and PV output. This lets you make use of as much clean, cheap solar energy as possible.

- ✓ Prioritise & curtail consumers depending on consumption
- ✓ Connect >100 compatible devices
- ✓ Schedule, switch & monitor



### Grid optimisation: Leverage dynamic electricity tariffs.

Unlock smart savings with optimisation at the grid level. Monitor energy prices and smartly adjust consumption based on price patterns. Sell clean energy back to the grid when the price is right.

- ✓ View market & zone-based pricing
- ✓ Adjust consumption based on cost
- ✓ Plan ahead with price forecasts

# Charge your car using solar energy

Charge your electric car efficiently and sustainably with green solar power. Seamlessly integrated into your energy management system for tomorrow's needs.



## Two chargers. Many advantages. Feel the sun's energy with every journey.

- ✓ Optimise your EV charging based on solar PV production to make big savings
- ✓ Schedule and load-balance charging to always charge your car on solar energy.
- ✓ Seamlessly integrates with the SOLARWATT Manager



SOLARWATT EV Chargers

Charger vision

Available 2025



Charger max

Available 2025

### Control, optimise, and schedule how and when you charge your car.

In contrast to many competitors who only focus on the charger, Solarwatt energy management takes all components of your system into account.

With the SOLARWATT Home app, you can view the charging power of your electric car, the charge level of your storage system and the current photovoltaic generation at any time. The system automatically optimises the use of your solar power to maximise self-consumption and self-sufficiency.

This allows you to monitor your energy production, efficiently control energy use and adjust the charging mode as required –for a perfectly coordinated energy ecosystem that intelligently and efficiently manages all your energy needs.

### A seamlessly integrated EV Charging solution for your home.

Optimise your electric mobility with the seamlessly integrated SOLARWATT Charger. This modern charging station charges your electric car at home quickly and efficiently thanks to advanced technology and intelligent charging management.

The SOLARWATT Manager helps you save up to 10% electricity by scheduling the charging process or using surplus solar power.

Thanks to the Autodiscovery/ Rediscovery Service, the charger automatically logs into the network and is found by the SOLARWATT Manager. This makes it even easier to integrate and manage your charging infrastructure.

# Heat your home using solar energy

Households use up to 80% of their energy consumption to generate heat. Our smart combination of heat pumps and photovoltaics makes it possible to obtain a large proportion of this energy free of charge from the environment.



## Reliable heat, even in extreme conditions. Our partnership with Stiebel Eltron.

The intelligent integration between the SOLARWATT Manager and Stiebel Eltron products guarantees the highest possible self-utilisation of solar power to reduce the operating costs of the heat pump.

This flexibility allows you to use the energy according to your individual needs. By increasing your own consumption of clean, self-generated solar power, you simultaneously save money and reduce your carbon footprint.

### What makes our partnership special:

- ✓ Direct communication between SOLARWATT and Stiebel Eltron appliances
- ✓ The thermal energy management system uses photovoltaic and weather forecasts to create customised heat pump schedules for your building. Wherever possible, heat is always generated and stored when solar power is available.
- ✓ In addition, the heat pump can directly adapt its output to the available photovoltaic generation, for example even when there is little excess solar power, across a broad spectrum.



in partnership with **STIEBEL ELTRON**



Go solar with Solarwatt.



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Errors expected.  
Subject to change.



# Your solar system from a single source.

