



MEYER BURGER



MegaSlate®

Solar roof system

Build for the future with the MegaSlate® solar roof system

The MegaSlate® solar roof system harvests energy from sunlight and transforms your individual roof into a plus energy roof in a class of its own. From photovoltaics to solar thermal energy to skylights, the MegaSlate® solar roof system offers flexibility and integration at the highest technological and aesthetic level. By opting in favour of the MegaSlate® solar roof system, you are embracing the future and making your personal contribution to the energy transition

Sustainable and robust to satisfy stringent demands

The MegaSlate® solar roof system is an all-over or partial roof covering, employed successfully as a replacement for conventional roof coverings for more than 12 years. The system has passed TÜV testing regarding elevated wind, snow and ice loads with flying colours and provides optimum protection against the elements. The MegaSlate® solar roof system is the only system to achieve Hail Resistance Class HW 4 (40 mm diameter hailstones) and is listed in the Swiss Hail Protection Register. The frameless solar modules are easily and quickly installed and may be walked on at designated points.



Prospects for building owners and architects

In addition to its certified impermeability to rain, the MegaSlate® solar roof system is one of the first building-integrated solar systems to meet the requirements of the European fire protection standard. The solar roof covering materials enable building owners, architects and planners to realise the plus energy roof as a functional and aesthetically appealing roof-integrated solution.

Photovoltaics combinend with solar heat

When using the MegaSlate® H+S thermal panel, the energy roof is complemented with solar collectors for hot water production or to support the heating system. In addition to their primary function, the thermal panels generate added value for the solar roof system in the form of perfectly matching visual integration. The modular design ensures a simple, speedy and therefore cost-effective installation. Filled with inert gas, the thermal panels feature the highest possible efficiency and may be combined with heat-pump systems. This provides the optimum solution for the implementation of Minergie and plus energy concepts.

Wenger skylight

The Wenger skylight was developed especially for the MegaSlate® solar roof system. This attractive, high-quality skylight blends in perfectly with the style of the MegaSlate® solar roof system thanks to its elegant all-glass appearance. The window meets the specified Minergie insulation standards. MegaSlate® skylights are available in three sizes.





Quick and easy installation

The frameless MegaSlate® solar modules are overlapped in the same way as conventional roof tiles. They are supplied with the subframe consisting of water drainage channel and retaining hooks. The installation is carried out by accredited roofers or skilled tradesmen.



The solar modules are inserted in the retaining hooks in the prepared subframe and electrically connected with solar connectors and sockets. The elements are arranged so that they are vertically overlapping, with the water drainage channels having a dual function in that they support the MegaSlate® solar



modules and allow the rain to run off. Allowance can be made for constructional tolerances during the installation. Individual solar modules may be removed at any time. The MegaSlate® solar roof system can be fitted on all common roofing systems.

The new standard for roofs

Where the MegaSlate® solar roof system is fitted to roofs with pitches of 20° or more, an additional protective sub-roof is employed. Even lower pitches are possible if a sub-roof for heavy-duty applications with sealed seams is used. The solar modules are available in two standard sizes. The system includes custom solar modules that allow a made-to-measure roof covering to match the individual roof shape.

Maximum return

The system design ensures maximum possible energy yields thanks to rear ventilation of each individual module. This optimum rear ventilation prevents the accumulation of moisture in the sub-roof. The frameless solar modules reduce the deposition of dust and dirt, thereby producing up to 10% higher energy output than framed solar modules over the system lifespan.

Meyer Burger AG sets new benchmarks in terms of technology and aesthetics for building-integrated photovoltaic systems.



Your Swiss expert for building-integrated photovoltaics

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Your installation partner:



INTEGRATED SOLAR ROOFING SOLUTIONS

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ISO 9001
ISO 14001
OHSAS 18001
BUREAU VERITAS
Certification
N° CH5608532





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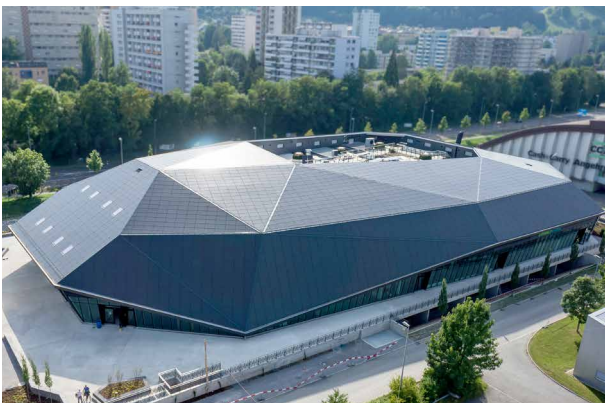
Maximum aesthetics with highest performance

Solar electricity, solar thermal energy and skylights in a fully integrated system

- High-efficiency Meyer Burger cell technology
- 17.3 % module efficiency
- Extremely high load carrying capacity due to 5 mm tempered solar glass
- Sole manufacturer of solar modules with a certified hail resistance class HW 4 (40 mm diameter hailstones)
- Avis Technique and TÜV Rheinland certified Swiss quality product from Thun
- Easy and quick installation
- Accommodation of constructional tolerances
- Made to measure solar modules for complete roof coverage
- Only in-roof system with professional roof mounting in accordance with SIA (Swiss Society of Engineers and Architects) standards - preventing premature roof deterioration as a result of moisture accumulation
- Higher energy yield due to individual rear ventilation and optimum module self-cleaning



Active design with photovoltaics



The MegaSlate® solar roof system is a trendsetting, architecturally appealing product, especially suited to new buildings and roof refurbishments. This system offers all the benefits of a conventional roof and is a perfectly fitting replacement for conventional roof covering. The MegaSlate® solar roof system is certified by TÜV Rheinland and has been tested in respect of wind and snow loads, impermeability to rain, hail and fire safety.

Each year, numerous building projects equipped with the trendsetting, integrated solar systems from Meyer Burger AG are accoladed with the Swiss Solar Prize.

Specifications

Properties	185	135
Dimensions	1300 x 875 x 6.5 mm	984 x 875 x 6.5 mm
Visible area	1300 x 825 x 6.5 mm	984 x 825 x 6.5 mm
Glass thickness	5 mm	
Glass properties	Tempered solar safety glass ESG	

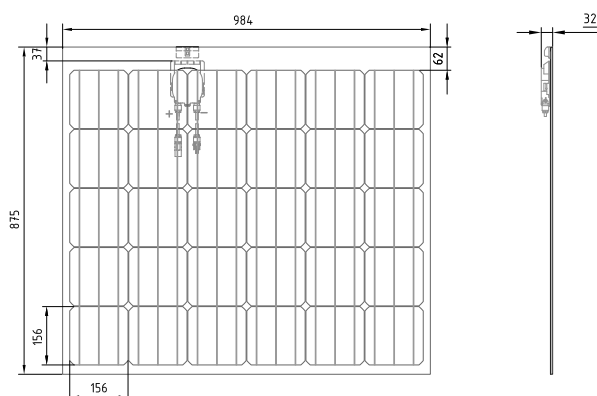
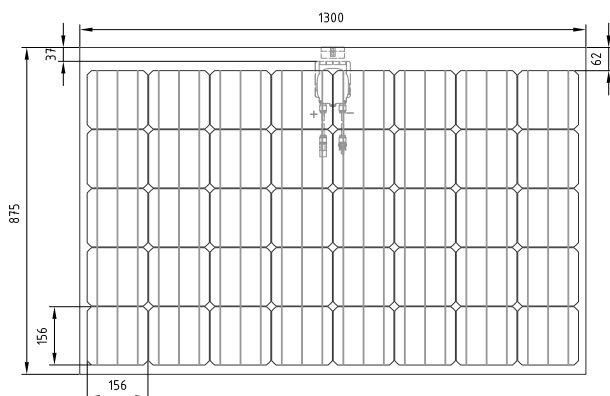
Mechanical specifications	185	135
Backsheet	Highly insulating multilayer laminate / anthracite	
Laminate structure	Glass / EVA / cells / EVA / backsheet	
Weight	17 kg	13 kg
Cell type	156 x 156 mm monocrystalline MB-PERC	
Cell connection	40 cells, serial	30 cells, serial
Junction box	Solarlok 3-rail with 2 bypass diodes	
Connection cables	Solarlok 4 mm ² , length 1 m each	
Connectors	Solarlok PV4	
Certified pressure load	5400 N/m ²	
Certified pressure load MS Alpin	8000 N/m ²	
Certified suction load	2400 N/m ²	
Hail resistance class	HW 4 (withstands 40 mm diameter hailstones)	

Electrical specifications	185	135
Nominal output	185 Wp	135 Wp
Voltage U_{mpp}	21.8 V	15.9 V
Current I_{mpp}	8.5 A	8.5 A
Open circuit voltage U_{oc}	26.3 V	19.6 V
Short circuit current I_{sc}	9.0 A	9.0 A
Maximum system voltage	1000 V	
Reverse current overload	18 A	
Tolerance nominal output	±3 %	

Electrical performance characteristics at STC (1000 W/m², 25°C, AM 1.5). Measurement protocols are available on request.

Temperature coefficients	185	135
$\alpha (I_{sc})$	+0.046 %/K	
$\beta (U_{oc})$	-0.306 %/K	
$\gamma (P_{mpp})$	-0.391 %/K	

System components	
Wenger skylights	Wenger Fenster AG
Solar thermal panels	H+S Solar GmbH
Snow guard system	Glaromat AG



Certifications and guarantee

■ Avis Technique	21/13-32
■ TÜV Rheinland certificate	ID: 0000038128
■ Quality testing, static load-bearing capacity	IEC 61215
■ Operating safety	IEC 61730
■ Fire safety	DIN-EN 13501-5
■ Impermeability to rain	CEN/TR 15601
■ Product guarantee	10 years
■ Performance guarantee	10 years at 90% of the minimum output 25 years at 80% of the minimum output



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Further information on our Swiss quality products can be found on the website. We are also happy to provide advice in person.