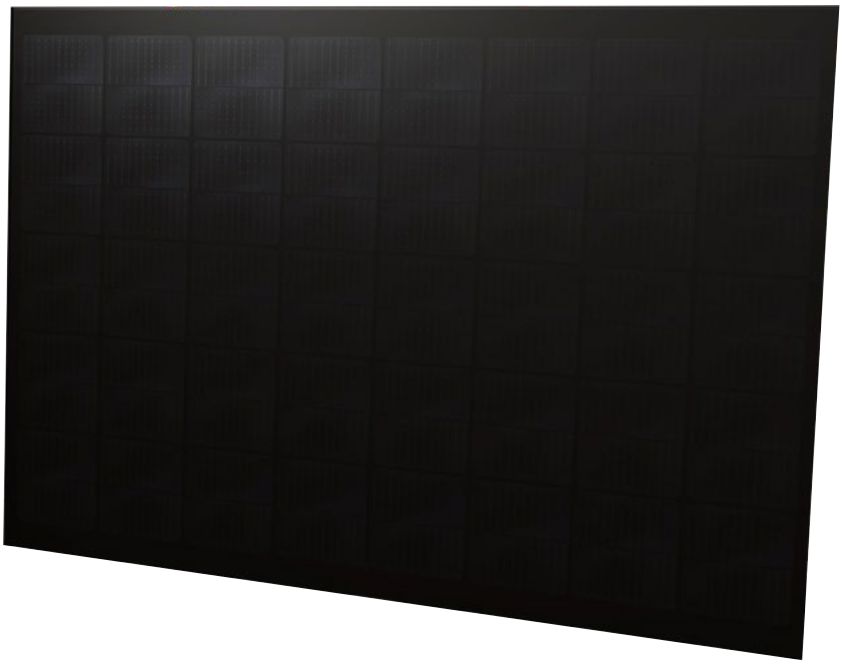
3S solar facade

Versatile solar module for facades

- Building integrated photovoltaics (BIPV)
- Hail resistance class 4
- Laminated safety glass
- Frameless design for self-cleaning
- Low glare options & variety of colours available
- Fire class B
- Swiss made
- EPD certified



196 Wp/m²

Low-carbon module

122 kg CO_2 eq/m²

Zulassungs-Nr. Z-703-299

40 year weather resistance guarantee

100% produced with CO_2-neutral energy

80% performance guarantee over 25 years

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TeraSlate® Black

The TeraSlate solar module for facade combines outstanding aesthetics with technical excellence. Thanks to four combinable standard sizes, the facade area can be optimally utilised and designed to meet sophisticated architectural requirements. The frameless glass-glass module impresses with its high level of safety, durability and improved properties in terms of fire protection and residual load-bearing capacity. Its scaled design also ensures a self-cleaning effect. Optionally, the TeraSlate solar module can also be mounted flush with the surface with a centred cell matrix and combined with various substructures. Developed and produced in Switzerland with carbon-neutral electricity, the TeraSlate module meets the highest standards of quality and sustainability.

Electrical specifications	L	Q	M	S
Nominal power (Wp)	225	165	150	110
Voltage Umpp (V)	27.8	20.4	18.5	13.6
Current Impp (A)	8.1			
Open-circuit voltage Uoc (V)	33.1	24.8	22.2	16.6
Short-circuit current Isc (A)	8.5			
Module efficiency	19.6%	18.9%	19.4%	18.8%
Maximum system voltage (VDC)	1000			
Maximum reverse fuse rating (A)	15			
Safety class	II			
Tolerance of power, current & voltage	± 3%			
Temperature coefficient Pmax (%/K)	-0.319			
Temperature coefficient Uoc (%/K)	-0.244			
Temperature coefficient Isc (%/K)	+0.039			
Number of bypass diodes	3	3	2	2

Electrical performance data at STC (1000 W/m², 25 °C, AM 1.5)

Mechanical specifications	L	Q	M	S
Length (mm)	935	720	935	720
Width (mm)	1300	1300	875	875
Thickness (mm)	9			
Weight (kg)	26.7	20.6	18	13.8
Design	Glass-Glass-Module			
Glass	4 mm TVG + 4 mm TVG solar glass			
Quantity of half-cells	48	36	32	24
Cell type	G12			
Junction box	3Qxy series (QC solar)			
Junction box cable	Solar cable H1Z2Z2-K, 4 mm², length 1.4 m (QC solar)			
Electrical connector	Original MC4 (Stäubli Electrical Connectors AG)			
Hail resistance class VKF	HW 4 hailstones Ø 40 mm at 27.5 m/s			
Maximum load (Tested compressive load and suction load according to IEC 61215)	5400 N/m² (compressive load) 2400 N/m² with 3 hooks (suction load) 3600 N/m² with 5 hooks (suction load)			
Maximum load (Tested compressive load and suction load according to SIA 2057)	1800 N/m² (compressive load) 1000 N/m² with 3 hooks (suction load)) 1300 N/m² with 5 hooks (suction load)			

Performance guarantee over 25 years

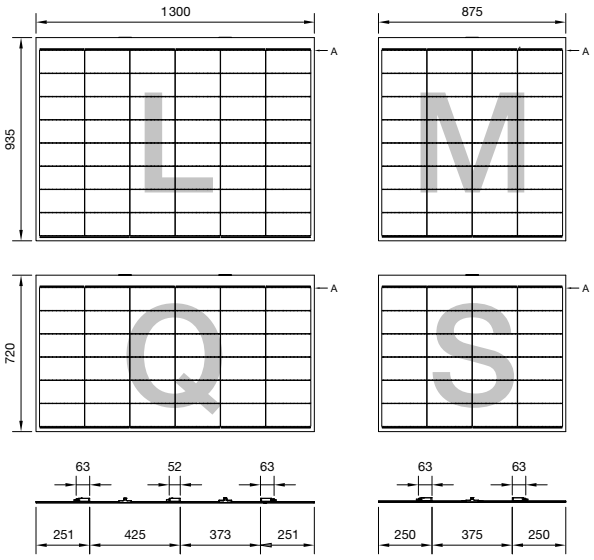
Product warranty	10 years
Performance guarantee	1 year on the 97% of the minimum performance 25 years on the 80% of the minimum performance
Weather resistance guarantee	40 years

Certifications & standards

Applied standards	IEC 61730:2016; IEC 61215:2021; SIA 2057
Fire class	DIN EN 13501-1: B-s1, d0
Fire class VKF	RF 2

Packaging information

Packaging	Reusable wooden pallets (empty weight 49 kg)
Number of modules	22 modules per pallet
Pallet size (L x W x H)	140 x 116 x 110 cm
Max. shipping weight	640 kg / pallet



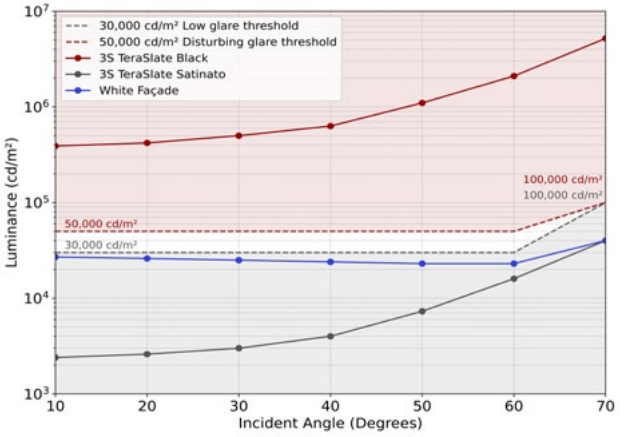
Low-glare solar module

In most solar facades, the glare effect is harmless to the surrounding area. However, depending on the situation (e.g. orientation or position on a slope), increased reflection can be problematic. For such situations, 3S also offers the TeraSlate solar module in a low-glare version – an ideal solution for minimising light reflection in sensitive environments.

Electrical specifications	L	Q	M	S
Nominal power (Wp)	225	165	150	110
Voltage Umpp (V)	27.8	20.4	18.5	13.6
Current Impp (A)	8			
Open-circuit voltage Uoc (V)	33.1	24.8	22.2	16.6
Short-circuit current Isc (A)	8.5			
Module efficiency (%)	19.6%	18.9%	19.4%	18.8%
Maximum system voltage (VDC)	1000			
Maximum reverse fuse rating (A)	15			
Safety class	II			
Tolerance of power, current & voltage (%)	± 3%			
Temperature coefficient Pmax (%/K)	-0.319			
Temperature coefficient Uoc (%/K)	-0.244			
Temperature coefficient Isc (%/K)	+0.039			
Anzahl Bypass-Dioden	3	3	2	2

Electrical performance data at STC (1000 W/m², 25 °C, AM 1.5)

Luminance



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Due to the manufacturing process of the satinized glass, deviations in colour are possible depending on the viewing angle. This may mean that not all solar modules look the same. The deviations are purely optical in nature and have no influence on the performance of the module. Further information at: www.3s-solar.com

Colour selection

Coloured solar modules open up a wide range of design options: they emphasise modern architectural design and, at the same time, enable the harmonious integration of the latest solar technology into historic buildings, for example in the context of monument protection. In addition to black, 3S offers the TeraSlate solar module for facade in 8 standard low-glare colours with high efficiency. Other colour variants are also available on request.

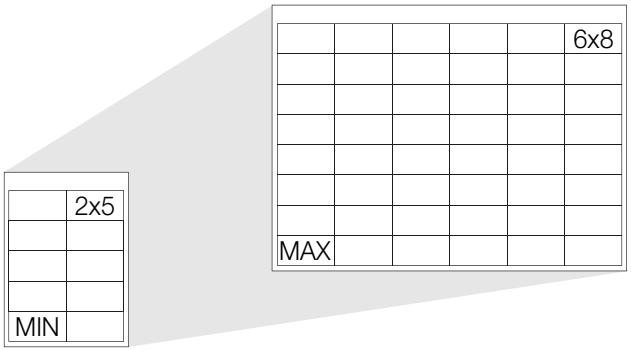
	L				Q	M	S		
	Voltage Umpp	Opencir-cuit voltage Uoc	Nominal power	Remaining power	Nominal power	Nominal power	Nominal power	Current Impp	Shortcir-cuit current Isc
Basalt Grey	27.8 V	33.1 V	210 Wp	93%	150 Wp	140 Wp	100 Wp	7.4 A	7.8 A
Silver Grey	27.8 V	33.1 V	200 Wp	89%	140 Wp	130 Wp	95 Wp	7.0 A	7.3 A
Pyrit Brass	27.8 V	33.1 V	195 Wp	86%	145 Wp	130 Wp	95 Wp	7.0 A	7.4 A
Royal Gold	27.8 V	33.1 V	195 Wp	87%	140 Wp	130 Wp	95 Wp	6.9 A	7.3 A
Sunset Orange	27.8 V	33.1 V	195 Wp	86%	145 Wp	130 Wp	95 Wp	7.0 A	7.4 A
Lime White	27.8 V	33.1 V	105 Wp	49%	80 Wp	70 Wp	55 Wp	3.9 A	4.1 A
Pine Green	27.8 V	33.1 V	200 Wp	90%	150 Wp	135 Wp	100 Wp	7.4 A	7.7 A
Rubin Red	27.8 V	33.1 V	175 Wp	79%	130 Wp	115 Wp	90 Wp	6.4 A	6.7 A

Calculated values. Tolerance nominal power ± 5%. The actual power values are determined after production. Colour deviations are possible due to the manufacturing process.

Customisable solar module

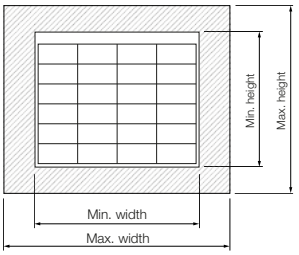
Custom-made 3S TeraSlate solar modules can be used to create uniform facade areas with a perfect appearance. If the facade cannot be covered comprehensively with the four standard module sizes, the variable, rectangular module dimensions offer architects and planners plenty of scope when designing a 3S solar facade. The addition of custom-made solar modules allows for the realization of a solar facade that meets both aesthetic and economic requirements.

Variants and examples of forms with active and inactive cells



Performance guarantee over 15 years

Product warranty	10 years
Performance guarantee	1 year on the 97% of the minimum performance 15 years on the 80% of the minimum performance
Weather resistance guarantee	40 years



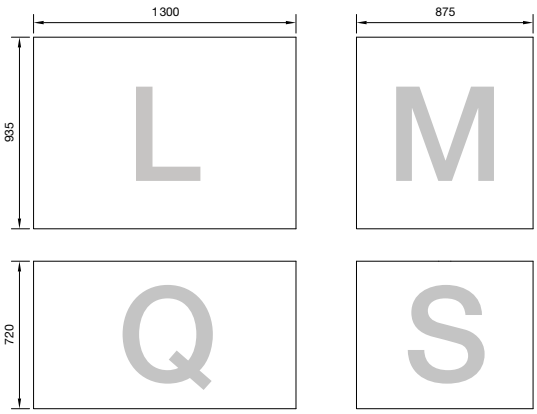
	2x5	2x6	2x7	2x8	4x3	4x4	4x5	4x6	4x7	4x8	6x2	6x3	6x4	6x5	6x6	6x7	6x8
Number of cells	10	12	14	16	12	16	20	24	28	32	12	18	24	30	36	42	48
Min. width (mm)	452				875						1298						
Max. width (mm)	874				1297						1650						
Min. height (mm)	614	720	827	934	400	507	614	720	827	934	293	400	507	614	720	827	934
Max. height (mm)	719	826	933	1190	506	613	719	826	933	1190	399	506	613	719	826	933	1190

Supplementary fibreboard

The cost-effective fibreboard complements the solar facade modules and is suitable as an economical cladding for shaded areas. Robust, weather-resistant and lightweight, the fibreboard is the perfect match for the 3S solar facade.

Mechanical specifications	L	Q	M	S	GF
Length (mm)	935	720	935	720	1860
Width (mm)	1300	1300	875	875	2550
Thickness (mm)	8				
Weight (kg)	12.7	10.4	9.6	7.9	55.2
Material	Fibre composite panel				
Colour	Black				

Dimensions (mm)



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