

Building

Integrated PV Solutions

Four kinds of module sizes and project-specific colors for an aesthetic facade cladding.



Module size	S	H	V	Q
Maximum power [Wp]	180	90	90	45
Nominal voltage U_{mmp} [V]	20.5	10.6	10.6	5.2
Maximum current [A]	6.63			
Open circuit voltage [V]	25.5	12.8	12.8	7.2
Short circuit Current [A]	7.19			
Number of cells	36	18	18	9
weight [kg]	21	11	11	6

Glass facades is a technology that has been proven technology for a comfortable and for an aesthetic building envelope. Glass facades now also produce electricity. According to conservative estimates of the Swiss Federal Office of Energy building-integrated photovoltaic (BIPV) systems (Building Integrated Photovoltaic, BIPV) will produce over 50% of the electricity demand and thus, together with roof systems, will ideally ensure a positive energy balance. Glass-glass modules from SpolarPV are frameless, based on monocrystalline cells with maximum efficiency and have a long lifetime. Excellent anti-PID values, high salt fog and ammonia resistance ensure high performance stability beyond the warranty of 25 years. The Futuristic glass surface texture enables even in weak and diffuse lighting conditions and does not reflect .

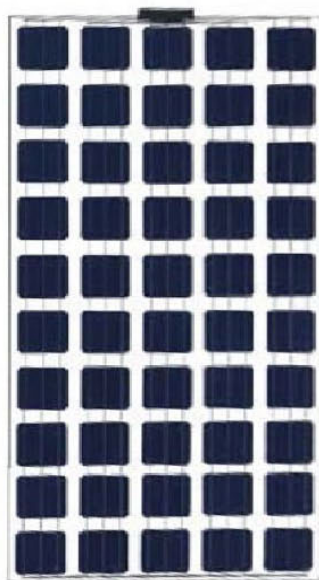
The BIPV standard modules enable inexpensive installation of an energy facade. If necessary, project-specific module sizes can be provided. The invisible fastening of the individual modules is identical to that of a curtain ventilated facade with a well-tried substructure.

Thermal module values

Nominal operating cell temp.	$45 \pm 2 \text{ }^\circ\text{C}$ (NOCT)
Temperature coefficient of V_{oc}	- 0.26 %/ $^\circ\text{C}$
Temperature coefficient of I_{sc}	+ 0.031 %/ $^\circ\text{C}$
Temperature coefficient of P_{max}	- 0.37 %/ $^\circ\text{C}$

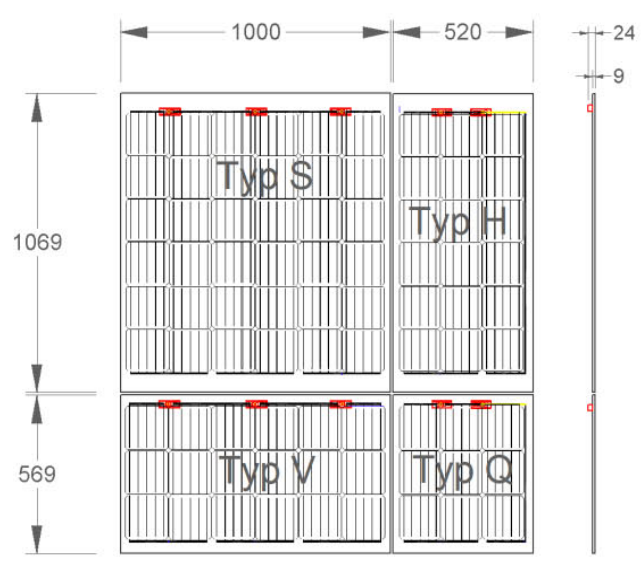
Laminates structure	Glass-glass, frameless	Application area	- 40 ... + 85 °C
Cells technology	M3,158,75mm, monocrystalline	System voltage	1500 V max.
Manufacturer cells	TW Solar	String protection	20 A max.
Frontglass TVG	SPV 4 mm, solarglass	Snow load	up to 8200 N/m ²
Encapsulation material	PVB, (UV+/IR+) with low diffusion value	Hailstorm	ø 40 mm at 23 m/s Hail protection class 4
Rear glass	TVG 4mm, edges roughened	Application classes	A (IEC/EN 61730)
Color quality	The rear side of front glass can be colored with black, full black or standard transparent.	Fire protection	The front and rear glass has high heat resistance, and also can be considered as non-combustible. DIN 4102 / EN 13501-1
Junction box	split box, MC4 Plug connections with 4mm ² solar cable, L=800 mm	Protection class	II / IP68
		Standard norms	IEC/EN 61215, 61730
		Salt spray test	IEC/EN 61701 I + II
Power sorting	Plus tolerance up to 5W/module	Ammonia testing	IEC/EN 62716

Abmessungen [mm]



12 years
Product warranty

25 years
Linear performance warranty



Design / Colors

Transparent	Black	FullBlack	ColorFlushing	Color Circle	Color Image
Roof, balcony standard solution, highest possible efficiency.	Facades Standard solution, high efficiency.	Are covered with black color. Inexpensive and alternative to Color Flushing in black.	Homogeneous color surface, on customer request according to NTS/RAL fan, customer specific colors have to be recipe process be released.	Homogeneous color surface, on customer request according to NTS/RAL fan, customer specific color have to be recipe process be released.	Various designs available, customer specific images with high resolution can be produced.

Relative efficiency level in relation to the minimal output (%). At least 97% of the minimum output during the first year. Afterwards, max. 0.5% degradation per annum. At least 92.5% of the minimum output after 12 years. At least 87.5% of the minimum output after 20 years. At least 82.5% of the minimum output after 25 years. All data within the measuring tolerances.