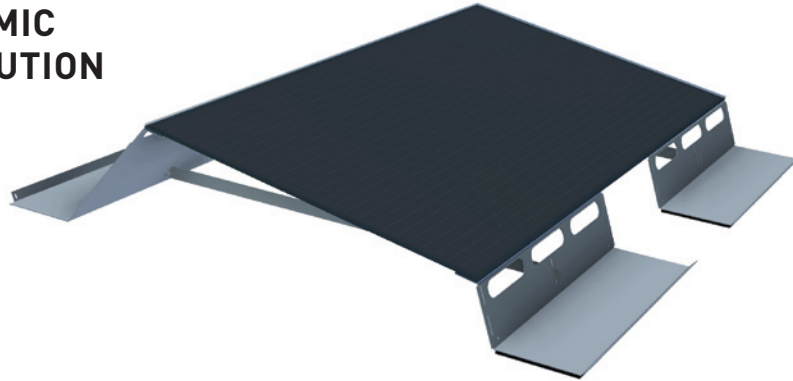


THE AERODYNAMIC FLAT-ROOF SOLUTION



Quick installation · PV flat-roof elements easily assembled with tool-free connections
 · No roof penetration required

Light · System weight < 13.9 kg/m²
 · Aerodynamically optimised system with minimum wind load
 · Can be used on a variety of roofs without ballast and fixings

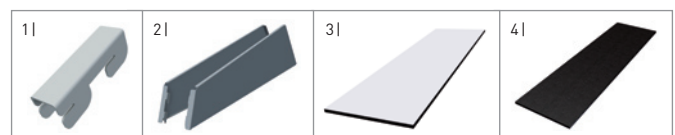
High yields · High output per surface area (49 kWp per 1000 m²)
 · Southern-orientation does not depend on building orientation, and can be achieved without additional effort
 · Frameless surface ensures optimal self-cleaning

Quality made in Germany

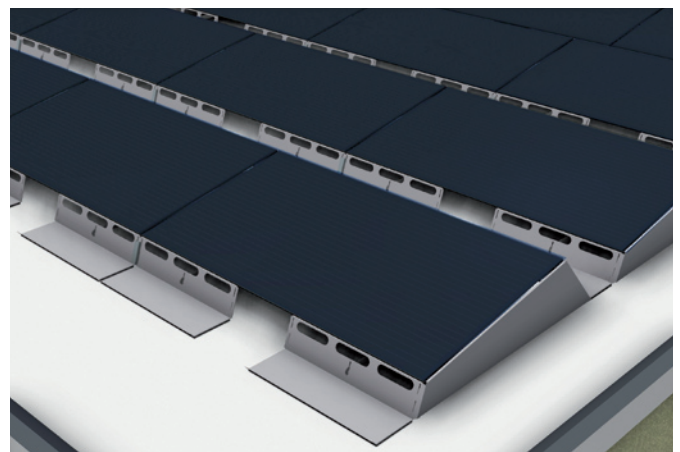
Solstructure transforms plain flat roofs into solar energy power plants, whether they are covered with membrane roofing systems, bituminous sheeting, or gravel. Where other system solutions are too heavy, Solstructure's flat-roof system provides the only viable solution. The system is minimally exposed to wind forces and so lightly constructed that it can be installed on lightweight roofs with low load-bearing capacities. Comprehensive wind tunnel tests and structural calculations provide proof of the system's capabilities and serve as the basis for Solstructure's planning tools, enabling planners and installers to precisely configure the system for each respective roof. Because the solar modules and installation system are pre-assembled, the system can be installed in just a few easy steps. The modular design considerably reduces the effort required for installation compared to conventional systems that first require substructure construction to secure the modules. Additionally, Solstructure's flat-roof system design lends an elegant appearance and architecturally enhances any building.

- The various planning tools enable complete installation in just a few minutes irrespective of location.
- The system offers solutions for roofs covered with bituminous sheeting and membrane roofing systems****.

Flat-roof components



- 1 | Connection clamp
- 2 | Connection endplates
- 3 | Protective matting (membrane roofing)
- 4 | Protective matting (bituminous roofing)



Module	SULFURCELL-	Flat-roof module 57	Flat-roof module 60	Flat-roof module 62
Electrical parameters at 1000 W/m²; 25 °C; AM1.5				
Rated power ** P _{max}		57.5 W	60.0 W	62.5 W
Tolerance (P _{max})		+8/-2%	+8/-2%	+8/-2%
Module efficiency		7.1%	7.4%	7.7%
System efficiency		4.6%	4.8%	5.0%
Rated voltage* U _{mpp}		39.7 V	40.3 V	41.5 V
Rated current* I _{mpp}		1.45 A	1.49 A	1.51 A
Open circuit voltage* U _{oc}		51.4 V	52.1 V	53.7 V
Short circuit current* I _{sc}		1.71 A	1.74 A	1.76 A
Max. system voltage		1000 V	1000 V	1000 V
Reverse current load capacity		5 A	5 A	5 A
Max. number of series modules in string (+10% tolerance; 1000 V [IEC]; -10 °C)		16	15	15
Max. no. of modules in parallel	Optional. Each individual string must be fitted with a 3 A fuse.			
Electrical parameters at 800 W/m²; NOCT; AM1.5				
Power* P _{max}		44.1 W	44.7 W	45.9 W
Voltage* U _{mpp}		36.7 V	36.7 V	36.9 V
Current* I _{mpp}		1.20 A	1.22 A	1.24 A
Open circuit voltage* U _{oc}		47.1 V	47.7 V	47.8 V
Short circuit current* I _{sc}		1.41 A	1.42 A	1.43 A
Electrical parameters at 200 W/m²; 25 °C; AM1.5				
Maximum absolute reduction in efficiency		0.8%	0.8%	0.8%

Notes

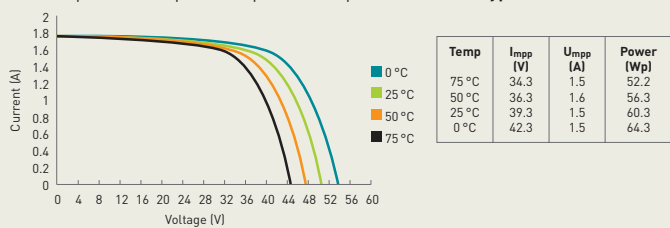
* Tolerance of the electrical parameters ± 10%
 ** Determined under standard test conditions: 25 °C, 1000 W/m², AM1.5
 The modules are not suitable for mobile or maritime applications.
 Please note that if the modules are stored in darkness for long periods of time, they will only attain their rated output after sufficient exposure to solar radiation. **Please refer to our user information facts, available at www.solteature.com. As we continually optimise our solar modules, the technical data specified in the data sheet will be updated to reflect changes.** All data applies exclusively to modules produced from the given date.
 *** Observe installation instructions.
 **** Please contact us, or the manufacturer of the membrane roofing system, to obtain approval for the system solution.



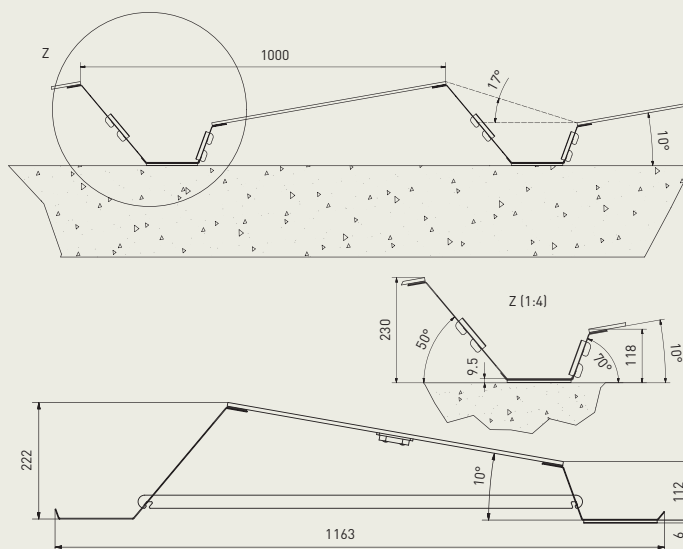
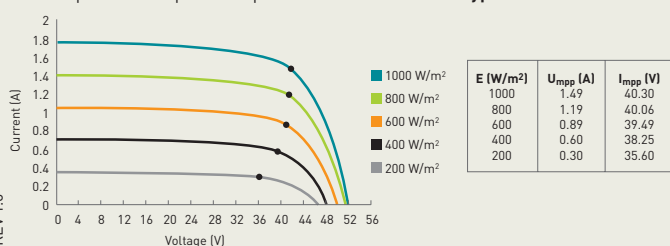
Thermal behaviour	
Working temperature (NOCT)	47 °C
Power-temperature coefficient T _K (P _{max})	-0.30%/K
Voltage-temperature coefficient T _K (U _{oc})	-0.26%/K
Current-temperature coefficient T _K (I _{sc})	+0.04%/K
Operating conditions	
Temperature range	-40 °C to +85 °C
Maximum mechanical load***	2400 Pa
Maximum winding	1.2°
Protection class (i. a. w. DIN EN 60529)	IP65
Protection class (i. a. w. DIN EN 61140)	II
Application class (i. a. w. IEC 61730)	A
Fire class (to IEC 61730)	C (Undergoing certification)

Dimensions	
Module height / Module width / Module length	222 mm / 1163 mm / 1260 mm
System / Width	1000 mm
Weight / System weight	17.5 kg / 13.9 kg/m ²
Other information	
Recommended string fuse	3 A (e.g. Socomec 60PV0003)
Included bypass diode	1 x Diotec BY550-1000
Connector cable	(+) 1000 mm; (-) 1000 mm
Connection plug	Y-SOL 4
Covering glass	5 mm tempered glass
Rear-side glass	2 mm float glass
Encapsulation	EVA

Dependence of power output and temperature **Module Type SCG60-HV-L**



Dependence of power output and irradiance **Module Type SCG60-HV-L**



SCG_FLACHDACHSYSTEM_EN_REV 1.0

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