

Sunmodule⁺

SW 160/165/170/175/180/185 mono

The Sunmodule Plus heralds an innovative new module concept from SolarWorld AG. An ascending sort (based on the corresponding flash report carried out by SolarWorld) ensures highest system efficiency and dispenses with the time-consuming task of sorting the modules on site. The fully automated production process in the SolarWorld factories ensures that the quality of the modules is consistently high, which in turn will ensure you high yields in the long term.

The module frame and the glass it surrounds are firmly attached to each other with the use of silicon, which is continuously applied to the appropriate area. This guarantees exceptional stability for the entire module. This would, for example, stop any loosening of the frame as a result of the movement of heavy snow residues. Tests carried out in accordance with IEC 61215, applying loads of up to 5.4 kN/m², confirm that the module can withstand heavy accumulations of snow and ice.

The patented, flat and compact connection socket is perfect protection against corrosion and, since it rapidly rids itself of any excess heat, ensures that its temperature is kept constant. All connections are welded guaranteeing that the electrical connections inside the socket always function reliably. In addition, high-quality, robust connection cables with factory-prepared plug connections are used. The recyclable status of the modules and a 25-year performance warranty are the finishing touches to this top-quality concept.



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Results under standard test conditions

		SW 160	SW 165	SW 170	SW 175	SW 180	SW 185
Power output at point of highest efficiency	P_{max}	160 Wp	165 Wp	170 Wp	175 Wp	180 Wp	185 Wp
Open circuit voltage	V_{oc}	43.8 V	44.0 V	44.2 V	44.4 V	44.6 V	44.8 V
Voltage at maximum power	V_{mpp}	35.0 V	35.3 V	35.5 V	35.8 V	36.0 V	36.3 V
Short circuit current	I_{sc}	5.00 A	5.10 A	5.20 A	5.30 A	5.40 A	5.50 A
Current at maximum power	I_{mpp}	4.58 A	4.68 A	4.79 A	4.89 A	5.01 A	5.10 A

Results at 800 W/m², NOCT, AM 1.5

		SW 160	SW 165	SW 170	SW 175	SW 180	SW 185
Power output at point of highest efficiency	P_{max}	114.4 Wp	118.0 Wp	121.5 Wp	125.1 Wp	128.7 Wp	132.3 Wp
Open circuit voltage	V_{oc}	39.6 V	39.8 V	40.0 V	40.2 V	40.4 V	40.5 V
Voltage at maximum power	V_{mpp}	31.4 V	31.6 V	31.9 V	32.1 V	32.3 V	32.5 V
Short circuit current	I_{sc}	4.13 A	4.22 A	4.30 A	4.38 A	4.46 A	4.55 A
Current at maximum power	I_{mpp}	3.64 A	3.73 A	3.81 A	3.90 A	3.98 A	4.06 A

Low efficiency loss under partial load at 25°C: at 200 W/m², 95% (+/- 3%) of the STC efficiency (1000 W/m²) is achieved.

Materials used

Cells per module	72
Cell type	monocrystalline silicon
Cell dimensions	125 x 125 mm ²

Parameters for optimal system integration

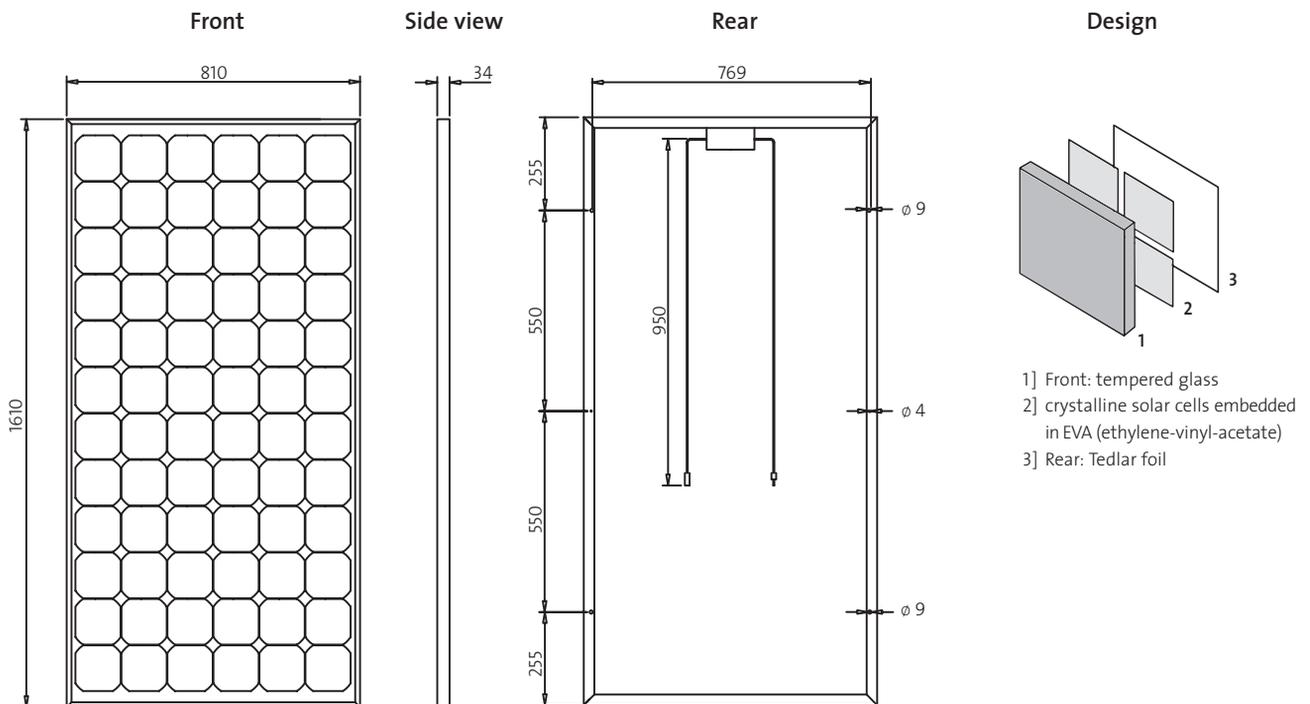
Maximum system voltage SC II	1,000 V _{DC}
Reverse current loading capability	no external voltage larger than V _{oc} should reach the module

Thermal parameters

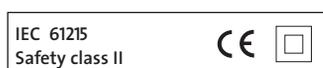
NOCT	46°C
TK I _{sc}	0.036 %/K
TK V _{oc}	-0.33 %/K

Further information

Performance tolerance	+/- 3 %
Connection socket	IP 65
Plug	MC type 4



Modules certified in accordance with:



SolarWorld AG reserves the right to make changes to the specifications.
This data sheet conforms to the standards laid down in EN 50380.