

Sunmodule

SW 155/165/175 mono

The Sunmodule heralds an innovative new module concept from SolarWorld. The fully automated production process at the SolarWorld factories creates a module quality that is consistently high, which in turn will ensure high yields for the long term.

The glass is set deep into the module frame and they are firmly attached to each other by silicone that is applied with continuous precision. This guarantees exceptional rigidity for the entire module and stops any possible loosening of the frame as a result of strong outward forces in cases such as sliding of heavy snow. Tests carried out in accordance with IEC 61215, applying loads up to 5.4 kN/m², confirm that the module can withstand high loads such as heavy accumulations of snow and ice.

The patented, flat and compact junction box provides perfect protection against corrosion, as well as a capacity to rapidly dissipate any excess heat providing lower operating temperature. The junction box is reliably connected by a solid, welded bond to guarantee lasting functionality. In addition, high-quality, robust cables with factory-equipped connectors are used. The ability to recycle the modules and a 25-year performance warranty are the finishing touches to this top-quality product.



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Performance under standard test conditions

		SW 155	SW 165	SW 175
Maximum power	P_{max}	155 Wp	165 Wp	175 Wp
Open circuit voltage	V_{oc}	43.6 V	44.0 V	44.4 V
Maximum power point voltage	V_{mpp}	34.8 V	35.3 V	35.8 V
Short circuit current	I_{sc}	4.90 A	5.10 A	5.30 A
Maximum power point current	I_{mpp}	4.46 A	4.68 A	4.89 A

Performance at 800 W/m², NOCT, AM 1.5

		SW 155	SW 165	SW 175
Maximum power	P_{max}	110.8 Wp	118.0 Wp	125.1 Wp
Open circuit voltage	V_{oc}	39.4 V	39.8 V	40.2 V
Maximum power point voltage	V_{mpp}	31.2 V	31.6 V	32.1 V
Short circuit current	I_{sc}	4.05 A	4.22 A	4.38 A
Maximum power point current	I_{mpp}	3.55 A	3.73 A	3.90 A

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

Component materials

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

System integration parameters

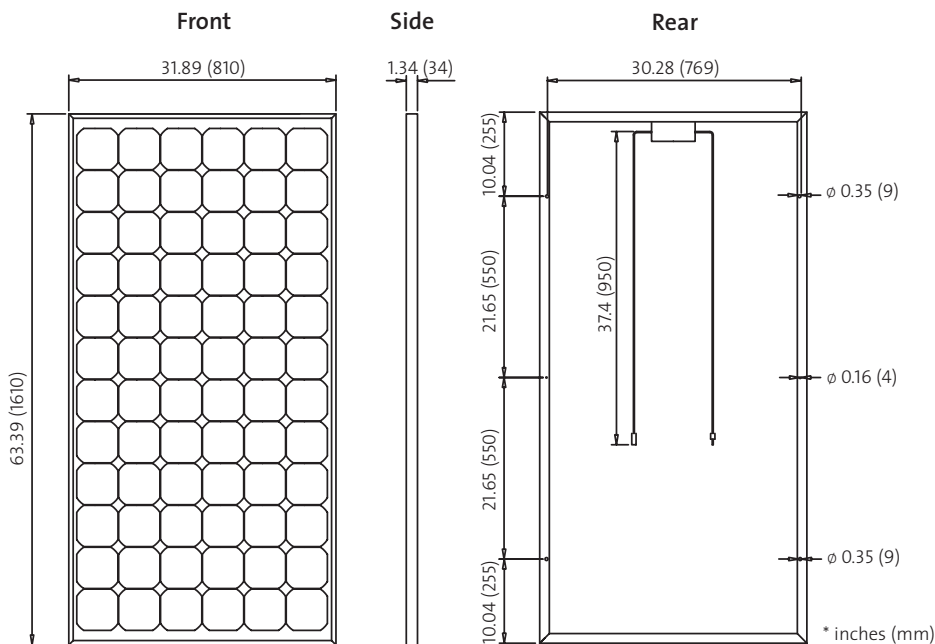
Maximum system voltage SC II	1,000 V _{DC}
Maximum system voltage USA NEC	600 V _{DC}
Maximum series fuse rating	15 A

Thermal characteristics

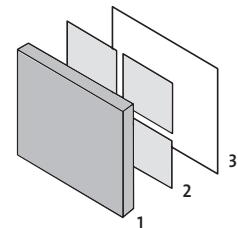
NOCT	46°C
TC I_{sc}	0.036 %/K
TC V_{oc}	-0.33 %/K

Additional data

Power tolerance	+/- 3 %
Junction box	IP 65
Connector	MC type 4



Construction



- 1] Front: tempered glass
- 2] crystalline solar cells embedded in EVA (ethylene-vinyl-acetate)
- 3] Rear: Tedlar