



NEW! 25 YEAR LINEAR
PERFORMANCE WARRANTY AND
A PRODUCT WORKMANSHIP
WARRANTY OF 10 YEARS*

Length 1610 mm
Width 810 mm
Height 34 mm
Frame Aluminum
Weight 15 kg



Sunmodule⁺ SW 190 mono black

Attractive design

The homogeneous black surface and black module frames create a visual elegance which fulfils even the most demanding requirements in terms of design and architecture.

German quality standards

Fully-automated production lines and seamless monitoring of the process and material ensure the quality that the company sets as its benchmark for its sites worldwide.

Outstanding products

SolarWorld modules have received top marks in numerous independent performance tests:

In Photon test laboratory's endurance test SolarWorld's modules occupied first place in 2008 and in 2009 and were assessed by the ÖKO-TEST consumer magazine as "very good".

SolarWorld Plus sorting

Plus-sorting guarantees the highest system efficiency. Only modules that achieve the designated nominal performance or greater in performance tests are dispatched.

25 years linear performance guarantee*

SolarWorld guarantees a maximum degeneration in performance of 0.7% p.a. for more than 25 years - a clear additional benefit compared with the conventional two-stage industry guarantees. In addition there is a product warranty that covers 10 years.

*in accordance with the applicable SolarWorld service certificate at purchase
www.solarworld.com/service-certificate



We turn sunlight into power.

Sunmodule⁺

SW 190 mono black

PERFORMANCE UNDER STANDARD TEST CONDITIONS (STC)*

		SW 190
Maximum power	P_{max}	190 Wp
Open circuit voltage	U_{oc}	45,0 V
Maximum power point voltage	U_{mpp}	36,5 V
Short circuit current	I_{sc}	5,60 A
Maximum power point current	I_{mpp}	5,21 A

*STC: 1000W/m², 25°C, AM 1.5

PERFORMANCE AT 800 W/m², NOCT, AM 1.5

		SW 190
Maximum power	P_{max}	135,8 Wp
Open circuit voltage	U_{oc}	40,7 V
Maximum power point voltage	U_{mpp}	32,8 V
Short circuit current	I_{sc}	4,63 A
Maximum power point current	I_{mpp}	4,15 A

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

COMPONENT MATERIALS

Cells per module	72
Cell type	Mono crystalline
Cell dimensions	125 mm x 125 mm
Front	tempered glass (EN 12150)

SYSTEM INTEGRATION PARAMETERS

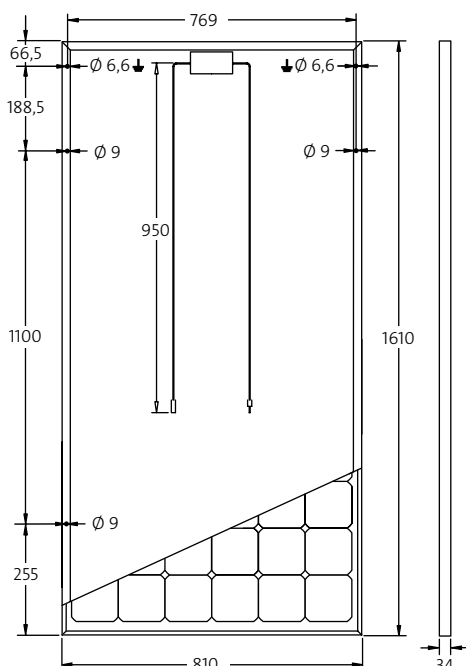
Maximum system voltage SC II	1000 V
Maximum reverse current	16 A
Increased snowload acc. to IEC 61215	5,4 kN/m ²
Number of bypass diodes	3

THERMAL CHARACTERISTICS

NOCT	46 °C
TC I_{sc}	0,036 %/K
TC U_{oc}	-0,33 %/K
TC P_{mpp}	-0,47 %/K

ADDITIONAL DATA

Measuring tolerance	+/- 3 %
Junction box	IP65
Connector	MC4
SolarWorld Plus-Sorting ¹⁾	$P_{Flash} \geq P_{max}$



- Qualified, IEC 61215
- Safety tested, IEC 61730
- Periodic Inspection



- 1) The output identified by SolarWorld (P_{Flash}) is always higher than the nominal output (P_{max}) of the module.
- 2) Depending on the market. SolarWorld AG reserves the right to make specification changes without notice. This data sheet complies with the requirements of EN 50380.