# Sunmodule Protect SW 245 – 260 poly



Produced in Germany, the center for solar technology



TUV Power controlled: Lowest measuring tolerance in industry



Above average weather-resistance and robustness



Sunmodule Protect:
Positive performance tolerance



30 year linear performance warranty and 10 year product warranty



SolarWorld AG relies on Germany as its technology location, thereby ensuring sustainable product quality.

The TUV Rheinland Power controlled inspection mark guarantees that the nominal power indicated for solar modules is inspected at regular intervals and thus ensured. The deviation to TUV is maximum 2 percent.

Innovative glass technologies on front- and backside make extremely weather-resistant and robust solar modules possible. The Sunmodule Protect offers higher mechanical resilience and a longer service life, and still weighs the same as the Sunmodule Plus.

The positive power tolerance guarantees utmost system efficiency. Only modules achieving or exceeding the designated nominal power in performance tests are dispatched. The power tolerance ranges between -0 Wp and +5 Wp.

SolarWorld is setting new standards with the groundbreaking 30-year linear performance guarantee: a maximum degradation of just 0.35% p. a. provides guaranteed module performance of 90% after 21 years, and 86.85% after 30 years.



## PERFORMANCE UNDER STANDARD TEST CONDITIONS (STC)\*

		SW 245	SW 250	SW 255	SW 260
Maximum power	$P_{max}$	245 Wp	250 Wp	255 Wp	260 Wp
Open circuit voltage	U <sub>oc</sub>	37.3 V	37.6 V	38.0 V	38.4 V
Maximum power point voltage	U <sub>mpp</sub>	30.1 V	30.5 V	30.9 V	31.4 V
Short circuit current	I <sub>sc</sub>	8.75 A	8.81 A	8.88 A	8.94 A
Maximum power point current	I <sub>mpp</sub>	8.22 A	8.27 A	8.32 A	8.37 A

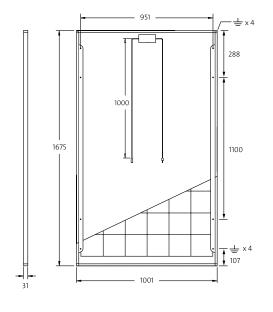
Measuring tolerance ( $P_{max}$ ) traceable to TUV Rheinland: +/- 2% (TUV Power controlled)

\*STC: 1000W/m², 25°C, AM 1.5

#### PERFORMANCE AT 800 W/m<sup>2</sup>, NOCT, AM 1.5

		SW 245	SW 250	SW 255	SW 260
Maximum power	$P_{max}$	181.7 Wp	184.9 Wp	188.1 Wp	191.9 Wp
Open circuit voltage	U <sub>oc</sub>	34.2 V	34.4 V	34.8 V	35.0 V
Maximum power point voltage	U <sub>mpp</sub>	27.6 V	27.9 V	28.3 V	28.7 V
Short circuit current	I <sub>sc</sub>	7.07 A	7.12 A	7.18 A	7.23 A
Maximum power point current	I <sub>mpp</sub>	6.58 A	6.62 A	6.66 A	6.70 A

Minor reduction in efficiency under partial load conditions at 25°C: at 200 W/m², 100% (+/-2%) of the STC efficiency (1000 W/m²) is achieved.



#### **DIMENSIONS**

Length	1675 mm
Width	1001 mm
Height	31 mm
Frame	Clear anodized aluminum
Weight	21.2 kg

#### **COMPONENT MATERIALS**

Cells per module	60
Cell type	Poly crystalline
Cell dimensions	156 mm x 156 mm
Front	tempered glass (EN 12150)

## THERMAL CHARACTERISTICS

NOCT	46 °C
TC I <sub>sc</sub>	0.051 %/
TC U <sub>oc</sub>	-0.31 %/
TC P <sub>mpp</sub>	-0.41 %/I

## ADDITIONAL DATA

Power sorting	-0 Wp / +5 Wp
J-Box	IP65
Connector	MC4 / KSK4

### PARAMETERS FOR OPTIMAL SYSTEM INTEGRATION

Maximum system voltage SC II	1000 V
Maximum reverse current	16 A
Load / dynamic load	5.4 / 2.4 kN/m²
Number of bypass diodes	3
Operating range	-40 °C to +85 °C

