Sunmodule® Protect 360°
SW 275 duo

SOLARWORLD
REAL VALUE

Data sheet

Quality modules made in Germany

Produced in Germany,
the center for solar technology

TÜVRheinland CERTIFIED
www.tuv.com
ID 0000039351

TUV Power controlled:
Lowest measuring tolerance in industry

ROBUST

Above average weather-resistance and robustness

BIFACIAL

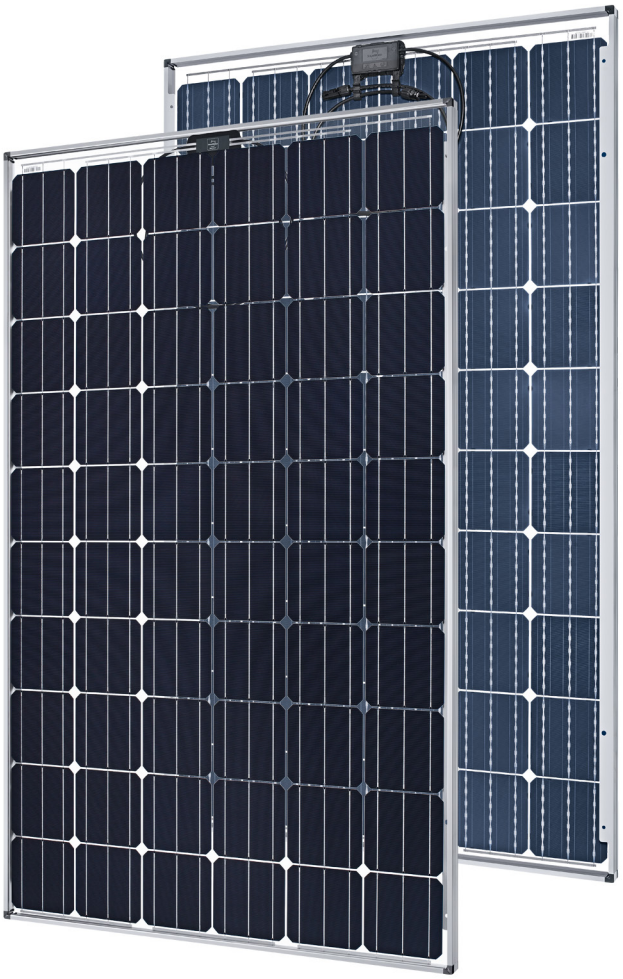
Energy boost through use of high efficient duo cell

-0/+5 Wp

Sunmodule Protect:
Positive performance tolerance

30 years
WARRANTY

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.

Energy boost up to 25 % through use of high efficient duo cell - an innovative cell technology. The bifacial cells convert the sunlight into power not only from the front of the module, but as well from the back.

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.

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PERFORMANCE UNDER OPTIMIZED CONDITIONS

Energy boost		6 %	10 %	20 %	25 %
Maximum power	P_{max}	290 Wp	300 Wp	325 Wp	337 Wp
Open circuit voltage	U_{oc}	39,1	39,1	39,1	39,1
Maximum power point voltage	U_{mpp}	31,5	31,4	31,2	31,0
Short circuit current	I_{sc}	10,08	10,46	11,41	11,89
Maximum power point current	I_{mpp}	9,21	9,56	10,43	10,86
Module efficiency	η_m	17,30	17,90	19,38	20,10

PERFORMANCE UNDER STANDARD TEST CONDITIONS (STC)*

		SW 275
Maximum power	P_{max}	275 Wp
Open circuit voltage	U_{oc}	39.1 V
Maximum power point voltage	U_{mpp}	31.7 V
Short circuit current	I_{sc}	9.51 A
Maximum power point current	I_{mpp}	8.69 A
Module efficiency	η_m	16.4 %

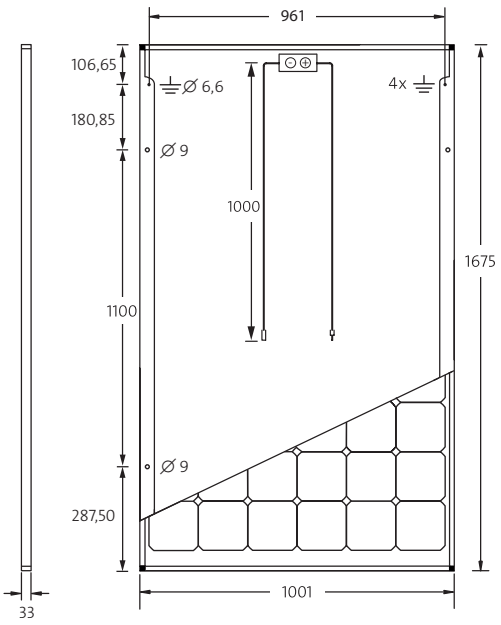
Measuring tolerance (P_{max}) traceable to TUV Rheinland: +/- 2 % (TUV Power controlled)

*STC: 1000 W/m², 25° C, AM 1.5

PERFORMANCE AT 800 W/m², NOCT, AM 1.5

		SW 275
Maximum power	P_{max}	205 Wp
Open circuit voltage	U_{oc}	35.7 V
Maximum power point voltage	U_{mpp}	28.9 V
Short circuit current	I_{sc}	7.68 A
Maximum power point current	I_{mpp}	7.02 A
Module efficiency	η_m	12.1 %

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	33 mm
Frame	clear anodized aluminum
Weight	21.5 kg

COMPONENT MATERIALS

Cells per module	60
Cell type	bifacial duo
Cell dimensions	156 mm x 156 mm
Front	2 mm tempered glass
Back	2 mm tempered glass

THERMAL CHARACTERISTICS

NOCT	48 °C
TC I_{sc}	0.044 %/K
TC U_{oc}	-0.31 %/K
TC P_{mpp}	-0.43 %/K

ADDITIONAL DATA

Power sorting	-0 Wp / +5 Wp
J-Box	IP65
Connector	H4

PARAMETERS FOR OPTIMAL SYSTEM INTEGRATION

Maximum system voltage SC II	1000 V
Maximum reverse current	25 A
Load / dynamic load	5.4 / 2.4 kN/m²
Number of bypass diodes	3
Operating range	-40 °C to +85 °C

INSTALLATION PARAMETERS FOR MAXIMUM YIELD

For maximum system yield and optimum performance ratio we recommend the following installation guide lines:

- Highly reflective background surface like white concrete, bright roof covering membrane, trapezoidal roof or limestone ground
- Module distance to ground 50 cm
- Mounting system with low shading of backside
- Sufficient distance between rows to avoid shading
- Inclination of 25° - 35°, prefer landscape mounting

SolarWorld AG reserves the right to make specification changes without notice.
This data sheet complies with the requirements of EN 50380.

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