

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

Length 1675 mm Width 1001 mm Height 31 mm Frame Aluminum Weight 21,2 kg





# Sunmodule

SW 230/235/240/245/250 poly

#### German quality standards

TOP QUALITY

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.

#### TUV "Power controlled"

With the new TUV Rheinland test "Power controlled" it is guaranteed that the performance indicated for a Sunmodule Plus® solar panel is being met and that it is regularly monitored by the independent test service provider, TUV Rheinland. This additional security for investors and consumers is a further testament of SolarWorld's commitment to comprehensive quality assurance.

#### 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 and extension of product warranty to 10 years SolarWorld guarantees a maximum performance degression of 0.7% p.a. in the course of 25 years, a significant added value compared to the two-phase warranties common in the industry. In addition, SolarWorld is offering a product warranty, which has been extended to 10 years.\*

 $^{\star}$  in accordance with the applicable SolarWorld Limited Warranty at purchase. www.solarworld.com/warranty



# SW 230/235/240/245/250 poly

# PERFORMANCE UNDER STANDARD TEST CONDITIONS (STC)\*

|                             |                  | SW 230 | SW 235 | SW 240 | SW 245 | SW 250 |
|-----------------------------|------------------|--------|--------|--------|--------|--------|
| Maximum power               | $P_{max}$        | 230 Wp | 235 Wp | 240 Wp | 245 Wp | 250 Wp |
| Open circuit voltage        | U <sub>oc</sub>  | 36,9 V | 37,0 V | 37,2 V | 37,5 V | 37,6 V |
| Maximum power point voltage | U <sub>mpp</sub> | 29,8 V | 30,0 V | 30,2 V | 30,8 V | 30,8 V |
| Short circuit current       | l<br>sc          | 8,25 A | 8,35 A | 8,44 A | 8,49 A | 8,64 A |
| Maximum power point current | Impp             | 7,72 A | 7,85 A | 7,96 A | 7,96 A | 8,12 A |

\*STC: 1000W/m<sup>2</sup>, 25°C, AM 1.5

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

|                             |                  | SW 230   | SW 235   | SW 240   | SW 245   | SW 250   |
|-----------------------------|------------------|----------|----------|----------|----------|----------|
| Maximum power               | P <sub>max</sub> | 164,4 Wp | 170,4 Wp | 174,2 Wp | 176,4 Wp | 180,4 Wp |
| Open circuit voltage        | U <sub>oc</sub>  | 33,4 V   | 33,5 V   | 33,7 V   | 33,7 V   | 33,9 V   |
| Maximum power point voltage | U <sub>mpp</sub> | 26,7 V   | 27,1 V   | 27,4 V   | 27,7 V   | 27,8 V   |
| Short circuit current       | l <sub>sc</sub>  | 6,82 A   | 6,73 A   | 6,80 A   | 6,84 A   | 6,96 A   |
| Maximum power point current | I <sub>mpp</sub> | 6,15 A   | 6,28 A   | 6,37 A   | 6,37 A   | 6,50 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 | 60                        |
|------------------|---------------------------|
| Cell type        | Poly crystalline          |
| Cell dimensions  | 156 mm x 156 mm           |
| Front            | tempered glass (EN 12150) |

## THERMAL CHARACTERISTICS

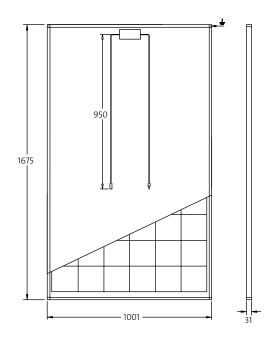
| NOCT                | 46 °C     |
|---------------------|-----------|
| TC I <sub>sc</sub>  | 0,034 %/K |
| TC U <sub>oc</sub>  | -0,34 %/K |
| TC P <sub>mpp</sub> | -0,48 %/K |

#### SYSTEM INTEGRATION PARAMETERS

| Maximum system voltage SC II         | 1000 V    |
|--------------------------------------|-----------|
| Maximum reverse current              | 16 A      |
| Increased snowload acc. to IEC 61215 | 5,4 kN/m² |
| Number of bypass diodes              | 3         |

## ADDITIONAL DATA

| Measuring tolerance                   | +/- 3 %                 |
|---------------------------------------|-------------------------|
| J-Box                                 | IP65                    |
| Connector                             | MC4                     |
| SolarWorld Plus-Sorting <sup>1)</sup> | $P_{Flash} \ge P_{max}$ |













<sup>1)</sup> The output identified by SolarWorld ( $P_{Flash}$ ) is always higher than the nominal output ( $P_{max}$ ) of the module. 2) Depending on the market.

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