Sunmodule® Plus
SW 280-295 MONO (33mm frame)

- TUV Power controlled: Lowest measuring tolerance in industry
- Every component is tested to meet 3 times IEC requirements
- Designed to withstand heavy accumulations of snow and ice
- Sunmodule Plus: Positive performance tolerance
- 25-year linear performance warranty and 10-year product warranty
- Glass with anti-reflective coating

World-class 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.

SolarWorld Plus-Sorting
Plus-Sorting guarantees highest system efficiency. SolarWorld only delivers modules that have greater than or equal to the nameplate rated power.

25-year linear performance guarantee and extension of product warranty to 10 years
SolarWorld guarantees a maximum performance digression 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, along with our industry-first 10-year product warranty.*

*in accordance with the applicable SolarWorld Limited Warranty at purchase. www.solarworld.com/warranty

solarworld.com
Sunmodule® Plus
SW 280-295 MONO (33mm frame)

PERFORMANCE UNDER STANDARD TEST CONDITIONS (STC)*

<table>
<thead>
<tr>
<th></th>
<th>SW 280</th>
<th>SW 285</th>
<th>SW 290</th>
<th>SW 295</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum power</td>
<td>P&lt;sub&gt;max&lt;/sub&gt;</td>
<td>280 Wp</td>
<td>285 Wp</td>
<td>290 Wp</td>
</tr>
<tr>
<td>Open circuit voltage</td>
<td>V&lt;sub&gt;oc&lt;/sub&gt;</td>
<td>39.5 V</td>
<td>39.7 V</td>
<td>39.9 V</td>
</tr>
<tr>
<td>Maximum power point voltage</td>
<td>V&lt;sub&gt;mp&lt;/sub&gt;</td>
<td>31.2 V</td>
<td>31.3 V</td>
<td>31.4 V</td>
</tr>
<tr>
<td>Short circuit current</td>
<td>I&lt;sub&gt;s&lt;/sub&gt;</td>
<td>9.71 A</td>
<td>9.84 A</td>
<td>9.97 A</td>
</tr>
<tr>
<td>Maximum power point current</td>
<td>I&lt;sub&gt;mp&lt;/sub&gt;</td>
<td>9.07 A</td>
<td>9.20 A</td>
<td>9.33 A</td>
</tr>
<tr>
<td>Module efficiency</td>
<td>n&lt;sub&gt;mp&lt;/sub&gt;</td>
<td>16.70 %</td>
<td>17.00 %</td>
<td>17.30 %</td>
</tr>
</tbody>
</table>

PERFORMANCE AT 800 W/M², NOCT, AM 1.5

<table>
<thead>
<tr>
<th></th>
<th>SW 280</th>
<th>SW 285</th>
<th>SW 290</th>
<th>SW 295</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum power</td>
<td>P&lt;sub&gt;max&lt;/sub&gt;</td>
<td>209.2 Wp</td>
<td>213.1 Wp</td>
<td>217.1 Wp</td>
</tr>
<tr>
<td>Open circuit voltage</td>
<td>V&lt;sub&gt;oc&lt;/sub&gt;</td>
<td>36.1 V</td>
<td>36.4 V</td>
<td>36.6 V</td>
</tr>
<tr>
<td>Maximum power point voltage</td>
<td>V&lt;sub&gt;mp&lt;/sub&gt;</td>
<td>28.5 V</td>
<td>28.7 V</td>
<td>28.8 V</td>
</tr>
<tr>
<td>Short circuit current</td>
<td>I&lt;sub&gt;s&lt;/sub&gt;</td>
<td>7.85 A</td>
<td>7.96 A</td>
<td>8.06 A</td>
</tr>
<tr>
<td>Maximum power point current</td>
<td>I&lt;sub&gt;mp&lt;/sub&gt;</td>
<td>7.33 A</td>
<td>7.43 A</td>
<td>7.54 A</td>
</tr>
</tbody>
</table>

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

COMPONENT MATERIALS

- Cells per module: 60
- Cell type: Mono crystalline
- Cell dimensions: 6.17 in x 6.17 in (156.75 x 156.75 mm)
- Weight: 39.7 lbs (18.0 kg)

THERMAL CHARACTERISTICS

- NOCT: 46°C
- TCI<sub>oc</sub>: 0.04 %/K
- TCV<sub>oc</sub>: -0.30 %/K
- TCP<sub>mp</sub>: -0.41 %/K
- Operating temp: -40°C to +85°C

ADDITIONAL DATA

- Power sorting: -0 Wp/+5 Wp
- J-Box: IP65
- Connector: PV wire per UL4703 with H4 connectors
- Module fire performance: (UL 1703) Type I

PARAMETERS FOR OPTIMAL SYSTEM INTEGRATION

- Maximum system voltage SC II / NEC: 1000 V
- Maximum reverse current: 25 A
- Number of bypass diodes: 3
- Design loads*: Two rail system: 113 psf downward, 64 psf upward
- Design loads*: Three rail system: 178 psf downward, 64 psf upward
- Design loads*: Edge mounting: 178 psf downward, 41 psf upward

* Please refer to the Sunmodule installation instructions for the details associated with these load cases.

- Compatible with both "Top-Down" and "Bottom" mounting methods
- Grounding Locations: 4 locations along the length of the module in the extended flange.

All units provided are imperial. SI units provided in parentheses. SolarWorld AG reserves the right to make specification changes without notice.