

# Sunmodule®

## SolarWorld Module SW 130/140/150 Compact poly



The Sunmodule SW 130/140/150 Compact poly by SolarWorld offers an innovative module concept. The unique, fully automated production process ensures the highest level of precision and consistently high production quality. The machine finishing produces a highly homogeneous design.

The polycrystalline 6" cells lie behind a 3 mm hardened-glass glazing and are embedded in transparent EVA (ethylene-vinyl-acetate). The back of the module is sealed with a very high quality Tedlar film. The module stability is the result of the deep inset of the glass in the frame and its continuous bond between the two.

The flat and compact connecting socket is mounted on the back of the module using a unique, patented process. The connecting socket has no hollow cavities, is water-tight, resistant to UV radiation and microbes, as well as very temperature resistant. This flat and compact top-quality product represents the ideal solution for every application.

|         | Module    |
|---------|-----------|
| Length: | 1675 mm   |
| Width:  | 682 mm    |
| Height: | 34 mm     |
| Frame:  | Aluminium |
| Weight: | 13 kg     |

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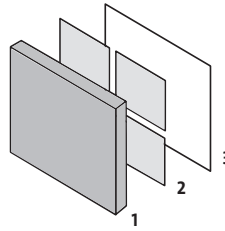


SolarWorld AG  
Kurt-Schumacher-Straße 12-14  
53113 Bonn/Germany  
Tel.: +49-228-55920-0  
E-Mail: [service@solarworld.de](mailto:service@solarworld.de)  
[www.solarworld.de](http://www.solarworld.de)



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### Design



- 1] Front: tempered glass
- 2] 40 polycrystalline solar cells  
156 mm x 156 mm embedded  
in EVA (ethylene-vinyl-acetate)
- 3] Rear: Tedlar foil

### Performance under standard test conditions (STC)

|                                    | 130 Wp | 140 Wp | 150 Wp |
|------------------------------------|--------|--------|--------|
| Peak power (Pmax)                  | 130 Wp | 140 Wp | 150 Wp |
| Maximum power point voltage (Vmpp) | 18.9 V | 19.5 V | 20.1 V |
| Maximum power point current (Impp) | 6.9 A  | 7.2 A  | 7.5 A  |
| Open circuit voltage (Voc)         | 24.1 V | 24.3 V | 24.5 V |
| Short circuit current (Isc)        | 7.5 A  | 7.8 A  | 8.1 A  |

### Performance at 800 W/m<sup>2</sup>, NOCT, AM 1.5

|                                    | 98 Wp  | 105 Wp | 113 Wp |
|------------------------------------|--------|--------|--------|
| Peak power (Pmax)                  | 98 Wp  | 105 Wp | 113 Wp |
| Maximum power point voltage (Vmpp) | 17.5 V | 18.1 V | 18.6 V |
| Maximum power point current (Impp) | 5.6 A  | 5.9 A  | 6.1 A  |
| Open circuit voltage (Voc)         | 22.3 V | 22.5 V | 22.7 V |
| Short circuit current (Isc)        | 6 A    | 6.3 A  | 6.5 A  |

Minor reduction in efficiency under partial load conditions at 25°C: at 200 W/m<sup>2</sup>, 95 % (+/- 3 %) of the STC efficiency (1000 W/m<sup>2</sup>) is achieved.

### Component materials

|                  |                         |
|------------------|-------------------------|
| Cells per module | 40                      |
| Solar cells      | polycrystalline silicon |
| Cell dimensions  | 156 x 156 mm            |

### Thermal characteristics

|        |           |
|--------|-----------|
| NOCT   | 46°C      |
| TK Isc | 0.08 %/K  |
| TK Voc | -0.33 %/K |

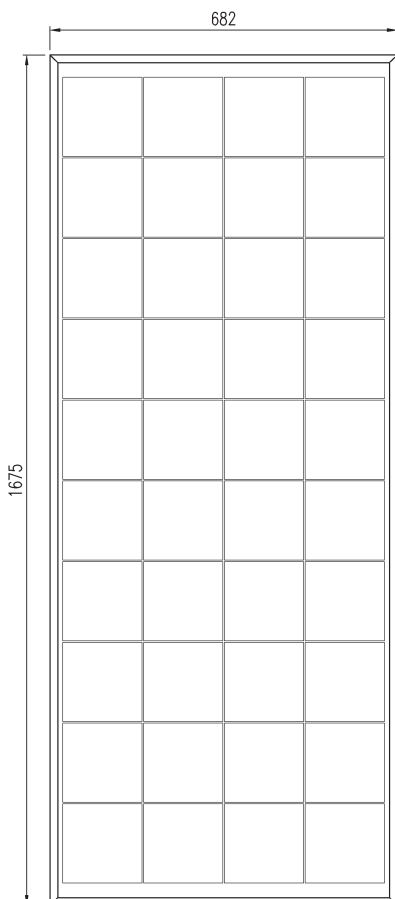
### System design characteristics

|                        |                                                                |
|------------------------|----------------------------------------------------------------|
| Maximum system voltage | 1000 V                                                         |
| Reverse current load   | Do not apply external voltages in excess of Voc to the module. |

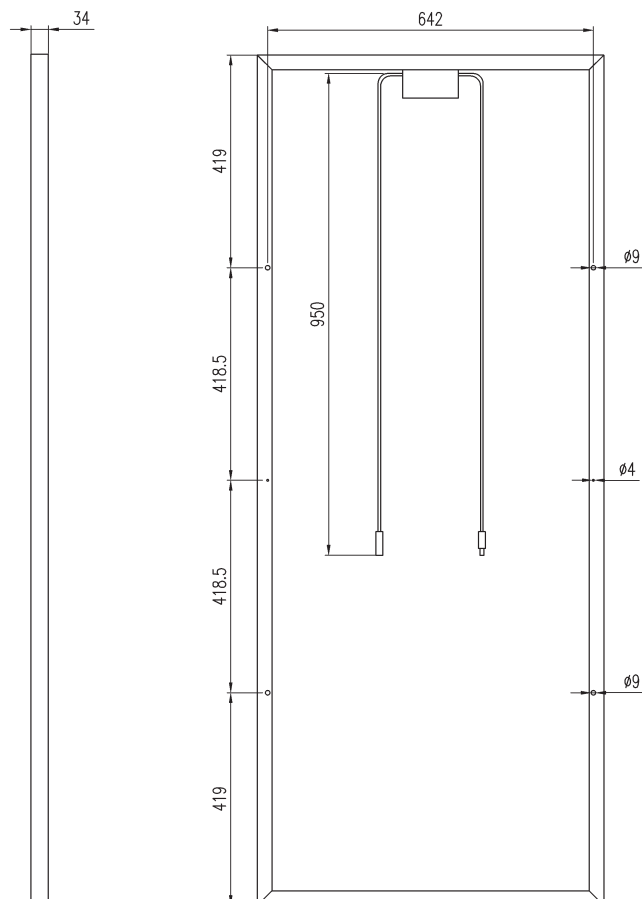
### Rated power and maximum tolerance

|                   |                        |
|-------------------|------------------------|
| Rated power       | 130/140/150 Wp +/- 3 % |
| Connecting socket | IP 65                  |
| Plug              | MC type 4              |

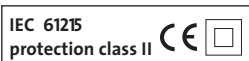
front view



rear view



Modules certified according to:



SolarWorld AG reserves the right to make specification changes.  
This data sheet complies with the requirements of EN 50380.  
This data sheet is also available in german language.