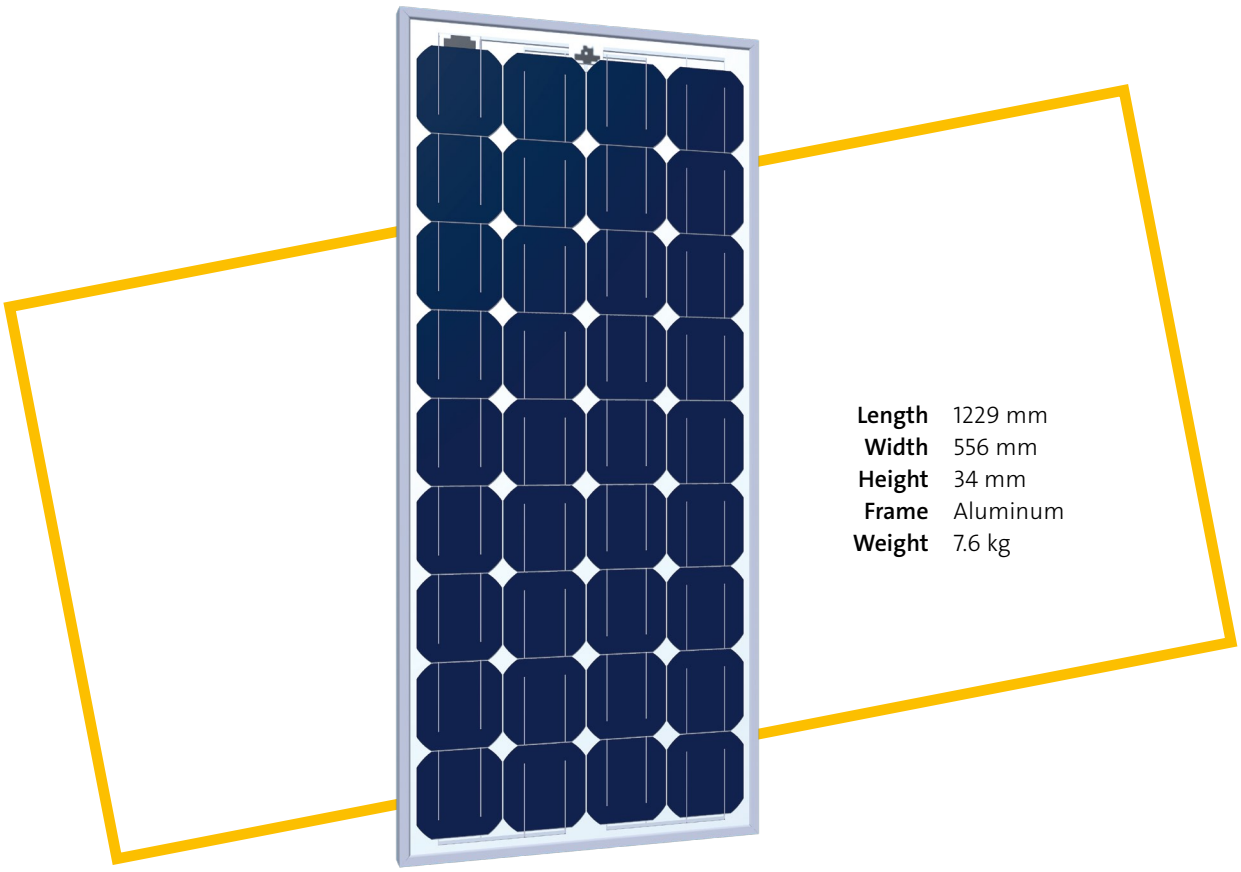
Edition: May 2009



Length	1229 mm
Width	556 mm
Height	34 mm
Frame	Aluminum
Weight	7.6 kg

Sunmodule®
SW 70/75/80/85/90 mono/R5A

With its Sunmodule® SW 70/75/80/85/90 mono/R5A SolarWorld presents a photovoltaic module ideally suitable for both off-grid and small on-grid applications. Highest quality standards are applied in the entire manufacturing process. SolarWorld's in-depth expertise ensures best performance and highest energy yields over the entire lifespan, even under challenging climatic conditions.

The Sunmodule® is particularly used in industrial applications such as powering off-grid telecom or monitoring systems. It also covers a wide range of rural electrification applications in remote areas, e.g. solar home systems, village power supply, street lighting and many more.

The compact dimensions of the Sunmodule® and the solid workmanship of its aluminum frame allow easy and flexible mounting. The design of the water repellent junction box makes wiring easy and secure. The junction box is equipped with two cable glands and two easy to wire spring-type clamps, so no special tools are needed. This simplifies installation and speeds up the installation process.

SOLARWORLD
THE SUNPOWERED COMPANY®

Sunmodule®

SW 70/75/80/85/90 mono/R5A

Performance under standard test conditions (STC*)

		SW 70	SW 75	SW 80	SW 85	SW 90
Maximum power	P_{max}	70 Wp	75 Wp	80 Wp	85 Wp	90 Wp
Open circuit voltage	V_{oc}	21.5 V	21.7 V	21.9 V	22.1 V	22.3 V
Maximum power point voltage	V_{mpp}	17.0 V	17.3 V	17.5 V	17.8 V	18.0 V
Short circuit current	I_{sc}	4.60 A	4.80 A	5.00 A	5.20 A	5.40 A
Maximum power point current	I_{mpp}	4.13 A	4.35 A	4.58 A	4.79 A	5.01 A

***STC: 1000W/m², 25°C, AM 1.5**

Performance at 800 W/m², NOCT, AM 1.5

		SW 70	SW 75	SW 80	SW 85	SW 90
Maximum power	P_{max}	50 Wp	53.6 Wp	57.2 Wp	60.8 Wp	64.4 Wp
Open circuit voltage	V_{oc}	19.4 V	19.6 V	19.8 V	20.0 V	20.2 V
Maximum power point voltage	V_{mpp}	15.3 V	15.5 V	15.7 V	15.9 V	16.1 V
Short circuit current	I_{sc}	3.80 A	3.97 A	4.13 A	4.30 A	4.46 A
Maximum power point current	I_{mpp}	3.29 A	3.46 A	3.64 A	3.81 A	3.99 A

Minor reduction in efficiency under partial load conditions at 25°C:
at 200 W/m², 95% (+/- 5%) of the STC efficiency (1000 W/m²) is achieved.

Component materials

Cells per module	36
Cell type	monocrystalline silicon
Cell dimensions	125 x 125 mm²

Thermal characteristics

NOCT	46°C
TC I_{sc}	0.036 %/K
TC V_{oc}	-0.33 %/K

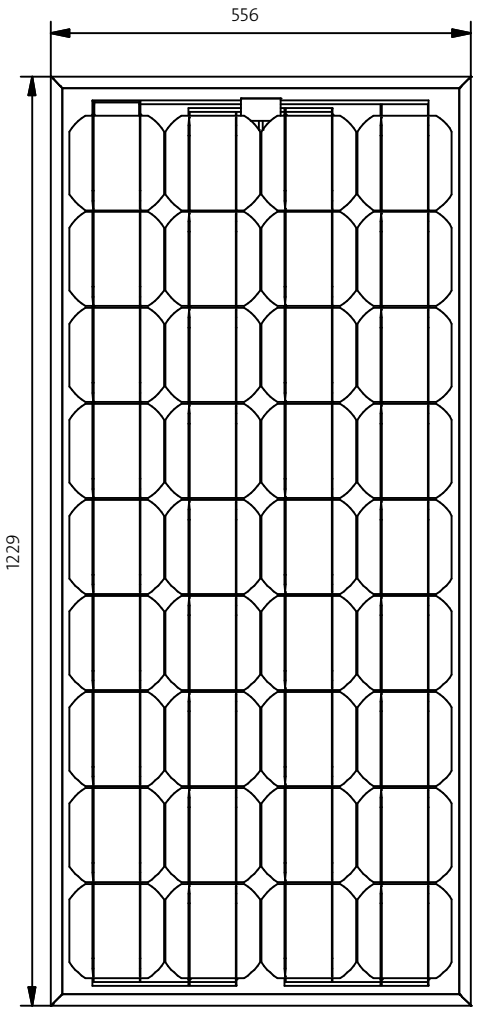
System integration parameters

Maximum system voltage SC II	1000 V_{DC}

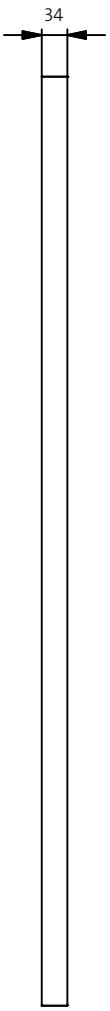
Additional data

Power tolerance	+/- 5 %
Maximum outer cable diameter	6.9 mm
Maximum wire cross section	4 mm² (AWG 12)

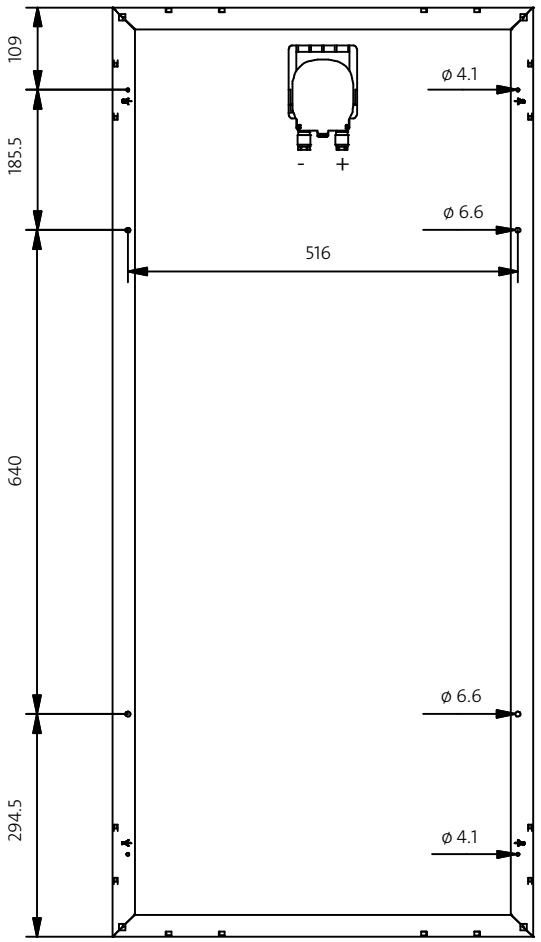
Front



Side

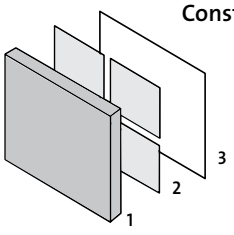


Rear



Dimensions in mm

Construction



1] Front: tempered glass
2] crystalline solar cells embedded in EVA (ethylene-vinyl-acetate)
3] Rear: Multilayer

In preparation

IEC 61215 2nd Ed.
IEC 61730

SolarWorld AG reserves the right to make specification changes without notice.