

SPC145 High Efficiency Photovoltaic Portable Solar Concentrator

Made with Sun Power high efficiency back-contact solar cells

The PVCOOL SPC145 made with SP95 solar panel and one side reflector is ideal for a wide range of portable off-grid applications where high battery-charging current from a small footprint is desirable. Our mono-crystalline silicon solar cells combine higher voltage per cell with an extremely low voltage-temperature coefficient to enable superior battery charging performance at high operating temperature. Exceptional low-light performance and broad spectral response further enhance energy delivery in all weather conditions, year round. You can enjoy low weight 7.5 kg, small size 0.5x1m and 145W POWER for price of 95W panel. To get maximum output from concentrator, we recommend to redirect panel position to sun 2-3 times a day

Limited Warranty

10 years limited power warranty of 90% of the minimum specified power rating.

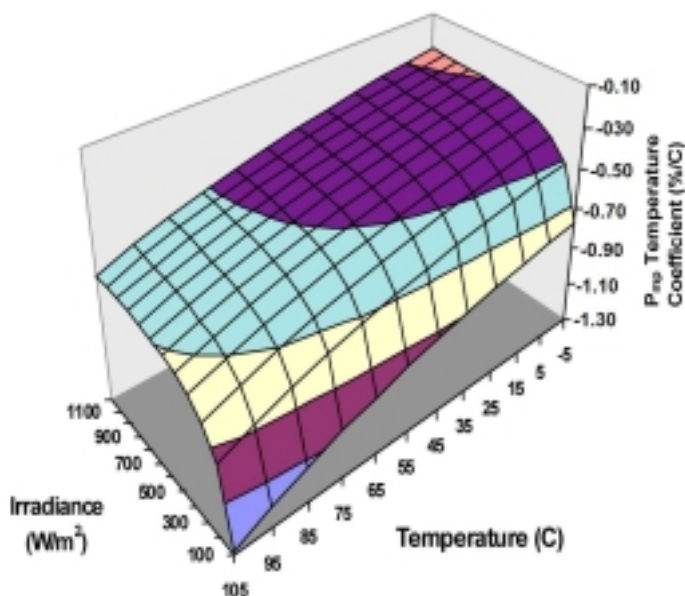
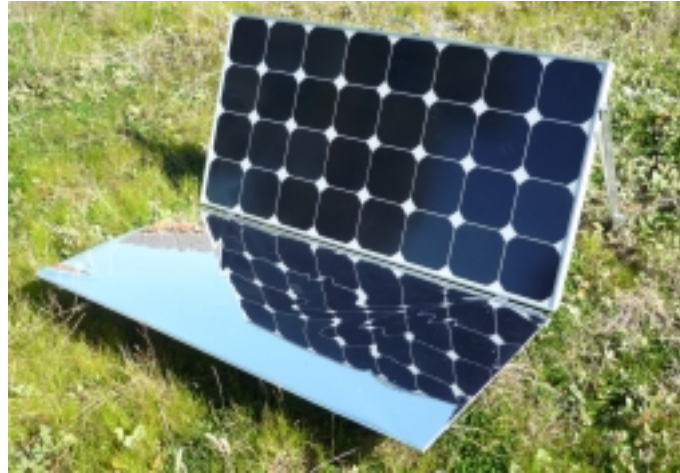


Fig1. Maximum power temperature coefficient for SP module as a function of irradiance and temperature

Features & Benefits

A sturdy, anodized aluminium frame with adjustable leg support, enables easy installation on ground.

Reflector made from very light plastic sheet covered with mirror 98% reflection film and also protects solar glass from damage

Unique back-contact solar cells with conversion efficiency up to 21.5%

Extremely low voltage-temperature coefficient ensures maximum battery charging current is available even during high-temperature operation

Highest quality 4mm-thick high-transmission strengthened glass provides enhanced stiffness and impact resistance

Advanced EVA encapsulation system with multilayer backsheets provides excellent long-term package durability

Aerospace style cell interconnects with in-plane strain relief, to provide extremely high reliability

145 watts Portable Photovoltaic Module Static Concentrator

Made with high efficiency back-contact solar cells

Electrical Characteristics

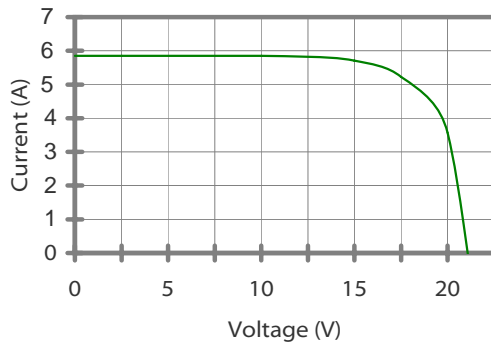
Model Number: SP190-W module/concentrator

Max Power	P _{ma}	95/145W
Max Power Voltage	V _m	17.6/ 18.5V
Max Power Current	I _m	5.4A/7.9A
Open Circuit Voltage	V _o	21.5/22.4V
Short Circuit Current	I _s	5.66/8.25A
Maximum System Voltage		70V
Series Fuse Rating		15A
Temperature Co-efficients		
	Power	-0.38%/°C
	Voltage	-60.8mV/°C
	Current	2.3mA/°C
Cell Efficiency		20.90/21.9%
Number of Cells in Series		64
Number of Strings in Parallel		2/1
Max Power Tolerance		+/-5%

Mechanical Characteristics

Weight	7.5kg
Dimension	1037 x 527
Thickness in folding state	40mm
Frame	>10µm clear anodized

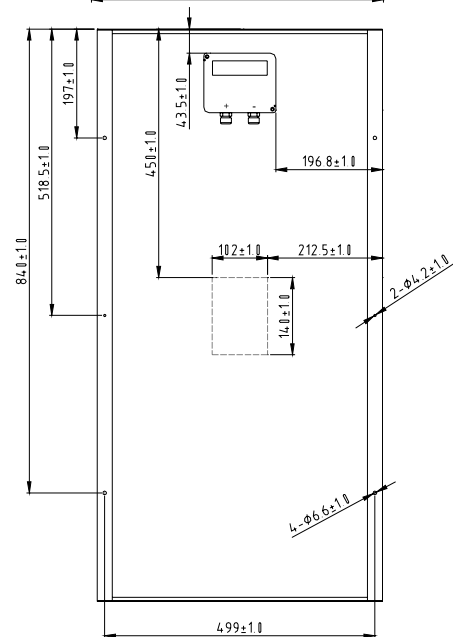
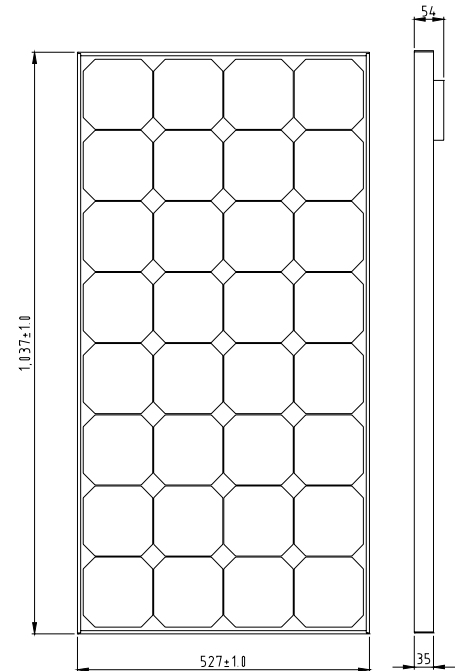
IV Curve



Note: All electrical parameters are rated at standard test conditions (irradiance of 1000W/m², AM 1.5G, cell temperature 77°F/25°C)

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Dimensions of 1 panel



Unit: mm