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# **EnergyPal**

## **Solar Panel Guide Specification Data Sheet**

**SunMan (Shanghai) Ltd.**

**SMS100-105P-2X12**

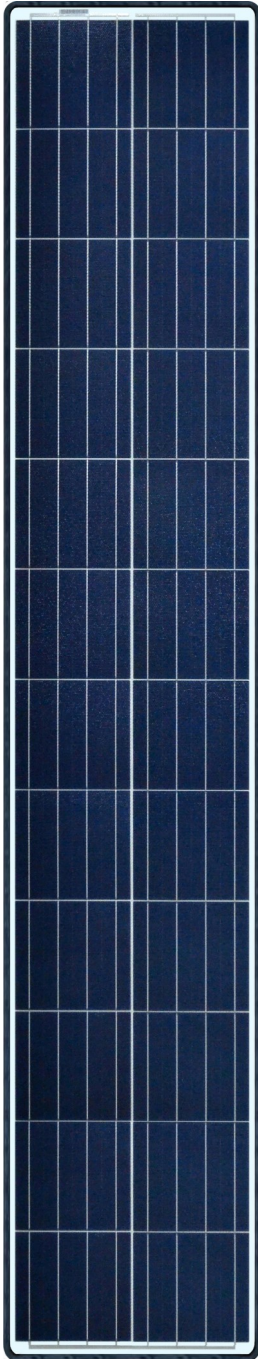
**SMS105P-2X12**

Also available on the web at  
[EnergyPal.com/sunman-shanghai-ltd-solar-panels/sms105p-2x12](http://EnergyPal.com/sunman-shanghai-ltd-solar-panels/sms105p-2x12)

## 105 Watt

# 24 Cell Polycrystalline Module

## Features



**Ultra-light:** Through replacement of the glass and optimization of the frame eArche weighs as 70% less than conventional PV panels.

**Flexible:** eArche combines a unique, patented material with other industry-leading technologies to produce superior flexible crystalline-silicon panel which can be installed on curved surface.

**Aesthetics:** Aesthetically pleasing design with patented materials and sophisticated manufacturing process results in a high-efficiency, attractive panel, with no light pollution, PID-free operation and high levels of safety.

**Easy Installation:** eArche can reduce installation cost by up to 50% through the use of re-engineered components, ease of handling and faster installation.

**Transportation:** eArche's innovative frame and low weight will very significantly reduce the cost of transportation.

**Deployment:** Ultra-light weight, flexibility and customizable size make eArche the best choice to change the way how solar is deployed in the market and bring added value to special applications.

**Durability:** eArche panels are certified to withstand extreme wind (2400 Pascal) and snow loads (5400 Pascal), while special materials and stringent quality control ensure panel longevity.

**100-105 W**

**POWER OUTPUT RANGE**

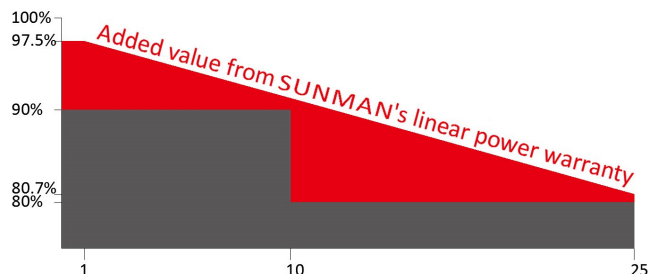
**0-5 W**

**POWER TOLERANCE**

## LINEAR PERFORMANCE WARRANTY

10 Year Product Warranty

25 Year Linear Power Warranty



**Electrical Characteristics**

STC	SMS105P-2X12	SMS100P-2X12
Maximum Power (P <sub>max</sub> )	105	100
Maximum Power Voltage (V <sub>mp</sub> )	12.7	12.4
Maximum Power Current (I <sub>mp</sub> )	8.27	8.07
Open-circuit Voltage (V <sub>oc</sub> )	15.4	15.2
Short-circuit Current (I <sub>sc</sub> )	8.73	8.52
Module Efficiency (%)	15.5	14.8
Operating Temperature (°C)	-40 °C to 85 °C	
Maximum System Voltage	600 V DC (IEC)	
Maximum Series Fuse Rating	20 A	
Application Class	Class A	
Power Tolerance	0/+5 W	

STC: Irradiance 1000W/m<sup>2</sup>, Cell temperature 25°C, AM=1.5.

NOCT	SMS105P-2X12	SMS100P-2X12
Maximum Power (P <sub>max</sub> )	78	74
Maximum Power Voltage (V <sub>mp</sub> )	11.7	11.5
Maximum Power Current (I <sub>mp</sub> )	6.67	6.44
Open-circuit Voltage (V <sub>oc</sub> )	14.3	14.1
Short-circuit Current (I <sub>sc</sub> )	7.00	6.83

NOCT: Irradiance 800W/m<sup>2</sup>, Ambient temperature 20°C, Wind speed 1 m/s.

**Mechanical Characteristics**

Solar Cell	Polycrystalline silicon (6 inches)
No. of Cells	24 (2 × 12)
Module Dimensions	1956×346×6 mm (77.0×13.6×0.2 inch)
Weight	2.9 kgs (6.4 lbs)
Backsheet	White
Frame	Black EPDM
J-box	IP 68 rated
Output Cables	Photovoltaic technology cable 4.0 mm <sup>2</sup> , (+)150 / (-)450 mm
Connector	MC4 compatible

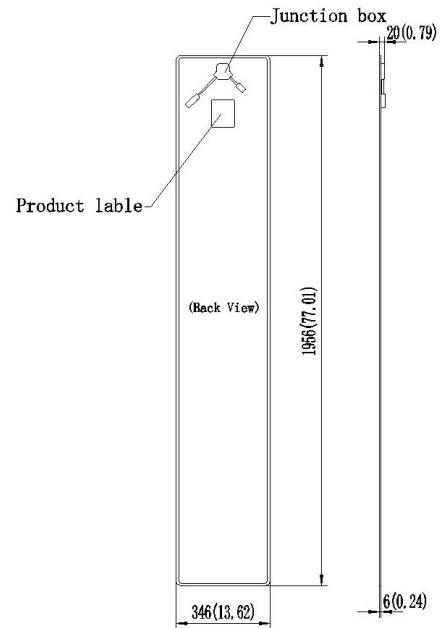
**Packaging Configuration**

	20' GP	40' HC
Module per pallet	50	50
Pieces per container	1000	2500

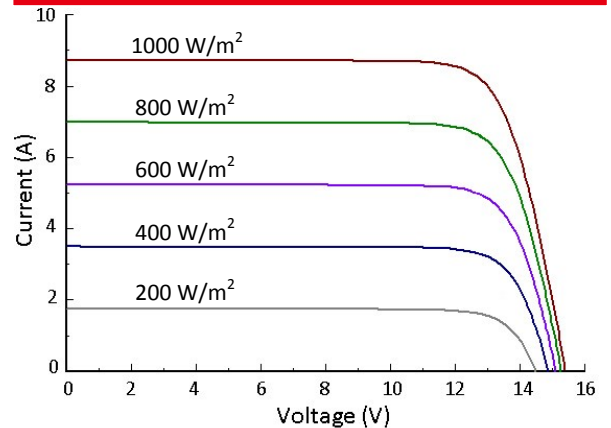
CAUTION: Read installation manual before using the product.

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**Dimensions**



**I-V Curve (105)**



**Temperature Characteristics**

Nominal Operating Cell Temperature (NOCT)	45 ± 2 °C
Temperature Coefficient of Pmax	-0.41 %/°C
Temperature Coefficient of Voc	-0.30 %/°C
Temperature Coefficient of Isc	0.048 %/°C

Dealer Information

SMS\_IEC\_EN\_2017C