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Solar Panel Guide Specification Data Sheet

SunMan (Shanghai) Ltd.

SMD100-105P-2X12

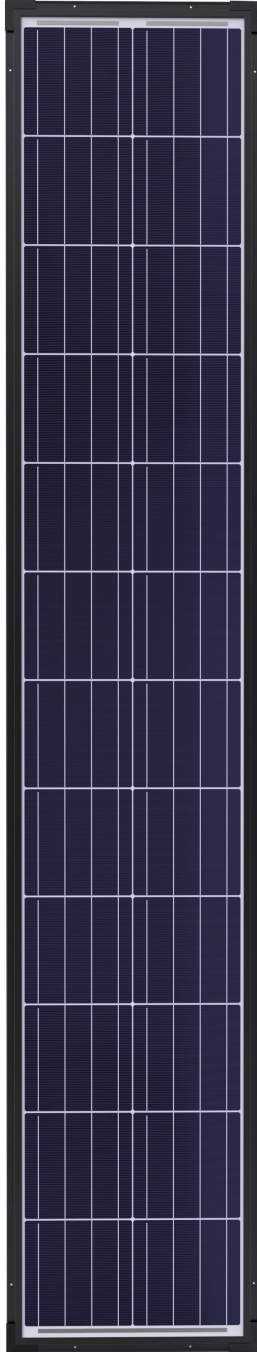
SMD105P-2X12

Also available on the web at
EnergyPal.com/sunman-shanghai-ltd-solar-panels/smd105p-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

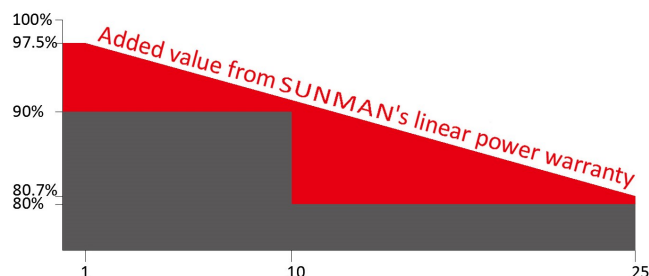
0-5 W

POWER TOLERANCE

LINEAR PERFORMANCE WARRANTY

10 Year Product Warranty

25 Year Linear Power Warranty



Electrical Characteristics

STC	SMD105P-2X12	SMD100P-2X12
Maximum Power (P_{max})	105	100
Maximum Power Voltage (V_{mp})	12.7	12.4
Maximum Power Current (I_{mp})	8.27	8.07
Open-circuit Voltage (V_{oc})	15.4	15.2
Short-circuit Current (I_{sc})	8.73	8.52
Module Efficiency (%)	14.4	13.7
Operating Temperature ($^{\circ}C$)	-40 $^{\circ}C$ to 85 $^{\circ}C$	
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/m², Cell temperature 25 $^{\circ}C$, AM=1.5.

NOCT	SMD105P-2X12	SMD100P-2X12
Maximum Power (P_{max})	78	74
Maximum Power Voltage (V_{mp})	11.7	11.5
Maximum Power Current (I_{mp})	6.67	6.44
Open-circuit Voltage (V_{oc})	14.3	14.1
Short-circuit Current (I_{sc})	7.00	6.83

NOCT: Irradiance 800W/m², Ambient temperature 20 $^{\circ}C$, Wind speed 1 m/s.

Mechanical Characteristics

Solar Cell	Polycrystalline silicon (6 inches)
No. of Cells	24 (2 × 12)
Module Dimensions	1979×369×5.6 mm (77.9×14.5×0.2 inch)
Weight	3.3 kgs (7.3 lbs)
Backsheet	White
Frame	Black Anodized Aluminium Alloy
J-box	IP 68 rated
Output Cables	Photovoltaic technology cable 4.0 mm ² , (+)150 / (-)450 mm
Connector	MC4 compatible

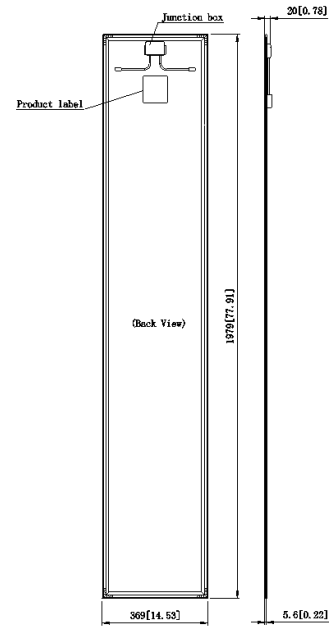
Packaging Configuration

	20' GP	40' HC
Module per pallet	54	54
Pieces per container	1080	2160

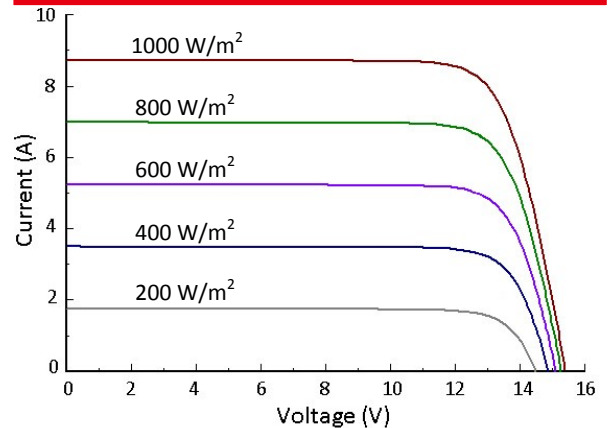
CAUTION: Read installation manual before using the product.

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Dimensions



I-V Curve (105)



Temperature Characteristics

Nominal Operating Cell Temperature (NOCT)	45 ± 2 $^{\circ}C$
Temperature Coefficient of Pmax	-0.41 %/ $^{\circ}C$
Temperature Coefficient of Voc	-0.30 %/ $^{\circ}C$
Temperature Coefficient of Isc	0.048 %/ $^{\circ}C$

Dealer Information

SMD_IEC_EN_2017A