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# EnergyPal

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

**SunMan (Shanghai) Ltd.**

**SMF315-320P-6X12**

**SMF315P-6X12**

Also available on the web at  
[EnergyPal.com/sunman-shanghai-ltd-solar-panels/smf315p-6x12](http://EnergyPal.com/sunman-shanghai-ltd-solar-panels/smf315p-6x12)

## 320 Watt

# 72 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.

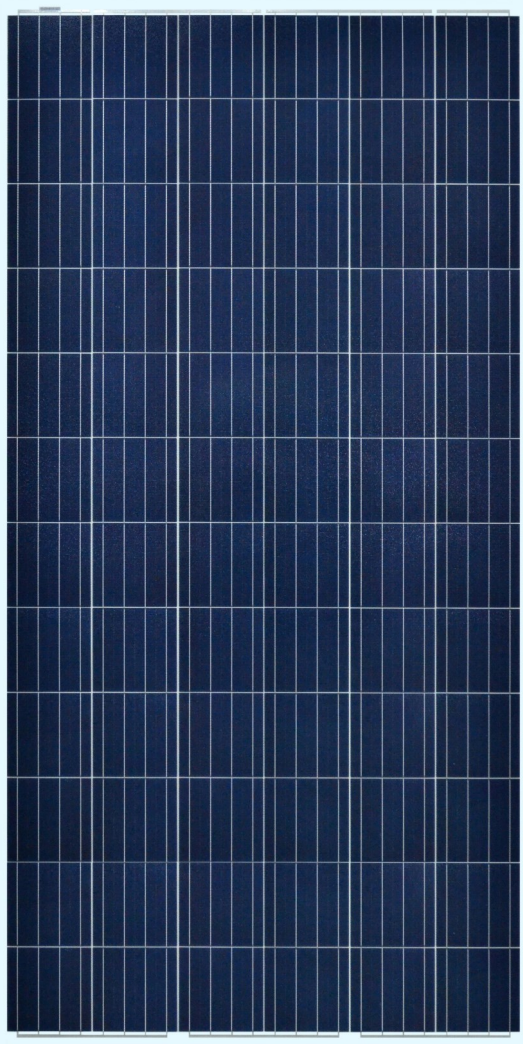
**Aesthetics:** Aesthetically pleasing design with patented materials and sophisticated manufacturing process results in a high-efficiency, attractive panel, with no light pollution, PID-free operation and high levels of safety.

**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.



**315-320 W**

**POWER OUTPUT RANGE**

**0-5 W**

**POWER TOLERANCE**

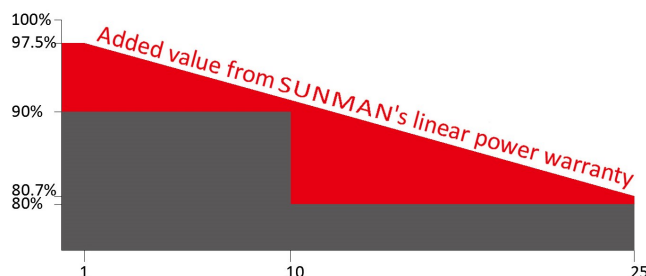
### LINEAR

### PERFORMANCE

### WARRANTY

10 Year Product Warranty

25 Year Linear Power Warranty



## SMF320P-6X12

## SMF315P-6X12



### Electrical Characteristics

STC	SMF320P-6X12	SMF315P-6X12
Maximum Power ( $P_{max}$ )	320	315
Maximum Power Voltage ( $V_{mp}$ )	38.2	37.9
Maximum Power Current ( $I_{mp}$ )	8.38	8.32
Open-circuit Voltage ( $V_{oc}$ )	45.9	45.7
Short-circuit Current ( $I_{sc}$ )	8.88	8.82
Module Efficiency (%)	16.6	16.3
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/m<sup>2</sup>, Cell temperature 25 $^{\circ}C$ , AM=1.5.

NOCT	SMF320P-6X12	SMF315P-6X12
Maximum Power ( $P_{max}$ )	236	232
Maximum Power Voltage ( $V_{mp}$ )	34.9	34.7
Maximum Power Current ( $I_{mp}$ )	6.77	6.69
Open-circuit Voltage ( $V_{oc}$ )	42.5	42.3
Short-circuit Current ( $I_{sc}$ )	7.17	7.09

NOCT: Irradiance 800W/m<sup>2</sup>, Ambient temperature 20 $^{\circ}C$ , Wind speed 1 m/s.

### Mechanical Characteristics

Solar Cell	Polycrystalline silicon (6 inches)
No. of Cells	72 (6 × 12)
Module Dimensions	1950×990×2 mm (76.8×39.0×0.1 inch)
Weight	6.8 kgs (15.0 lbs)
Backsheet	White
Frame	Frameless
J-box	IP 68 rated
Output Cables	Photovoltaic technology cable 4.0 mm <sup>2</sup> , (+)150 / (-)450 mm
Connector	MC4 compatible

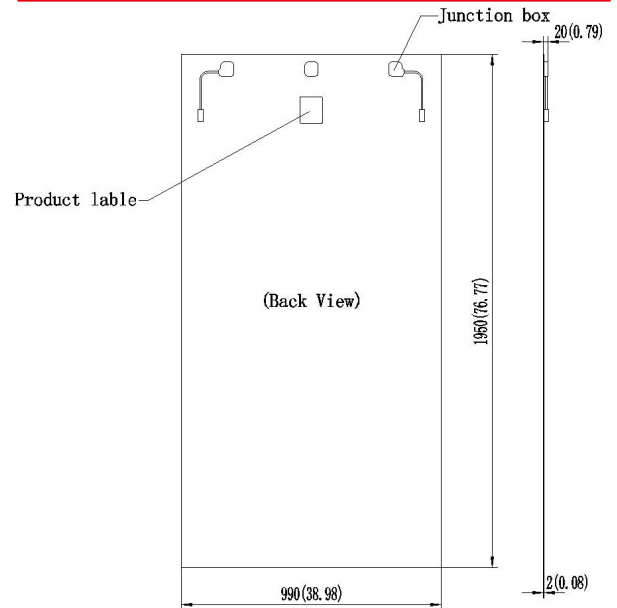
### Packaging Configuration

	20' GP	40' HC
Module per pallet	66	66
Pieces per container	330	1584

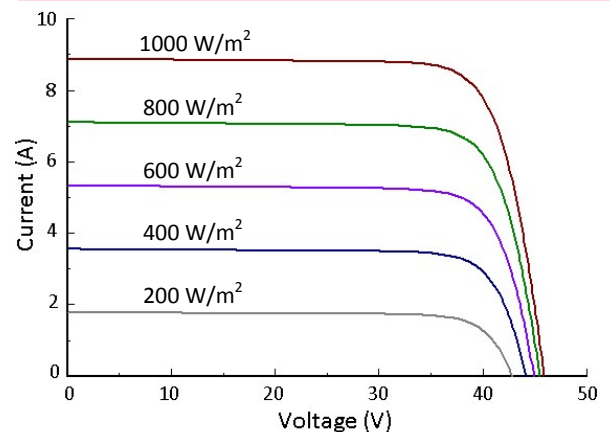
**CAUTION:** Read installation manual before using the product.

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### Dimensions



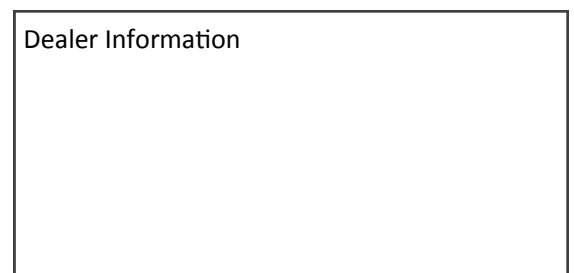
### I-V Curve (320)



### 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



SMF\_IEC\_EN\_2017B