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# **EnergyPal**

Solar Panel Guide Specification Data Sheet

SunMan (Shanghai) Ltd. SMD320-325M-6X12 SMD325M-6X12

Also available on the web at EnergyPal.com/sunman-shanghai-Itd-solar-panels/smd325m-6x12





# 325 Watt 72 Cell Monocrystalline 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 industryleading 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.

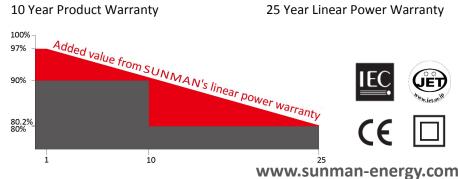
**Transportation:** eArche's innovative frame and low weight will very significantly reduce the cost of transportation.

**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.

# LINEAR PERFORMANCE





### 320-325 W

**POWER OUTPUT RANGE** 

0-5 W

**POWER TOLERANCE** 

#### SMD325M-6X12



## SMD320M-6X12

Electrical Characteristics				
STC	SMD325M-6X12	SMD320M-6X12		
Maximum Power (P <sub>max</sub> )	325	320		
Maximum Power Voltage (V <sub>mp</sub> )	38.5	38.2		
Maximum Power Current (I <sub>mp</sub> )	8.45	8.38		
Open-circuit Voltage (V <sub>oc</sub> )	46.1	45.9		
Short-circuit Current (I <sub>sc</sub> )	8.96	8.88		
Module Efficiency (%)	16.1	15.9		
Operating Temperature ( $^{\circ}$ C)	-40 ℃ to 85 ℃			
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.				

STC: Irradiance 1000W/m<sup>2</sup>, Cell temperature 25  $^\circ\!\mathrm{C},\;$  AM=1.5.

NOCT	SMD325M-6X12	SMD320M-6X12
Maximum Power (P <sub>max</sub> )	240	236
Maximum Power Voltage (V <sub>mp</sub> )	35.1	34.9
Maximum Power Current (I <sub>mp</sub> )	6.84	6.77
Open-circuit Voltage (V <sub>oc</sub> )	42.7	42.5
Short-circuit Current (I <sub>sc</sub> )	7.24	7.17

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

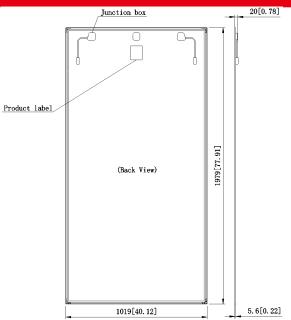
#### **Mechanical Characteristics**

Solar Cell	Monocrystalline silicon (6 inches)
No. of Cells	72 (6×12)
Module Dimensions	1979×1019×5.6 mm (77.9×40.1×0.2 inch)
Weight	7.7 kgs (17.0 lbs)
Backsheet	White
Frame	Black Anodized Aluminium Alloy
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	54	54		
Pieces per container	270	1080		

**Dimensions** 



I-V Curve (325) 10 1000 W/m<sup>2</sup> 8 800 W/m<sup>2</sup> Current (A) 600 W/m<sup>2</sup> 400 W/m<sup>2</sup> 4 200 W/m<sup>2</sup> 2 0 20 10 30 40 0 50 Voltage (V)

Temperature Characteristics			
Nominal Operating Cell Temperature (NOCT)	<b>45±2</b> ℃		
Temperature Coefficient of Pmax	-0.42 %/℃		
Temperature Coefficient of Voc	- <b>0.31 %/°</b> C		
Temperature Coefficient of Isc	<b>0.050 %/°</b> C		

#### **Dealer Information**

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

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