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Solar Panel Guide Specification Data Sheet

**SunMan (Shanghai) Ltd.
SMD285-290M-6X10UW
SMD290M-6X10UW**

Also available on the web at
EnergyPal.com/sunman-shanghai-ltd-solar-panels/smd290m-6x10uw

290 Watt

60 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 industry-leading technologies to produce superior flexible crystalline-silicon panel which can be installed on curved surface.

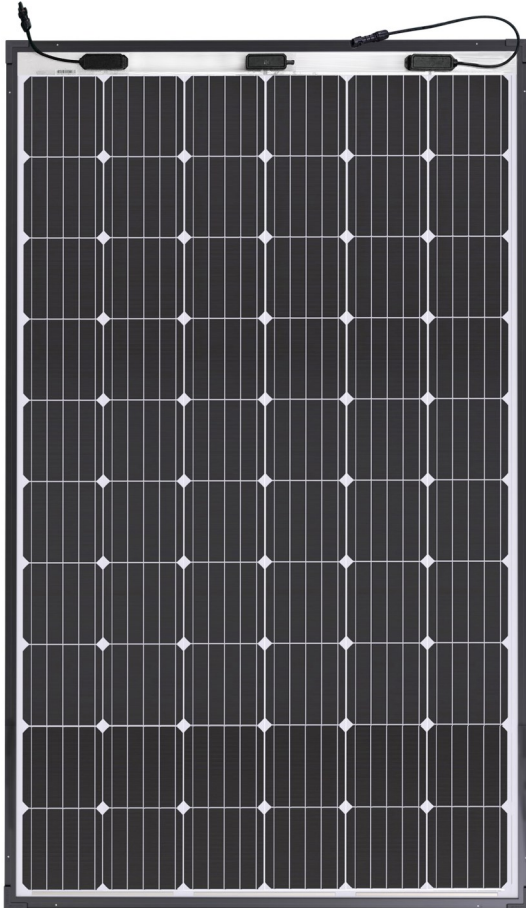
Aesthetics: Aesthetically pleasing design with patented materials and sophisticated manufacturing process results in a high-efficiency, attractive panel, with no light pollution, PID-free operation and high levels of safety.

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.



285-290 W

POWER OUTPUT RANGE

0-5 W

POWER TOLERANCE

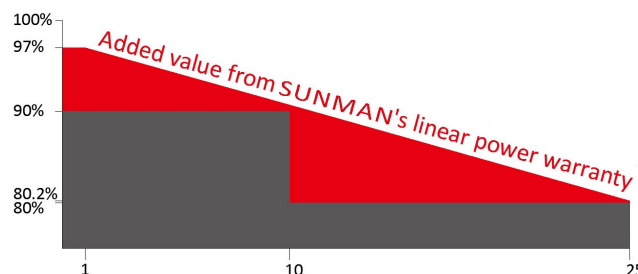
LINEAR

PERFORMANCE

WARRANTY

10 Year Product Warranty

25 Year Linear Power Warranty



SMD290M-6X10UW



SMD285M-6X10UW

Electrical Characteristics

STC	SMD290M-6X10UW	SMD285M-6X10UW
Maximum Power (P_{max})	290	285
Maximum Power Voltage (V_{mp})	32.6	32.4
Maximum Power Current (I_{mp})	8.90	8.80
Open-circuit Voltage (V_{oc})	39.9	39.8
Short-circuit Current (I_{sc})	9.43	9.34
Module Efficiency (%)	16.8	16.5
Operating Temperature ($^{\circ}C$)	-40 $^{\circ}C$ to 85 $^{\circ}C$	
Maximum System Voltage	1000 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	SMD290M-6X10UW	SMD285M-6X10UW
Maximum Power (P_{max})	214	210
Maximum Power Voltage (V_{mp})	29.9	29.7
Maximum Power Current (I_{mp})	7.16	7.08
Open-circuit Voltage (V_{oc})	36.9	36.7
Short-circuit Current (I_{sc})	7.61	7.53

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

Mechanical Characteristics

Solar Cell	Monocrystalline silicon (6 inches)
No. of Cells	60 (6 \times 10)
Module Dimensions	1690 \times 1019 \times 5.6 mm (66.5 \times 40.1 \times 0.2 inch)
Weight	5.6 kgs (12.3 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

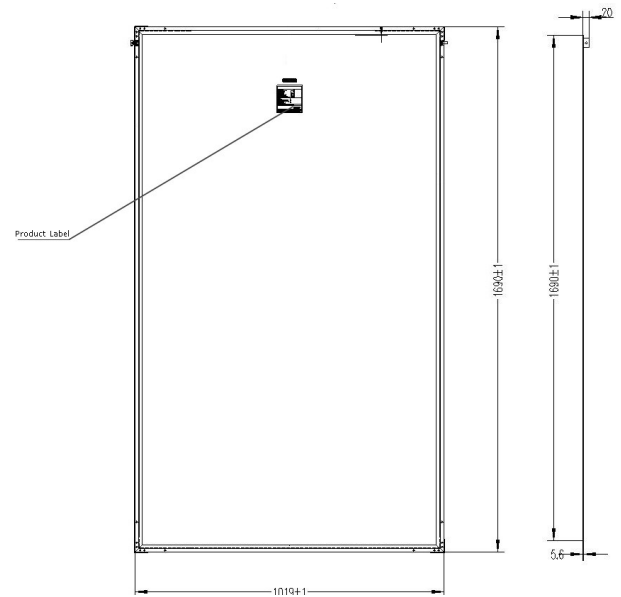
Packaging Configuration

	20' GP	40' HC
Module per pallet	66	66
Pieces per container	396	1848

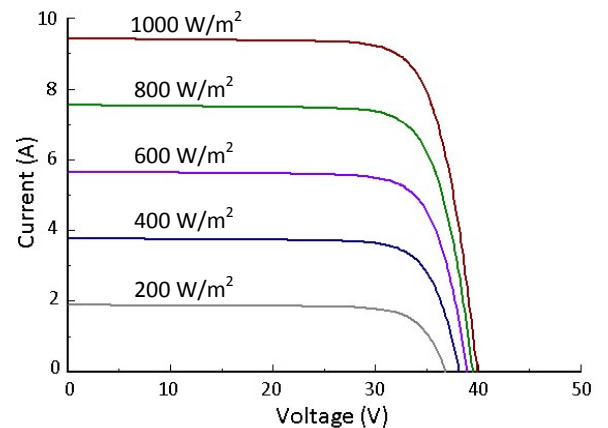
CAUTION: Read installation manual before using the product.

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Dimensions



I-V Curve (290)



Temperature Characteristics

Nominal Operating Cell Temperature (NOCT)	45 \pm 2 $^{\circ}C$
Temperature Coefficient of Pmax	-0.39 %/ $^{\circ}C$
Temperature Coefficient of Voc	-0.30 %/ $^{\circ}C$
Temperature Coefficient of Isc	0.059 %/ $^{\circ}C$

Dealer Information

SMDUW_IEC_EN_2019A