

# eArc

## SMF520J-12X12UW

# 520 Watt

## 144 Half Cell Monocrystalline Module



**Ultra-light:** Glass free module weighs 7.7 kg, 70% lighter than conventional glass modules.



**Fast-Installation:** Through "Quick-Bonding" installation, eArc requires no penetration, reduces time on roof and saves installation costs.



**Safety:** Integration with underlying installation surface, ensuring the waterproof performance and safety performance of the roof.



**Durable:** eArc is the first glassless module to pass the same durability tests as conventional glass modules, including IEC 61215:2016, IEC61730:2016 and UL61730 (USA). eArc has also passed PID, salt mist level 8 tests.

POWER OUTPUT RANGE 520 W

POWER TOLERANCE 0-5 W

**12 Year Product Warranty**

**25 Year Linear Power Warranty**



[www.sunman-energy.com](http://www.sunman-energy.com)

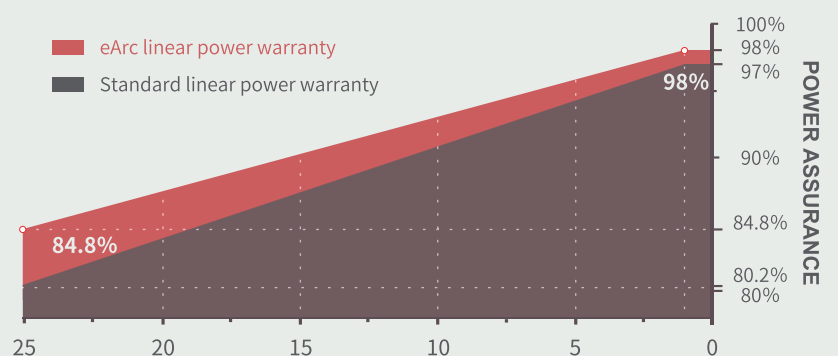


ULTRA-LIGHT & FLEXIBLE SOLAR PANEL

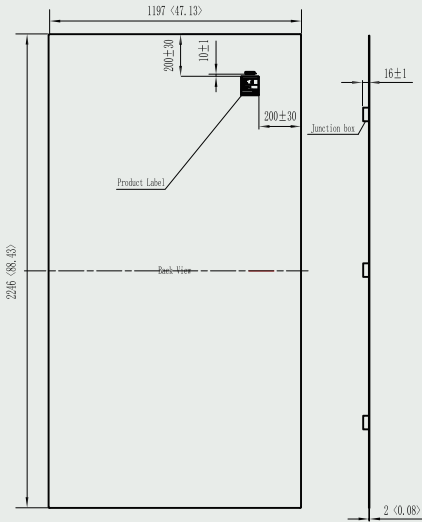
### LINEAR PERFORMANCE WARRANTY

CAUTION: Read installation manual before using the product.

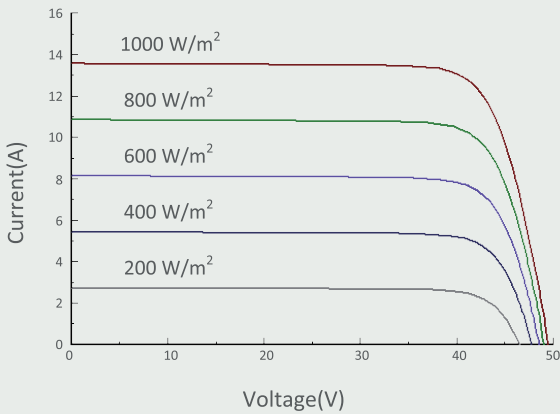
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## DIMENSIONS



## I-V CURVE (520)



## TEMPERATURE CHARACTERISTICS

Nominal Module Operating Temperature(NMOT)	<b>41±2 °C</b>
Temperature Coefficient of $P_{max}$	<b>-0.34 %/°C</b>
Temperature Coefficient of $V_{oc}$	<b>-0.26 %/°C</b>
Temperature Coefficient of $I_{sc}$	<b>0.033 %/°C</b>



SMF520J-12X12UW IEC EN 2023D 8

## ELECTRICAL CHARACTERISTICS

### STC SMF520J-12X12UW

Maximum Power ( $P_{max}$ )	520
Maximum Power Voltage ( $V_{mp}$ )	42.3
Maximum Power Current ( $I_{mp}$ )	12.31
Open-circuit Voltage ( $V_{oc}$ )	49.5
Short-circuit Current ( $I_{sc}$ )	13.56
Module Efficiency (%)	19.3
Operating Temperature	-40 °C to 85 °C
Maximum System Voltage	1500 V DC (IEC)
Maximum Series Fuse Rating	25 A
Application Class	Class A
Power Tolerance	0/+5 W

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

Tolerances of  $P_{max}$ ,  $V_{oc}$  and  $I_{sc}$  are within ±5%

### NMOT SMF520J-12X12UW

Maximum Power ( $P_{max}$ )	429.2
Maximum Power Voltage ( $V_{mp}$ )	41.8
Maximum Power Current ( $I_{mp}$ )	10.26
Open-circuit Voltage ( $V_{oc}$ )	49.8
Short-circuit Current ( $I_{sc}$ )	10.82

NMOT: Irradiance 800W/m<sup>2</sup>, Ambient temperature 20°C, AM=1.5, Wind speed 1 m/s.

## MECHANICAL CHARACTERISTICS

Solar Cell	Monocrystalline silicon(182mm half cell)
No. of Cells	144 (12×12)
Module Dimensions	2246×1197×2 mm
Weight	7.7kg
Backsheet	White
Frame	Frameless
J-box	IP 68 rated
Output Cables	Photovoltaic technology cable 4.0 mm 2, (+)450 / (-)450 mm
Connector	MC4 compatible

## PACKAGING CONFIGURATION

	20' GP	40' HC
Module per pallet	66	66
Pieces per container	264	528