

**520 Watt**

**144 Half Cell Monocrystalline Module**



**Ultra-light:** By replacing the glass and optimising the framing, the module only weighs 4.1kg/m<sup>2</sup>. 60% lighter than equivalent conventional glass modules.



**Fast Installation:** Module with the mounting structure pre-integrated. Eliminating the need for a traditional panel mounting structure. Saving time and installation cost.



**Wide range of applications:** Supports all types of installation method including roof adhesive mounting or removable mechanical mounting. Providing customers with more choices.



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



**Durable:** SUNO<sup>®</sup> UL is the first glassless module to pass the same durability standards as conventional glass modules, including IEC 61215:2016, IEC 61730:2016 and UL61730(USA).

**SUNO-U520DF-12X12UW**

Power output range **520 W**

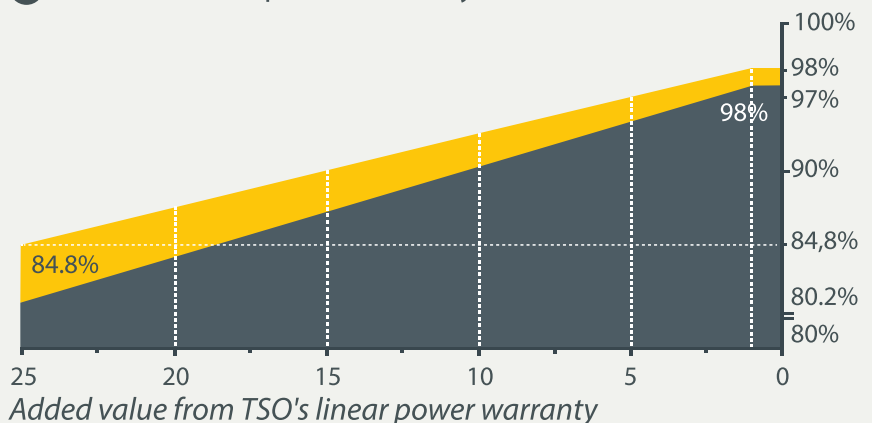
Power Tolerance **0-5 W**

**LINEAR PERFORMANCE WARRANTY**

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

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- SUNO-UL linear power warranty
- Standard linear power warranty



**12 Year Product Warranty**

**25 Year Linear Power Warranty**

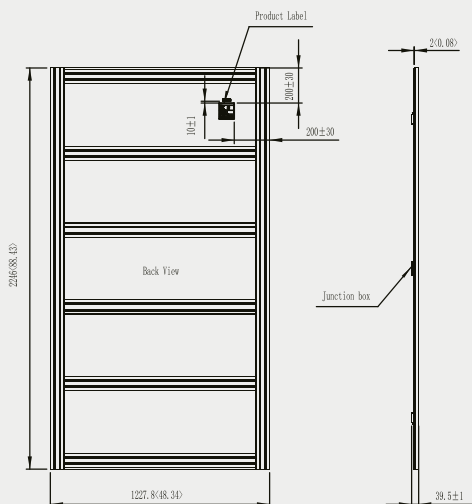


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"Innovating for Solar Energy"



## DIMENSIONS



## ELECTRICAL CHARACTERISTICS

### STC

### SUNO-U520DF-12X12UW

Maximum Power ( $P_{max}$ )	520
Maximum Power Voltage ( $V_{mp}$ )	42.3
Maximum Power Current ( $I_{mp}$ )	12.31
Open-circuit Current ( $V_{oc}$ )	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.

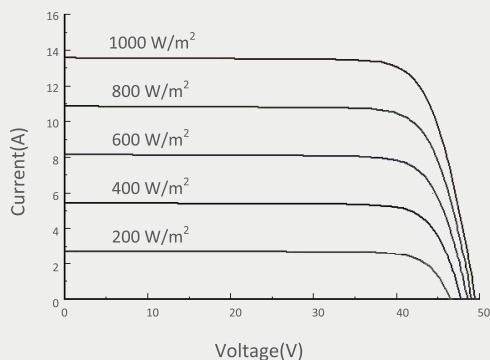
### NMOT

### SUNO-U520DF-12X12UW

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

## I-V CURVE (520)



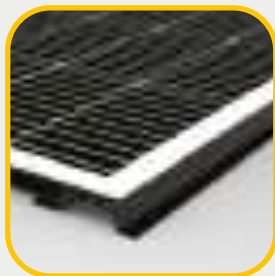
## MECHANICAL CHARACTERISTICS

Solar Cell	Monocrystalline silicon (182mm half cell)
Nº of Cells	144 (12x12)
Module Dimensions	2246x1197x2 mm
Product Dimensions	2246x1227.8x39.5 mm
Weight	11.1kg
Backsheet	White
J-box	IP 68 rated
Output Cables	Photovoltaic cable 4.0 mm <sup>2</sup> , (+)450 / (-)450 mm
Connector	MC4 compatible

## PACKAGING CONFIGURATION

	20'GP	40'HC
Module per pallet	34	34
Pieces per container	136	272

## TEMPERATURE CHARACTERISTICS



Nominal Module Operating Temperature (NMOT) **41 ± 2°C**

Temperature Coefficient of  $P_{max}$  **-0.34 %/°C**

Temperature Coefficient of  $V_{oc}$  **-0.26 %/°C**

Temperature Coefficient of  $I_{sc}$  **0.033 %/°C**



**SUNO<sup>®</sup> UL**  
Ultra Light

SUNO-U520DF-12X12UW 520Watt

