

Dragonfly

SMH520J-12X12UW
520 Watt



Ultra-light: By replacing the glass and optimising the framing, the module only weighs 4.1kg/m². 60% lighter than equivalent conventional glass modules.



Effortless 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 removable mechanical installation for all types of roofs, enhancing flexibility in later roof maintenance or project adjustments.



Safety: Integration with underlying installation surface, ensuring the water-proof performance and safety performance of the roof.



Durable: eArc is the first glassless module to pass the same durability standards as conventional glass modules, including IEC 61215:2021, IEC 61730:2023 and UL61730(USA).

MADE IN CHINA

LINEAR PERFORMANCE WARRANTY

12 Year Product Warranty

25 Year Linear Power Warranty



www.sunman-energy.com

Business consulting: overseasales@sunman-energy.com

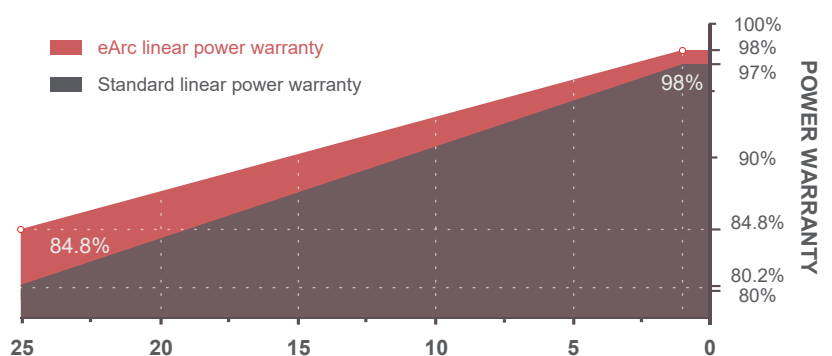
Media cooperation: marketing@sunman-energy.com



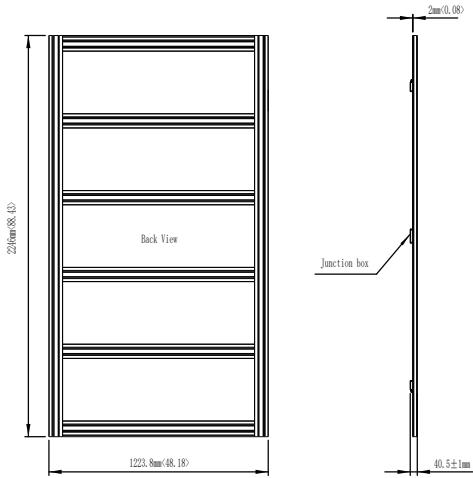
Linear power warranty: 98% in the first year, thereafter, for years two (2) through twenty-five (25), 0.55% maximum decrease from Module's nominal power output per year, ending with the 84.8% in the 25th year.

CAUTION: Read installation manual before using the product.

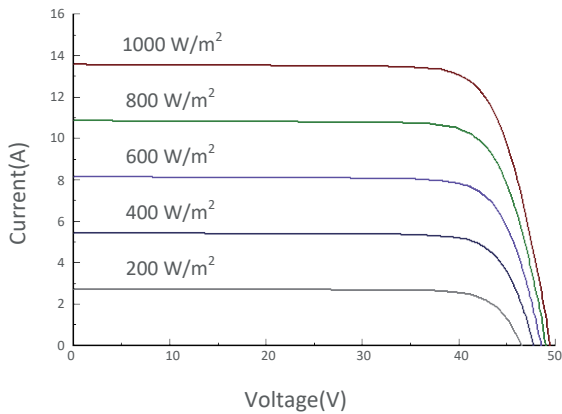
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DIMENSIONS



I-V CURVE (520)



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



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ELECTRICAL CHARACTERISTICS

STC	SMH520J-12X12UW
Maximum Power (P _{max})	520 W
Maximum Power Voltage (V _{mp})	42.26 V
Maximum Power Current (I _{mp})	12.31 A
Open-circuit Voltage (V _{oc})	49.54 V
Short-circuit Current (I _{sc})	13.56 A
Module Efficiency (%)	19.3
Operating Temperature	-40 °C to 70 °C
Maximum System Voltage	1500 V DC (IEC)
Maximum Series Fuse Rating	25 A
Safety Class	Class II
Power Tolerance	0 - 5 W

STC: Irradiance 1000W/m², Cell temperature 25°C, AM=1.5. Tolerances of P_{max}, V_{oc} and I_{sc} are within ±5%

NMOT	SMH520J-12X12UW
Maximum Power (P _{max})	429.2 W
Maximum Power Voltage (V _{mp})	41.8 V
Maximum Power Current (I _{mp})	10.26 A
Open-circuit Voltage (V _{oc})	49.8 V
Short-circuit Current (I _{sc})	10.82 A

NMOT: Irradiance 800W/m², 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
Product Dimensions	2246×1223.8×40.5 mm
Module Weight	7.2kg ±3%
Product Weight	11.1kg ±3%
Backsheet	White
J-box	IP 68 rated
Output Cables	Photovoltaic cable 4.0 mm 2, (+)450 / (-)450 mm
Connector	Stäubli MC4-EVO2

PACKAGING CONFIGURATION

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