

eArc

SMF430F-12X12UW

430 Watt

144 Half Cell Monocrystalline Module



Ultra-light: Glass free module weighs 7.2 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 61215:2021, IEC61730:2023 and UL61730 (USA).

POWER OUTPUT RANGE 430 W

POWER TOLERANCE 0-5 W

MADE IN CHINA

LINEAR PERFORMANCE WARRANTY

12 Year Product Warranty

25 Year Linear Power Warranty

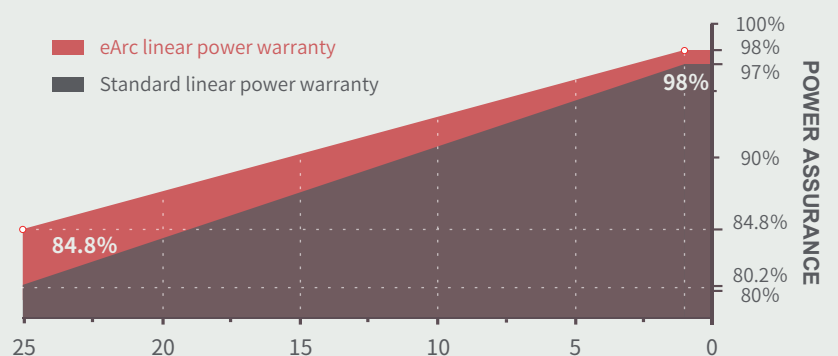


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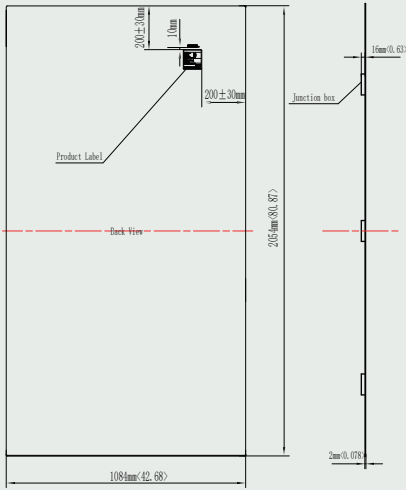
Linear power warranty: 98% in the first year, thereafter, for years two (2) through twenty-five (25), 0.55% maximum decrease from Module's nominal power output per year, ending with the 84.8% in the 25th year.

CAUTION: Read installation manual before using the product.

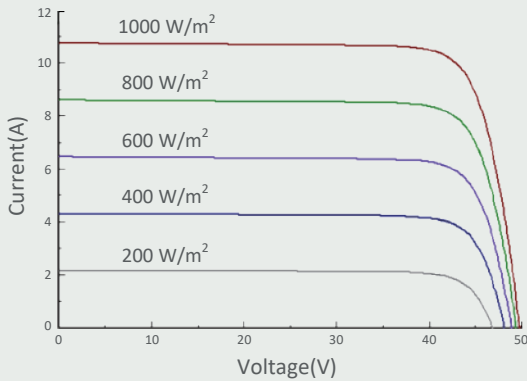
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DIMENSIONS



I-V CURVE (430)



TEMPERATURE CHARACTERISTICS

Nominal Module Operating Temperature(NMOT)	41±2 °C
Temperature Coefficient of P_{max}	-0.38 %/°C
Temperature Coefficient of V_{oc}	-0.28 %/°C
Temperature Coefficient of I_{sc}	0.020 %/°C



SMF430F IEC AU 2025A 2

ELECTRICAL CHARACTERISTICS

STC	SMF430F-12X12UW
Maximum Power (P_{max})	430 W
Maximum Power Voltage (V_{mp})	42.0 V
Maximum Power Current (I_{mp})	10.24 A
Open-circuit Voltage (V_{oc})	49.8 V
Short-circuit Current (I_{sc})	10.74 A
Module Efficiency (%)	19.3
Operating Temperature	-40 °C to 70 °C
Maximum System Voltage	1500 V DC (IEC)
Maximum Series Fuse Rating	20 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	SMF430F-12X12UW
Maximum Power (P_{max})	325.1 W
Maximum Power Voltage (V_{mp})	38.8 V
Maximum Power Current (I_{mp})	8.38 A
Open-circuit Voltage (V_{oc})	46.8 V
Short-circuit Current (I_{sc})	8.69 A

NMOT: Irradiance 800W/m², Ambient temperature 20°C, AM=1.5, Wind speed 1 m/s.

MECHANICAL CHARACTERISTICS

Solar Cell	Monocrystalline silicon(166mm half cell)
No. of Cells	144 (12×12)
Module Dimensions	2054×1084×2 mm
Weight	7.2kg ±3%
Backsheet	White
Frame	Frameless
J-box	IP 68 rated
Output Cables	Photovoltaic technology cable 4.0 mm 2, (+)450 / (-)450 mm
Connector	Stäubli MC4-EVO2

PACKAGING CONFIGURATION

	20' GP	40' HC
Module per pallet	66+50	66
Pieces per container	580	1320