

# eArc

## SMF430F-12X12UW

# 430 Watt

## 144 Half Cell Monocrystalline Module



**Ultra-light:** Glass free module weighs 7.3 kg, 70% lighter than conventional glass modules.



**Fast-Installation:** Through "Quick-Bonding" installation, eArc requires no penetration, reduces time on roof by 40% and eliminates the use of mounting hardware.



**Aesthetic:** Seamless integration with underlying installation surface.



**Durable:** eArc is the first glassless module to pass the same durability tests as conventional glass modules, including IEC 61215:2016, IEC61730:2016 and UL1703 (USA). eArc has also passed PID, salt mist and ammonia corrosion tests.

POWER OUTPUT RANGE 425~430 W

POWER TOLERANCE 0-5 W

**12 Year Product Warranty**

**25 Year Linear Power Warranty**



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

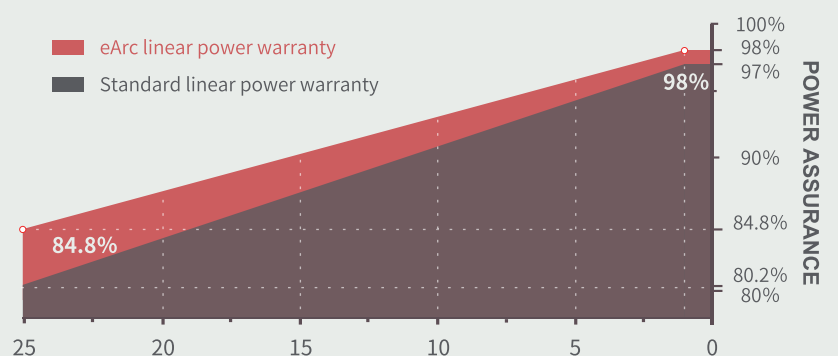


ULTRA-LIGHT & FLEXIBLE SOLAR PANEL

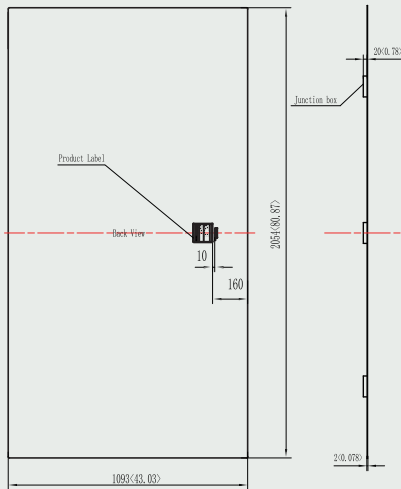
### LINEAR PERFORMANCE WARRANTY

CAUTION: Read installation manual before using the product.

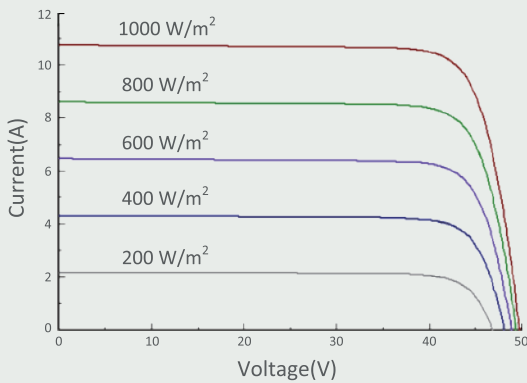
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## DIMENSIONS



## I-V CURVE (430)



## TEMPERATURE CHARACTERISTICS

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



SMF-UW IEC EN 2021B

## ELECTRICAL CHARACTERISTICS

STC	SMF425F-12X12UW	SMF430F-12X12UW
Maximum Power ( $P_{max}$ )	425	430
Maximum Power Voltage ( $V_{mp}$ )	41.8	42.0
Maximum Power Current ( $I_{mp}$ )	10.17	10.24
Open-circuit Voltage ( $V_{oc}$ )	49.6	49.8
Short-circuit Current ( $I_{sc}$ )	10.67	10.74
Module Efficiency (%)	18.9	19.2
Operating Temperature	-40 °C to 85 °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/m<sup>2</sup>, Cell Temperature 25°C, AM=1.5. Tolerances of  $P_{max}$ ,  $V_{oc}$  and  $I_{sc}$  are within ±5%

NMOT	SMF425F-12X12UW	SMF430F-12X12UW
Maximum Power ( $P_{max}$ )	321.4	325.1
Maximum Power Voltage ( $V_{mp}$ )	38.6	38.8
Maximum Power Current ( $I_{mp}$ )	8.33	8.38
Open-circuit Voltage ( $V_{oc}$ )	46.6	46.8
Short-circuit Current ( $I_{sc}$ )	8.64	8.69

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(166mm half cell)
No. of Cells	144 (12×12)
Module Dimensions	2054×1093×2 mm
Weight	7.3kg
Backsheet	White
Frame	Frameless
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+50	66
Pieces per container	580	1320