

# 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 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**

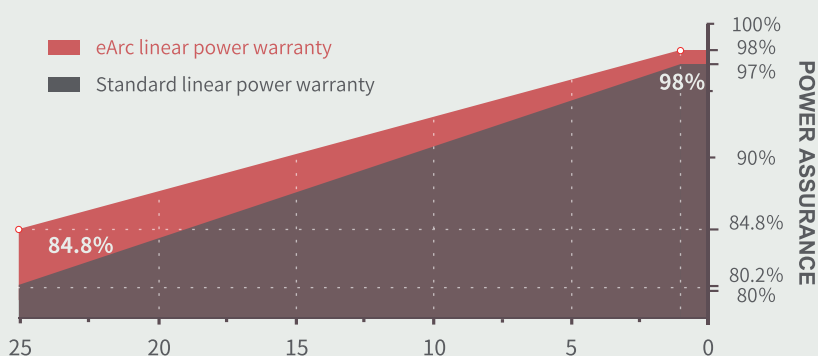


[www.sunman-energy.com](http://www.sunman-energy.com)

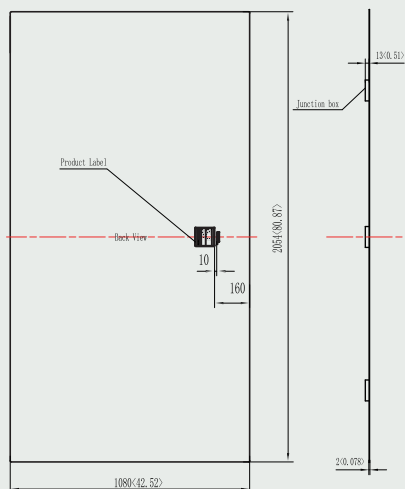
## LINEAR PERFORMANCE WARRANTY

CAUTION: Read installation manual before using the product.

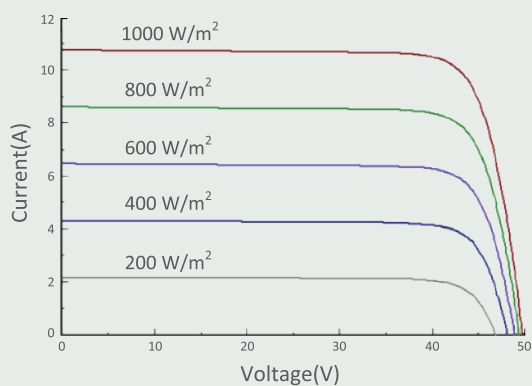
©2021 Sunman (zhenjiang) Co., Ltd. All rights reserved. Specifications included in this datasheet are subject to change without notice.



## DIMENSIONS



## I-V CURVE (430)



## TEMPERATURE CHARACTERISTICS

Nominal Module Operating Temperature(NOMT) **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**



SMF425F IEC EN 2022B

## ELECTRICAL CHARACTERISTICS

STC	SMF425F-12X12UW	SMF430F-12X12UW
Maximum Power (P <sub>max</sub> )	425	430
Maximum Power Voltage (V <sub>mp</sub> )	41.8	42.0
Maximum Power Current (I <sub>mp</sub> )	10.17	10.24
Open-circuit Voltage (V <sub>oc</sub> )	49.6	49.8
Short-circuit Current (I <sub>sc</sub> )	10.67	10.74
Module Efficiency (%)	19.2	19.4
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/m² , Cell temperature 25 °C , AM=1.5.		
Tolerances of P <sub>max</sub> , V <sub>oc</sub> and I <sub>sc</sub> 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/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	2054×1080×2 mm
Weight	7.2kg
Backsheet	White
Frame	Frameless
J-box	IP 68 rated
Output Cables	Photovoltaic technology cable 4.0 mm 2, (+)300 / (-)300 mm
Connector	MC4 compatible

## PACKAGING CONFIGURATION

	20' GP	40' HC
Module per pallet	66+40	66+40
Pieces per container	530	1400