

# SF-M18/108

## 425-440W

### 182×91mm cells 54

#### Monocrystalline

#### N-TYPE Half-Cell Module

Max Power out: 440W

Max Efficiency: 22.53%

Power Tolerance: 0~+5W



#### SMBB Technology

Better light trapping and current collection to improve module power output and reliability



#### PID Resistance

Excellent Anti-PID performance guarantee via optimized mass-production process and materials control.



#### Durability Against Extreme Environmental Conditions

High salt mist and ammonia resistance.



#### Reduced Hot Spot Loss

Optimized electrical design and lower operating current for reduced hot spot loss and better temperature coefficient.



#### Enhanced Mechanical Load

Certified to withstand: wind load (2400 Pascal) and snow load (5400 Pascal).

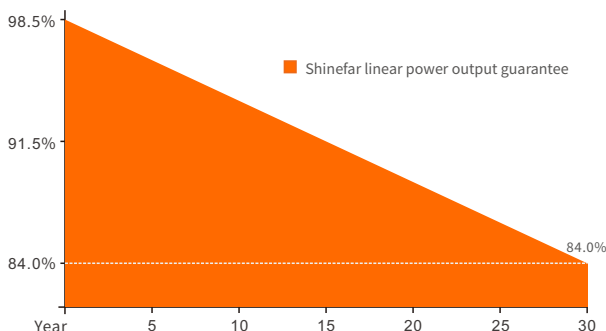


#### High energy generation, low LCOE

Low Pmax temp coefficient increases energy production

### Superior Warranty

- 15-year material & technology warranty
- 30-year linear power output warranty

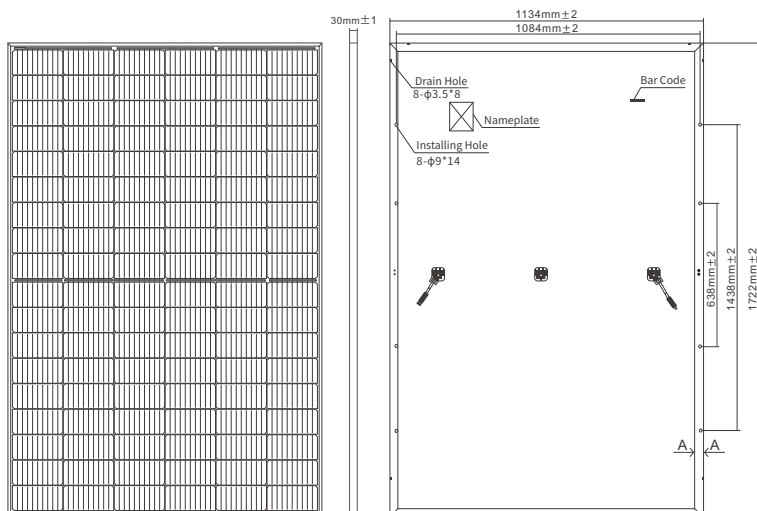


### Comprehensive Products and System Certificates

- IEC/EN61215-1:2021 & IEC/EN61215-2:2021
- IEC/EN61730-1:2016 & IEC/EN61730-2:2016
- UL61730-1:2017 & UL61730-2:2017
- UL61215-1:2017 & UL61215-2:2017
- IEC 61701:2020-Saltmist
- IEC 62716:2013-Ammonia
- IEC 62804:2020-PID
- IECCE CertificateBody (CB)
- UKCA:EN61730-2018
- ISO9001 & ISO14001 & ISO45001



## Engineering Drawings



Front

Side

Back

## Structural Parameter

Dimensions of Module	1722×1134×30mm
Weight	20kg
Packing	37/pallet, 962/40hq
Glass	High transparency solar glass 3.2mm
Backsheet	White
Frame	Anodized aluminum alloy & Custom color accepted
J-Box	IP68 Rated
Cable	4.0mm <sup>2</sup> , 300mm
Bypass Diodes	3pcs
Wind/ Snow Load	2400Pa/5400Pa
Connector	MC4 Compatible

## Electrical Specification

(STC: Irradiance 1000W/m<sup>2</sup>, cell temperature 25°C, AM1.5G — NOCT: Irradiance 800W/m<sup>2</sup>, Ambient temperature 20°C, Wind speed 1m/s)

Module Type	SF-M18/108425		SF-M18/108430		SF-M18/108435		SF-M18/108440	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax) [W]	425	315.35	430	319.06	435	322.77	440	326.48
Maximum Power Voltage (Vmp) [V]	31.86	29.63	32.03	29.79	32.20	29.95	32.37	30.10
Maximum Power Current (Imp) [A]	13.34	10.64	13.42	10.71	13.51	10.78	13.59	10.85
Open Circuit Voltage (Voc) [V]	37.52	34.89	37.61	34.98	37.70	35.06	37.79	35.14
Short Circuit Current (Isc) [A]	14.28	11.39	14.38	11.48	14.49	11.56	14.59	11.64
Module Efficiency [%]	21.76		22.02		22.28		22.53	
Cell Type [mm]	Mono 182×91, 108 cells							
Operational Temperature [°C]	-40~+85°C							
Maximum System Voltage	1500V DC							
Max Series Fuse Rating	25A							

## Temperature Ratings

Nominal Operating Cell Temperature	45±2°C
Temperature Coefficient of Isc	+0.05%/°C
Temperature Coefficient of Voc	-0.23%/°C
Temperature Coefficient of Pmax	-0.30%/°C

## Curve Diagram

