

# SF-M18/108

## 400-415W

### 182±1.5×91mm±1.5

### Cells 108

### Monocrystalline

### PERC Half-Cell Module

Max Power Out: 415W

Max Efficiency: 21.25%

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).

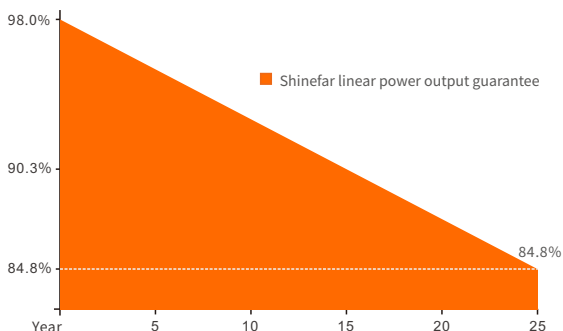


#### High Energy Generation, Low LCOE

Low Pmax temp coefficient increases energy production

### Superior Warranty

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

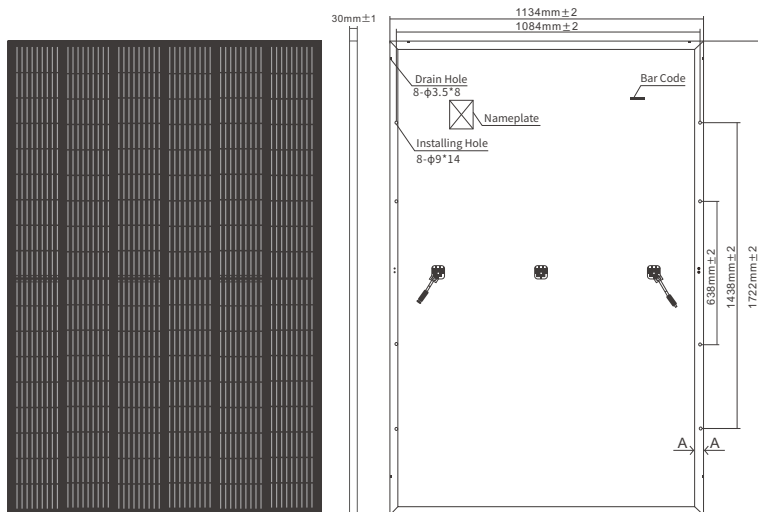


### Comprehensive Products and System Certificates

- 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
- IECEE Certificate Body (CB)
- UKCA:EN61730-2018
- ISO9001 & ISO14001 & ISO45001



## Engineering Drawings



Front

Side

Back

## Structural Parameter

Dimensions of Module	1722 × 1134 × 30mm
Weight	21.3kg
Packing	37PCS/Pallet, 962PCS/40HQ
Glass	High Transparency Solar Glass 3.2mm
Backsheet	Black
Frame	Black, Anodized Aluminium Alloy
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-M18/108400		SF-M18/108405		SF-M18/108410		SF-M18/108415	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax) [W]	400	296.8	405	300.51	410	304.22	415	307.93
Maximum Power Voltage (Vmp) [V]	31.01	28.84	31.18	29.00	31.35	29.16	31.52	29.31
Maximum Power Current (Imp) [A]	12.90	10.29	12.99	10.36	13.08	10.43	13.17	10.50
Open Circuit Voltage (Voc) [V]	37.07	34.48	37.16	34.56	37.25	34.64	37.34	34.73
Short Circuit Current (Isc) [A]	13.75	10.97	13.86	11.06	13.97	11.14	14.07	11.23
Module Efficiency [%]	20.48		20.74		21.00		21.25	
Cell Type [mm]	Mono 182 ± 1.5 × 91 ± 1.5, 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	+0.06%/°C
Temperature Coefficient of Voc	-0.30%/°C
Temperature Coefficient of Pmax	-0.39%/°C

## Curve Diagram

