

# SF-M18/120

## 470-485W

### 182×91mm cells 60

### Monocrystalline

### N-TYPE Half-Cell Module

Max Power out: 485W

Max Efficiency: 22.40%

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).

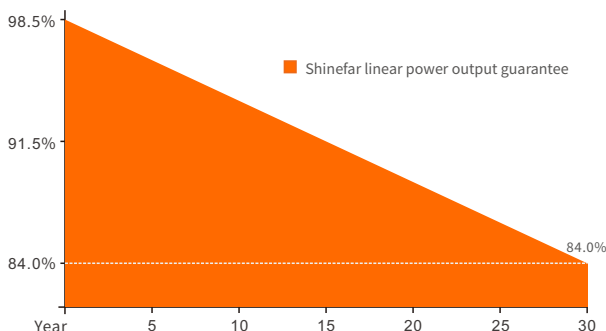


#### High energy generation, low LCOE

Low Pmax temp coefficient increases energy production

### Superior Warranty

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

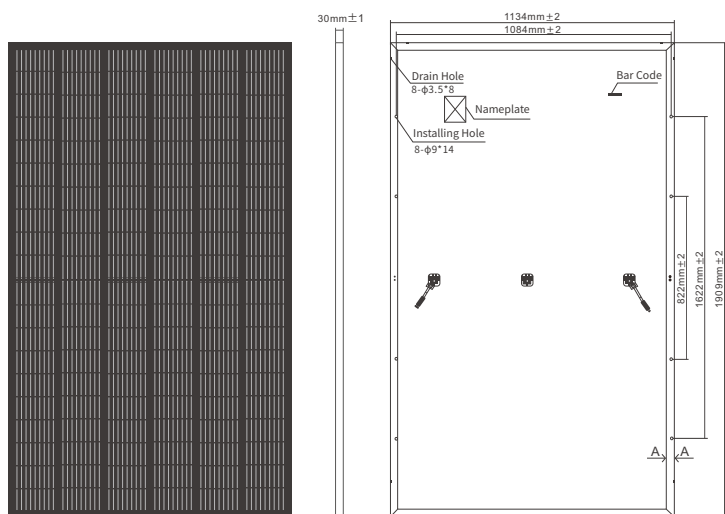


### Comprehensive Products and System Certificates

- 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	1909×1134×30mm
Weight	22kg
Packing	37/pallet, 888/40hq
Glass	High transparency solar glass 3.2mm
Backsheet	Air-side white , Cell-side High reflection 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-M18/120470		SF-M18/120475		SF-M18/120480		SF-M18/120485	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax) [W]	470	348.74	475	352.45	480	356.16	485	359.87
Maximum Power Voltage (Vmp) [V]	35.08	32.62	35.23	32.76	35.38	32.90	35.53	33.04
Maximum Power Current (Imp) [A]	13.40	10.69	13.48	10.76	13.57	10.82	13.65	10.89
Open Circuit Voltage (Voc) [V]	41.96	39.02	42.11	39.16	42.26	39.30	42.41	39.44
Short Circuit Current (Isc) [A]	14.12	11.27	14.19	11.32	14.26	11.38	14.33	11.43
Module Efficiency [%]	21.71		21.94		22.17		22.40	
Cell Type [mm]	Mono 182×91, 120 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

