

# SF-M18/108

## 400-415W

### 182\*91mm cells 54

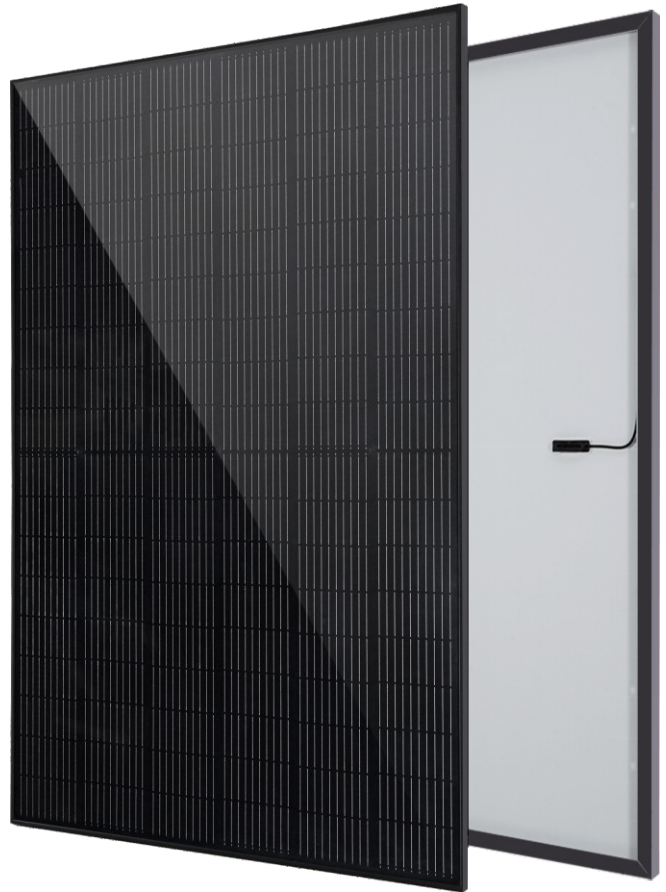
### Monocrystalline

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.



#### HOT 2.0 Technology

The N-type module with Hot 2.0 technology has better reliability and lower LID/LETID.



#### Enhanced Mechanical Load

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

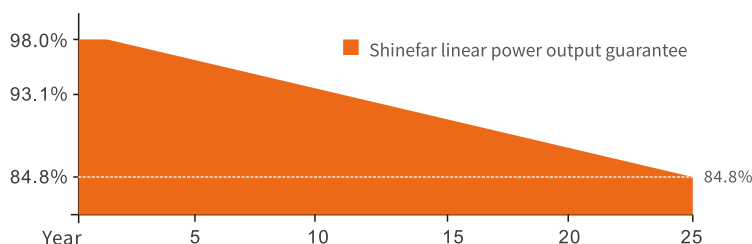


#### High energy generation, low LCOE

Low Pmax temp coefficient (-0.36%) increases energy production

### Superior Warranty

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

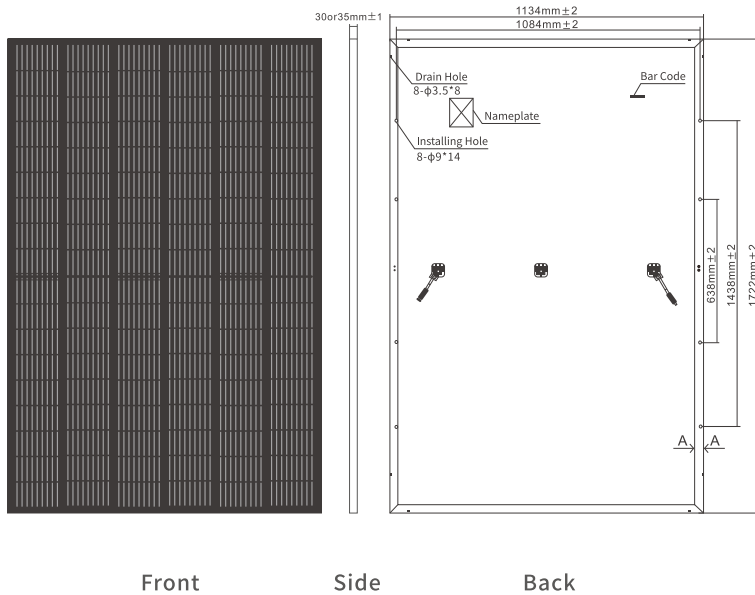


### Comprehensive Products and System Certificates

- IEC 61215, IEC 61730, IEC 61701, IEC 62716
- ISO 9001:2015 Quality management systems
- ISO 14001:2015 Environmental management systems
- ISO 45001:2018 Occupational health and safety management systems



## Engineering Drawings



## Structural parameter

|                      |                                                  |
|----------------------|--------------------------------------------------|
| Dimensions of Module | 1722x1134x30 or 1722x1134x35mm                   |
| Weight               | 20kg                                             |
| packing              | 37/31/pallet,962/806/40hq                        |
| 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-M18/108400        |       | 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 182x91,108cells |       |               |        |               |        |               |        |
| 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

