

# SF-M18/120

## 470-485W

### 182\*91mm cells 60

#### Monocrystalline

#### N-TYPE half-cell module

Max Power out:485W

Max Efficiency:22.44%

Power tolerance:0~+5W



#### SMBB Technology

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



#### HOT 2.0 Technology

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



#### PID Resistance

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



#### Enhanced Mechanical Load

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



#### Durability Against Extreme Environmental Conditions

High salt mist and ammonia resistance.

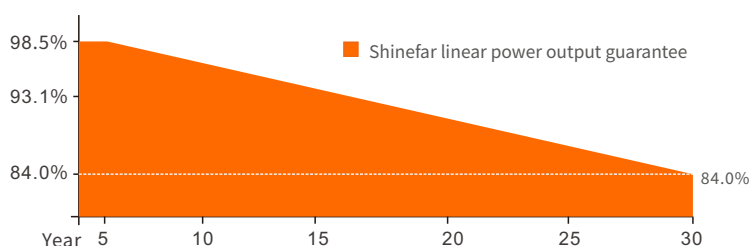


#### High energy generation, low LCOE

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

### Superior Warranty

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

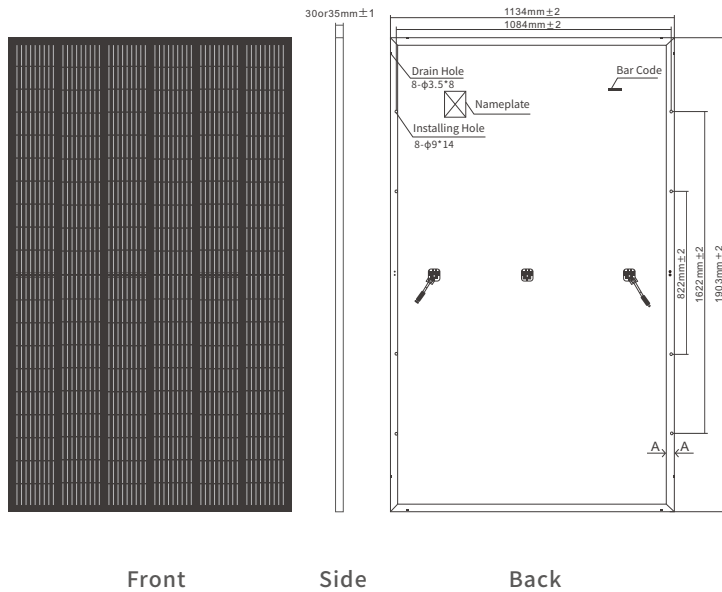


### Comprehensive Products and System Certificates

- 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 | 1903x1134x30 or 1903x1134x35mm                   |
| Weight               | 22kg                                             |
| packing              | 37/31/pallet,888/744/40hq                        |
| 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 |        |
|---------------------------------|-----------------------|--------|---------------|--------|---------------|--------|---------------|--------|
| Testing Condition               | 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[%]            | 21.75                 |        | 21.98         |        | 22.21         |        | 22.44         |        |
| Cell Type[mm]                   | Mono 182x91,120 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    | -0.29%/°C |

## Curve diagram

