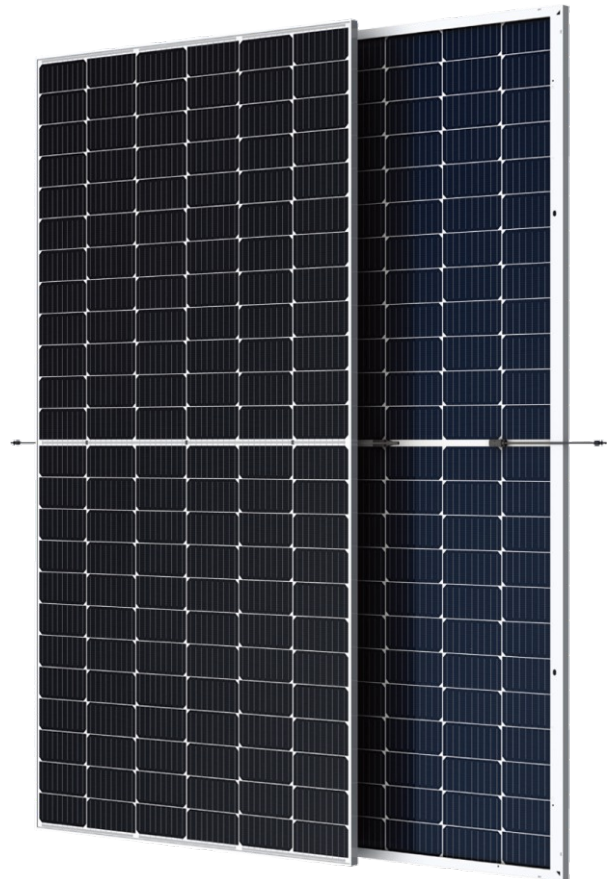


# SF-M18/144

## 560-580W

### 182\*91mm cells 72



#### Bifacial single glass

#### N-TYPE half-cell module

Max Power out:580W

Max Efficiency:22.45%

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.

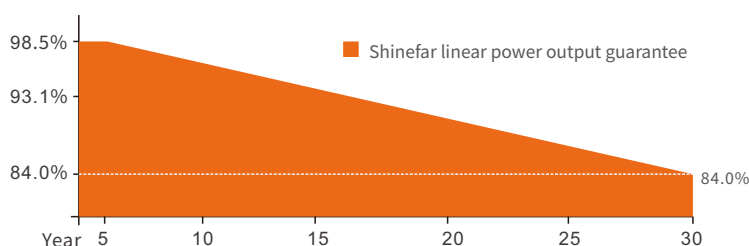


#### High energy generation, low LCOE

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

### Superior Warranty

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

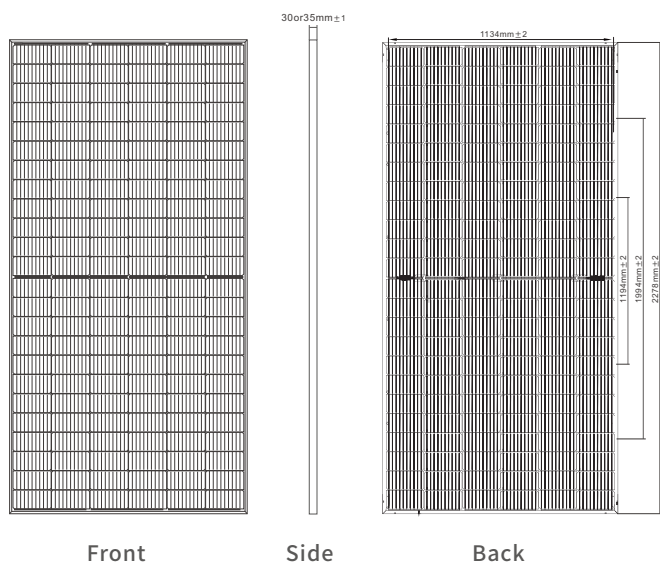


### Comprehensive Products and System Certificates

- 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 | 2278x1134x30mm or 2278x1134x35mm    |
| Weight               | 26kg                                |
| packing              | 37/31/pallet,740/620/40hq           |
| Front Glass          | High transparency solar glass 3.2mm |
| Back Glass           | Transparent or Transparent Grid     |
| Frame                | Silver, 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-M18/144565         |        | SF-M18/144570 |        | SF-M18/144575 |        | SF-M18/144580 |        |
|---------------------------------|-----------------------|--------|---------------|--------|---------------|--------|---------------|--------|
| Testing Condition               | STC                   | NOCT   | STC           | NOCT   | STC           | NOCT   | STC           | NOCT   |
| Maximum Power (Pmax) [W]        | 565                   | 423.19 | 570           | 426.93 | 575           | 430.68 | 580           | 434.42 |
| Maximum Power Voltage (Vmp) [V] | 42.43                 | 39.67  | 42.59         | 39.82  | 42.75         | 39.97  | 42.91         | 40.12  |
| Maximum Power Current (Imp) [A] | 13.32                 | 10.67  | 13.38         | 10.72  | 13.45         | 10.77  | 13.52         | 10.83  |
| Open Circuit Voltage (Voc) [V]  | 50.35                 | 47.08  | 50.50         | 47.22  | 50.65         | 47.36  | 50.80         | 47.50  |
| Short Circuit Current (Isc) [A] | 14.32                 | 11.47  | 14.39         | 11.53  | 14.47         | 11.59  | 14.55         | 11.65  |
| Module Efficiency[%]            | 21.87                 |        | 22.07         |        | 22.26         |        | 22.45         |        |
| Cell Type[mm]                   | Mono 182x91,144 cells |        |               |        |               |        |               |        |
| Operational Temperature[°C]     | -40~~+85°C            |        |               |        |               |        |               |        |
| Maximum System Voltage          | 1500V DC              |        |               |        |               |        |               |        |
| Max Series Fuse Rating          | 25A                   |        |               |        |               |        |               |        |

## Electrical characteristics with different power bin(reference to 10% Irradiance ratio)

|                                  |       |       |       |       |
|----------------------------------|-------|-------|-------|-------|
| Total Equivalent power(Pmax)[Wp] | 605   | 610   | 615   | 621   |
| Maximum Power Voltage (Vmp) [V]  | 42.43 | 42.59 | 42.75 | 42.91 |
| Maximum Power Current (Imp) [A]  | 14.25 | 14.32 | 14.39 | 14.46 |
| Open Circuit Voltage (Voc) [V]   | 50.35 | 50.50 | 50.65 | 50.80 |
| Short Circuit Current (Isc) [A]  | 15.32 | 15.40 | 15.48 | 15.56 |
| Irradiance ratio(rear/front)     | 10%   |       |       |       |

## 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

