

SF-M18/108

400-415W

182±1.5×91±1.5mm

Cells 108



Bifacial Single Glass

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



Reduced Hot Spot Loss

Optimized electrical design and lower operating current for reduced hot spot loss and better temperature coefficient.



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.

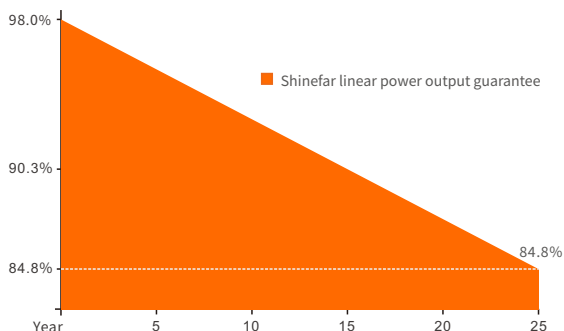


High Energy Generation, Low LCOE

Low Pmax temp coefficient increases energy production

Superior Warranty

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

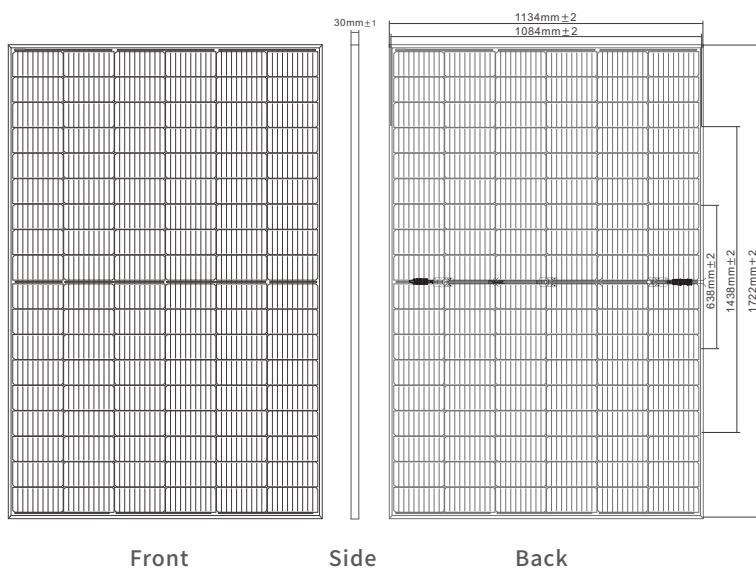


Comprehensive Products and System Certificates

- 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



Structural Parameter

| | |
|----------------------|---|
| Dimensions of Module | 1722×1134×30mm |
| Weight | 21.3kg |
| Packing | 37PCS/Pallet, 962PCS/40HQ |
| Front Glass | High Transparency Solar Glass 3.2mm |
| Back Glass | Transparent or Transparent Grid |
| Frame | Anodized Aluminum Alloy & Custom Color Accepted |
| J-Box | IP68 Rated |
| Cable | 4.0mm ² , 300mm |
| Bypass Diodes | 3PCS |
| Wind/ Snow Load | 2400Pa/5400Pa |
| Connector | MC4 Compatible |

Electrical Specification

(STC: Irradiance 1000W/m², Cell temperature 25°C, AM1.5G — NOCT: Irradiance 800W/m², 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 | | | | | | | |

Electrical Characteristics With Different Power Bin (Reference to 10% Irradiance Ratio)

| | | | | |
|------------------------------------|-------|--------|-------|--------|
| Total Equivalent Power (Pmax) [Wp] | 428 | 433.35 | 438.7 | 444.05 |
| Maximum Power Voltage (Vmp) [V] | 31.01 | 31.18 | 31.35 | 31.52 |
| Maximum Power Current (Imp) [A] | 13.80 | 13.90 | 13.99 | 14.09 |
| Open Circuit Voltage (Voc) [V] | 37.07 | 37.16 | 37.25 | 37.34 |
| Short Circuit Current (Isc) [A] | 14.71 | 14.83 | 14.94 | 15.06 |
| Irradiance Ratio (Rear/Front) | 10% | | | |

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

