

# SF-M21/100

## 500-515W

### 210×105mm cells 50

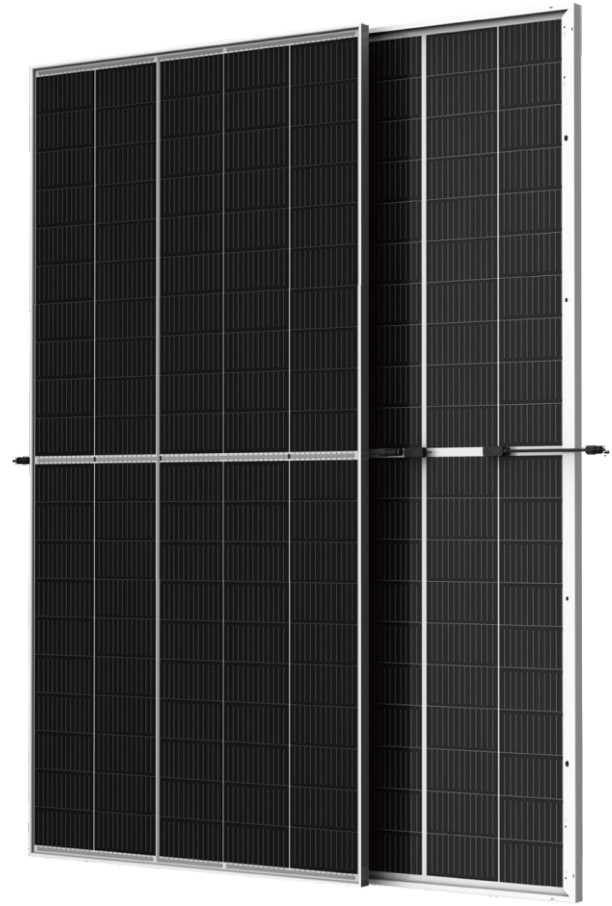
**Bifacial Single Glass**

**PERC Half-Cell Module**

Max Power out: 515W

Max Efficiency: 21.63%

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).

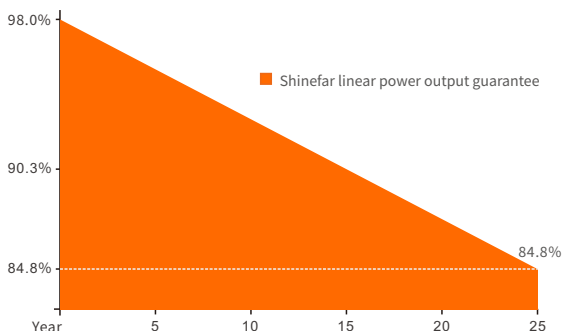


#### High energy generation, low LCOE

Low Pmax temp coefficient increases energy production

### Superior Warranty

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

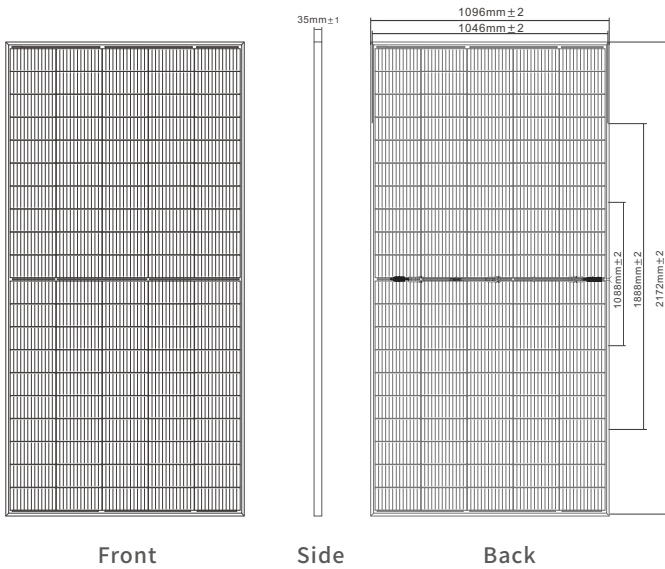


### Comprehensive Products and System Certificates

- 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 CertificateBody (CB)
- UKCA:EN61730-2018
- ISO9001 & ISO14001 & ISO45001



## Engineering Drawings



## Structural Parameter

Dimensions of Module	2172 × 1096 × 35mm
Weight	26kg
Packing	31/pallet, 640/40hq
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 <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-M21/100500		SF-M21/100505		SF-M21/100510		SF-M21/100515	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax) [W]	500	378	505	382	510	385	515	389
Maximum Power Voltage (Vmp) [V]	28.76	26.73	28.96	26.93	29.16	27.13	29.36	27.33
Maximum Power Current (Imp) [A]	17.39	14.13	17.44	14.17	17.49	14.20	17.54	14.24
Open Circuit Voltage (Voc) [V]	34.49	32.06	34.69	32.26	34.89	32.46	35.09	32.66
Short Circuit Current (Isc) [A]	18.55	15.08	18.60	15.11	18.66	15.15	18.71	15.19
Module Efficiency [%]	21.00		21.21		21.42		21.63	
Cell Type [mm]	Mono 210 × 105, 100cells							
Operational Temperature [°C]	-40~+85°C							
Maximum System Voltage	1500V DC							
Max Series Fuse Rating	30A							

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

Total Equivalent power (Pmax) [Wp]	535	540	546	551
Maximum Power Voltage (Vmp) [V]	28.76	28.96	29.16	29.36
Maximum Power Current (Imp) [A]	18.60	18.66	18.71	18.77
Open Circuit Voltage (Voc) [V]	34.49	34.69	34.89	35.09
Short Circuit Current (Isc) [A]	19.84	19.90	19.96	20.02
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

