

# SF-M21/120

## 600-615W

### 210×105mm cells 60

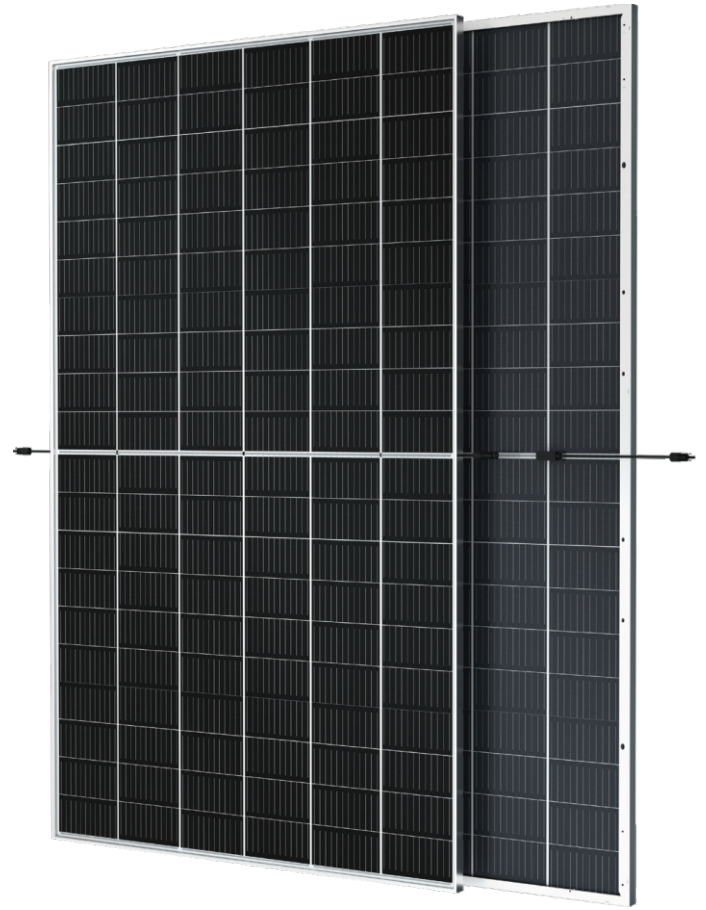
**Bifacial Single Glass**

**PERC Half-Cell Module**

Max Power out: 615W

Max Efficiency: 21.73%

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).

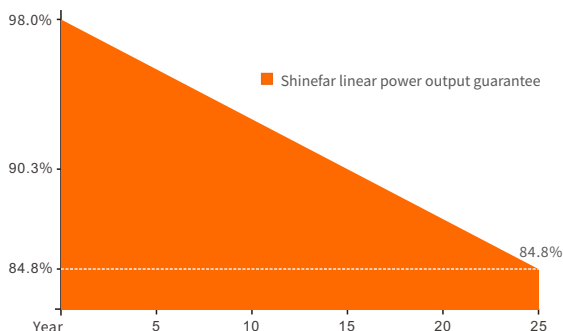


#### High energy generation, low LCOE

Low Pmax temp coefficient increases energy production

### Superior Warranty

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

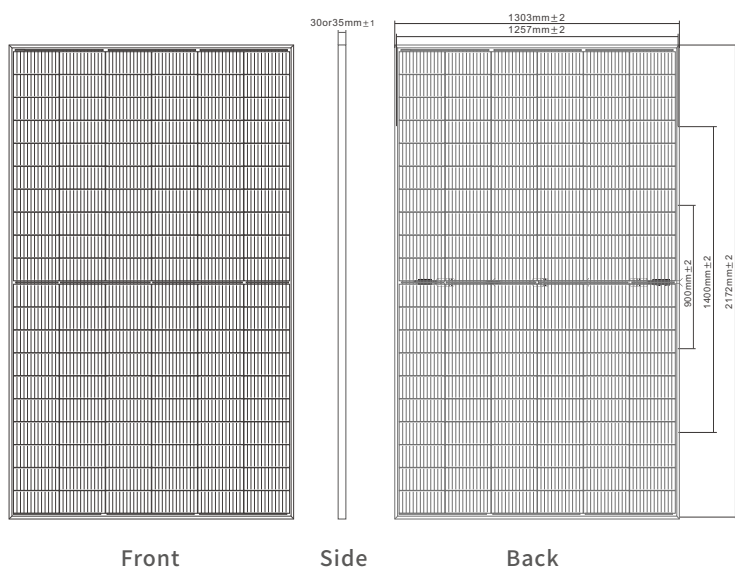


### Comprehensive Products and System Certificates

- 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	2172×1303×30 or 2172×1303×35mm
Weight	31kg
Packing	37/31/pallet, 666/558/40hq
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-M21/120600		SF-M21/120605		SF-M21/120610		SF-M21/120615	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax) [W]	600	454	605	458	610	462	615	465
Maximum Power Voltage (Vmp) [V]	34.40	32.12	34.60	32.30	34.80	32.49	35.00	32.68
Maximum Power Current (Imp) [A]	17.44	14.14	17.49	14.18	17.53	14.21	17.57	14.25
Open Circuit Voltage (Voc) [V]	41.50	39.08	41.70	39.26	41.90	39.45	42.10	39.64
Short Circuit Current (Isc) [A]	18.54	14.90	18.58	14.94	18.62	14.97	18.67	15.00
Module Efficiency [%]	21.20		21.38		21.55		21.73	
Cell Type [mm]	Mono 210×105, 120cells							
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)

	642	647	653	658
Total Equivalent power (Pmax) [Wp]	642	647	653	658
Maximum Power Voltage (Vmp) [V]	34.40	34.60	34.80	35.00
Maximum Power Current (Imp) [A]	18.66	18.71	18.76	18.80
Open Circuit Voltage (Voc) [V]	41.50	41.70	41.90	42.10
Short Circuit Current (Isc) [A]	19.84	19.88	19.93	19.97
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	-0.25%/°C
Temperature Coefficient of Pmax	-0.35%/°C

## Curve Diagram

