

# SF-M18/G120

## 465-480W

### 182×91mm cells 60

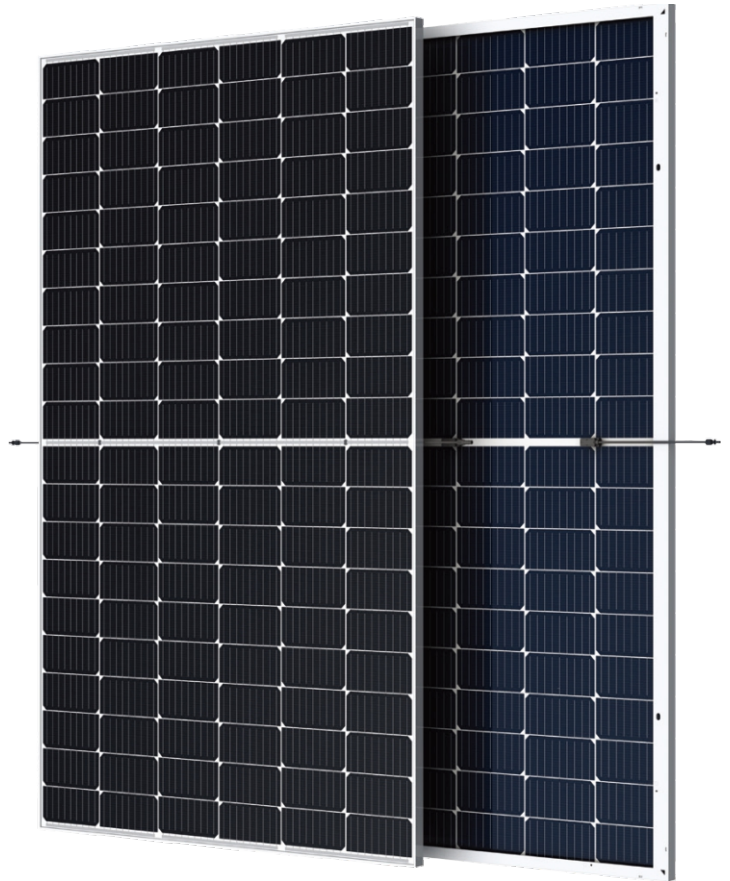
#### Bifacial Double Glass

#### N-TYPE Half-Cell Module

Max Power out: 480W

Max Efficiency: 22.21%

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).

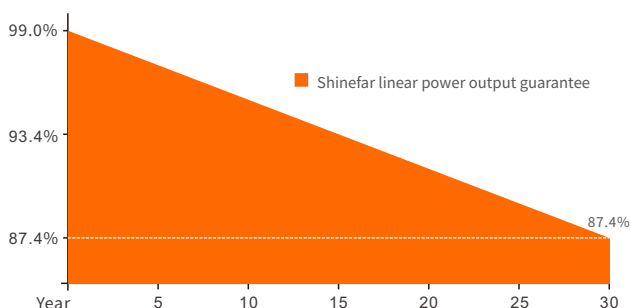


#### High energy generation, low LCOE

Low Pmax temp coefficient increases energy production

### Superior Warranty

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

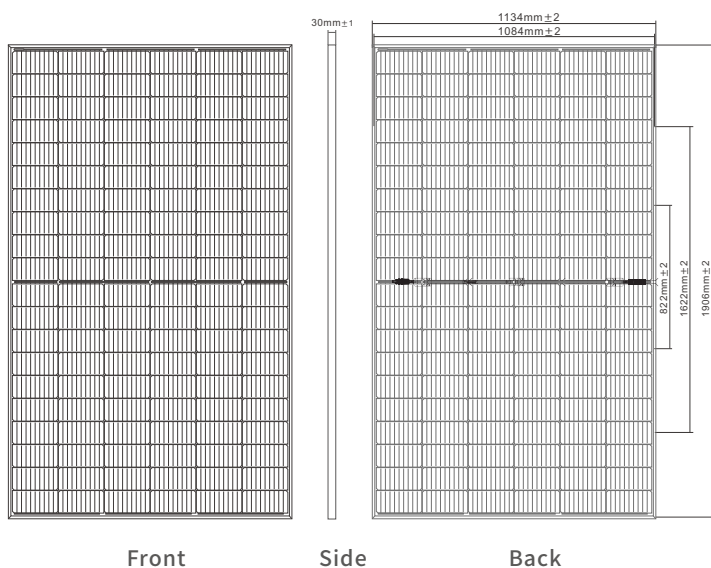


### Comprehensive Products and System Certificates

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



## Engineering Drawings



## Structural Parameter

Dimensions of Module	1906 × 1134 × 30mm
Weight	26.5kg
Packing	37/pallet, 888/40hq
Front Glass	High Transparency Solar Glass 2.0mm
Back Glass	Heat Strengthened Glass 2.0mm
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-M18/G120465		SF-M18/G120470		SF-M18/G120475		SF-M18/G120480	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax) [W]	465	345.03	470	348.74	475	352.45	480	356.16
Maximum Power Voltage (Vmp) [V]	34.93	32.48	35.08	32.62	35.23	32.76	35.38	32.90
Maximum Power Current (Imp) [A]	13.31	10.62	13.40	10.69	13.48	10.76	13.57	10.82
Open Circuit Voltage (Voc) [V]	41.81	38.88	41.96	39.02	42.11	39.16	42.26	39.30
Short Circuit Current (Isc) [A]	14.05	11.21	14.12	11.27	14.19	11.32	14.26	11.38
Module Efficiency [%]	21.51		21.75		21.98		22.21	
Cell Type [mm]	Mono 182 × 91, 120 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]	512	517	523	528
Maximum Power Voltage (Vmp) [V]	34.93	35.08	35.23	35.38
Maximum Power Current (Imp) [A]	14.64	14.74	14.83	14.92
Open Circuit Voltage (Voc) [V]	41.81	41.96	42.11	42.26
Short Circuit Current (Isc) [A]	15.46	15.53	15.61	15.69
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	-0.30%/°C

## Curve Diagram

