

SF-M18/108

420-435W

182*91mm cells 54

Bifacial single glass

N-TYPE half-cell module

Max Power out:435W

Max Efficiency:22.28%

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.

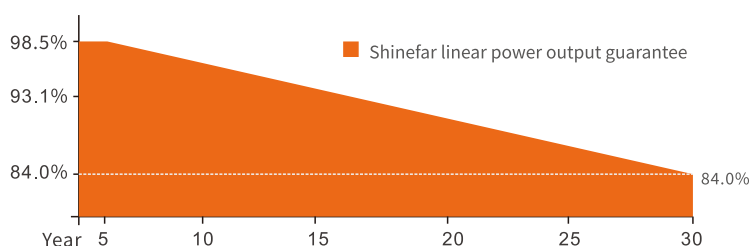


High energy generation, low LCOE

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

Superior Warranty

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

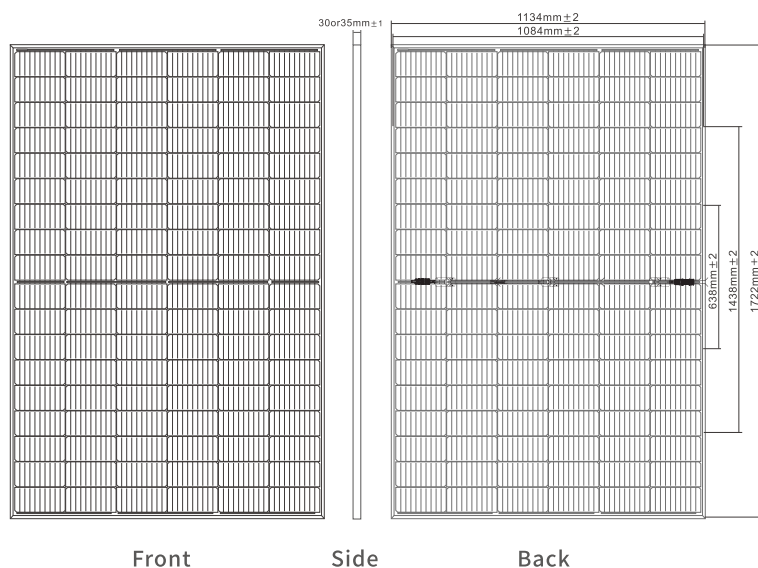


Comprehensive Products and System Certificates

- 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	1722x1134x30mm or 1722x1134x35mm
Weight	20kg
packing	37/31/pallet,962/806/40hq
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 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-M18/108420		SF-M18/108425		SF-M18/108430		SF-M18/108435	
Testing Condition	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax) [W]	420	311.64	425	315.35	430	319.06	435	322.77
Maximum Power Voltage (Vmp) [V]	31.69	29.47	31.86	29.63	32.03	29.79	32.20	29.95
Maximum Power Current (Imp) [A]	13.25	10.57	13.34	10.64	13.42	10.71	13.51	10.78
Open Circuit Voltage (Voc) [V]	37.43	34.81	37.52	34.89	37.61	34.98	37.70	35.06
Short Circuit Current (Isc) [A]	14.18	11.31	14.28	11.39	14.38	11.48	14.49	11.56
Module Efficiency[%]	21.51		21.76		22.02		22.28	
Cell Type[mm]	Mono 182x91,108 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]	449.4	454.75	460.1	465.45
Maximum Power Voltage (Vmp) [V]	31.69	31.86	32.03	32.20
Maximum Power Current (Imp) [A]	14.18	14.27	14.36	14.45
Open Circuit Voltage (Voc) [V]	37.43	37.52	37.61	37.70
Short Circuit Current (Isc) [A]	15.17	15.28	15.39	15.50
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

