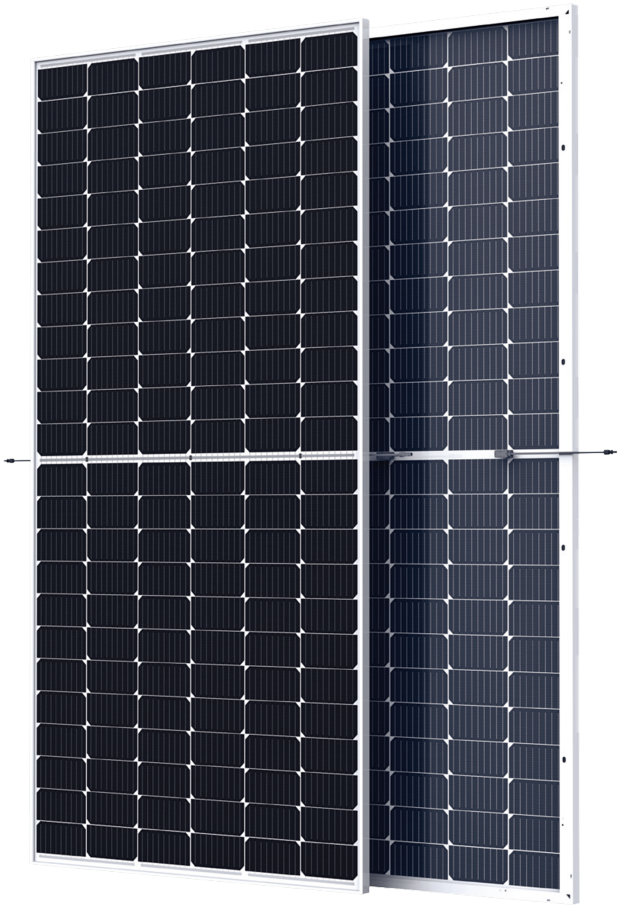
SF-M16/G144
445-460W

166*83mm cells 72



Bifacial Double Glass

PERC half-cell module

Max Power out:460W
Max Efficiency:21.16%
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

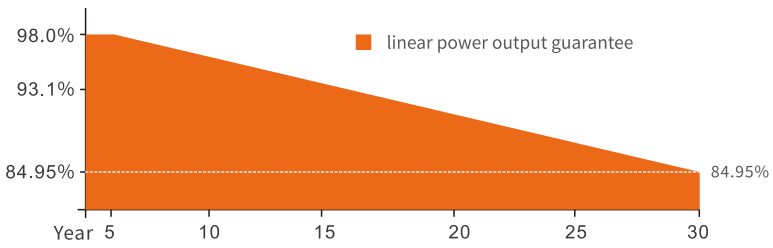
High salt mist and ammonia resistance.

High energy generation,low LCOE

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

Superior Warranty

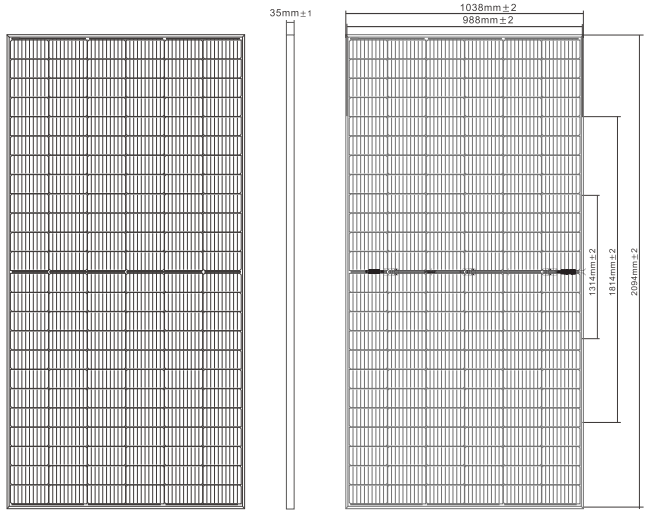
- 15-year material&technology warranty
- 30-year linear power output warranty



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



Front Side Back

Structural parameter

Dimensions of Module	2094x1038x35mm
Weight	28.5kg
packing	31/pallet,748/40hq
Front Glass	High Transparency Solar Glass 2.0mm
Back Glass	Heat Strengthened Glass 2.0mm
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/m^2, cell temperature 25°C, AM1.5G — NOCT:Irradiance 800W/m2, Ambient temperature 20°C, Wind speed 1m/s)

Module Type	SF-M16/G144-445		SF-M16/G144-450		SF-M16/G144-455		SF-M16/G144-460	
Testing Condition	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax) [W]	445	330.19	450	333.90	455	337.61	460	341.32
Maximum Power Voltage (Vmp) [V]	41.20	38.69	41.40	38.88	41.60	39.07	41.80	39.26
Maximum Power Current (Imp) [A]	10.80	8.53	10.87	8.59	10.94	8.64	11.00	8.69
Open Circuit Voltage (Voc) [V]	49.78	46.63	49.98	46.82	50.18	47.02	50.38	47.22
Short Circuit Current (Isc) [A]	11.27	8.93	11.33	8.97	11.39	9.02	11.44	9.06
Module Efficiency[%]	20.47		20.70		20.93		21.16	
Cell Type[mm]	Mono 166x83,144 cells							
Operational Temperature[°C]	-40~+85°C							
Maximum System Voltage	1500V DC							
Max Series Fuse Rating	20A							

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

Total Equivalent power(Pmax)[Wp]	490	495	501	506
Maximum Power Voltage (Vmp) [V]	41.20	41.40	41.60	41.80
Maximum Power Current (Imp) [A]	11.88	11.96	12.03	12.11
Open Circuit Voltage (Voc) [V]	49.78	49.98	50.18	50.38
Short Circuit Current (Isc) [A]	12.40	12.46	12.53	12.58
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