

SF- DN54G3-2

TOPCon



N-Type Double-glass Bifacial Half-cell Solar Module

Maximum Power Output **525W**

Maximum Module Efficiency **23.61%**

Power Tolerance **0~+5W**



Ultra-high Power Output

- Power output up to 525W
- Additional power generation gain up to 30%



Outstanding Weather Resistance

- Dual-glass design, with a broader application range
- Suitable for use in deserts, farms and near coastal areas
- Front side can withstand a load of 5400 Pa, and the back side can withstand a load of 2400 Pa



Higher Power Generation Gain

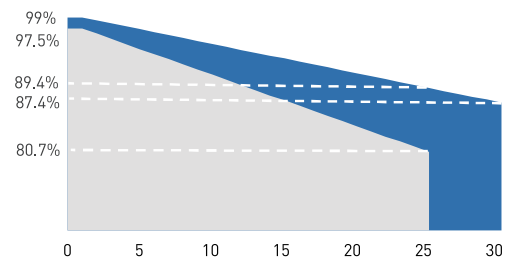
- Lower first-year degradation rate (1%) and annual degradation rate (0.4%)
- Half-cell technology reduces localized power loss
- Lower temperature coefficient and operating temperature, leading to more power generation



Safe and Reliable

- Class C fire resistance test passed
- IP68 ensures long-term reliability
- New generation TOPCon technology, with no wraparound coating, no leakage, and low hot spot risk

Industry-leading linear warranty



1%

First year degradation

0.4%

Annual degradation

15 Year Product Warranty

30 Year Linear Power Output Warranty

Electrical Parameters (STC)

Maximum Power	P _{max} (W)	490	495	500	505	510	515	520	525
Open Circuit Voltage	V _{oc} (V)	39.27	39.62	39.82	39.98	40.27	40.63	40.82	41.18
Short Circuit Current	I _{sc} (A)	15.55	15.61	15.67	15.73	15.79	15.84	15.90	15.96
Maximum Power Voltage	V _{mp} (V)	32.87	33.04	33.20	33.37	33.53	33.69	33.86	34.02
Maximum Power Current	I _{mp} (A)	14.92	15.00	15.07	15.15	15.23	15.30	15.38	15.45
Module Efficiency	(%)	22.03	22.26	22.48	22.71	22.93	23.16	23.38	23.61

* Irradiance 1000W/m², Cell Temperature 25°C, Air Mass 1.5, Testing Tolerance ±3%

Electrical Specification (NOCT)

Maximum Power	P _{max} (W)	368	372	376	380	384	387	391	395
Open Circuit Voltage	V _{oc} (V)	37.31	37.64	37.83	37.98	38.26	38.60	38.78	39.12
Short Circuit Current	I _{sc} (A)	12.56	12.61	12.65	12.70	12.75	12.79	12.84	12.89
Voltage at Maximum Power	V _{mp} (V)	30.63	30.78	30.93	31.09	31.24	31.39	31.54	31.70
Current at Maximum Power	I _{mp} (A)	12.04	12.10	12.16	12.23	12.29	12.35	12.41	12.47

Electrical Characteristics with Different Power Bin (Reference to 15% Irradiance Ratio)

Maximum Power	P _{max} (W)	564	569	575	581	587	592	598	604
Open Circuit Voltage	V _{oc} (V)	39.27	39.62	39.82	39.98	40.27	40.63	40.82	41.18
Short Circuit Current	I _{sc} (A)	17.87	17.94	18.00	18.07	18.13	18.20	18.26	18.33
Voltage at Maximum Power	V _{mp} (V)	32.87	33.04	33.20	33.37	33.53	33.69	33.86	34.02
Current at Maximum Power	I _{mp} (A)	17.14	17.23	17.32	17.41	17.49	17.58	17.66	17.75

* Bifaciality Ratio: 80% ±10%

Mechanical Parameters

Cell	108 Half-Cut Cells
Cell Type	Monocrystalline / N-Type, 16BB
Dimension	1961×1134×30mm
Weight	23.5kg
Connector	PV-GZX1500,NINGBO GZX / PV-LY02,Yonglan Anhui/ PV-DA01M2-XY,DAS SOLAR Co., Ltd
Junction Box	IP68 rated, with 3 Diodes
Cable Length	4mm ² , Wire length of 300mm (customizable)
Front Glass	2.0mm Semi-tempered glass
Back Glass	2.0mm Semi-tempered glass

Temperature Characteristics

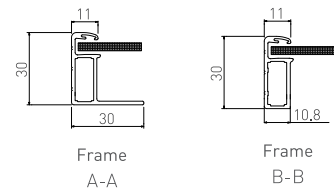
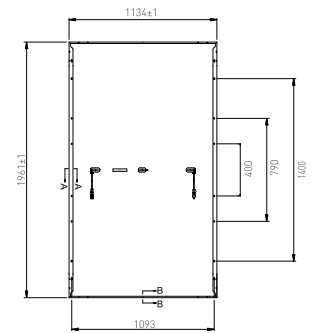
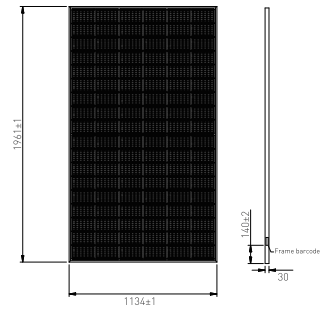
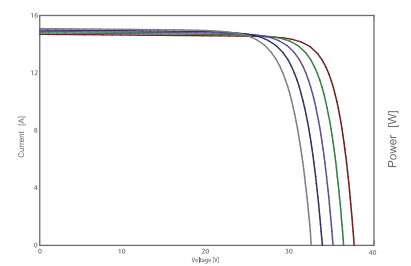
Nominal Operating Cell Temperature (NOCT)	42±2°C
Peak Power (P _{max}) Temperature Coefficient	-0.295%/°C
Open Circuit Voltage (V _{oc}) Temperature Coefficient	-0.257%/°C
Short Circuit Current (I _{sc}) Temperature Coefficient	+0.044%/°C

Limit Parameters

Operating Temperature	-40°C~+85°C
Maximum System Voltage	1500V DC (IEC)
Maximum Fuse Rating Current	30 A
Power Tolerance	0~+5W

Packaging Configuration

Module per box	36 pieces
Module per 40' container	864 pieces

Module Dimensions

Curve Chart
I-V Curve at Different Temperature (525W)

I-V/P-V Curve at Different Irradiation (525W)
