

EVO 5N

415-435W

SE5-54H

N-type TOPCon
Ultra Black Solar Module



22.25%
Max. Module Efficiency

10-30% Additional Power Generation

30 years lifespan brings 10-30% additional power generation comparing with conventional P-type module.

ZERO LID (Light Induced Degradation)

N-type solar cell has no LID naturally which can increase power generation.

Higher Reliability

Adopted SunEvo latest S-TOPCo 2.0 technology, No polysilicon wrap around, Full electrical isolation, Zero leakage current; Much Safer for roof.

Better Weak Illumination Response

Higher power output even under low-light environments like on cloudy or foggy days.

Better Temperature Coefficient

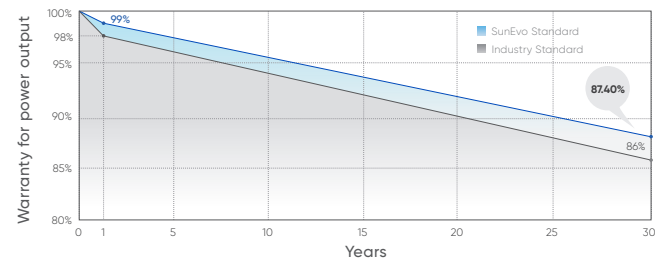
Higher power generation under working conditions, thanks to passivating contact cell technology.

Quality Management System and Product Certification

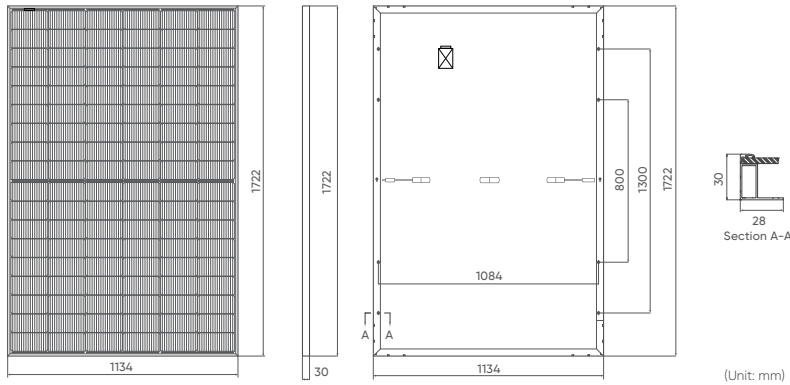
- IEC61215/61730, IEC62804(PID), IEC61701(Salt).
- IEC62716 (Ammonia), IEC60068-2-68(Sand).
- ISO 9001:2015/quality management system.
- ISO 14001:2015/environmental management system.
- ISO 45001:2018/occupation health safety management system.
- ISO 50001:2011/energy management system.
- IEC TS 62941-2016/PV industry quality management system.

Quality Guarantee

25 year Materials Warranty **30 year** Power Warranty



Drawings



Product Image



Mechanical Characteristics

Solar Cells	N-type Mono
No. of Cells	108 (6×18)
Dimensions	1722 × 1134 × 30mm
Weight	21.0kg
Front Glass	3.2mm coated tempered glass
Frame	Anodized aluminium alloy
Junction Box	Ip68 rated (3 by pass diodes)
Output Cables	4mm ² , 300mm (+) / 300mm (-), Length can be customized
Connectors	MC4 compatible
Mechanical Load Test	5400Pa
Packaging	36pcs/box, 216pcs/20'GP, 936pcs/40'HQ

Operating Characteristics

Operating Module Temperature	-40°C to +85°C
Maximum System Voltage	1500V DC (IEC)
Maximum Series Fuse Rating	25A
Power Tolerance	0~+5W

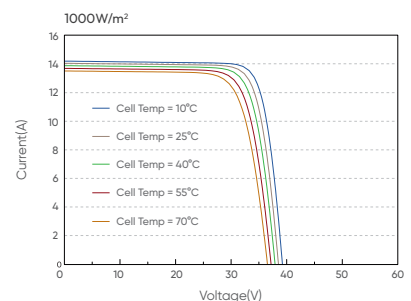
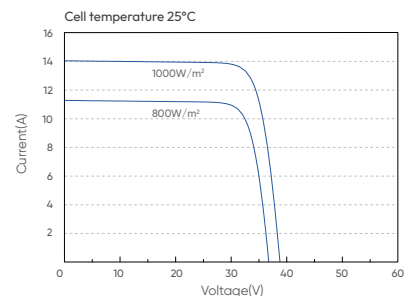
Temperature Characteristics

Nominal Operating Temperature (NMOT)	45±2°C
Temperature Coefficient of Pmax	-0.30%/°C
Temperature Coefficient of Voc	-0.25%/°C
Temperature Coefficient of Isc	+0.046%/°C

Electrical Parameters (STC*)

Module Type: SE5-54H	415	420	425	430	435
Maximum Power (Pmax/W)	415	420	425	430	435
Voltage at Maximum Power (Vmpp/V)	32.75	32.92	33.09	33.26	33.43
Current at Maximum Power (Impp/A)	12.67	12.76	12.85	12.93	13.01
Open Circuit Voltage (Voc/V)	38.70	38.85	39.00	39.15	39.30
Short Circuit Current (Isc/A)	13.52	13.57	13.62	13.67	13.72
Module Efficiency (%)	21.25	21.51	21.76	22.02	22.27

I-V Curve



Electrical Parameters (NMOT*)

Maximum Power (Pmax)	312	316	320	324	328
Voltage at Maximum Power (Vmpp/V)	30.47	30.64	30.81	30.98	31.14
Current at Maximum Power (Impp/A)	10.24	10.31	10.39	10.46	10.52
Open Circuit Voltage (Voc/V)	36.73	36.89	37.04	37.19	37.33
Short Circuit Current (Isc/A)	10.84	10.90	10.96	11.02	11.06

1. Standard Test Conditions [STC]: irradiance 1000W/m²; AM 1.5; ambient temperature 25°C according to EN 60904-3;
 2. Nominal Module Operating Temperature (NMOT): Irradiance 800W/m²; wind speed 1m/s, ambient temperature 20°C.
 3. Tolerance of Pm: 0~+5W, Measuring uncertainty of power: ±3%. Performance deviation of Voc [V], Isc [A], Vm [V] and Im [A]: ±3%.