



415-435W

SE5-54H

N-type TOPCon Black Frame Solar Module



22.80%
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

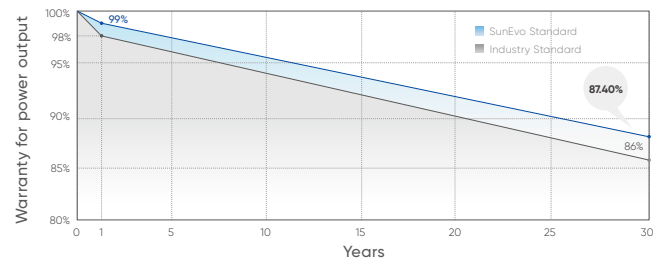
Higher power generation under working conditions, thanks to passivating contact cell technology.

Quality Management System and Product Certification

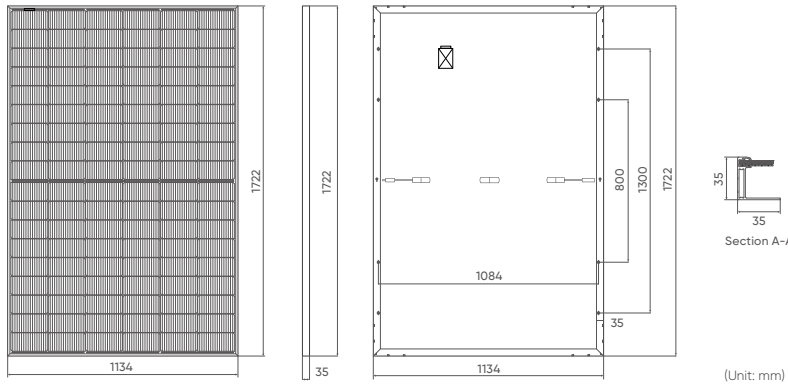
- IEC61215/61730, IEC62804(PID), IEC61701(Salt).
- IEC62716 (Ammonia), IEC60068-2-68(Sand).
- ISO 9001:2015/quality management system.
- ISO 14001:2015/environmental management system.
- ISO 45001:2018/occupation health safety management system.
- ISO 50001:2011/energy management system.
- IEC TS 62941-2016/PV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

Quality Guarantee

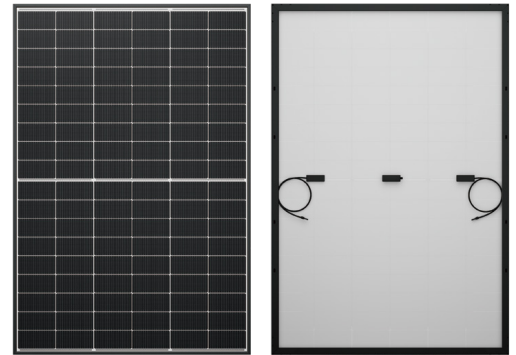
25 year Materials Warranty **30 year** Power Warranty



Drawings



Product Image



Mechanical Characteristics

Solar Cells	N-type Mono
No. of Cells	108 (6×18)
Dimensions	1722 × 1134 × 35mm
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	31pcs/box, 186pcs/20'GP, 806pcs/40'HQ

Operating Characteristics

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

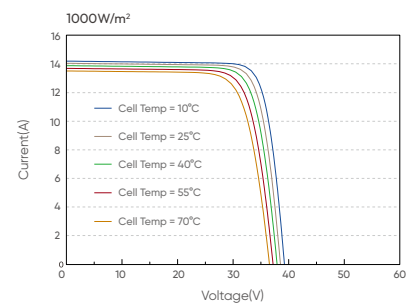
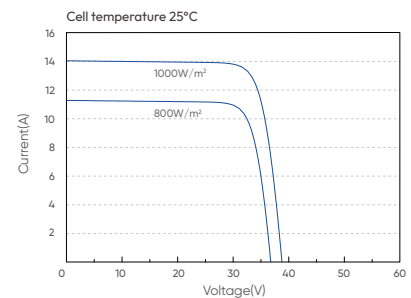
Temperature Characteristics

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
Open Circuit Voltage (Voc/V)	38.34	38.57	38.81	39.04	39.27
Short Circuit Current (Isc/A)	13.89	13.96	14.03	14.10	14.17
Voltage at Maximum power (Vmpp/V)	32.02	32.23	32.44	32.65	32.85
Current Maximum Power (Impp/A)	12.96	13.03	13.10	13.17	13.24
MODULE EFFICIENCY (%)	21.25	21.51	21.76	22.02	22.28

I-V Curve



Electrical Parameters (NMOT*)

Maximum power (Pmax)	311	315	319	323	327
Open Circuit Voltage (Voc/V)	36.54	36.74	36.95	37.15	37.35
Short Circuit Current (Isc/A)	11.18	11.24	11.30	11.36	11.42
Voltage at Maximum power (Vmpp/V)	29.45	29.66	29.87	30.07	30.28
Current Maximum Power (Impp/A)	10.56	10.62	10.68	10.74	10.80

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%.