

EVO 5N

515-535W

SE5-66HBD

N-type TOPCon  
Bifacial Dual Glass Solar Module



22.69%

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.

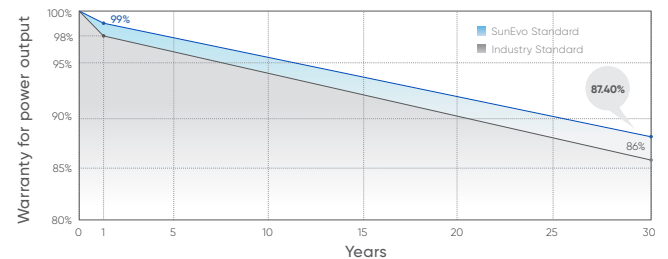
### Quality Guarantee

25 year

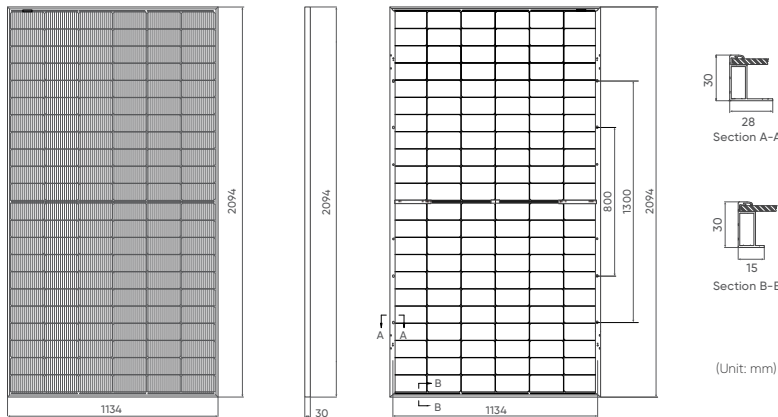
Materials Warranty

30 year

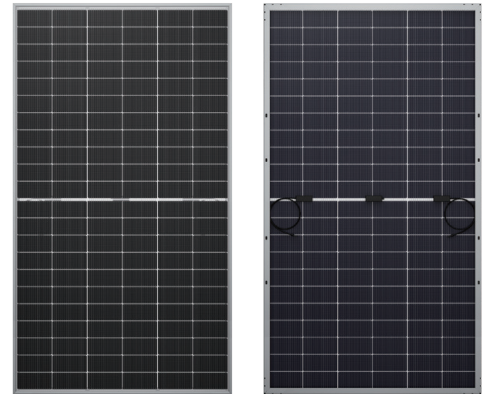
Power Warranty



Drawings



Product Image



Mechanical Characteristics

Solar Cells	N-type Mono
No. of Cells	132 (6x22)
Dimensions	2094 x 1134 x 30mm
Weight	28.5kg
Glass	Front: 2.0mm coated semi-tempered glass; Back: 2.0mm semi-tempered glass
Frame	Anodized aluminium alloy
Junction Box	Ip68 rated (3 by pass diodes)
Output Cables	4mm <sup>2</sup> , 300mm (+) / 300mm (-), Length can be customized
Connectors	MC4 compatible
Mechanical Load Test	5400Pa
Packaging	36pcs/box, 180pcs/20'GP, 792pcs/40'HQ

Operating Characteristics

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

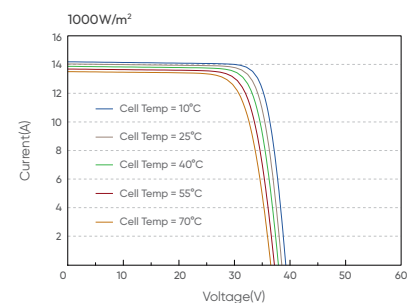
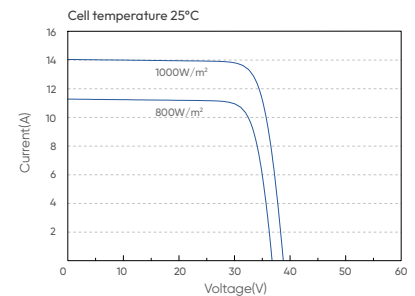
Temperature Characteristics

Nominal Operating Temperature (NMOT)	45±2°C
Temperature Coefficient of Pmax	-0.29%/°C
Temperature Coefficient of Voc	-0.25%/°C
Temperature Coefficient of Isc	+0.045%/°C

Electrical Parameters (STC\*)

Module Type: SE5-66HBD	515	520	525	530	535
Maximum Power (Pmax/W)	515	520	525	530	535
Open Circuit Voltage (Voc/V)	46.92	47.08	47.24	47.40	47.56
Short Circuit Current (Isc/A)	14.05	14.12	14.19	14.26	14.33
Voltage at Maximum Power (Vmpp/V)	38.61	38.78	38.95	39.03	39.20
Current at Maximum Power (Impp/A)	13.34	13.41	13.48	13.58	13.64
Module Efficiency (%)	21.69	21.90	22.11	22.32	22.69

I-V Curve



Bifacial Output (Rearside Power Gain)

		541	546	551	557	562
5%	Maximum Power (Pmax/W)	541	546	551	557	562
	Module Efficiency STC (%)	22.94	23.16	23.38	23.60	23.83
15%	Maximum Power (Pmax/W)	592	598	604	610	615
	Module Efficiency STC (%)	25.12	25.36	25.61	25.85	26.10
25%	Maximum Power (Pmax/W)	644	650	656	663	669
	Module Efficiency STC (%)	27.31	27.57	27.84	28.10	28.37

1. Standard Test Conditions [STC]: irradiance 1000W/m<sup>2</sup>, AM 1.5, ambient temperature 25°C according to EN 60904-3;  
 2. Tolerance of Pm: 0~+5W, Measuring uncertainty of power: ±3%. Performance deviation of Voc [V], Isc [A], Vm [V] and Im [A]: ±3%.