

54
Series

**TOPCon
Dual Glass
Bifacial Module**

435-450W

NEX Series: SNX-D54HND(R1)

22.5%

Maximum Efficiency

0~+5w

Positive Power Tolerance

30 years

Product Warranty



HIGHER VALUE

- Longer Warranty terms and lower power degradation
- Lower LCDE for shorter payback period

HIGHER PERFORMANCE

- Module Power reaches up to 450W by multi-busbar cell design
- Lower resistance performance by half-cell structure
- ZERO LID with additional power generation

MORE RELIABLE

- Excellent anti-PID performance
- Lower hot spot risks
- Better temperature coefficient
- Mechanical loading 5400Pa snow load and 2400Pa wind load

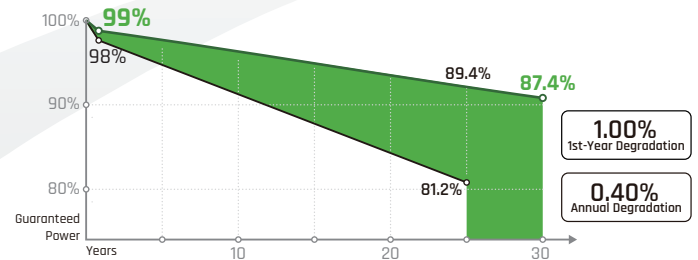


IEC61215(2021), IEC61730(2023)

IEC62716, IEC61701

ISO9001:2015: Quality management systems

ISO14001:2015: Environmental management



Sonnex TOPCon Dual Glass Module Performance Warranty

Warranty

30 years product workmanship warranty. 30 years linear power output warranty. The power degradation for the first year will be less than 1%. From the 2nd year and onwards, the annual degradation will be less than 0.40%. Guaranteed performance ratio of 87.4% after 30 years.

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435-450W TOPCon Dual Glass MODULE SNX-D54HND(R1)

Electrical Characteristics - STC

Module Type: SNX-D54HND***M(R1)	435	440	445	450
Maximum Power-Pm [W]	435	440	445	450
Open Circuit Voltage-Voc [V]	39.16	39.38	39.61	39.83
Short Circuit Current-Isc [A]	13.80	13.86	13.92	13.98
Maximum Power Voltage-Vm [V]	32.59	32.81	33.04	33.26
Maximum Power Current-Im [A]	13.35	13.41	13.47	13.53
Module Efficiency [%]	21.8	22.0	22.3	22.5

Electrical Characteristics - NMOT

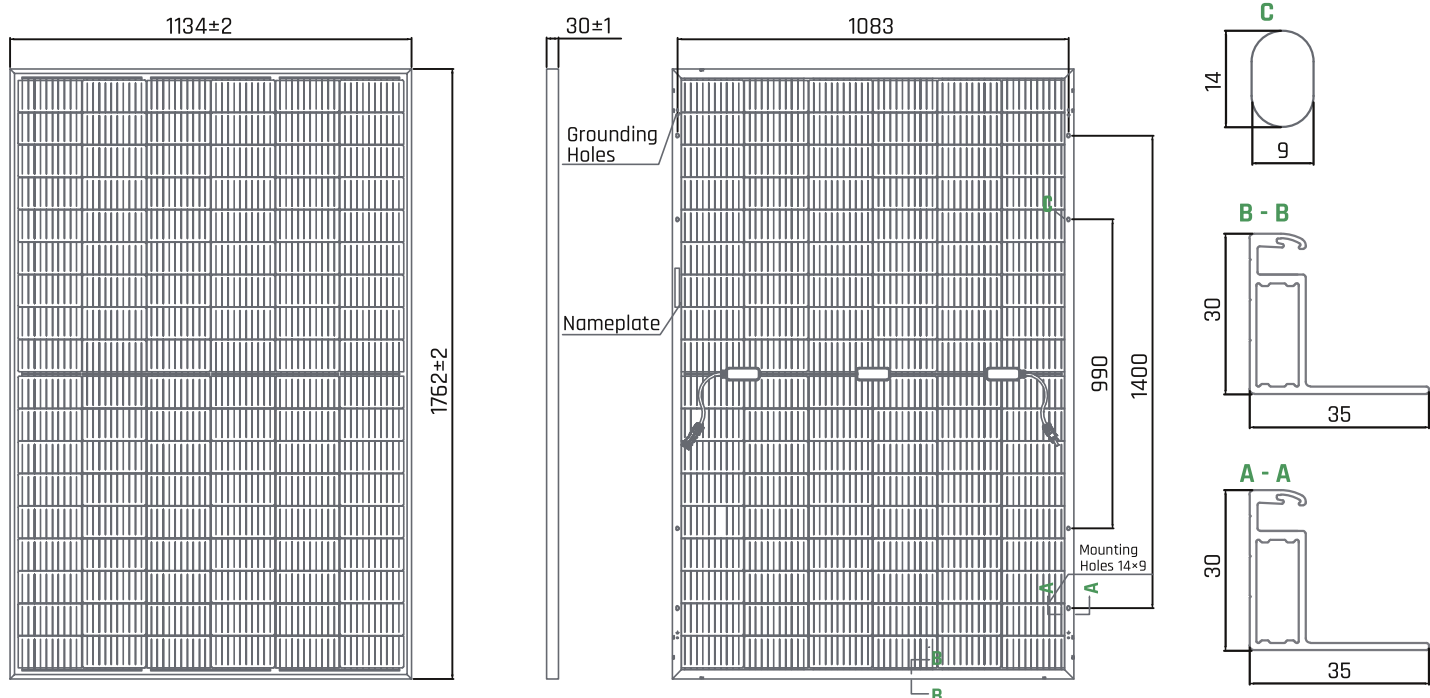
Maximum Power-Pm [W]	333.2	337.0	340.9	344.7
Open Circuit Voltage-Voc [V]	37.50	37.71	37.93	38.15
Short Circuit Current-Isc [A]	11.12	11.17	11.22	11.27
Maximum Power Voltage-Vm [V]	31.20	31.42	31.64	31.86
Maximum Power Current-Im [A]	10.68	10.73	10.77	10.82

Note: 1. Standard Test Conditions (STC): Irradiance 1000 W/m²; AM 1.5; Ambient temperature 25°C.
 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%.

Mechanical Characteristics

Dimensions	1762×1134×30mm
Weight	22kg
Front Glass	AR coating tempered glass 2.0mm
Frame	Anodized aluminum alloy
Cells	TOPCon 182x186mm
Cell Orientation	108 (6×9)
Junction Box	IP68(3 bypass diodes)
Cable/Connectors	4mm ² / Stäubli MC4 or EV02

Drawing



Temperature Characteristics

NMOT	42 °C (±2°C)
Temperature Coefficient of Voc	-0.25% /°C
Temperature Coefficient of Isc	+0.045% /°C
Temperature Coefficient of Pm	-0.29% /°C

Maximum Ratings

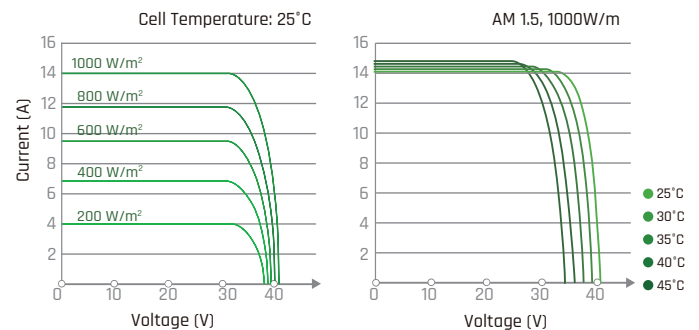
Maximum System Voltage [V]	DC 1500(IEC)
Series Fuse Rating [A]	30
Maximum Surface Load Capacity [Pa]	5,400
Temperature Range [°C]	- 45 to + 85
Bifaciality	80% ± 5%

Withstanding Hail Maximum diameter of 25 mm with impact speed of 23 m/s

Other Characteristics

Packaging 36pcs/pallet; 936pcs/40' HQ container

I-V curve



Declaration: Along with the technical improvement and product update, deviation between the technical parameter and Sonnex future products might occur. Specifications included in this datasheet are subject to change without prior notice. Sonnex reserves the right of final interpretation.