



Back Contact Transparent Dual Glass Bifacial Module

465-485W

NEX Series: SNX-D54HID(R2)



Up to 27.9%

Cell Conversion Efficiency

0~+5w

Positive Power Tolerance

30 years

Product Warranty

HIGHER VALUE

- 30 Years - Industry leading product and performance warranty
- Lightweight design for peak rooftop efficiency

HIGHER PERFORMANCE

- Module Power reaches up to 485W by 0-BB busbar cell design
- Lower resistance performance by half-cell structure
- Superior energy yield with industry-leading bifacial efficiency
- Lower operating temperature

MORE RELIABLE

- Newest generation back contact cells ensure superior product reliability
- Hot-spot protection ensures long-term performance
- Mechanical loading 5400Pa snow load and 2400Pa wind load

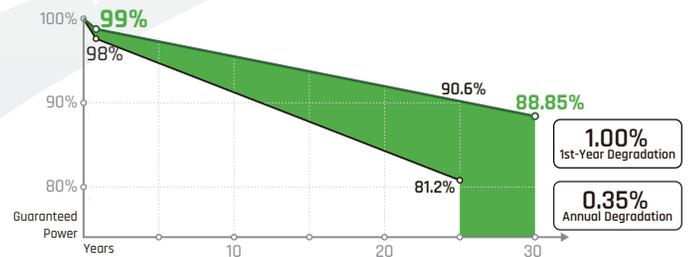


IEC61215(2021), IEC61730(2023)

IEC62716, IEC61701

ISO9001:2015: Quality management systems

ISO14001:2015: Environmental management



Sonnex Back Contact 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 0.35%. Guaranteed performance ratio of 88.85% after 30 years.

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465-485W Back Contact Dual Glass Module

SNX-D54HID(R2)

Electrical Characteristics - STC

Module Type: SNX-D54HID***M(R2)	465	470	475	480	485
Maximum Power-Pm [W]	465	470	475	480	485
Open Circuit Voltage-Voc [V]	40.20	40.31	40.42	40.53	40.64
Short Circuit Current-Isc [A]	14.68	14.78	14.88	14.98	15.08
Maximum Power Voltage-Vm [V]	33.15	33.27	33.40	33.51	33.62
Maximum Power Current-Im [A]	14.03	14.13	14.23	14.33	14.43
Module Efficiency [%]	22.8	23.0	23.3	23.6	23.8

Electrical Characteristics - NMOT

Maximum Power-Pm [W]	353	357	361	365	369
Open Circuit Voltage-Voc [V]	38.17	38.28	38.39	38.50	38.61
Short Circuit Current-Isc [A]	11.75	11.84	11.93	12.02	12.10
Maximum Power Voltage-Vm [V]	31.49	31.60	31.71	31.82	31.93
Maximum Power Current-Im [A]	11.21	11.30	11.39	11.48	11.56

Bifacial Output - Backside Power Gain Reference to 480W Front

Power Gains	5%	10%	15%	20%	25%
Maximum Power-Pm [W]	504	528	552	576	600
Open Circuit Voltage-Voc [V]	40.53	40.53	40.53	40.53	40.53
Short Circuit Current-Isc [A]	15.73	16.48	17.23	17.98	18.73
Maximum Power Voltage-Vm [V]	33.51	33.51	33.51	33.51	33.51
Maximum Power Current-Im [A]	15.05	15.76	16.48	17.20	17.91

Note: 1. Bifacial Standard Test Conditions [BSTC]: Front side Irradiance 1000W/m²; Back side reflection Irradiance 135W/m²; AM 1.5; Ambient temperature 25°C.
 2. Standard Test Conditions [STC]: Irradiance 1000 W/m²; AM 1.5; Ambient temperature 25°C.
 3. Nominal Module Operating Temperature (NMOT): Irradiance 800W/m²; wind speed 1m/s; ambient temperature 20°C.
 4. 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	1800×1134×30mm
Weight	23.5kg
Front Glass	AR coating tempered glass 2.0mm
Back Glass	Semi-tempered glass 1.6mm
Frame	Anodized aluminum alloy
Cells	BC 182x96mm, 108 (6×18)
Junction Box	IP68(3 bypass diodes)
Cable/Connectors	4mm ² / Stäubli MC4 or EVO2

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	75% ± 5%
Withstanding Hail	Maximum diameter of 25 mm with impact speed of 23 m/s

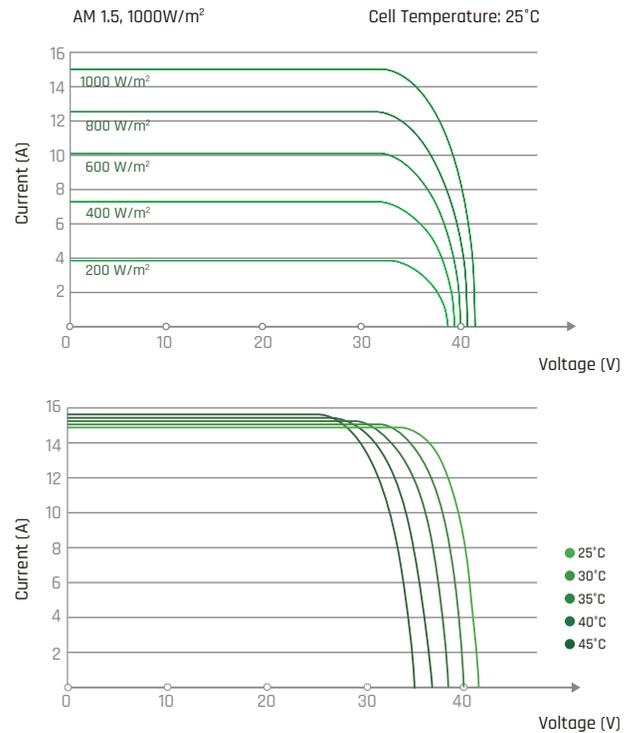
Temperature Characteristics

NMOT	45 °C (±2°C)
Temperature Coefficient of Voc	-0.20% / °C
Temperature Coefficient of Isc	+0.050% / °C
Temperature Coefficient of Pm	-0.26% / °C

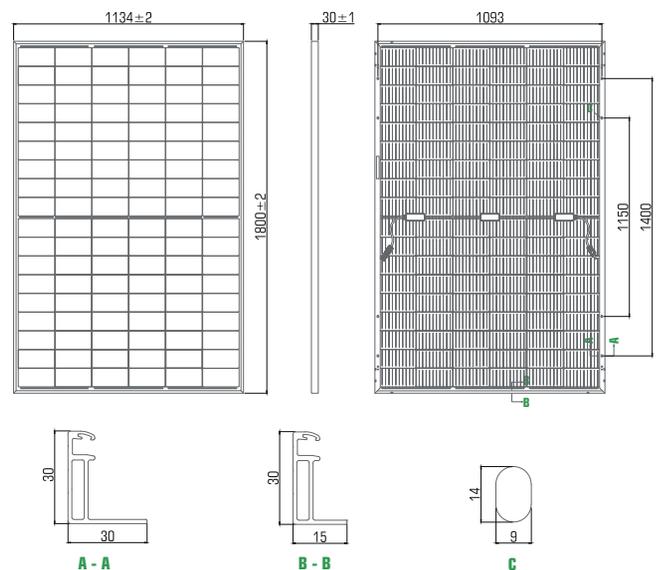
Other Characteristics

Packaging 36pcs/pallet; 864pcs/40' HQ container

I-V curve



Drawing



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.