

**54**  
Series

# HALF-CELL Bifacial Module

## 390 - 410 w

PeX Series: SNX-D54HPD



**21.00%**

Maximum Efficiency

**0-+5w**

Positive Power Tolerance

**65%**

Bifaciality



### HIGHER VALUE

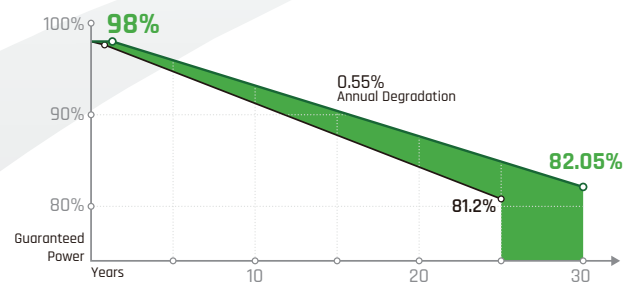
- ✦ Longer Warranty terms and lower power degradation
- ✦ Lower LCOE for shorter payback period

### HIGHER PERFORMANCE

- ✦ Module Power reaches up to 410W by multi-busbar cell design
- ✦ Lower resistance performance by half-cell structure
- ✦ Lower LID by lower string current

### MORE RELIABLE

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



**Sonnex Half-Cell 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 2%. From the 2nd year and onwards, the annual degradation will be less than 0.55%. Guaranteed performance ratio of 82.05% after 30 years.

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# 390 - 410W

HALF-CELL MODULE 54 Series  
SNX-D54HPD

## Electrical Characteristics at Standard Test Conditions (STC)

Module Type: SNX-D54HPD-***M	390	395	400	405	410
Maximum Power-Pm [W]	390	395	400	405	410
Open Circuit Voltage-Voc [V]	36.69	37.04	37.13	37.21	37.29
Short Circuit Current-Isc [A]	13.34	13.47	13.60	13.73	13.86
Maximum Power Voltage-Vm [V]	31.23	31.30	31.38	31.45	31.52
Maximum Power Current-Im [A]	12.49	12.62	12.75	12.88	13.01
Module Efficiency-η [%]	19.97	20.23	20.48	20.74	21.00

## Bifacial Output - Backside Power Gain Reference to 405W Front

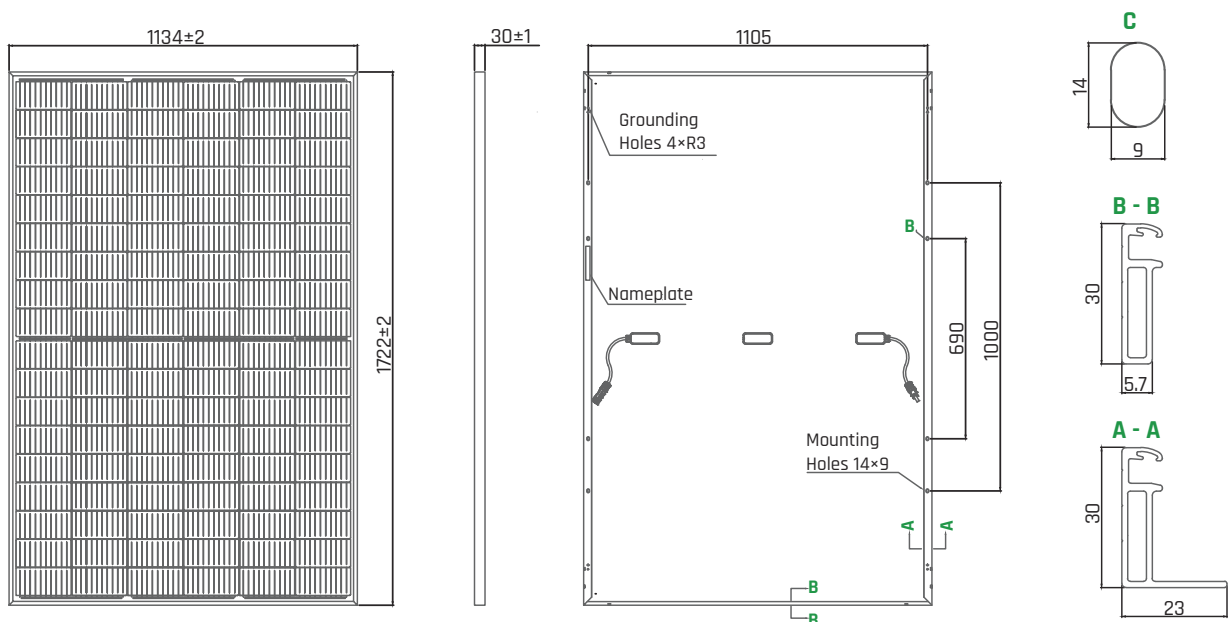
Power Gains	5%	10%	15%	20%	25%
Maximum Power-Pm [W]	427	447	466	486	506
Open Circuit Voltage-Voc [V]	37.21	37.21	37.31	37.31	37.31
Short Circuit Current-Isc [A]	14.42	15.10	15.79	16.48	17.16
Maximum Power Voltage-Vm [V]	31.55	31.55	31.45	31.45	31.45
Maximum Power Current-Im [A]	13.52	14.17	14.81	15.46	16.10

Note: 1. STC: Irradiance 1000 W/m<sup>2</sup>, AM 1.5, temperature 25°C ;  
2. Nominal Module Operating Temperature (NMOT): Irradiance 800W/m<sup>2</sup>; 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	1722×1134×30 mm
Weight	25.4Kg
Glass	AR coating tempered glass, 2.0mm
Frame	Anodized aluminum alloy, Black/Silver
Cells	Mono-crystalline solar cell 182mm*91mm
Cell Orientation	108 (6×18)
Junction Box	IP68
Cable/Connectors	4mm <sup>2</sup> , 1200mm, / MC4 or EVO2

## Drawing



## Temperature Characteristics

NMOT	45 °C (±2°C)
Temperature Coefficient of Voc	-0.2% /°C
Temperature Coefficient of Isc	0.05% /°C
Temperature Coefficient of Pm	-0.350% /°C

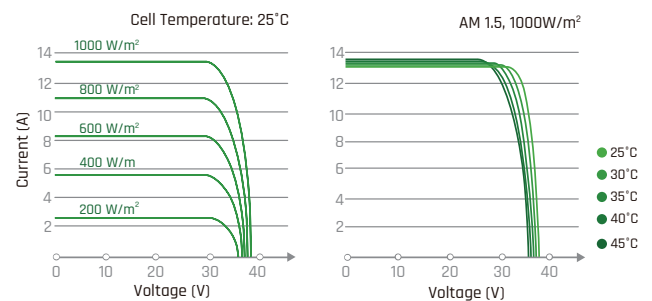
## Maximum Ratings

Maximum System Voltage [V]	DC 1500/1000(IEC)
Series Fuse Rating [A]	25
Maximum Surface Load Capacity [Pa]	5,400
Temperature Range [°C]	- 40 to + 85
Withstanding Hail	Maximum diameter of 25 mm with impact speed of 23 m·s <sup>-1</sup>

## Other Characteristics

Packaging 36 pcs/pallet; 9360 pcs/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.