

54 Series **HALF-CELL SMART MODULE**

395 - 415 w

PeX Series: SNX-D54HP(S)



21.25%

Maximum Efficiency

0-+5w

Positive Power Tolerance

20years

Product Warranty



HIGHER VALUE

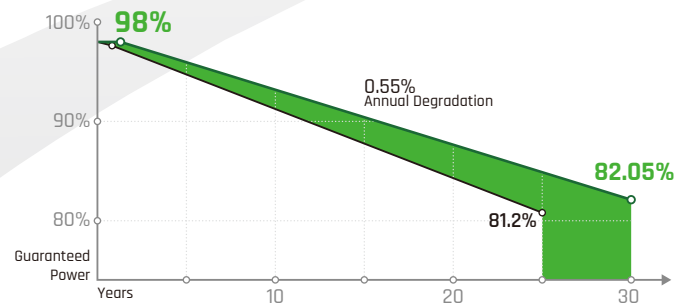
- Longer Warranty terms and lower power degradation
- Lower LCOE for shorter payback period
- 20% more energy compared to normal solar panels

HIGHER PERFORMANCE

- Ultimate look of black modules
- up to 415W by multi-busbar cell design
- Lower resistance performance by half-cell structure
- Lower LID by lower string current

MORE RELIABLE

- Cell-string level data provides real-time diagnostics for the system owner
- Temperature and maintenance shutdown lowers (fire) risk
- Excellent anti-PID performance
- Lower hot spot risks
- Mechanical loading 5400Pa snow load and 2400Pa wind load



Sonnex Half-Cell Module Performance Warranty

Warranty

20 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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395 - 415W

HALF-CELL MODULE 54 Smart Series SNX-D54HP(S)

Electrical Characteristics at Standard Test Conditions(STC)

| | | | | | |
|-------------------------------|-------|-------|-------|-------|-------|
| Module Type: SNX-D54HP-***MS | 395 | 400 | 405 | 410 | 415 |
| Maximum Power-Pm [W] | 395 | 395 | 400 | 405 | 410 |
| Open Circuit Voltage-Voc [V] | 36.93 | 37.18 | 37.42 | 37.66 | 37.90 |
| Short Circuit Current-Isc [A] | 13.48 | 13.54 | 13.60 | 13.66 | 13.72 |
| Maximum Power Voltage-Vm [V] | 31.03 | 31.28 | 31.52 | 31.76 | 32.01 |
| Maximum Power Current-Im [A] | 12.73 | 12.79 | 12.85 | 12.91 | 12.97 |
| Module Efficiency-η [%] | 20.23 | 20.48 | 20.74 | 21.00 | 21.25 |

Electrical Characteristics at NMOT

| | | | | | |
|-------------------------------|-------|-------|-------|-------|-------|
| Maximum Power-Pm [W] | 299 | 303 | 307 | 310 | 314 |
| Open Circuit Voltage-Voc [V] | 34.35 | 34.58 | 34.81 | 35.03 | 35.03 |
| Short Circuit Current-Isc [A] | 11.03 | 11.08 | 11.13 | 11.18 | 11.23 |
| Maximum Power Voltage-Vm [V] | 28.70 | 28.94 | 28.19 | 29.36 | 29.62 |
| Maximum Power Current-Im [A] | 10.42 | 10.47 | 10.52 | 10.56 | 10.60 |

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 | 1722×1134×30 mm |
| Weight | 20.2Kg |
| Front Glass | AR coating tempered glass, 3.2mm |
| Frame | Anodized aluminum alloy |
| Cells | Mono-crystalline solar cell 182mm*91mm |
| Cell Orientation | 108 (6×18) |
| Junction Box | IP65/IP67 |
| Cable/Connectors | 4mm ² / MC4 or EVO2 |

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 |

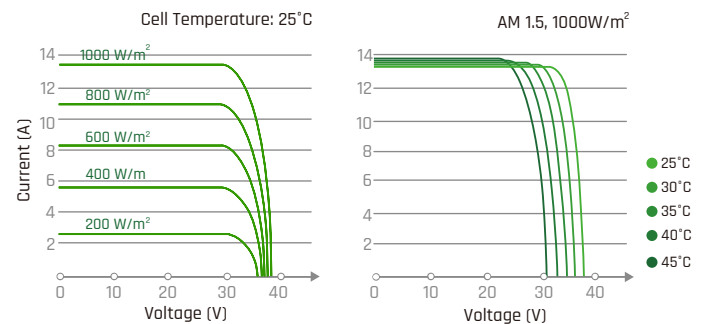
Maximum Ratings

| | |
|------------------------------------|---|
| 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 ⁻¹ |

Other Characteristics

Packaging 36 pcs/pallet; 936 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.

Drawing

