

**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**

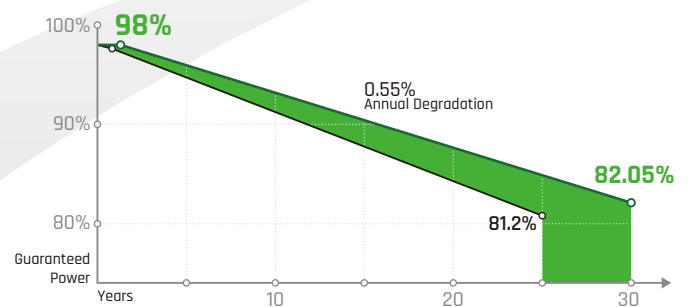
- Longer Warranty terms and lower power degradation
- Lower LCOE for shorter payback period
- 20% more energy compared to normal solar panels

**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	400	405	410	415
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/m<sup>2</sup>; AM 1.5; Ambient 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	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 <sup>2</sup> / 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

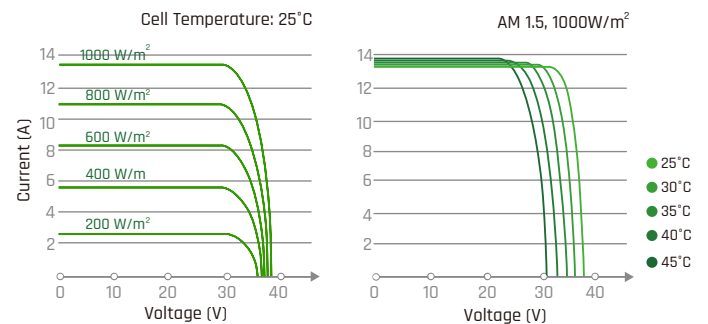
### Maximum Ratings

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 <sup>-1</sup>

### 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

