

6S HiMAX

420-445W

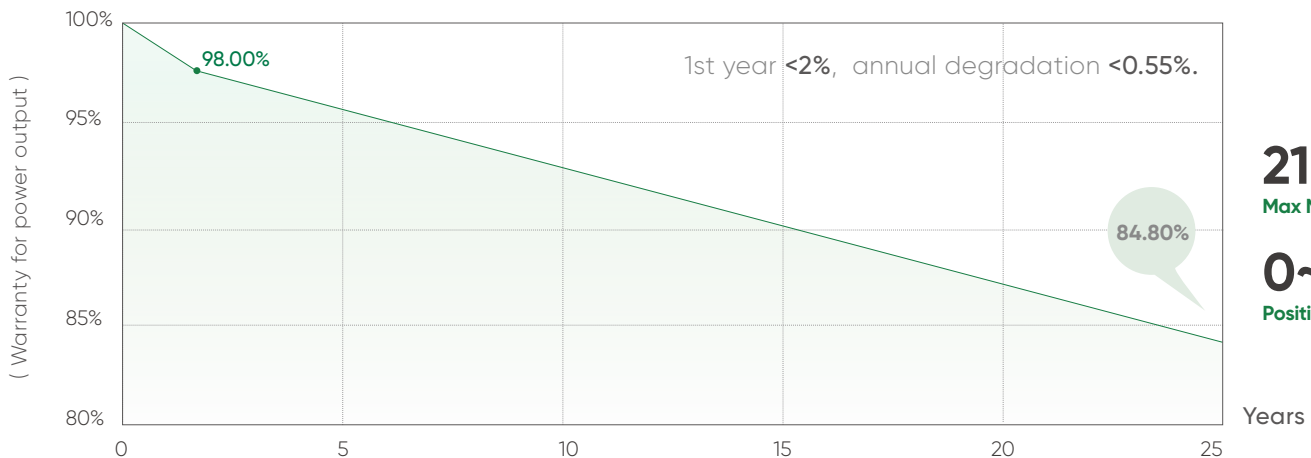
SP6-46SC

Shingled Monofacial
Ultra Black PV Module

Quality Guarantee

25 year Materials Warranty

25 year Power Warranty

21.40%
Max Module Eff.0~+5W
Positive ToleranceQuality Management System and
Product Certification

IEC61215/61730, IEC62804(PID), IEC61701(Salt).

IEC62716 (Ammonia), IEC60068-2-68(Sand).

ISO 9001:2015/quality management system.

ISO 14001:2015/environmental management system.

ISO 45001:2018/occupation health safety management system.

ISO 50001:2011/energy management system.

IEC TS 62941-2016/PV industry quality management system.



* Specifications subject to technical changes and tests. Sunpal Solar reserves the right of interpretation.

Shingling Technology

Innovative structure, low-temperature adhesive bonding, high-density layout.

Beautiful Appearance

Uniform layout, better aesthetic.

Superior Safety and Reliability

No hidden welding crack, low operating temperature, high pressure resistance.

Low System Cost

High module efficiency, reducing system cost.

Low Hot Spot Risk

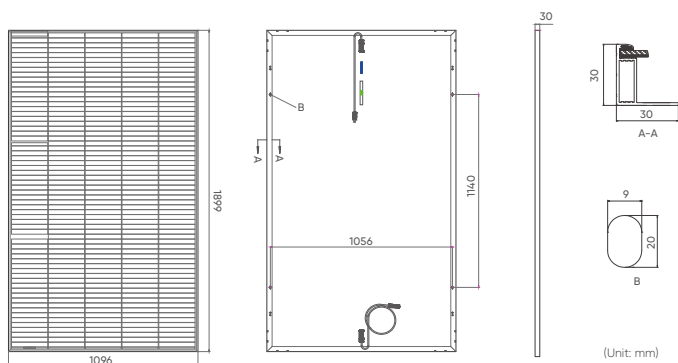
Parallel circuit design reduces shading loss.

Low Shading Loss

Full parallel arrangement brings high effective power generation hours.



Design (mm)



Dimensions	1899 × 1096 × 30mm
Weight	21.8kg ± 0.3kg
Front glass	tempered glass, 3.2mm
Frame	Anodized aluminum alloy
Cells	Mono-crystalline solar cell
Cell Orientation	320 (64 × 5)
Junction Box	IP68, two diodes
Cable	4mm ² , +300mm/-1000mm(Vertical), +220mm/-180mm(Horizontal)
Packaging	36pcs/box; 864pcs/40'container

Temperature Parameters

NMOT (Nominal Module Operating Temperature)	42.3°C(±2°C)
Temperature Coefficient of Voc	-0.27%/°C
Temperature Coefficient of Isc	+0.04%/°C
Temperature Coefficient of Pmax	-0.341%/°C

Maximum Ratings

Maximum System Voltage [V]	DC1500 (IEC)
Series Fuse Rating [A]	25
Maximum Surface Load Capacity [Pa]	Front 5400/ Back 2400
Temperature Range [°C]	-40 ~ + 85

Electrical Characteristics (STC*)

Module Type: SP6-46SC	445	440	435	430	425	420
Maximum Power: Pmax [W]	445	440	435	430	425	420
Open Circuit Voltage: Voc [V]	43.8	43.7	43.6	43.5	43.4	43.3
Short Circuit Current: Isc [A]	13.01	12.90	12.79	12.68	12.56	12.46
Voltage at Maximum Power: Vmp [V]	36.4	36.3	36.2	36.1	36.0	35.9
Current at Maximum Power: Imp [A]	12.23	12.13	12.02	11.92	11.81	11.71
Module Efficiency: η [%]	21.4	21.1	20.9	20.7	20.4	20.2

Electrical Characteristics (NMOT*)

	335	331	328	324	320	316
Maximum Power: Pmax [W]	335	331	328	324	320	316
Open Circuit Voltage: Voc [V]	41.8	41.7	41.6	41.5	41.4	41.3
Short Circuit Current: Isc [A]	10.50	10.41	10.32	10.23	10.14	10.05
Voltage at Maximum Power: Vmp [V]	34.7	34.6	34.5	34.4	34.3	34.2
Current at Maximum Power: Imp [A]	9.66	9.57	9.49	9.41	9.32	9.24

1. Standard Test Conditions [STC]: irradiance 1000W/m²; AM 1.5; ambient temperature 25°C according to EN 60904-3;
 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%.

I-V Curve

