SUNPOWER | performance

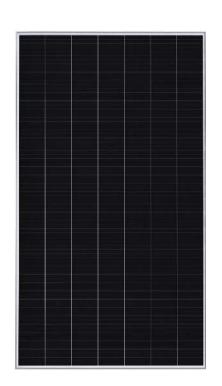
Making the conventional, exceptional





Shingled Cell White I

White Backsheet Silver Frame Large



Engineered for Performance

- Smaller cells stay cooler when shaded, extending panel life³
- Proprietary encapsulant minimizes degradation from environmental exposure
- Conductive adhesive defends against daily temperature swings
- Redundant cell connections create flexible paths for continuous electricity flow



PERFORMANCE 3 UPP

POWER RANGE: 500 – 475 W

The SunPower Performance 3 UPP panel is engineered to meet the unique needs of large-scale solar power plants. By exposing more active surface area across more mono PERC cells, Performance 3 UPP panels optimize power density, while lowering system costs.

Backed by an industry-leading warranty and an estimated 35-year useful life,¹ SunPower Performance panels wrap conventional front contact cells with 35 years of materials, engineering and manufacturing expertise to mitigate the reliability challenges of Conventional Panel design.

Durability that Translates to More Energy

Engineered to stand up to environmental stresses such as shading, daily temperature swings and high humidity, the SunPower Performance 3 UPP is a high power panel uniquely suited for power plant EPCs and developers looking to maximize energy production.

A Track Record of Innovation Leadership

SunPower Performance panels represent the most deployed shingled cell panel in the industry—innovation protected by a growing portfolio of patents worldwide.²



4+ GW Deployed



60+ Countries



A Better Product. A Better Warranty.

Each Performance 3 UPP panel is backed by the SunPower Performance UPP panel warranty providing 25-year power coverage.

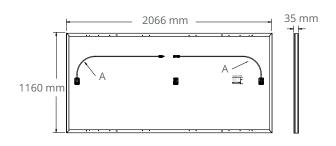
- Year 1 Minimum Warranted Power Output
 97.5%
- Maximum Annual Degradation
 0.5%
- Year 25 Warranted Power Output
 85.5%

PERFORMANCE 3 UPP POWER: 500 - 475 W

Electrical Data						
Model	SPR-P3-500-UPP	SPR-P3-495-UPP	SPR-P3-490-UPP	SPR-P3-485-UPP	SPR-P3-480-UPP	SPR-P3-475-UPP
Nominal Power (Pnom) ⁴	500 W	495 W	490 W	485 W	480 W	475 W
Power Tolerance	+3/0%	+3/0%	+3/0%	+3/0%	+3/0%	+3/0%
Efficiency	20.9%	20.7%	20.4%	20.2%	20.0%	19.8%
Rated Voltage (Vmpp)	45.7 V	45.4 V	45.1 V	44.8 V	44.6 V	44.4 V
Rated Current (Impp)	10.95 A	10.91A	10.87 A	10.83 A	10.77 A	10.71 A
Open-Circuit Voltage (Voc) (+/-3%)	54.6 V	54.4 V	54.2 V	54.0 V	53.8 V	53.6 V
Short-Circuit Current (lsc) (+/-3%)	11.62 A	11.58 A	11.55 A	11.52 A	11.48 A	11.45 A
Maximum System Voltage	1500 V IEC					
Maximum Series Fuse	20 A					
Power Temp. Coef.	–0.34% / ° C					
Voltage Temp. Coef.	–0.28% / ° C					
Current Temp. Coef.	0.06% / ° C					

	Tests And Certifications (Pending)
Standard Tests ⁵	IEC 61215, IEC 61730 Rated to 1500 V
Quality Certs	ISO 9001:2008, ISO 14001:2004
EHS Compliance	OHSAS 18001:2007, Recycling Scheme
Ammonia Test	IEC 62716
Desert Test	MIL-STD-810G
Salt Spray Test	IEC 61701 (maximum severity)
LeTID Test ⁶	IEC 61215 (MQT 23.1 LeTID detection) draft standard
PID Test	IEC 62804
Available Listings	TUV

Operating Condition And Mechanical Data			
Temperature	-40°C to +85°C		
Impact Resistance	25 mm diameter hail at 23 m/s		
Solar Cells	Monocrystalline PERC		
Tempered Glass	High-transmission tempered anti-reflective		
Junction Box	IP-67, Renhe ZJRH 05-8 or Zerun Z4S, 3 bypass diodes		
Weight	25 kg		
Max. Load	Wind: 2400 Pa, 245 kg/m² front & back		
	Snow: 5400 Pa, 550 kg/m² front		
Frame	Class 2 silver anodized		



FRAME PROFILE



(A) Cable Length: 1000 mm +/-15 mm

Please read the safety and installation guide.

1 Performance panels expected useful life of 35 years. Source: "SunPower P-Series Technology Technical Review," Leidos Independent Engineer Report. 2016.

2 Based on shipments as of Q2-2020.

3 SunPower Performance Series – Thermal Performance, Z.Campeau 2016.

4 Measured at Standard Test Conditions (STC): irradiance of 1000 W/m², AM

1.5, and cell temperature 25° C.

5 Class C fire rating per IEC 61730.

6 Fraunhofer CSP LID Sensitivity according to IEC 61215 (MQT 23.1 LeTID detection), 0.5% power loss at 700 hours.

Designed in the U.S.A. by SunPower Corporation Assembled in China

Specifications included in this datasheet are subject to change without notice.

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