



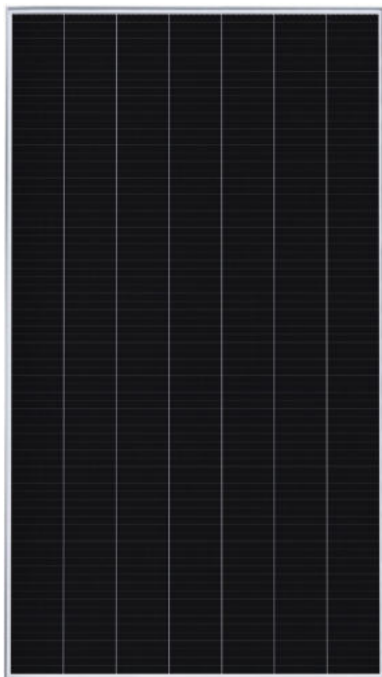
Shingled Cell



White Backsheet  
Silver Frame



Large  
Installations



## PERFORMANCE 3 UPP

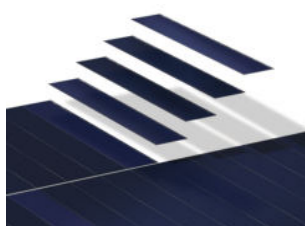
POWER RANGE: 475 – 500 W

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,<sup>1</sup> 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.

### Engineered for Performance

- Smaller cells stay cooler when shaded, extending panel life<sup>3</sup>
- Proprietary encapsulant minimizes degradation from environmental exposure
- Conductive adhesive defends against daily temperature swings
- Redundant cell connections create flexible paths for continuous electricity flow



### 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.<sup>2</sup>



4+ GW  
Deployed



60+  
Countries



90+  
Patents

### A Better Product. A Better Warranty.

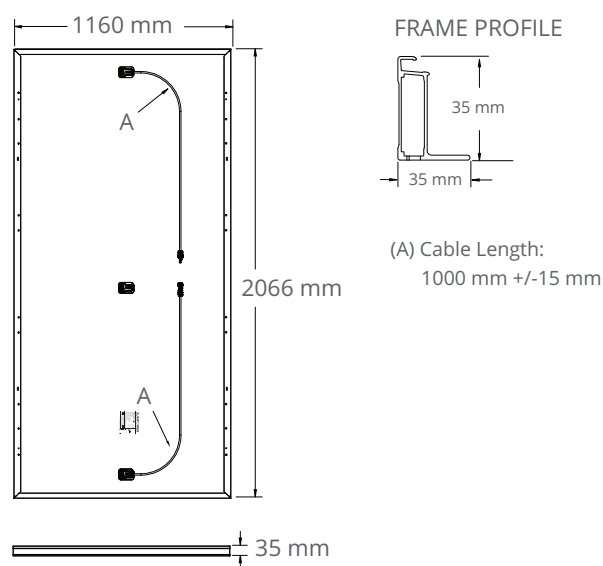
Each Performance 3 UPP panel is backed by the SunPower Performance UPP panel warranty providing 25-year product and power coverage.

• Year 1 Minimum Warranted Power Output	98.0%
• Maximum Annual Degradation	0.45%
• Year 25 Warranted Power Output	87.2%

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 (P <sub>nom</sub> ) <sup>4</sup>	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 (V <sub>mpp</sub> )	45.7 V	45.4 V	45.1 V	44.8 V	44.6 V	44.4 V
Rated Current (I <sub>mpp</sub> )	10.95 A	10.91 A	10.87 A	10.83 A	10.77 A	10.71 A
Open-Circuit Voltage (V <sub>oc</sub> ) (+/-3%)	54.6 V	54.4 V	54.2 V	54.0 V	53.8 V	53.6 V
Short-Circuit Current (I <sub>sc</sub> ) (+/-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	
Standard Tests <sup>5</sup>	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 <sup>6</sup>	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 or Stäubli Evo2, 3 bypass diodes
Weight	25 kg
Max. Load	Wind: 2400 Pa, 245 kg/m <sup>2</sup> front & back Snow: 5400 Pa, 550 kg/m <sup>2</sup> front
Frame	Class 2 silver anodized



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/m<sup>2</sup>, 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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