



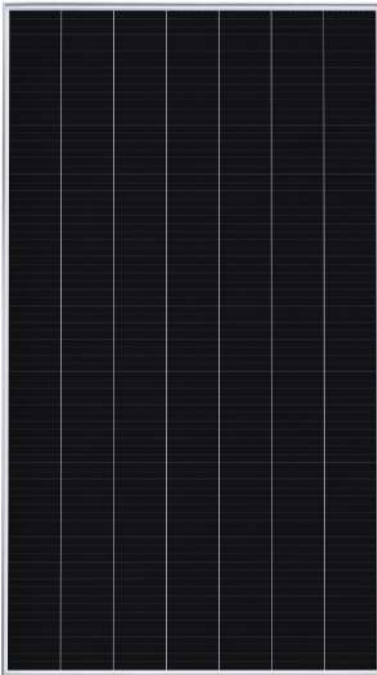
Shingled Cell



White Backsheet  
Silver Frame



Large  
Installations



## 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,<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 power coverage.

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

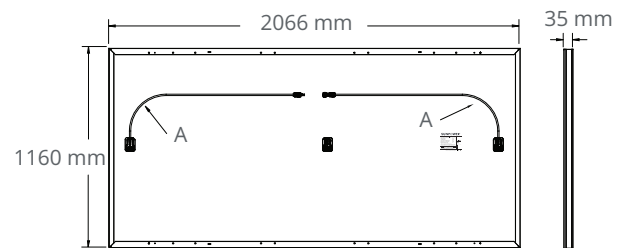


PERFORMANCE 3 UPP POWER: 500 – 475 W

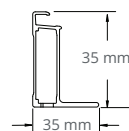
| Electrical Data                                  |                |                |                |                |                |                |
|--|----------------|----------------|----------------|----------------|----------------|----------------|
| Model  | SPR-P3-500-UPP | SPR-P3-495-UPP | SPR-P3-490-UPP | SPR-P3-485-UPP | SPR-P3-480-UPP | SPR-P3-475-UPP |
| Nominal Power (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        | 10.91A         | 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 (Pending) |   |
|------------------------------------|---|
| 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, 3 bypass diodes  |
| Weight                                  | 25 kg   |
| Max. Load                               | Wind: 2400 Pa, 245 kg/m <sup>2</sup> front & back<br>Snow: 5400 Pa, 550 kg/m <sup>2</sup> front |
| Frame                                   | Class 2 silver anodized   |



FRAME PROFILE



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

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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Please read the safety and installation guide.

**SUNPOWER**

FROM MAXEON SOLAR TECHNOLOGIES