

SunPower® P-Series: P19-400-COM

SunPower Performance Series Commercial Panel

SunPower® Performance Series panels wrap front contact cells with 30+ years of SunPower materials and manufacturing expertise. The weakest points of Conventional Panel design are eliminated to deliver superior power, reliability, value and savings.¹



High Power

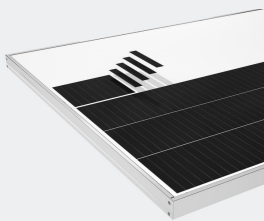
Enhanced active area increases power and savings while designing out fragile ribbons and solder bonds on the cells.



High Performance and Lifetime Savings

Up to 32% more energy in the same space over 25 year.² Outperforms conventional panels in partial shade thanks to unique parallel circuitry. Proprietary bussing design limits power loss, maximizing production during morning and evening row-to-row shading or soiling.

Engineered for Performance



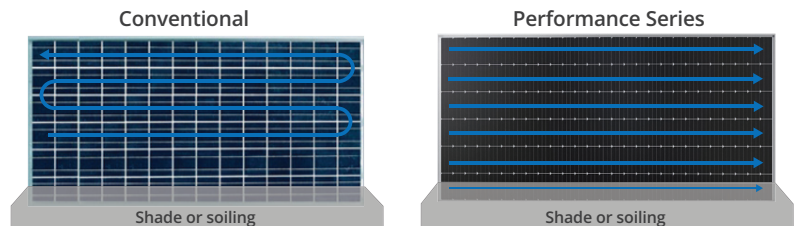
Designed for Reliability

- Robust and flexible cell connection technology. Outstanding reliability.
- Conductive adhesive, proven in the aerospace industry
- Redundant cell to cell connections

Proven Performance



- Named as a Top Performer in all DNV/GL reliability tests
- 15% more power and reduced panel temperature due to unique electrical bussing

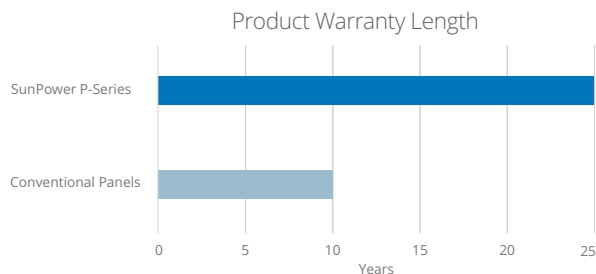


High Reliability, Backed with Confidence

Performance Series is the most deployed shingled solar panel in the world,³ with proven results. Innovative shingled design eliminates many of the reliability challenges of traditional front contact panels. SunPower stands behind its panels with its industry-leading Complete Confidence Warranty.



25 Year Combined Warranty Protects your investment

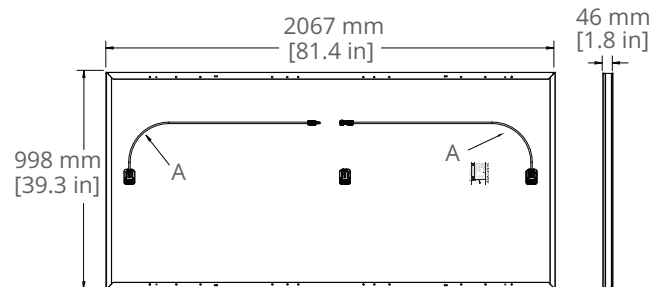


P-Series: P19-400-COM SunPower® Performance Series Commercial Panel

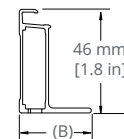
| Electrical Data | | | | | |
|--|-----------------|-----------------|-----------------|-----------------|-----------------|
| Model | SPR-P19-400-COM | SPR-P19-395-COM | SPR-P19-390-COM | SPR-P19-385-COM | SPR-P19-380-COM |
| Nominal Power (P _{nom}) ⁴ | 400 W | 395 W | 390 W | 385 W | 380 W |
| Power Tolerance | +5/-0% | +5/-0% | +5/-0% | +5/-0% | +5/-0% |
| Efficiency | 19.4% | 19.1% | 18.9% | 18.7% | 18.4% |
| Rated Voltage (V _{mpp}) | 43.4 V | 43.2 V | 43.1 V | 42.8 V | 42.6 V |
| Rated Current (I _{mpp}) | 9.22 A | 9.14 A | 9.05 A | 8.99 A | 8.92 A |
| Open-Circuit Voltage (V _{oc}) | 52.7 V | 52.5 V | 52.3 V | 52.0 V | 51.8 V |
| Short-Circuit Current (I _{sc}) | 9.80 A | 9.72 A | 9.63 A | 9.58 A | 9.49 A |
| Power Temp. Coef. | -0.36% / ° C | | | | |
| Voltage Temp. Coef. | -0.29% / ° C | | | | |
| Current Temp. Coef. | 0.05% / ° C | | | | |
| Maximum System Voltage | 1500 V UL | | | | |
| Maximum Series Fuse | 15 A | | | | |

| Tests And Certifications (Preliminary) | |
|--|--|
| Standard Tests ⁵ | UL1703 (Type 2 Fire Rating) |
| Quality Certs | ISO 9001:2008, ISO 14001:2004 |
| EHS Compliance | OHSAS 18001:2007, Recycling Scheme |
| Ammonia Test | IEC 62716 |
| Desert Test | 10.1109/PVSC.2013.6744437 |
| Salt Spray Test | IEC 61701 (maximum severity) |
| PID Test | Potential-Induced Degradation free: 1500 V |
| Available Listings | UL, CEC, FSEC |

| Operating Condition And Mechanical Data | |
|---|--|
| Temperature | -40° F to +185° F (-40° C to +85° C) |
| Impact Resistance | 1 inch (25 mm) diameter hail at 52 mph (23 m/s) |
| Appearance | Class A |
| Solar Cells | Monocrystalline PERC |
| Tempered Glass | High-transmission tempered anti-reflective |
| Junction Box | IP-67, TE (PV4S) |
| Weight | 51 lbs (23.1 kg) |
| Max. Load | Wind: 50 psf, 2400 Pa, 245 kg/m ² front & back Snow: 112 psf, 5400 Pa, 550 kg/m ² front |
| Frame | Class 2 silver anodized |



FRAME PROFILE



(A) Portrait Cable: 1000 mm +/-15 mm [39.4 in +/- 0.6 in]

(B) Long Side: 32 mm [1.3 in]

Short Side: 24 mm [0.9 in]

REFERENCES:

- 1 Independent Shade Study by CFV Laboratory.
- 2 SunPower 405 W compared to a Conventional Panel on same sized arrays (310 W, 15.8% efficient, approx. 1.6 m²), 0.6%/yr degradation (Leidos technical review 2017).
- 3 Osborne. "SunPower supplying P-Series modules to a 125MW NextEra project." PV-Tech.org. March 2017."
- 4 Measured at Standard Test Conditions (STC): irradiance of 1000 W/m², AM 1.5, and cell temperature 25° C.
- 5 Type 2 fire rating per UL1703:2013, Class C fire rating per UL1703:2002 and IEC 61730.

See www.sunpower.com/company and www.sunpower.com/solar-resources for more reference information. Specifications included in this datasheet are subject to change without notice.

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Read safety and installation instructions before using this product.

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