



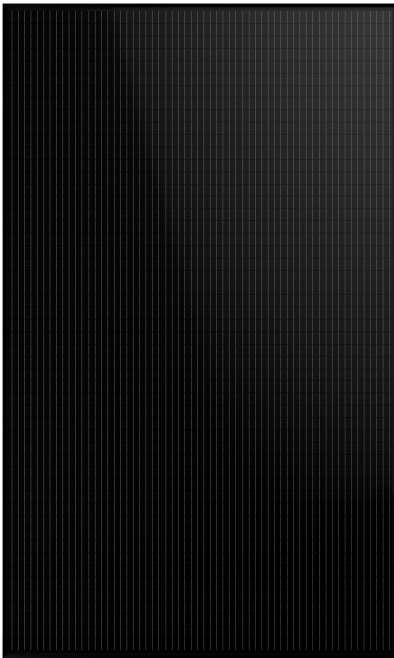
Shingled Cell



Black Backsheet
Black Frame



Residential



PERFORMANCE 6 BLK | 395–420

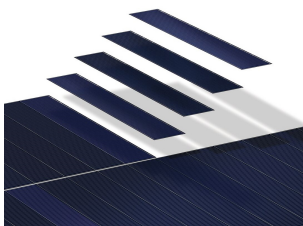
POWER RANGE: 395 – 420 W

With a sleek black design that elegantly blends into any roof, the SunPower Performance 6 BLK panel utilises high efficiency 210mm solar cells with current-collecting wires on the cell face to deliver more lifetime energy over standard solar panels.

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.

Engineered for Performance

- Smaller cells stay cooler when shaded, extending panel life³
- Advanced 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 6 panel delivers more energy in the same space over 25 years compared to Conventional mono PERC Panels.

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



6+ GW
Deployed



60+
Countries



90+
Patents

A Better Product. A Better Warranty.

Each SunPower Performance panel is manufactured with the confidence to deliver more energy and reliability over time—and backed for 25 years by the SunPower Complete Confidence Panel Warranty.

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

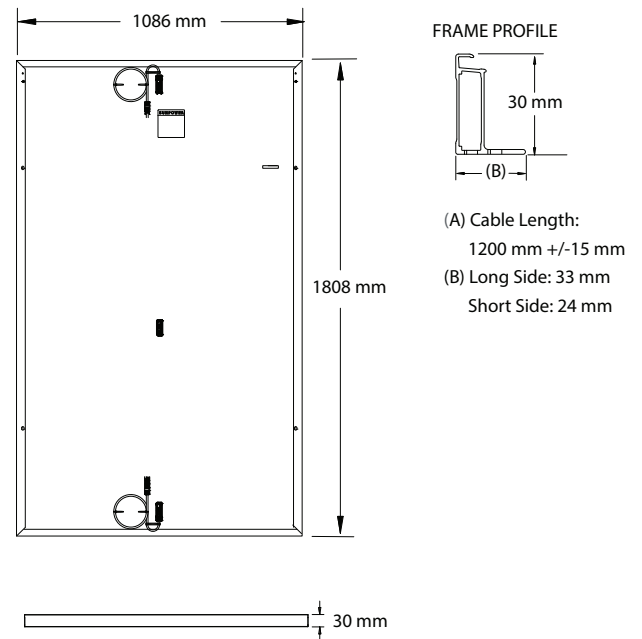
PERFORMANCE 6 BLK POWER: 395 – 420 W

Electrical Data						
Model	SPR-P6-420-BLK	SPR-P6-415-BLK	SPR-P6-410-BLK	SPR-P6-405-BLK	SPR-P6-400-BLK	SPR-P6-395-BLK
Nominal Power (P _{nom}) ⁴	420 W	415 W	410 W	405 W	400 W	395 W
Power Tolerance	+3/0%	+3/0%	+3/0%	+3/0%	+3/0%	+3/0%
Efficiency	21.4%	21.1%	20.9%	20.6%	20.4%	20.1%
Rated Voltage (V _{mpp})	30.5 V	30.2 V	29.9 V	29.6 V	29.3 V	29.0 V
Rated Current (I _{mpp})	13.79 A	13.76 A	13.73 A	13.70 A	13.67 A	13.64 A
Open-Circuit Voltage (V _{oc}) (+/-3%)	36.3 V	36.1 V	35.9 V	35.7 V	35.5 V	35.3 V
Short-Circuit Current (I _{sc}) (+/-3%)	14.69 A	14.66 A	14.63 A	14.60 A	14.57 A	14.55 A

Mechanical Data	
Impact Resistance	25 mm diameter hail at 23 m/s
Solar Cells	Monocrystalline PERC
Glass	3.2 mm, Heat Strengthened Glass
Junction Box	IP-68, 3 bypass diodes
Connector	Stäubli MC4
Weight	21.0 kg
Max. Load	Wind: 2400 Pa, 245 kg/m ² front & back Snow: 5400 Pa, 550 kg/m ² front
Frame	Anodized Aluminum Alloy

Electrical Data	
Maximum System Voltage	1000 V IEC
Temperature	-40°C to +85°C
Maximum Series Fuse	25 A
Power Temp. Coef.	-0.34% / °C
Voltage Temp. Coef.	-0.27% / °C
Current Temp. Coef.	0.04% / °C

Tests And Certifications (Pending)	
Standard Tests	IEC 61215, IEC 61730
Fire Rating	Class C (IEC 61730)
Quality Certs	ISO 9001:2015, ISO 14001:2015
EHS Compliance	ISO 45001-2018, Recycling Scheme
Ammonia Test	IEC 62716
Dust and Sand	IEC 60068-2-68
Salt Spray Test	IEC 61701 (maximum severity)
PID Test	IEC 62804



- 1 Performance panels expected useful life of 35 years. Source: "SunPower P-Series Technology Technical Review," Leidos Independent Engineer Report. 2016.
- 2 Osborne. "SunPower supplying P-Series modules to a 125MW NextEra project." PV-Tech.org. March 2017.
- 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.

Designed in U.S.A
Assembled in China

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

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SUNPOWER
FROM MAXEON SOLAR TECHNOLOGIES

