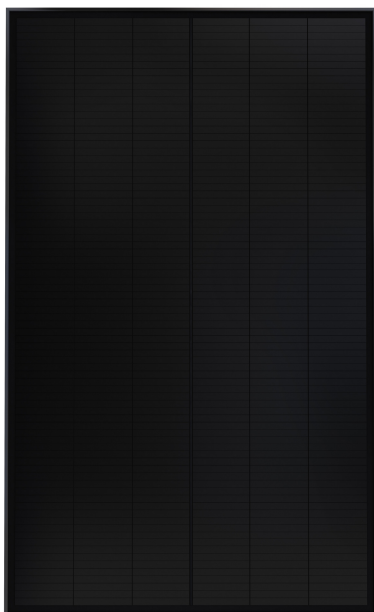




SunPower® P-Series: P19-335-BLK

SunPower Performance Series Residential 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 35% 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 shading or soiling.

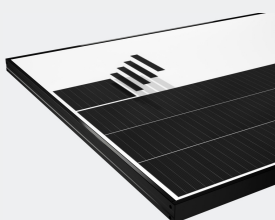


High Reliability, Backed with Confidence

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.



Engineered for Performance



Designed for Reliability

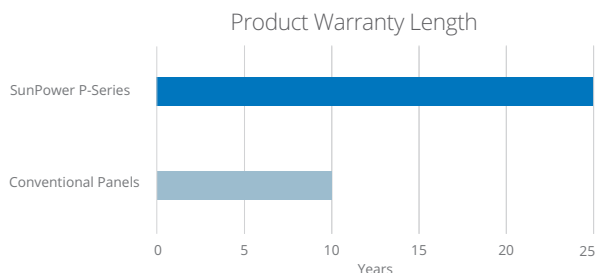
- Robust and flexible cell connection technology. Outstanding reliability.
- Conductive adhesive, proven in the aerospace industry
- Redundant cell to cell connections

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

25 Year Combined Warranty Protect your investment

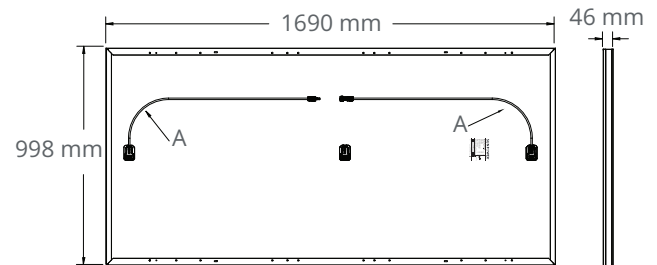


P-Series: P19-335-BLK SunPower® Performance Series Residential Panel

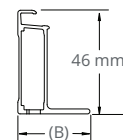
Electrical Data						
Model	SPR-P19-335-BLK	SPR-P19-330-BLK	SPR-P19-325-BLK	SPR-P19-320-BLK	SPR-P19-315-BLK	SPR-P19-310-BLK
Nominal Power (P _{nom}) ⁴	335 W	330 W	325 W	320 W	315 W	310 W
Power Tolerance	+5/-0%	+5/-0%	+5/-0%	+5/-0%	+5/-0%	+5/-0%
Efficiency	19.9%	19.6%	19.3%	19.0%	18.7%	18.4%
Rated Voltage (V _{mpp})	37.1 V	36.8 V	36.5 V	36.2 V	36.1 V	35.9 V
Rated Current (I _{mpp})	9.04 A	8.97 A	8.90 A	8.84 A	8.73 A	8.63 A
Open-Circuit Voltage (V _{oc})	44.3 V	44.0 V	43.8 V	43.5 V	43.4 V	43.3 V
Short-Circuit Current (I _{sc})	9.60 A	9.53 A	9.46 A	9.38 A	9.31 A	9.24 A
Power Temp. Coef.	-0.37% / ° C					
Voltage Temp. Coef.	-0.29% / ° C					
Current Temp. Coef.	0.05% / ° C					
Maximum System Voltage	1000 V IEC					
Maximum Series Fuse	15 A					

Tests And Certifications (Preliminary)	
Standard Tests ⁵	IEC 61215, IEC 61730
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: 1000 V
Available Listings	TUV

Operating Condition And Mechanical Data	
Temperature	-40° C to +85° C
Impact Resistance	25 mm diameter hail at 23 m/s
Appearance	Class A
Solar Cells	Monocrystalline PERC
Tempered Glass	High-transmission tempered anti-reflective
Junction Box	IP-67, MC4, 3 bypass diodes
Weight	18.7 kg
Max. Load	Wind: 2400 Pa, 245 kg/m ² front & back Snow: 5400 Pa, 550 kg/m ² front
Frame	Class 1 black anodized (highest AAMA rating)



FRAME PROFILE



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

(B) Long Side: 32 mm

Short Side: 24 mm

Read safety and installation instructions before using this product.

REFERENCES:

- 1 Independent Shade Study by CFV Laboratory.
- 2 SunPower 335 W compared to a Conventional Panel on same sized arrays (260 W, 16% 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 Class C fire rating per IEC 61730.

See www.sunpowercorp.co.uk/company/about-sunpower for more reference information.

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