



SunPower® X-Series Commercial Solar Panels | X21-345-COM

Helix™ Compatible Modules

Factory-installed flanges enable tool-free panel installation, decreasing installation time and minimizing business disruption.¹

More than 21% Efficiency

Captures more sunlight and generates more power than conventional panels.²

Maximum Performance

Designed to perform in demanding real-world conditions of high temperatures, partial shade from overhead wires, and low light.^{2,3,5}

Commercial Grade

Intended for commercial sites where maximum energy production is critical.



Maxeon® Solar Cells: Fundamentally better

Engineered for performance, designed for reliability.

Engineered for Peace of Mind

Designed to deliver consistent, trouble-free energy over a very long lifetime.^{4,5}

Designed for Reliability

The SunPower® Maxeon® Solar Cell is built on a solid copper foundation. Virtually impervious to the corrosion and cracking that degrade conventional panels.⁴

Same excellent durability as E-Series panels.

#1 Rank in Fraunhofer durability test.¹⁰

100% power maintained in Atlas 25+

comprehensive durability test.¹¹

High Performance & Excellent Reliability



SPR-X21-345-COM

Helix-compatible module available

Highest Efficiency⁶

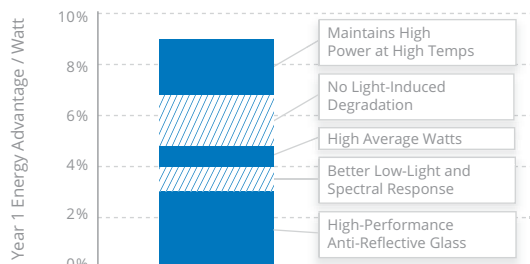
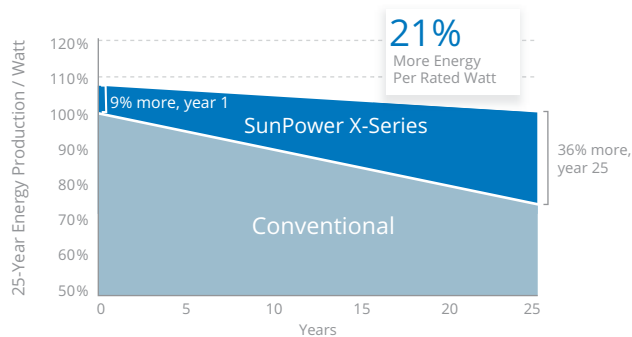
Generate more energy per square foot

X-Series commercial panels convert more sunlight to electricity by producing 38% more power per panel² and 70% more energy per square foot over 25 years.^{2,3,4}

Highest Energy Production⁷

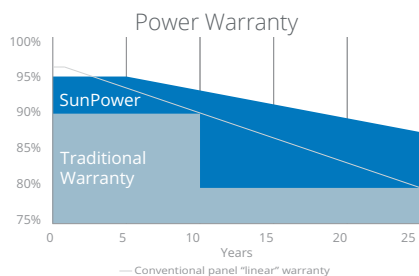
Produce more energy per rated watt

More energy to power your operations. High year-one performance delivers 8–10% more energy per rated watt.³ This advantage increases over time, producing 21% more energy over the first 25 years to meet your needs.⁴

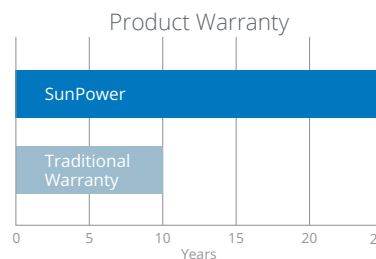


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SunPower Offers The Best Combined Power And Product Warranty



More guaranteed power: 95% for first 5 years,
-0.4%/yr. to year 25⁸



Combined Power and Product defect 25-year coverage
that includes panel replacement costs⁹

Electrical Data

	SPR-X21-345-COM	SPR-X20-327-COM
Nominal Power (P _{nom}) ¹²	345 W	327 W
Power Tolerance	+5/-3%	+5/-3%
Avg. Panel Efficiency ¹³	21.5%	20.3%
Rated Voltage (V _{mpp})	57.3 V	57.3 V
Rated Current (I _{mpp})	6.02 A	5.71 A
Open-Circuit Voltage (V _{oc})	68.2 V	67.6 V
Short-Circuit Current (I _{sc})	6.39 A	6.07 A
Max. System Voltage	1000 V UL & 1000 V IEC	
Maximum Series Fuse	15 A	
Power Temp Coef.	-0.30% / °C	
Voltage Temp Coef.	-167.4 mV / °C	
Current Temp Coef.	3.5 mA / °C	

Tests And Certifications

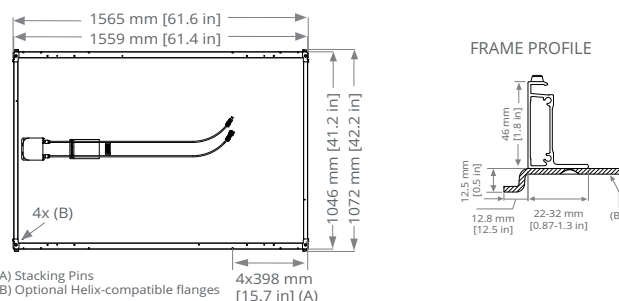
Standard Tests ¹⁴	UL1703 (Type 2 Fire Rating), IEC 61215, IEC 61730
Quality Certs	ISO 9001:2008, ISO 14001:2004
EHS Compliance	RoHS, OHSAS 18001:2007, lead free, REACH SVHC-163, PV Cycle
Sustainability	Cradle to Cradle Certified™ Silver (eligible for LEED points) ¹⁵
Ammonia Test	IEC 62716
Desert Test	10.1109/PVSC.2013.6744437
Salt Spray Test	IEC 61701 (maximum severity)
PID Test	Potential-Induced Degradation free: 1000 V ¹⁰
Available Listings	UL, TUV, JET, CSA, CEC

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 B
Solar Cells	96 Monocrystalline Moxeon Gen III
Tempered Glass	High-transmission tempered anti-reflective
Junction Box	IP-65, MC4 compatible
Weight	41 lbs (18.6 kg)
Max. Load	Wind: 50 psf, 2400 Pa, 244 kg/m ² front & back Snow: 112 psf, 5400 Pa, 550 kg/m ² front
Frame	Class 2 silver anodized; stacking pins

REFERENCES:

- Helix-compatible modules may not be compatible with other racking systems.
- All comparisons are SPR-X21-345 vs. a representative conventional panel: 250 W, approx. 1.6 m², 15.3% efficiency.
- Typically 8-10% more energy per watt, BEW/DNV Engineering "SunPower Yield Report," Jan 2013.
- SunPower 0.25%/yr degradation vs. 1.0%/yr conv. panel. Campeau, Z. et al. "SunPower Module Degradation Rate," SunPower white paper, Feb 2013; Jordan, Dirk "SunPower Test Report," NREL, Q1-2015.
- "SunPower Module 40-Year Useful Life" SunPower white paper, May 2015. Useful life is 99 out of 100 panels operating at more than 70% of rated power.
- Highest of over 3,200 silicon solar panels, Photon Module Survey, Feb 2014.
- 1% more energy than E-Series panels, 8% more energy than the average of the top 10 panel companies tested in 2012 (151 panels, 102 companies), Photon International, Feb 2013.
- Compared with the top 15 manufacturers. SunPower Warranty Review, May 2015.
- Some restrictions and exclusions may apply. See warranty for details.
- X-Series same as E-Series, 5 of top 8 panel manufacturers tested in 2013 report, 3 additional panels in 2014. Ferrara, C., et al. "Fraunhofer PV Durability Initiative for Solar Modules: Part 2". Photovoltaics International, 2014.
- Compared with the non-stress-tested control panel. X-Series same as E-Series, tested in Atlas 25+ Durability test report, Feb 2013.
- Standard Test Conditions (1000 W/m² irradiance, AM 1.5, 25° C). NREL calibration Standard: SOMS current, LACCS FF and Voltage.
- Based on average of measured power values during production.
- Type 2 fire rating per UL1703:2013, Class C fire rating per UL1703:2002.
- See salesperson for details.



(A) Stacking Pins
(B) Optional Helix-compatible flanges

Please read the safety and installation guide.
Flanges installed on Helix-compatible modules only.
Flanges are not removable and may not be compatible with non-Helix-branded racking.

See www.sunpower.com/facts for more reference information.
For more details, see extended datasheet: www.sunpower.com/datasheets.

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