



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

More than 21% Efficiency

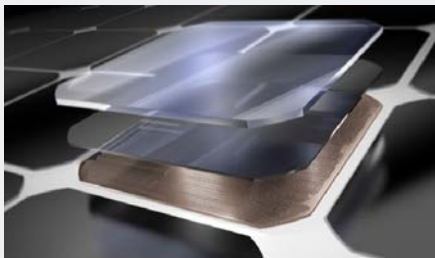
Captures more sunlight and generates more power than Conventional Panels.

Maximum Performance

Designed to perform in demanding real world conditions of high temperatures, partial shade from overhead wires, and low light.^{1,2,4}

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.^{3,4}

Designed for Reliability

The SunPower Maxeon Solar Cell is the only cell built on a solid copper foundation. Virtually impervious to the corrosion and cracking that degrade Conventional Panels.³

Same excellent durability as E-Series panels.
#1 Rank in Fraunhofer durability test.⁹
100% power maintained in Atlas 25+ comprehensive Durability test.¹⁰

High Performance & Excellent Reliability



SPR-X21-345-COM

Highest Efficiency⁵

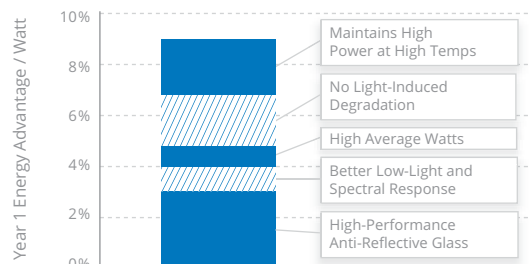
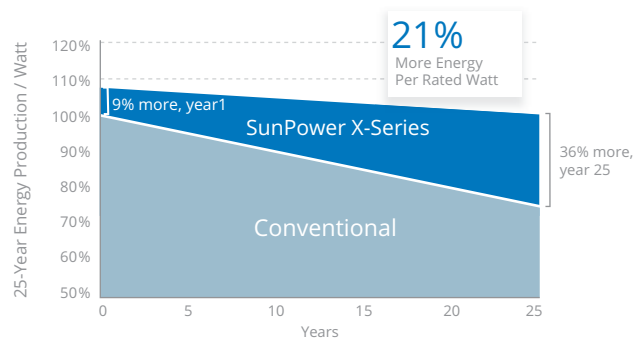
Generate more energy per square foot

X-Series commercial panels convert more sunlight to electricity producing 38% more power per panel,¹ and 70% more energy per square foot over 25 years.^{1,2,3}

Highest Energy Production⁶

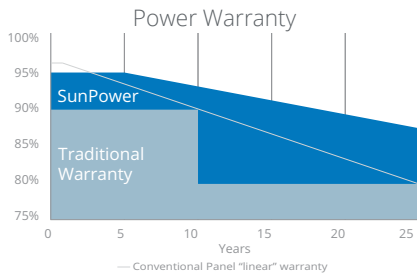
Produce more energy per rated watt

More energy to power your operations. High year one performance delivers 8-10% more energy per rated watt.² This advantage increases over time, producing 21% more energy over the first 25 years to meet your needs.³

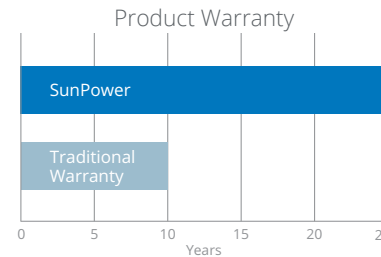


SunPower® X-Series Commercial Solar Panels | X21-345-COM

Sunpower Offers The Best Combined Power And Product Warranty



More guaranteed power: 95% for first 5 years, -0.4%/yr. to year 25.⁷



Combined Power and Product defect 25 year coverage that includes panel replacement costs.⁸

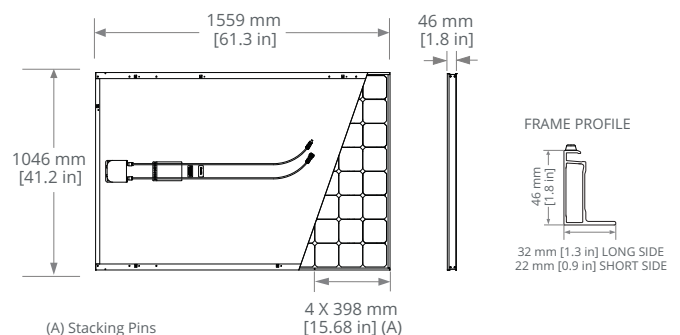
Electrical Data	SPR-X21-345-COM	SPR-X20-327-COM
	Nominal Power (P _{nom}) ¹¹	345 W
Power Tolerance	+5/-3%	+5/-3%
Avg. Panel Efficiency ¹²	21.5%	20.3%
Rated Voltage (V _{mpp})	57.3 V	57.3 V
Rated Current (I _{mpp})	6.02 A	5.71 A
Open-Circuit Voltage (V _{oc})	68.2 V	67.6 V
Short-Circuit Current (I _{sc})	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 ¹³	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-155, PV Cycle
Sustainability	Cradle to Cradle (eligible for LEED points) ¹⁴
Ammonia test	IEC 62716
Desert test	10.1109/PVSC.2013.6744437
Salt Spray test	IEC 61701 (maximum severity)
PID test	Potential-Induced Degradation free: 1000V ⁹
Available listings	UL, CEC, TUV

Operating Condition And Mechanical Data	
Temperature	-40°F to +185°F (-40°C to +85°C)
Impact resistance	1 inch (25mm) 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: 2400 Pa, 50 psf front & back Snow: 5400 Pa, 112 psf front
Frame	Class 2 silver anodized; stacking pins

REFERENCES:

- All comparisons are SPR-X21-345 vs. a representative conventional panel: 250W, 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 sales person for details.



Please read the safety and installation guide.

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

Document # 505700 Rev E /LTR_US