

# SunPower<sup>®</sup> E-Series Residential Solar Panels | E20-327

## More than 20% Efficiency

Ideal for roofs where space is at a premium or where future expansion might be needed.

## **High Performance**

Delivers excellent performance in real world conditions, such as high temperatures, clouds and low light.<sup>1,2,4</sup>

## Proven Value

Designed for residential rooftops, E-Series panels deliver the features, value and performance for any home.



Maxeon<sup>™</sup> Solar Cells: Fundamentally better. Engineered for performance, designed for durability.

# Engineered for Peace of Mind

Designed to deliver consistent, trouble-free energy over a very long lifetime. <sup>3,4</sup>

# Designed for Durability

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.<sup>3</sup>

#1 Rank in Fraunhofer durability test.<sup>9</sup>100% power maintained in Atlas 25+comprehensive Durability test.<sup>10</sup>

# High Performance & Excellent Durability





SPR-E20-327

# High Efficiency<sup>5</sup>

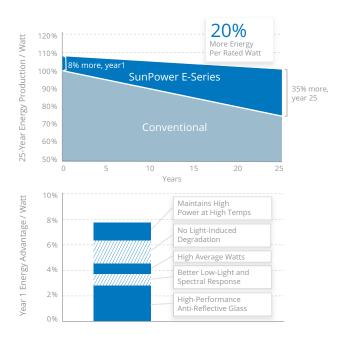
#### Generate more energy per square meter

E-Series residential panels convert more sunlight to electricity producing 31% more power per panel,<sup>1</sup> and 60% more energy per square meter over 25 years.<sup>1,2,3</sup>

# High Energy Production<sup>6</sup>

#### Produce more energy per rated watt

High year one performance delivers 7-9% more energy per rated watt.<sup>2</sup> This advantage increases over time, producing 20% more energy over the first 25 years to meet your needs.<sup>3</sup>



# SUNPOWER®



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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 25.  $^{7}$ 

Electrical Data		
	SPR-E20-327	SPR-E19-320
Nominal Power (Pnom) <sup>11</sup>	327 W	320 W
Power Tolerance	+5/-0%	+5/-0%
Avg. Panel Efficiency <sup>12</sup>	20.4%	19.9%
Rated Voltage (Vmpp)	54.7 V	54.7 V
Rated Current (Impp)	5.98 A	5.86 A
Open-Circuit Voltage (Voc)	64.9 V	64.8 V
Short-Circuit Current (lsc)	6.46 A	6.24 A
Max. System Voltage	1000 V IEC & 600 V UL	
Maximum Series Fuse	15 A	
Power Temp Coef.	–0.38% / °C	
Voltage Temp Coef.	–176.6 mV / °C	
Current Temp Coef.	3.5 mA / °C	

REFERENCES:

1 All comparisons are SPR-E20-327 vs. a representative conventional panel: 250W, approx. 1.6 m<sup>2</sup>, 15.3% efficiency.

2 Typically 7-9% more energy per watt, BEW/DNV Engineering "SunPower Yield Report," Jan 2013.

3 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.

4 "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.

5 Second highest, after SunPower X-Series, of over 3,200 silicon solar panels, Photon Module Survey, Feb 2014.

 $6\,8\%$  more energy than the average of the top 10 panel companies tested in 2012 (151 panels, 102 companies), Photon International, Feb 2013.

7 Compared with the top 15 manufacturers. SunPower Warranty Review, May 2015.

8 Some restrictions and exclusions may apply. See warranty for details.

9 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. 10 Compared with the non-stress-tested control panel. Atlas 25+ Durability test report, Feb

2013.

11 Standard Test Conditions (1000 W/m² irradiance, AM 1.5, 25° C). NREL calibration Standard: SOMS current, LACCS FF and Voltage.

12 Based on average of measured power values during production.

13 Type 2 fire rating per UL1703:2013, Class C fire rating per UL1703:2002.

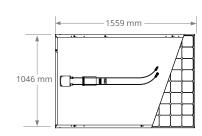


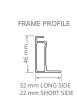
Combined Power and Product defect 25 year coverage that includes panel replacement costs. <sup>8</sup>

Tests And Certifications		
Standard tests <sup>13</sup>	IEC 61215, IEC 61730, UL1703 (Type 2 Fire Rating)	
Quality Certs	ISO 9001:2008, ISO 14001:2004	
EHS Compliance	RoHS, OHSAS 18001:2007, lead free,	
	PV Cycle, REACH SVHC-155	
Sustainability	Cradle to Cradle	
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 $V^9$	
Available listings	TUV, UL, JET, CSA, CEC, MCS, FSEC	

Operating Condition And Mechanical Data		
Temperature	– 40° C to +85° C	
Impact Resistance	25mm diameter hail at 23 m/s	
Appearance	Class A	
Solar Cells	96 Monocrystalline Maxeon Gen II	
Tempered Glass	High transmission tempered Anti-Reflective	
Junction Box	IP-65 Rated, Yukita (YS-254/YS-255)	
Weight	18,6 kg	
Max. Load	Wind: 2400 Pa, 244 kg/m² front & back	
	Snow: 5400 Pa, 550 kg/m² front	
Frame	Class 1 black anodised (highest AAMA rating)	

46 mm





Please read the safety and installation guide.

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

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