

# SunPower® E-Series Residential Solar Panels | E20-327

## More than 20% Efficiency

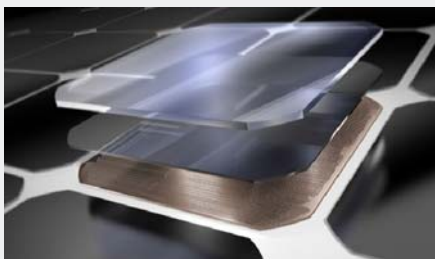
Ideal for roofs where space is at a premium or where future expansion might be needed.

## High Performance

Delivers excellent performance in real world conditions, such as high temperatures, clouds and low light.<sup>1,2,3</sup>

## Proven Value

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



**Maxeon™ 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>4,5</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>4</sup>

#1 Rank in Fraunhofer durability test.<sup>10</sup>

100% power maintained in Atlas 25+ comprehensive Durability test.<sup>11</sup>

## High Performance & Excellent Durability



SPR-E20-327



## High Efficiency<sup>6</sup>

### Generate more energy per square meter

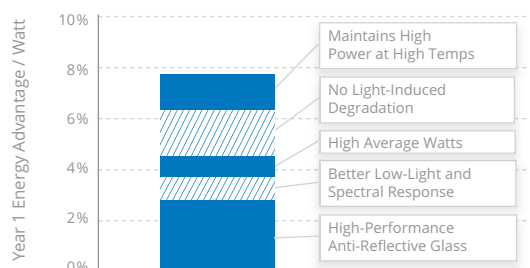
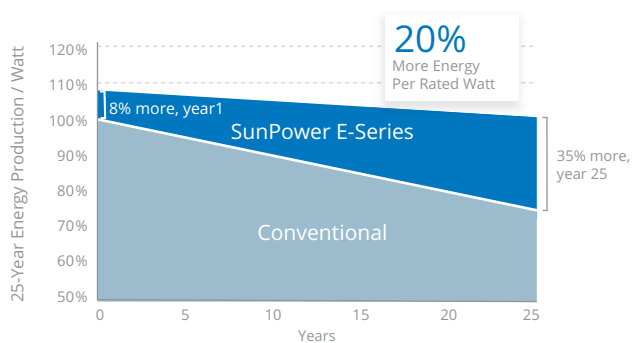
E-Series residential panels convert more sunlight to electricity producing 36% more power per panel,<sup>1</sup> and 60% more energy per square meter over 25 years.<sup>3,4</sup>

## High Energy Production<sup>7</sup>

### Produce more energy per rated watt

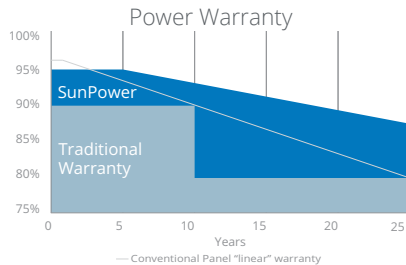
High year one performance delivers 7-9% more energy per rated watt.<sup>3</sup>

This advantage increases over time, producing 20% more energy over the first 25 years to meet your needs.<sup>4</sup>

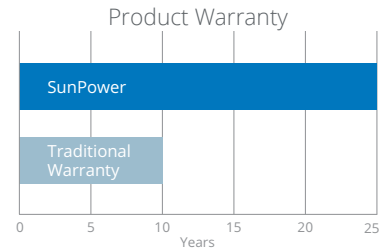


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## Sunpower Offers The Best Combined Power And Product Warranty



More guaranteed power: 95% for first 5 years, -0.4%/yr. to year 25.<sup>8</sup>



Combined Power and Product defect 25 year coverage that includes panel replacement costs.<sup>9</sup>

### Electrical Data

	SPR-E20-327	SPR-E19-320
Nominal Power (Pnom) <sup>12</sup>	327 W	320 W
Power Tolerance	+5/-0%	+5/-0%
Avg. Panel Efficiency <sup>13</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 (Isc)	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	

### Tests And Certifications

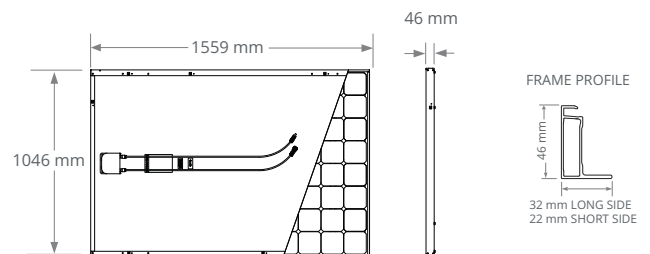
Standard tests <sup>14</sup>	IEC 61215, IEC 61730, UL1703 (Type 2 Fire Rating)
Quality Certs	ISO 9001:2008, ISO 14001:2004
EHS Compliance	RoHS, OHSAS 18001:2007, lead free, PV Cycle, REACH SVHC-155
Ammonia test	IEC 62716
Desert test	10.1109/PVSC.2013.6744437
Salt Spray test	IEC 61701 (maximum severity)
PID test	Potential-Induced Degradation free: 1000V <sup>10</sup>
Available listings	TUV, MCS, UL, JET, CSA, CEC, 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 Moxeon 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/m <sup>2</sup> front & back Snow: 5400 Pa, 550 kg/m <sup>2</sup> front
Frame	Class 1 black anodised (highest AAMA rating)

#### REFERENCES:

- All comparisons are SPR-E20-327 vs. a representative conventional panel: 250W, approx. 1.6 m<sup>2</sup>, 15.3% efficiency.
- PVEvolution Labs "SunPower Shading Study," Feb 2013.
- Typically 7-9% 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, Q4-2014.
- "SunPower Module 40-Year Useful Life" SunPower white paper, Feb 2013. Useful life is 99 out of 100 panels operating at more than 70% of rated power.
- Second highest, after SunPower X-Series, of over 3,200 silicon solar panels, Photon Module Survey, Feb 2014.
- 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, Feb 2013.
- Some exclusions apply. See warranty for details.
- 5 of top 8 panel manufacturers from 2013 report were tested, 3 additional silicon solar panels for the 2014. Ferrara, C., et al. "Fraunhofer PV Durability Initiative for Solar Modules: Part 2". Photovoltaics International, 77-85. 2014.
- Compared with the non-stress-tested control panel. Atlas 25+ Durability test report, Feb 2013.
- Standard Test Conditions (1000 W/m<sup>2</sup> 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.



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](http://www.sunpower.com/datasheets).

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