

SunPower Maxeon 6 AC

SPR-MAX6-XXX-E4-BLK-AC

Home Solar Panel

415–425 W | Up to 22.0% Efficient



Ideal for residential applications



Black backsheet, black frame



Factory-integrated microinverter



More Lifetime Energy

Designed to maximise energy generation through leading efficiency, enhanced performance in high temperatures, and higher energy conversion in low-light conditions like mornings, evenings and cloudy days.

Uncompromising Reliability

Engineered to power through all types of weather conditions with crack-resistant cells and reinforced connections that protect against fatigue and corrosion. Each panel's microinverter enables independent panel operation to mitigate the impact of shade while improving system performance. An innovative electrical architecture and advanced cell design prevent the formation of damaging hot-spots.



Superior Sustainability

Clean ingredients, responsible manufacturing, and lasting energy production for 40 years make SunPower Maxeon panels the most sustainable choice in solar.



The Industry's Longest Warranty

SunPower Maxeon panels are covered by a 40-year warranty¹ backed by extensive third-party testing and field data from more than 50 million panels deployed worldwide.

Product and power coverage	40
Year 1 minimum warranted output	98.0%
Maximum annual degradation	0.25%
Microinverter limited product warranty covered by Enphase	25 Years



Maxeon 6 AC POWER: 415–425 W | EFFICIENCY: Up to 22.0%

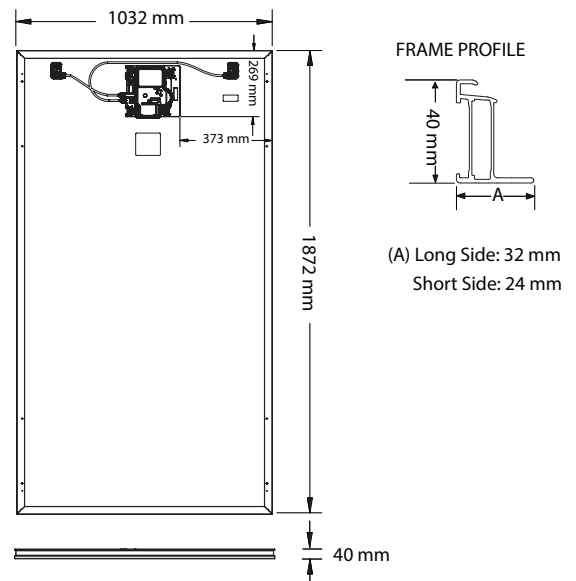
AC Electrical Data	
Inverter Model: IQ 7A	@230 VAC
Peak Output Power	366 VA
Max. Continuous Output Power	349 VA
Nom. (L-N) Voltage/Range	219 - 264 V
Max. Continuous Output Current	1.52 A
Max. Units per 20 A (L-N) Branch Circuit	10
Weighted Efficiency ²	96.5%
Nom. Frequency	50 Hz
Extended Frequency Range	45-55 Hz
Total Harmonic Distortion	<5%
Overvoltage Class AC Port	III
Night-time Power Loss	50 mW
Power Factor Setting	1.0
Power Factor (adjustable)	0.8 lead. / 0.8 lag.

DC Power Data		
	SPR-MAX6-425-BLK-E4-AC	SPR-MAX6-415-BLK-E4-AC
Nominal Power (P _{nom}) ³	425 W	415 W
Power Tolerance	+5/0%	+5/0%
Panel Efficiency	22.0%	21.5%
Power Temp Coef.	-0.29% / °C	
Shade Tolerance	Integrated module-level max. power point tracking	

Warranties, Certifications and Compliance	
Panel Warranties ¹	<ul style="list-style-type: none"> • 40-year limited power warranty • 40-year limited product warranty
Microinverter Warranty	<ul style="list-style-type: none"> • 25-year limited product warranty covered by Enphase warranty⁵
Certifications and Compliance	<ul style="list-style-type: none"> • IEC 61215, 61730⁶ • IEC 62109-1, 62109-2 • IEC 61000-6-3 • AS4777.2, RCM • IEC/ EN 50549-1:2019, G98/G99 • VDE-AR-N-4105
Quality Management Certs	ISO 9001:2015, ISO 14001:2015
PID Test	1000 V: IEC 62804
Available Listings	Entest, TUV ⁶
Green Building Certification Contribution	Panels can contribute additional points toward LEED and BREEAM certifications.
EHS Compliance	RoHS, ISO 45001:2018, Recycle Scheme, REACH SVHC-163

Operating Condition And Mechanical Data	
Temperature	-40°C to +60°C
Max. Ambient Temp	50°C
Solar Cells	66 Monocrystalline Maxeon Gen 6
Tempered glass	3.2 mm, high-transmission tempered anti-reflective
Environmental Rating	Microinverter Outdoor rated - IP67
Frame	Class 1 black anodized (highest AAMA rating)
Weight	21.8 kg
Relative Humidity	4% to 100% (Condensing)
Max. Altitude	2000 m
Max. Load ⁴	Wind: 4500 Pa, 458 kg/m ² front & back Snow: 7400 Pa, 754 kg/m ² front
Impact Resistance	40 mm diameter hail at 27.5 m/s
Microinverter enclosure	Class II double-insulated, corrosion resistant polymeric enclosure

Packaging Configuration	
Number of modules per pallet	25
Number of pallets per 40ft HQ container	24
Number of modules per container	600



Please read the safety and installation instructions. Visit www.sunpower.maxeon.com/int/InstallGuideACModules. Paper version can be requested through techsupport.ROW@maxeon.com.

1 40-year warranty is not available in all countries or all installations and requires registration, otherwise our 25-year warranty applies. Service availability varies by country and installation provider.

2 Tested per EN 50530 (EU).

3 Standard Test Conditions (1000 W/m² irradiance, AM 1.5, 25°C). NREL calibration standard: SOMS current, LACCS FF and voltage. All DC voltage is fully contained within the module.

4 As per IEC 61215-2016 tested. See Safety and Installation Guideline for details.

5 AC modules shall be connected to Enphase Monitoring hardware (ENVOY) to enable Enphase product warranty.

6 Refer to the DC module, Class C fire rating per IEC 61730.

7 Panels degraded 0% in extended LeTID testing conducted by PVEL. Test report R10124977G-1,2020

Made in Malaysia (Cells)

Assembled in Mexico (Module)

Specifications included in this datasheet are subject to change without notice.

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View warranty, patent and trademark information at maxeon.com/legal.

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FROM MAXEON SOLAR TECHNOLOGIES

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