





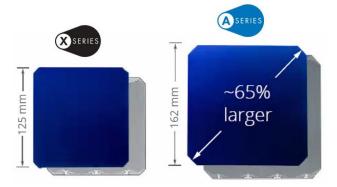
SunPower® Maxeon® Technology

Built specifically for use with the SunPower Equinox™ system, the only fully integrated solution designed, engineered, and warranted by one manufacturer.



Highest Power Density Available.

SunPower's new Maxeon® Gen 5 cell is 65% larger than prior generations, delivering the most powerful cell and highest-efficiency module in residential solar. The result is more power per square meter than any commercially available solar.







SunPower® Maxeon® Technology

- Most powerful cell in home solar ²
- Delivers unmatched reliability ³
- Patented solid metal foundation prevents breakage and corrosion



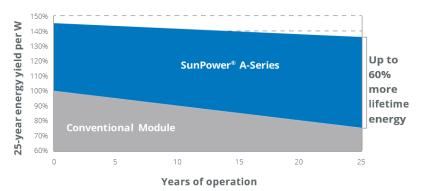
Factory-integrated Microinverter (MI)

- Highest-power integrated AC module in solar
- 60% lighter than prior SunPower MIs
- Engineered and calibrated by SunPower for SunPower AC modules



Highest Lifetime Energy and Savings.

Designed to deliver 60% more energy over 25 years in real-world conditions like partial shade and high temperatures.¹





Best Reliability. Best Warranty.

With more than 25 million modules deployed around the world, SunPower technology is proven to last. That's why we stand behind our module and microinverter with the industry's best 25-year Combined Power and Product Warranty, including the highest Power Warranty in solar.



A-Series: A420 | A415 | A410 | A400 | A390 SunPower® Residential AC Module

AC Electrical Data				
Inverter Model: SPWR-A4	@240 VAC			
Peak Output Power	366 VA			
Max. Continuous Output Power	349 VA			
Nom. (L-L) Voltage/Range ² (V)	240 / 211–264			
Max. Continuous Output Current (A)	1.45			
Max. Units per 20 A (L–L) Branch Circuit ³	11			
CEC Weighted Efficiency	97.0%			
Nom. Frequency	60 Hz			
Extended Frequency Range	47-68 Hz			
AC Short Circuit Fault Current Over 3 Cycles	5.8 A rms			
Overvoltage Class AC Port	III			
AC Port Backfeed Current	18 mA			
Power Factor Setting	1.0			
Power Factor (adjustable)	0.7 lead. / 0.7 lag.			

DC Power Data						
	A420-G-AC	A415-G-AC	A410-G-AC	A400-G-AC	A390-G-AC	
Nom. Power ⁵ (Pnom) W	420	415	410	400	390	
Power Tol.		+5/-	-0%			
Module Efficiency	22.5	22.3	22.0	21.5	20.9	
Temp. Coef. (Power)	−0.29%/°C					
Shade Tol.	Integrat	ed module-le	vel max. powe	er point tracki	ng	

Tested Operating Conditions		
Operating Temp.	-40°F to +185°F (-40°C to +85°C)	
Max. Ambient Temp.	122°F (50°C)	
Max. Load	Wind: 62 psf, 3000 Pa, 305 kg/m² front & back Snow: 125 psf, 6000 Pa, 611 kg/m² front	
Impact Resistance	1 inch (25 mm) diameter hail at 52 mph (23 m/s)	

Mechanical Data				
Solar Cells	66 Monocrystalline Maxeon Gen 5			
Front Glass	High-transmission tempered glass with anti-reflective coating			
Environmental Rating	Outdoor rated			
Frame	Class 1 black anodized (highest AAMA rating)			
Weight	46.5 lbs (21.1 kg)			
Recommended Max. Module Spacing	1.3 in. (33 mm)			

- 1 SunPower 415 W, 22.3% efficient, compared to a Conventional Panel on same-sized arrays (260 W, 16% efficient, approx. 1.6 m²), 7.9% more energy per watt (based on PVSyst pan files for avg. US climate), 0.5%/yr slower degradation rate (Jordan, et. al. "Robust PV Degradation Methodology and Application." PVSC 2018).

 2 Based on search of datasheet values from websites of top 10 manufacturers per IHS, as of
- 3 #1 rank in "Fraunhofer PV Durability Initiative for Solar Modules: Part 3." PVTech Power Magazine, 2015. Campeau, Z. et al. "Sun Power Module Degradation Rate," Sun Power white paper, 2013.
- 4 Factory set to 1547a-2014 default settings. CA Rule 21 default settings profile set during
- commissioning.

 5 Standard Test Conditions (1000 W/m² irradiance, AM 1.5, 25°C). NREL calibration standard:

 1 CCC F5 and voltage All DC voltage is fully contained within the module. SOMS current, LACCS FF and voltage. All DC voltage is fully contained within the module. 6 This product is UL Listed as PVRSE and conforms with NEC 2014 and NEC 2017 690.12;
- and C22.1-2015 Rule 64-218 Rapid Shutdown of PV Systems, for AC and DC conductors; when installed according to manufacturer's instructions.

See www.sunpower.com/facts for more reference information.

For more details, see extended datasheet www.sunpower.com/datasheets Specifications included in this datasheet are subject to change without notice.

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Warranties, Certifications, and Compliance

· 25-year limited power warranty

· 25-year limited product warranty

Warranties

Compliance

· UL 1741 / IEEE-1547

Certifications · UL 1741 AC Module (Type 2 fire rated) and

· UL 62109-1 / IEC 62109-2

• FCC Part 15 Class B

• ICES-0003 Class B

· CAN/CSA-C22.2 NO. 107.1-01

· CA Rule 21 (UL 1741 SA)⁴

(includes Volt/Var and Reactive Power Priority)

UL Listed PV Rapid Shutdown Equipment⁶

Enables installation in accordance with:

NEC 690.6 (AC module)

• NEC 690.12 Rapid Shutdown (inside and outside the array)

• NEC 690.15 AC Connectors, 690.33(A)–(E)(1)

When used with InvisiMount racking and InvisiMount accessories (UL 2703):

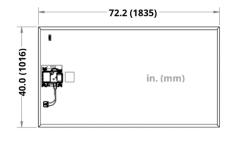
Module grounding and bonding through InvisiMount

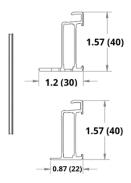
· Class A fire rated

When used with AC module Q Cables and accessories (UL 6703 and UL 2238)6:

· Rated for load break disconnect

PID Test Potential-induced degradation free







SUNPOWER®

Module Fire Performance: Type 2 Please read the Safety and Installation Instructions 532628 for additional details.

534092 RevA