

## SunPower® X22-360-D-AC | Residential AC Module Series

### Design-Driven Advantages

- #1 module aesthetics and efficiency¹
- Unmatched module reliability<sup>2</sup>
- No electrolytic capacitors
- 25-year Combined Power and Product Warranty

#### Maximize Value for Roof

- · Size system for roof, not string inverter
- · Optimize performance of each module

### Expand Deployment Options

- · Complex roofs and partial shading
- Small systems
- · System expandability

#### Simplify & Speed Installation

- · Factory-integrated microinverter
- · Robust, double-locking AC connectors
- · Design flexibility offsite and onsite
- No DC string sizing process
- Fewer installation steps than competing systems
- · Intuitive commissioning

#### Component of Complete System

- Built for use with SunPower<sup>®</sup> InvisiMount<sup>™</sup> and the SunPower Monitoring System
- Superior system reliability and aesthetics









## Optimize System and Installation Efficiency

SunPower® AC Modules, which include a factory-integrated
SunPower microinverter, provide a revolutionary combination of high
efficiency, high reliability, and module-level DC-to-AC power conversion.

Designed specifically for use with SunPower InvisiMount™ and the
SunPower Monitoring System, SunPower AC Modules enable rapid
installation, best-in-class system aesthetics, and intuitive visibility into
system performance. All this comes with the best Combined Power
and Product Warranty in the industry.

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# SunPower® X22-360-D-AC | Residential AC Module Series

Power Data	
	SPR-X22-360-D-AC
Nominal Power <sup>3</sup> (Pnom)	360 W
Power Tolerance	+5/-0%
Avg. Panel Efficiency <sup>4</sup>	22.2%
Temp. Coef. (Power)	−0.29%/° C
	<ul> <li>Three bypass diodes</li> </ul>
Shade Tolerance	Integrated module-level maximum power
	point tracking

AC Electrical Data	
Output @ 240 V (min./nom./max.)	211/240/264 V
Output @ 208 V (min./nom./max.)	183/208/229 V
Operating Frequency (min./nom./max.)	59.3/60.0/60.5 Hz
Output Power Factor (min.)	0.99
AC Max. Continuous Output Current @ 240 V	1.33 A
AC Max. Continuous Output Current @ 208 V	1.54 A
AC Max. Cont. Output Power	320 VA
DC/AC CEC Conversion Efficiency	96.0%
Max. Units Per 20 A Branch Circuit @ 240 V	12 (single phase)
Max. Units Per 20 A Branch Circuit @ 208 V	10 (two pole)
No active phase balancing for 3 phase	
installations	

Mechanical Data	
Solar Cells	96 Monocrystalline Maxeon Gen III
Front Glass	High-transmission tempered glass with anti-reflective coating
Environmental Rating	Outdoor rated
Frame	Class 1 black anodized (highest AAMA rating)
Weight	45.5 lbs (20.6 kg)
Max. Recommended Module Spacing	1.3 in. (33 mm)

 $^{1}\text{Highest}$  of over 3,200 silicon solar panels, Photon Module Survey, Feb. 2014

<sup>2</sup>#1 rank in "PV Module Durability Initiative Public Report," Fraunhofer CSE, Feb 2013. Five out of the top eight largest manufacturers were tested. Campeau, Z. et al. "SunPower Module Degradation Rate," SunPower white paper, Feb 2013. See www.sunpower.com/facts for details.

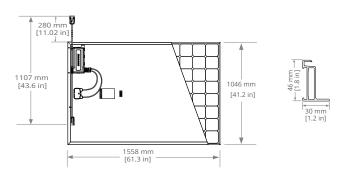
 $^3$  Standard Test Conditions (1000 W/m² irradiance, AM 1.5, 25° C). NREL calibration standard: SOMS current, LACCS FF and voltage. All DC voltage is fully contained within the module.

<sup>4</sup>Based on average of measured power values during production.

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

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)

	Warranties and Certifications
Warranties	<ul><li>25-year limited power warranty</li><li>25-year limited product warranty</li></ul>
	UL listed to UL 1741, including:  • IEEE1547/1547a and IEEE1547.1/1547.1a Grid Support Utility Interactive, UL 1741 SA  • PV Rapid Shutdown Equipment  • Equipment Grounding  • UL 6703, UL 9703 Connectors and cables (load break disconnection)  • UL 1703 PV Modules (Type 2 fire rating)
Certifications	Enables installation in accordance with:  NEC 690.6  NEC 690.12 Rapid Shutdown (inside and outside the array)  NEC 690.15 AC Connectors, 690.33(A) – (E)(1)
	FCC and ICES-003 Class B
	When used with InvisiMount racking (UL 2703) Integrated grounding and bonding Class A fire rated
PID Test	Potential-induced degradation free



Please read the safety and installation instructions for details.

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# SunPower® InvisiMount™ | Residential Mounting System

### Simple and Fast Installation

- · Integrated module-to-rail grounding
- · Pre-assembled mid and end clamps
- · Levitating mid clamp for easy placement
- Mid clamp width facilitates consistent, even module spacing
- · Simple, pre-drilled rail splice
- · UL 2703 Listed integrated grounding

#### Flexible Design

- · Addresses nearly all sloped residential roofs
- Design in landscape and portrait
- · Rails enable easy obstacle management

#### Customer-Preferred Aesthetics

- #1 module and #1 mounting aesthetics
- Best-in-class system aesthetics
- · Premium, low-profile design
- Black anodized components
- Hidden mid clamps and end clamps and capped, flush rails

#### Part of Superior System

- Built for use with SunPower DC and AC modules
- Best-in-class system reliability and aesthetics
- Combine with SunPower modules and monitoring app





#### **Elegant Simplicity**

SunPower® InvisiMount™ is a SunPower-designed rail-based mounting system. The InvisiMount system addresses residential sloped roofs and combines faster installation time, design flexibility, and superior aesthetics. The InvisiMount product was specifically envisioned and engineered to pair with SunPower modules. The resulting system-level approach will amplify the aesthetic and installation benefits for both homeowners and installers.

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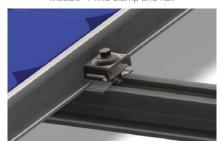




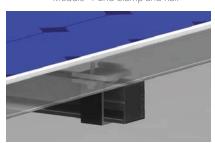
# SunPower® InvisiMount™ | Residential Mounting System

#### nvisiMount Component Images

Module\* / Mid Clamp and Rail



Module\* / End Clamp and Rail



Mid Clamp



End Clamp



Rail & Rail Splice



Ground Lug Assembly



End Cap



InvisiMount Component Details		
Component	Material	Weight
Mid Clamp	Black oxide stainless steel AISI 304	63 g (2.2 oz)
End Clamp	Black anodized aluminum alloy 6063-T6	110 g (3.88 oz)
Rail	Black anodized aluminum alloy 6005-T6	830 g/m (9 oz/ft)
Rail Splice	Aluminum alloy 6005-T5	830 g/m (9 oz/ft)
Ground Lug Assembly	304 stainless (A2-70 bolt; tin-plated copper lug)	106.5 g/m (3.75 oz)
End Cap	Black acetal (POM) copolymer	10.4 g (0.37 oz)

Roof Attachment Hardware Supported by InvisiMount System Design Tool		
Application	Composition Shingle Rafter Attachment Composition Shingle Roof Decking Attachment Curved and Flat Tile Roof Attachment Universal Interface for Other Roof Attachments	

InvisiMount Operating Conditions	
Temperature	-40° C to 90° C (-40° F to 194° F)
Max. Load (LRFD)	3000 Pa uplift     6000 Pa downforce

InvisiMount Warranties And Certifications	
Warranties	<ul><li> 25-year product warranty</li><li> 5-year finish warranty</li></ul>
Certifications	UL 2703 Listed Class A Fire Rated

#### Roof Attachment Hardware Warranties

Refer to roof attachment hardware manufacturer's documentation.

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 $<sup>{\</sup>bf *Module\ frame\ that\ is\ compatible\ with\ the\ InvisiMount\ system\ required\ for\ hardware\ interoperability.}$