SunPower Maxeon SPR-MAX5-400-E3



Brand: Maxeon Solar Sunpower
Product Code: BLK-R 400W
Availability: In Stock
Weight: 51.60lb
Dimensions: 2,086.00mm x 1,054.00mm x 40.00mm

Price: $493.85

Ex Tax: $493.85

Short Description
In-depth review of the high efficiency SunPower 400W Maxeon solar panel. Get the full specs, warranty details and real-world performance analysis before installing.

Description

SunPower Maxeon panels are world-renowned for their energy production and savings advantages that combine unmatched efficiency and reliability with an industry-leading warranty and an estimated 40-year useful life.2

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- **Power Rating:** 400W
  - **Cell Type P type** Monocrystalline
  - **Panel Dimensions** 1812.0 mm L, 1046.0 mm W, 40.0 mm D

Solar Panel Aesthetics Black Cell, Black Frame, Black Backsheet
Snow Load 5400 Pa, Wind Load 2400 Pa

- **Linear Warranty Term:** 25 years , Linear
- **Product Warranty Term:** 25 years
- **Made in Philippines**

Performance

Efficiency 21.4%

The SunPower/ Maxeon 3 BLK-R 405W with shuttered cell P-type silicon modules' efficiency ratings is 21.4% putting this panel on the highest end of average solar panel efficiency. In fact, according to Sunpower’s own spec sheets, when comparing efficiency the more affordable Maxeon 3 series performs as well or better than the IBC Maxeon 5

series.

Power Tolerance +5/0%

Power tolerance refers to the amount of electricity it will produce either above or below its rated power capacity at Standard Test Conditions (STC). The smaller the power tolerance deviation or range, the more accurate the rated power capacity is.

MAXEON SPR MAX3 400W modules have a power tolerance of -0/+5%.

The Max3 panels will, at the very minimum, operate at their rated capacity. However, these panels have exceeded, by as much as 5%, their rated capacity.

For example this panel is rated at 400 W and will operate anywhere from 400 W to 420 W (or 5% higher than 400) under STC.

With a -0% tolerance rating, this panel operates at, or above, 400 W.

In a side-by-side comparison of power tolerance, the Maxeon3 panel performed as well as the more expensive Maxeon 5 panel.

Temperature CoefficientPMax: -0.27

Solar panels perform best at 77°F (25°C). In Texas, obviously, roofs see temperatures far in excess of 77°F for most of the year. A solar panel’s temperature coefficient is a measurement indicating how well a specific model of solar panel will perform outside of ideal operating conditions.

The panel’s temperature coefficient along with the temperature of the panel allows you to predict your panel’s performance during the dog days of summer.

Temperature coefficients are calculated in Celsius.

With each degree above 25° C /77° F, a given solar panel’s electric output will be diminished by its temperature coefficient.

Using the above methodology, the MAXEON SPR MAX3 400W panel has a temperature coefficient of -0.27%/°C. Hence, when this panel’s temperature increases from 25°C to 26°C (77° F to 79° F) expect a 0.27% reduction in potential electric output.

When it's July in Texas and temperatures have climbed to 95° F/35° C, expect electric

output to decrease by 2.7%. During the hottest hours of summer, when the mercury climbs into the triple digits - 113° F/ 45° C - the MAXEON SPR MAX3 400W will decrease approximately 5.2%.

With respect to Temperature Coefficient, in hot weather the SPR MAX3 400W performs better than the more expensive N-type, MAXEON SPR MAX5 400 E3 AC.

Product Warranty 25 year, Linear

Output Decline

- Year 1 2.0%
- Years 2 to 25 0.25%
- Output at End of Warranty Term 92.%
- Materials Warranty Term 25 years

Warranty Specifications

Warranty Specifications

The Maxeon 3 offers a 25-year, linear production warranty. This warranty covers all solar panels for any defects with normal use and proper installation for 25 years from date of purchase.

Maxeon is currently offering the 40-year warranty to other countries, US customers must settle instead for the industry standard 25-year warranty.

Specification

Solar Panel Configuration	
Cell Type	Monocrystalline
Panel Aesthetics	Cell, Black Frame, White Backsheet

Panel Dimensions	2086.0 mm L 1054.0 mm W 40.0 mm D
Power Rating	415W
Snow load	5400 Pa
Wind Load	3600 Pa
Solar Panel Warranty	
Linear Production Warranty Term	25 Years
Product Warranty Term	25Years
PV Product Performance	
Efficiency	18.9%
Power Tolerance	0/+3%
Temperature Coefficient	PMax: -0.36
Others	
Average Cost / Watt	$2.50
Where it’s Made	Made in San Antonio Texas, USA