SUNPOWER | MAXEON

Fundamentally different, and better

Back Contact | AC Module | White Backsheet Black Frame | Residential

MAXEON 5 AC

Power Range: 400 – 415 W | EFFICIENCY: Up to 22.2%

The new SunPower Maxeon 5 AC Module combines home solar's most powerful panel with the world's most advanced inverter technology. The result is an elegant, optimized solution for any roof.[1]

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.[1,2,3,4]

Factory-integrated Microinverter (MI)

- Highest-power integrated AC module
- 25-Year limited product warranty covered by Enphase
- Engineered and calibrated by Enphase for SunPower AC modules

Maximum Lifetime Energy and Savings

The SunPower Maxeon 5 AC Module is designed to deliver 35% more energy in the same space over 25 years in real-world conditions such as partial shade and high temperatures.[5,6,7]

A Better Product. A Better Warranty.

The 25-year SunPower Complete Confidence Panel Warranty is backed by testing and field data from more than 30 million SunPower Maxeon panels deployed—and a demonstrated warranty return rate of .005%.[8]

• Year 1 Minimum Warranted Power Output	98.0%
• Annual Degradation	0.25%
• Year 25 Warranted Power Output	92.0%

Leadership in Sustainable Manufacturing

SunPower Maxeon panels—and the facilities in which they are produced—raise the bar for environmental and social responsibility. Included below are highlights of the certifications and recognition received by some of our products.[9]

sunpower.maxeon.com

MAXEON 5 AC Power: 400 – 415 W | EFFICIENCY: Up to 22.2%

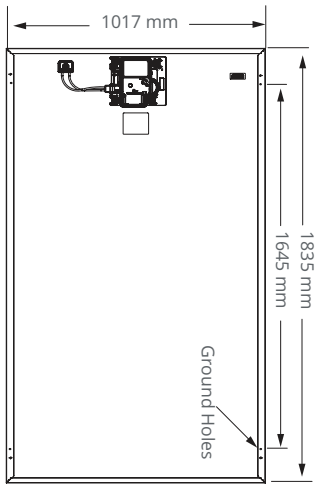
AC Electrical Data	
Inverter Model: IQ 7A	@230 VAC
Peak Output Power	366 VA
Max. Continuous Output Power	349 VA
Nom. (L–N) Voltage/Range	219 – 264 V
Max. Continuous Output Current	1.52 A
Max. Units per 20 A (L–N) Branch Circuit	10
Weighted Efficiency[10]	96.5%
Nom. Frequency	50 Hz
Extended Frequency Range	45-55 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)	0.8 lead. / 0.8 lag.

DC Power Data	SPR-MAX5-415-E3-AC	SPR-MAX5-410-E3-AC	SPR-MAX5-400-E3-AC
Nom. Power[11] (Pnom)	415 W	410 W	400 W
Power Tol.	+5/0%	+5/0%	+5/0%
Module Efficiency	22.2%	22.0%	21.5%
Temp. Coef. (Power)		−0.29%/°C	
Shade Tol.	Integrated module-level max. power point tracking		

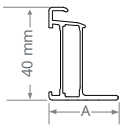
Mechanical Data	
Solar Cells	66 Monocrystalline Maxeon Generation 5
Front Glass	High-transmission tempered glass with anti-reflective coating
Environmental Rating	Microinverter Outdoor rated - IP67 (UL: NEMA type 6)
Frame	Class 1 black anodized
Weight	21.1 kg

Tested Operating Conditions	
Operating Temp.	−40°C to +60°C
Max. Ambient Temp.	50°C
Relative Humidity	4% to 100% (Condensing)
Max. Altitude	2000m
Max. Test Load[12]	Wind: 5400 Pa, 551 kg/m² back Snow: 8100 Pa, 826 kg/m² front
Design Load	Wind: 3600 Pa, 367 kg/m² back Snow: 5400 Pa, 551 kg/m² front
Impact Resistance	25 mm diameter hail at 23 m/s
Microinverter enclosure	Class II double-insulated, corrosion resistant polymeric enclosure

Warranties, Certifications, and Compliance	
Warranties	• 25-year limited power warranty • 25-year limited product warranty
Microinverter Warranty	• 25-year limited product warranty covered by Enphase warranty[13]
Certifications and Compliance	• IEC 61215, 61730[14] • 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
LeTID Test	Draft version IEC 61215[15]
Available listing	TUV, EnTest
Green Building Certification contribution	Panels can contribute additional points towards LEED and BREEAM certifications
EHS Compliance	RoHS, OHSAS 18001:2007, REACH SVHC-201



FRAME PROFILE



(A) Long Side: 32 mm
Short Side: 24mm

Please read Safety and Installation manual before using this product.

1 Based on datasheet review of websites of top 20 manufacturers per IHS, as of June, 2020.
2 Jordan, et. al. Robust PV Degradation Methodology and Application. PVSC 2018.
3 Based on Oct. 2019 review of warranties on manufacturer websites for top 20 manufacturers per IHS 2018.
4 "SunPower Module 40-Year Useful Life," SunPower whitepaper. 2013.
5 SunPower 400 W, 22.6% efficient, compared to a Conventional Panel on same-sized arrays (310 W mono PERC, 19% efficient, approx. 1.64 m²).
6 PV Evolution Labs "SunPower Shading Study," 2013. Compared to a conventional front contact panel.
7 Based on temperature coefficients provided in manufacturer datasheets 2020.
8 SunPower panels are less than 50 dppm, or 0.005%, on over 15 million panels shipped - Source: SunPower White Paper, 2019. Complete Confidence Warranty applies to SunPower Maxeon DC Module only. Microinverter covered by 25-year limited product warranty by Enphase.
9 SunPower Maxeon (DC) panels are Cradle to Cradle Certified™ - a certification mark licensed by the Cradle to Cradle Products Innovation Institute. Cradle to Cradle Certified™ is a multi-attribute certification program that assesses products and materials for safety to human and environmental health, design for future use cycles, and sustainable manufacturing. SunPower Maxeon (DC) panels first received the International Living Future Institute Declare Label in 2016. Microinverters are not certified by Cradle to Cradle or ILFI.
10 Tested per EN 50530 (EU).
11 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.
12 Safety factor 1.5 included.
13 AC modules shall be connected to Enphase Monitoring hardware (ENVOY) to enable Enphase product warranty.
14 Refer to the DC module, Class C fire rating per IEC 61730.
15 Panels degraded 0% in extended LeTID testing conducted by PVEL. Test report R10124977G-1,2020.

Designed in U.S.A. by SunPower Corporation.
Made in Malaysia (Cells)
Assembled in Mexico (Modules)

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

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