

## 475–450 W Commercial M-Series Panel

### SunPower® Maxeon® Technology

Built specifically for use with the SunPower Helix® system, the only fully integrated solar solution designed, engineered, and warranted by one company.

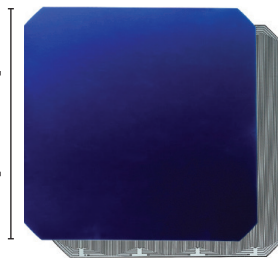


### Highest Power Density Available

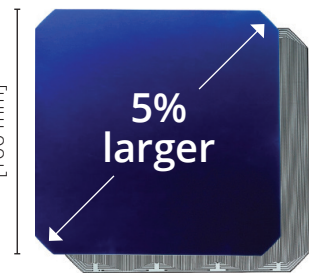
The patented, solid-copper foundation Maxeon Gen 6 cell is over 5% larger than prior generations, delivering the highest-efficiency commercial solar panel available.\*



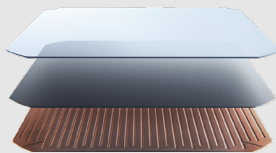
6.37 in  
[161.7 mm]



6.54 in  
[166 mm]



### SunPower® Maxeon® Solar Cell Technology



#### Fundamentally different. And better.

- Delivers unmatched reliability<sup>2</sup>
- Patented solid metal foundation prevents breakage and corrosion

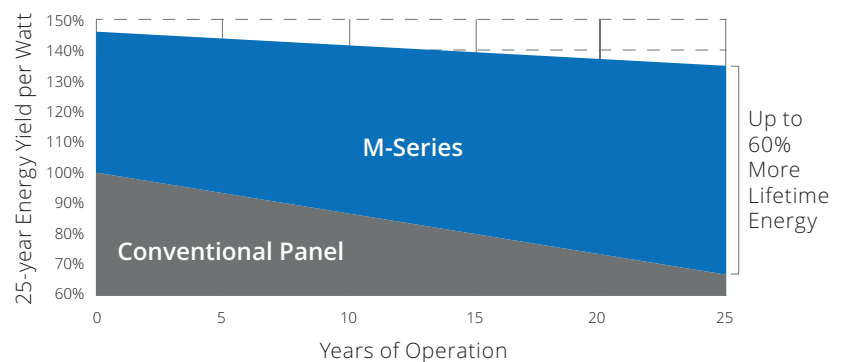
#### As sustainable as the energy it produces.

- Achieved the #1 ranking on the Silicon Valley Toxics Coalition's Solar Scorecard for 3 years running
- SunPower modules can contribute to your business's LEED certification<sup>3</sup>



### Highest Lifetime Energy and Savings

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



### Best Reliability, Best Warranty

With more than 42.6 million and 15 GW modules deployed around the world, SunPower technology is proven to last. That's why we stand behind our panel with the industry's best 25-year Combined Power and Product Warranty.

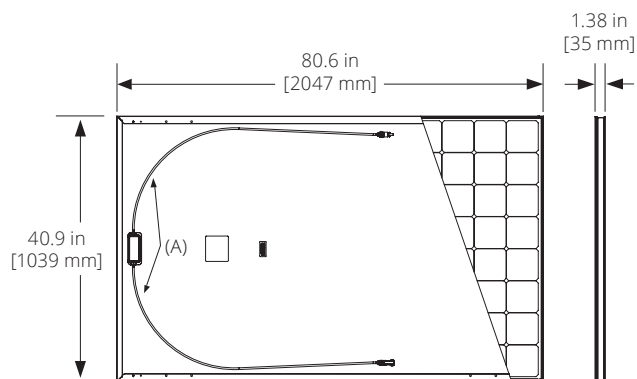
# M-Series: M475 | M460 | M450 Maxeon® Commercial Panel

Electrical Data			
	SPR-M475-COM	SPR-M460-COM	SPR-M450-COM
Nominal Power (P <sub>nom</sub> ) <sup>1</sup>	475 W	460 W	450 W
Power Tolerance	+5/-0%	+5/-0%	+5/-0%
Pane Efficiency	22.3%	21.6%	20.2%
Rated Voltage (V <sub>mpp</sub> )	43.9 V	43.2 V	42.8 V
Rated Current (I <sub>mpp</sub> )	10.82 A	10.64 A	10.52 A
Open-Circuit Voltage (V <sub>oc</sub> )	52.6 V	52.5 V	52.4 V
Short-Circuit Current (I <sub>sc</sub> )	11.57 A	11.54 A	11.51 A
Max. System Voltage	1500 V UL		
Maximum Series Fuse	20 A		
Power Temp Coef.	0.29% / °C		
Voltage Temp Coef.	0.239% / °C		
Current Temp Coef.	0.057% / °C		

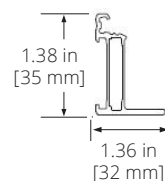
Operating Conditions and Mechanical Data	
Temperature	-40°C to +85°C (40°F to +185°F)
Impact Resistance	25 mm (1 in.) diameter hail at 23 m/s (52 mph)
Appearance	Class A
Solar Cells	72 Maxeon 6 cells
Tempered Glass	High-transmission tempered anti reflective
Junction Box	IP-68, PV4S
Weight	22.7 kg (50 lb)
Max. Test Load <sup>5</sup>	Wind: 125 psf, 6000 Pa, 611 kg/m <sup>2</sup> back Snow: 187 psf, 9000 Pa, 917 kg/m <sup>2</sup> front
Max. Design Load	Wind: 75 psf, 3600 Pa, 367 kg/m <sup>2</sup> back Snow: 125 psf, 6000 Pa, 611 kg/m <sup>2</sup> front
Frame	Class 2 silver anodized

Tests and Certifications	
Standard Tests	UL61730 (Type 2 Fire Rated)
Quality Management Certs	ISO 9001:2015, ISO 14001:2015
EHS Compliance	RoHS, OHSAS 18001:2007, lead free, Recycle Scheme, REACH SVHC-163
Ammonia Test	IEC 62716
Desert Test	MIL-STD-810G
Salt Spray Test	IEC 61701 (maximum severity)
PID Test	1500 V: IEC 62804
Available Listings	UL

Packaging Configuration	
Modules Per Pallet	29
Packaging Box Dimensions	2082 × 1072 × 1224 mm
Pallet Gross Weight	689 kg (1519 lb)
Pallets Per Container	30
Net Weight Per Container	20,670 kg (45,569 lb)



Frame Profile



- A. Cable Length:  
1350 mm ±10 mm (53.1 in. ±0.4 in.)
- B. Long Side:  
32 mm (1.3 in.)
- Short Side:  
32 mm (1.3 in.)

\* Based on datasheet review of websites of top 20 manufacturers per Wood Mackenzie US PV Leaderboard Q1 2022.

1 Maxeon 475 W, 22.3% efficient, compared to a Conventional Panel on same-sized arrays (310 W, 18% efficient, approx. 2.0 m<sup>2</sup>), 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 #1 rank in "Fraunhofer PV Durability Initiative for Solar Modules: Part 3". PVTech Power Magazine, 2015. Campeau, Z. et al. "SunPower Module Degradation Rate," SunPower white paper, 2013.

3 M-Series panels additionally contribute to LEED Materials and Resources credit categories.

4 Standard Test Conditions (1000 W/m<sup>2</sup> irradiance, AM 1.5, 25°C). All DC voltage is fully contained within the module.  
5 Please read the safety and installation instructions for more information regarding load ratings and mounting configurations.

See [www.sunpower.com/company](http://www.sunpower.com/company) for more reference information.

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

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Please read the safety and installation instructions for details.



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