

440W commercial-grade semi-flexible solar panel

Photonic Universe

Product features

Semi-flexible solar panels allow installation on curved surfaces and uniquely designed roof structures.

Application with adhesive enables easy and safe installation without penetrating the waterproofing layer.

80% lighter on the roof compared to standard rigid frame solar panels as these panels don't need mounting hardware.

PERC and half-cut cell technology, achieves superior energy conversion efficiency, ensuring maximum power generation in a compact and lightweight form.

Superior performance in low-light conditions, ensuring efficient energy generation even during cloudy days, early mornings, or late afternoons.

Minimises shading impact to reduce power loss, providing a more stable energy production even when parts of the panel are shaded.

The superior reliability has been proven throughout **rigorous weathering tests:**

- Sand and dust resistance
- Acid and alkali-resistance
- Salt mist resistance
- Anti-PID
- Hail shock resistance

Factory quality system



Product warranty

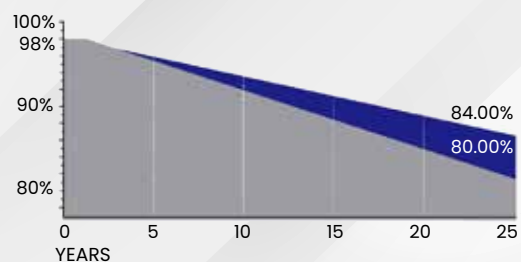
Workmanship warranty

5-year for vehicle/boat installations

10-year for permanent roof installations

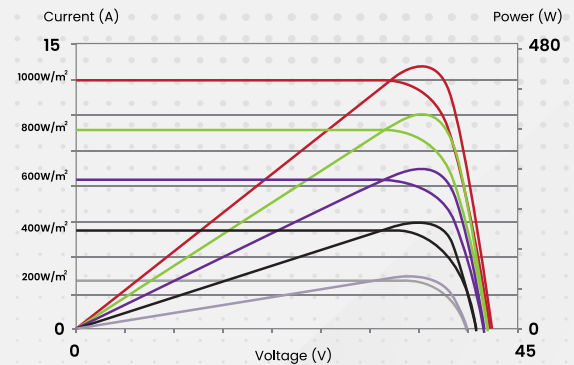
Linear power output

performance guarantee **25 years**



Electrical specifications

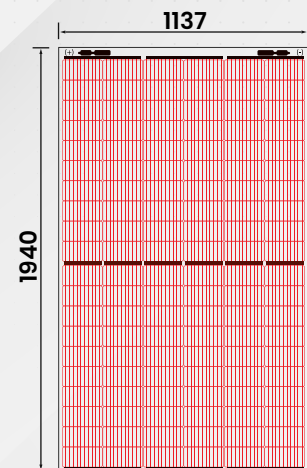
Model	FMCS-440M
Peak power (Pmp)	440W
Maximum power voltage (Vmp)	34.48V
Maximum power current (Imp)	12.77A
Open circuit voltage (Voc)	41.73V
Short circuit current (Isc)	13.76A
Power tolerance	0-5W
Maximum system voltage	1500VDC
Maximum series fuse rating	25A



Standard Test Conditions (STC): irradiance 1,000 W/m², 1.5 air mass, cell temperature 25°C

Temperature specifications

Model	FMCS-440M
Pmax temperature coefficient	-0.35%/°C
Voc temperature coefficient	-0.26%/°C
Isc temperature coefficient	+0.047%/°C
Operating temperature	From -40°C to +85°C
Nominals module operation temperature	45 ± 2°C



Mechanical specifications

Model	FMCS-440M
External dimensions	1940 x 1137mm
Thickness	3.4mm
Weight	9.0kg
Solar cells	Monocrystalline (182 x 91mm)
Junction box	IP68 with 3 diodes
Output cables	2 x 0.3m of 4.0mm ² solar cable with MC4-compatible connectors

