

# NEW Flexible Solar Panels from SUNPOWER®

Marlec is pleased to introduce a new range of semi-flexible solar panels direct from the leading solar panel manufacturer SunPower®. These panels incorporate SunPower's world beating Maxeon® "back contact" solar cells that deliver up to 25% efficiency. That means faster charging and more power delivered from less panel area which is ideal on board sailing boats and camper vans.



While panels may look similar, their performance can vary dramatically. That's why you should always look for the SunPower® logo.

Only genuine SunPower® panels are powered by SunPower® prime cells and backed by SunPower's manufacturer warranty.



## Unparalleled Efficiency

SunPower® panels make your limited deck and rooftop space count by using their prime cells, the highest efficiency silicon cells on the market.

- » 22-25% efficiency levels mean higher power production than standard silicon panels of the same area.
- » SunPower® panels are shade resistant as each cell operates independently.
- » SunPower® cells perform better than standard silicon cells in extremes of temperature and deliver excellent low light level performance
- » Re-charging times are faster with SunPower® panels as energy conversion levels are higher so you can depend on quicker battery replenishment whilst enjoying your leisure time.
- » Flexible panel surface means that contours can be followed to help you maximize space on board.

## High Quality

Only SunPower® branded flexible panels are built in the same factories as SunPower® industry-leading residential solar panels.

- » The SunPower® Maxeon® Solar Cell is the only solar cell built on a copper foundation. This makes these back contact cells resistant to cracking and corrosion when flexed or exposed to a moist environment unlike conventional cells which can fail or lose power.
- » The substrate is constructed of high grade lightweight polymer materials designed to withstand high UV exposure.
- » Stainless steel grommets and industry standard electrical connectors.
- » Highly automated production ensures consistent quality.
- » Reliable Manufacturer's warranty backed by Total the world's 4th largest energy company.

## The Marlec Assurance

- » Marlec is the SunPower® appointed UK Distributor
- » We are proud to include SunPower® in our portfolio of our own and other trusted brands of wind and solar energy products.
- » We are the UK's longest established renewable energy company, founded in 1978. Contact our expert sales team at [www.marlec.co.uk](http://www.marlec.co.uk)

# SUNPOWER<sup>®</sup>

## Technical Specification

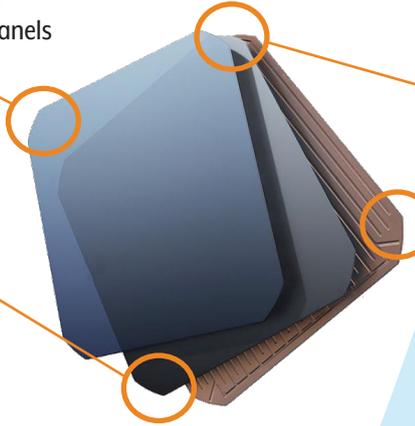
### Maxeon<sup>®</sup> Cell

» Converts sunlight earlier and lasting later in the day than conventional panels

» Unique cell architecture performs better than conventional silicon in cloudy weather and partial shade

» Durable cell design flexes in fluctuating temperatures

» Copper foundation is nearly impervious to heat and humidity



### Panel Specification

PV Module Type	SunPower <sup>®</sup> 50W	SunPower <sup>®</sup> 100W	SunPower <sup>®</sup> 110W	SunPower <sup>®</sup> 170W
Part Number	CA-10/420	CA-10/421	CA-10/422	CA-10/424
Nominal Power (P <sub>nom</sub> )	50W	100W	110W	170W
Suitable Regulator Type	PWM or MPPT			MPPT Only
Power Tolerance	+/-5%	+6/-3%		+/-3%
Rated Voltage (V <sub>mpp</sub> )	17.7 V	18.8 V	17.1 V	29.4 V
Rated Current (I <sub>mpp</sub> )	2.8A	5.9A		5.84 A
Open-Circuit Voltage	21.5V	21.4V	22.8V	34.6 V
Short-Circuit Current (I <sub>sc</sub> )	3.1 A	6.3 A		6.15 A
Solar Cells & Efficiency	Prime Monocrystalline 23%	Prime Monocrystalline 25% and 23%		Prime Monocrystalline 25%
Power Temp Coefficient	-0.35%/°C		-0.30%/°C	
Voltage Temp Coefficient	-58.9 mV/°C		-55.8 mV/°C	-83.7 mV/°C
Current Temp Coefficient	2.6 mA/°C		3.5 mA/°C	
Dimensions & Weight	653x556x3.2(mm) 1.1(kg)	1150x555x3.2(mm) 2.2(kg)	1150x555x3.2(mm) 2.2(kg)	1153x810x2.0(mm) 2.9(kg)

### Further specification for all products

Suitable for	12V & 24V Battery charging
Junction Box	TE 1-21-2152049-1 with by-pass diode
Connectors & Cables*	Tyco (PV4-S) on 4mm <sup>2</sup> , 450mm long cable
Grommets	Grade 316 Stainless Steel
Operating Temp Range	-40° C to + 85° C
Max. System Voltage	45V
Series Fuse Rating	15 A

\*Mating connector & cables are available in 5m & 10m from Marlec

Warranty: 5 Year Power and 2 Year Product. No salt water exclusion.



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