



spectra solar

from Marlec

spectra
solar

...The convenience of fully charged batteries at no running cost to you!

- **Ever been caught out by flat batteries?**
- **Have they stopped you from setting off for a sail?**

Now you can keep batteries topped up for FREE!



Spectraflex 32 is quick and easy to tie into place and simply roll it up to stow!

Flat batteries are at best a nuisance and at worst a hazard but can easily be avoided using the abundant and natural power of the sun. Solar energy gives you the convenience of power being available for engine starting, lighting and other low energy appliances. Once installed the photovoltaic solar panel works quietly and efficiently at recharging without any effort on your part!

Whether you choose the Spectraflex or from the Spectralite range you will find

them ideal for topping up 12V deep cycle batteries in leisure applications. In winter-time you can avoid the trouble of taking batteries home to maintain them and replace natural discharge by simply installing a solar panel to suit the battery capacity, weather conditions and location of your battery.

What size of solar panel do I need?

In the UK we recommend a minimum ratio of 10W (Watts) of solar panel to every

100Ah capacity of battery to replace natural discharge typically experienced over the winter time. In the summer time that 10W solar panel's performance increases to a potential 3 Ampere hours (Ah) per day and therefore 21 Ampere hours (Ah) weekly - that's often enough for a weekend's cruising electrical needs for lighting etc.

Most importantly you'll arrive to a battery that is not flat!



Spectra solar panels are so tough you can even walk on them in deck shoes!

Spectra Product Range and Specification

Choose from the range below based on the minimums recommended above and simply scale up on the same basis for larger batteries, ie 20W of solar panels for 200Ah of battery bank. For faster battery replenishment or where more power is consumed use larger solar panels than the minimum ratio or multiple units in parallel. More than one Spectra Solar panel can be connected in parallel to increase Ampere hour rating at 12V. The Spectralite panels can be connected in series to deliver 24V. Spectraflex is suitable for 12V connection only.

SPECIFICATION	Spectraflex 32	Spectralite 30	Spectralite 20	Spectralite 10	Spectralite 5
Peak Output	32W	28.5W	19W	10W	5W
Operating Current	1.94A	1.61A	1.12A	640mA	300mA
Open Circuit Voltage	23.8V	21.5V	21.5V	19.6V	20.2V
Dimensions mm (over junction box)	1429x424x5 (10)	559x483x3 (13)	559x381x3 (13)	381x304x3 (13)	304x254x3 (13)
Gross (Net) Weight kg	3.7 (2.14)	1.8 (1.5)	1.4 (1.2)	0.9 (0.69)	0.68 (0.57)
Part No.	CA-10/33	CA-10/39	CA-10/38	CA-10/37	CA-10/36

Spectra Solar Features

Spectra Solar has been designed with the yachtsman in mind so we ensure that all models:

- ✓ Are robustly designed and built so they can even be walked on in soft soled shoes
- ✓ Are conveniently lightweight and elegantly slimline so are easily installed
- ✓ Include a sealed junction box with blocking diode and 3m of output cable
- ✓ Have fixing holes sealed with an eyelet for a quality finish

Spectraflex and Spectralite each have features and benefits specific to their individual designs that will fit to the way you may want to use and install solar panels. Read on to find out more...

Spectraflex 32

Spectraflex is so flexible it can be curved round in either plane.



The Spectraflex is a solar panel made from a spectrum splitting amorphous silicon cell design that converts very low levels of light to useable solar energy. Unlike other types of amorphous silicon technology the Spectraflex is very stable over many years where others degrade rapidly soon after deployment. Bypass diodes are connected across each cell so the panel is also shadow tolerant.

It is a highly flexible panel constructed using UV stabilised polymers, bonded and stitched to a cushioned backing material. The whole unit can be rolled to a diameter of just 30cm for storage and in use placed on to curved surfaces such as a sail boom or a coachroof.

Spectralite Range



Spectralite is available in 28.5W, 19W, 10W & 5W

Spectralite is a range of semi-flexible solar panels made from efficient and stable crystalline cells. These cells are sealed between a fibreglass substrate that ensures durability whilst keeping weight low and a scratchproof Tedlar superstrate with excellent light transmissive properties.

The cells of the Spectralite 30, 20 & 10 are quite uniquely arranged in 2 halves, each producing full voltage. Should one half become shaded the other half exposed is still capable of generating its part of the panel's power output.

These solar panels are designed to be gently curved to follow a coachroof and can be fixed using the 4 screw holes or Sikaflex adhesive to avoid drilling holes. Spectralite can be curved up to 3cm over 1m proportionately.

How Do I Install Spectra Solar?

Electrical connection is simple, connect directly to a battery or through a solar regulator to prevent overcharge if the system is to be left unattended for long periods or the solar panel to battery ratio exceeds the minimum of 10W to 100Ah of battery.

Spectra solar panels are not only an affordable choice for maintaining your batteries but you'll even save money too on avoiding mains hook up costs and replacing deep discharged batteries. A well maintained battery delivers more charge and discharge cycles and has a longer life, so keep on saving costs.

Marlec have been designing renewable energy systems since 1979 and our experience is second to none so call us today for professional free advice about your system.

NB. Specifications are subject to change without notice



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