



Keep batteries topped up!

Flat batteries are at best a nuisance and at worst a hazard but can be easily avoided by 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.

The new Spectra range of solar panels are ideal for maintaining and replacing natural discharge in 12V deep cycle batteries in leisure applications. In wintertime you can avoid the trouble of taking batteries home for topping up by installing one of the Spectra range of 5Watt, 10Watt or 20Watt solar panels. In the UK we recommend a minimum ratio of a 10W solar panel to a 100Ah battery, daily this would generate up to 3Ah. In summertime this increases up to a potential of 21Ah daily, typically enough for a summer weekend's cruising needs for basic lighting etc. Most importantly you'll arrive to a battery that is not flat!



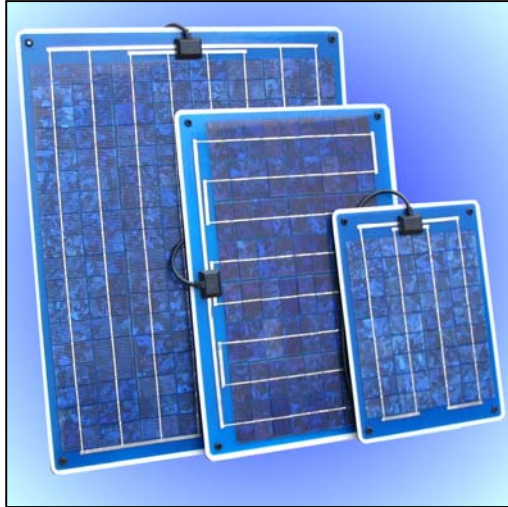
Spectra panels are tough enough to walk

Specification	Spectra 20	Spectra 10	Spectra 5
Part Number	CA-10/32	CA-10/31	CA-10/30
Peak Output	19W	10W	5W
Max. Current @ 15V	1260mA	640mA	320mA
Open Circuit Voltage	19.6V	19.6V	19.6V
Dimensions	622x508x3mm 13mm incl. junction	356x508x3mm 13mm incl. junction	356x267x3mm 13mm incl. junction
Gross Weight	2.04 kg	1.30 kg	0.75 kg
Net. Weight	1.74 kg	1.06 kg	0.62 kg

Spectra Product Range and Specification

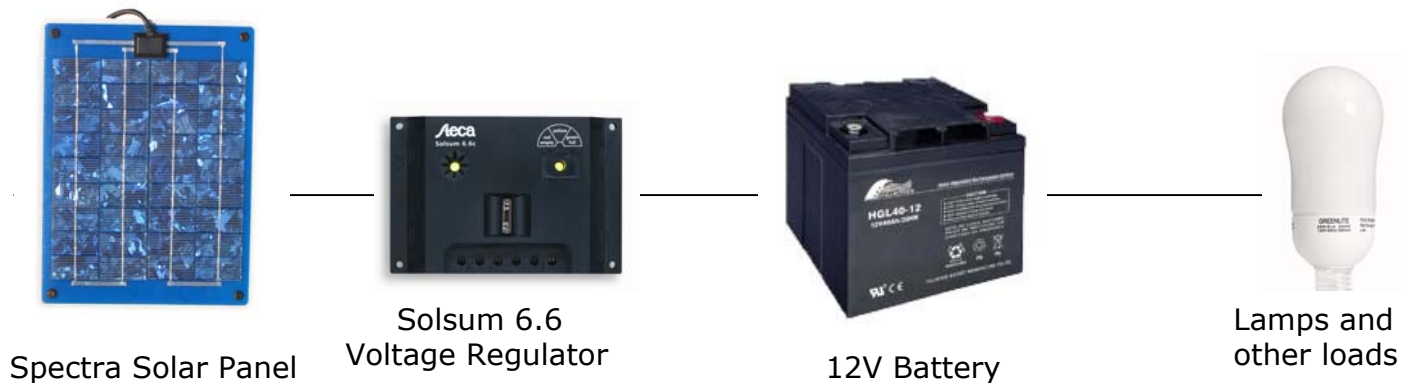
For larger batteries simply scale up on the same basis, ie 20W for 200Ah as a minimum. For faster replenishment of the battery in applications where there is greater power consumption use larger or multiple solar panels than the minimum recommended.

It's convenient, it's reliable and you really can fit it and forget it!



- Spectra solar panels are robustly constructed on a fibreglass substrate with a scratch proof clear Tedlar superstrate.
 - They are very slimline and lightweight and have no metal outer components to make contact with the surface to which they are fitted.
 - The efficient and stable polycrystalline cells are encapsulated between the 2 tough outer layers so the whole panel is weatherproof and carries a limited 2 year warranty.
 - The sealed junction box which also houses the blocking diode has 3m of output cable.
 - The panels can be gently flexed to follow a smooth curve such as a coach roof by up to 1cm per 30cm along the length of the panel.
- Each panel has 4 grommet finished holes for fixing or panels can be glued into position.
 - A built in diode prevents current from flowing back from the battery to the solar panel in darkness so Spectra panels can be connected directly to the battery.
 - Electrical connection is simple and the use of a solar regulator is recommended 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.

Typical Solar System



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.

Marlec Engineering Co Ltd
Rutland House, Trevithick Road, Corby, Northants NN17 5XY
Tel: +44 (0)1536 201588, Fax: +44 (0)1536 400211
Email: sales@marlec.co.uk, www.marlec.co.uk