Authorised Distributor

Low Energy Remote Power Solutions….

Modern solar power systems have a variety of uses and at Marlec we specialise in off-grid applications to provide electrical power at sites where the grid is inaccessible or too costly. There may be good environmental reasons for choosing a renewable energy option even where the grid is available. The systems are sustainable and often more cost effective owing to the avoidance of major groundworks.

BP Solar have been a world leading researcher, developer and producer of photovoltaic modules since 1972. As a UK Distributor of BP Solar products we aim to understand your system needs and tailor a battery charging solution to suit your application whether that's a solar "stand-alone" or "hybrid" wind/solar kit incorporating one of our own Rutland Windchargers. We will recommend to you a balance of solar and/or wind power to deliver you power, day or night, summer or winter wherever you are in the world.

A cost effective solution-
Solar panels used in conjunction with a micro wind turbine to power a traffic sign.

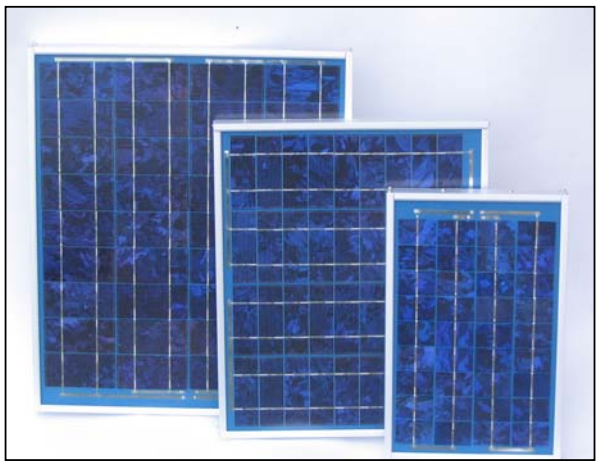
BP Solar SX Series

BP Solar's SX range is based on one of their best established product ranges used worldwide in thousands upon thousands of sites in single and multiple use. The multi-crystalline cells are designed to efficiently charge 12v batteries in virtually any climate for low power DC loads.

They provide a cost effective solution for maintaining the charge in batteries at off grid locations for low power telemetry, telecommunications, signals, navigation aids, security sensors, instrumentation and are also ideal for trickle charging leisure batteries on motorhomes and holiday cottages.

The range benefits from BP's standard durable frames and tempered glass and is offered with a 10 year power performance warranty and 5 year materials and workmanship warranty.
SX10, 20 & 30U Modules - these models can reconfigured by the user for 6V charging and solar panels of the same power rating can be connected together efficiently for 24V use or parallel connected for increased power. All these units are supplied with a Universal frame.
SX5M - is supplied with a lower profile frame and a 3m output cable from a sealed junction box.

Product Features & Specifications – SX Series



- 90% Power output warranty over 10 years
- 5 Year warranty – free from defects in materials and workmanship
- Universal frame is manufactured from clear anodised aluminium alloy type 6063T6. Silver in colour.
- Rugged and weatherproof construction - the cells are laminated between sheets of ethylene vinyl acetate (EVA) and 3mm tempered glass with a blue tedlar rear
- The tempered glass is highly transmissive and self cleaning from rainfall
- Each solar module is supplied with a grounding screw, instruction sheet and warranty document.
- All BP Solar modules are labelled with individual performance figures
- 36 cell panels are configured in a 4 x 9 matrix, each 2 rows of 9 are connected in series with a Schottky by-pass diode to produce 2 x 6V strings. These 2 x 6V strings are connected in series to produce a standard 12V nominal output panel.
- Easy to connect SX10, 20 & 30Umodules - an IP54 weather rated junction box at the rear of each panel provides a 6 terminal screw connection block. The terminals accept up to 6mm² (AWG#10) cable. The junction box has knock outs to accept PG13.5 or ½" nominal conduit or cable fittings accepting 6-12mm diameter cable.
- All the models are compliant with the IEC61215 regulation requirements:
- Temperature cycling range of –40°C to +85°C
- Damp heat tested to withstand 85°C and 85% relative humidity for 1000 hours
- Front and rear static load tested eg wind, to 2400 Pa
- Front load tested eg snow, to 5400 Pa
- Hailstone impact tested to 25mm hail at 23m/s from 1m distance
- "Hot Spot" tested, this determines a module's ability to tolerate localised shadowing

SX Series Product Range

Typical Electrical Characteristics	**SX5M**	**SX10U**	**SX20U**	**SX30U**
Maximum Power Pmax	4.5W	10W	20W	30W
Warranted Minimum Power	4	9W	18W	27W
Voltage at Pmax	16.5V	16.8V	16.8V	16.8V
Current at Pmax	.27A	.59A	1.19A	1.78A
Current @ 13.8V charging	.32A	.72A	1.45A	2.17A
Short circuit current	.3A	.65A	1.29A	1.94A
Open circuit Voltage	20.5V	21V	21V	21V
Frame Type	Multi-Mount	Universal	Universal	Universal
Dims. mm (tolerance +/- 3mm)	269x250x23	273x424x50	502x424x50	502x594x50
Weight Kg	0.8	1.9	6.0	7.2

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 Rd, Corby, NN17 5XY
Tel: +44 (0)1536 201588 Fax: +44 (0)1536 400211
Email: sales@marlec.co.uk www.marlec.co.uk

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