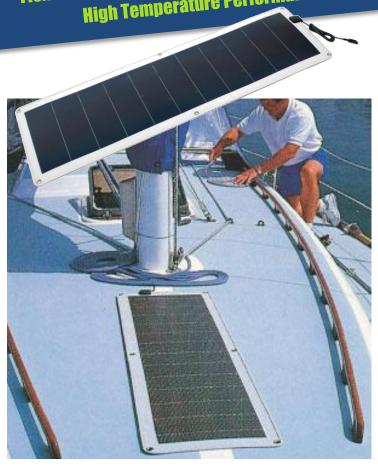


# **INSTRUCTION MANUAL** 32W FLEXI PANEL

Flexible triple-junction photovoltaic solar panels

Flexible – Durable – No Glass – Lightweight – Shadow Tolerant – Maintenance Free – High Temperature Performance – Weather, Sea Water and Vandal Resistant



The Solar Trader's Flexi panels are made with the unique and award winning Uni-Solar triple junction spectrum-splitting thin film amorphous silicon solar cells. These provide exceptional battery charging performance in both overcast and hot conditions.

Flexi Panels have a long life, are virtually unbreakable and highly reliable. Each panel comes fitted with a blocking diode and 600mm tail lead in a potted junction box. Bypass diodes are connected across each cell, so unlike many other cheaper solar panels, the modules continue to produce power even when partially shaded. The cells are sealed in Tefzel, a Teflon like product that is flexible, weather-proof and durable.

With no glass and no frame, Flexi-panels are lightweight and easy to transport.

### NOTE

Please be aware that if you wish to charge a battery you will require a suitable charge controller such as the ASC50W available separately, or as part of a kit.

Flexi panels can be mounted on curved surfaces such as hatch covers, decks and vehicle roofs, or tied down on sail covers, dinghies and canvas awnings. They should be positioned where they can receive as much sunlight as possible. For the best performance in the UK this is south-facing at an angle between 45° and 50°.

A basic rule of thumb is that the more sun they receive, the more power they will give you!



THE PANEL OF CHOICE FOR EXTENDED TOURING, CRUISING AND MAINS-INDEPENDENT VACATIONING.



## 1 - Wiring

Please read instructions and warnings inside box before commencing fitting.

- There is approximately 600mm of two core cable attached to the panel. The red core is the +ve cable and the black is the -ve cable.
- IMPORTANT Connect the charge controller to the battery BEFORE connecting the solar panel, following the manufacturers/suppliers instructions carefully.
- You can then connect the panel cable to the charge controller, connecting the positive cable to the positive input on the charge controller and the negative cable to the negative input.
- Should you need to extend the tail lead length from the solar panel to reach the charge controller, do so with suitable thickness cable ensuring polarity is maintained and insulate the connection.

## 2 - Maintenance

The Flexi-panel requires very little maintenance. Dust, snow, leaves and anything else that could block the light, needs to be removed. It can occasionally be lightly cleaned using a mild solution of soap or clean water. DO NOT use an abrasive cleaner or solvents. Any punctures or pinholes on the surface of the panel should be repaired immediately with a transparent silicone sealant.

## 3 - Warranty

The Flexi Panel product carries a **two (2) year** limited warranty against defects in workmanship and materials affecting performance. The Solar Trader agrees only to replace the defective product free of charge, within the stated warranty period, when returned by the original purchaser with **proof of purchase**. This product is not guaranteed against wear or breakage due to misuse and/or abuse. In addition, any units that show signs of creasing or folding on the active photovoltaic areas are not covered under this warranty.

# 4 – Technical Specifications

Model number	06003FX03
Rated power	32W
Operating Voltage (Vmp)	16.5V
Operating current (Imc)	1.94A
Open circuit voltage (Voc)	23.8V
Short circuit current (Isc)	2.4A
Max system voltage	50V
Series fuse	5A

Dimensions (mm) 1430 x 425 x 15

Minimum bending diameter (mm) 450

Electrical specifications (+ or - 10%) are based on measurements performed at Standard Test Conditions (STC) of 1000 W/m<sup>2</sup> irradiance, air mass 1.5 and cell temperature of 25°C. During the initial 8 - 10 weeks of operation, the module has a higher electrical output than the rated output. The output power may be higher by 15%, the operating voltage may be higher by 11% and the operating current may be higher by 4%.



#### **CAUTION**

Reverse connection to the battery will be a fire hazard. It will also damage your modules. Observe polarity carefully, checking with a multimeter if in doubt.

On exposure to sunlight PV panels immediately generate an electric current and although the voltage produced is generally low, touching bare wires or terminals can cause shock and burns. If preferred place a cloth or card over the module to prevent the panel from generating power.

Although the panels are flexible they should not be rolled up and they must not be curved around a diameter less than 45cm at any time, as this will void any warranty.



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#### The Solar Trader

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