

SFG Solar Panel - User Manual V1

1. INFORMATION

These Flexible panels are designed to withstand the harshest environments from -40 to +80°C. The top surface is made from ETFE, which is particularly resistant to damage, scratching and de lamination. The cell circuit is fully encapsulated in a watertight envelope.

Flexibility

They are designed to fit flush to a surface. For the maximum curve the panels can adhere to please consult the specification of the panel purchased.

Do not bend the solar panel excessively this WILL cause micro cracks in the cell circuit resulting in premature failure. In these circumstances the warranty provided with this product will be void.

2. INSTALLATION SAFETY

Before installing, wiring, operating, or Maintaining PV modules, you should read the manual and understand all safety precautions. Direct current (DC) is generated when the surface of the module is exposed to direct sunlight or other lights sources, and direct contact with the live parts of the module, such as terminals, may result in an electric shock whether connected to the module or not. We recommend that PV module installation is conducted by personnel with experience in PV system installation.

- Do not install the solar panel with damage to the surface or damaged to the backsheet.
- Do not fit to a ribbed surface unless mounting on a board first.
- Always handle the solar panel with care, and preferably with two people vertically.
- Do not artificially focus light on the solar panel.
- Do not walk on the solar panel.
- Do not drop the solar panel or allow objects to fall down onto the solar panel .
- Do not damage or scratch the front or backside surfaces of the solar panel .
- Do not scratch the cabling or bend with force .
- Do not install or handle the solar panel when it is wet or during periods of high wind. When installing, take care to keep solar panel and in particular the electrical contacts, clean and dry before installation.
- Do not touch the terminal box or the ends of the output cables (connectors) with bare hands when in sunlight, regardless of whether the PV module is connected to or disconnected from the system .
- Do not attempt to increase solar panel output by concentrating light on its surface with mirrors.
- Do not expose the solar panel to corrosive liquid or gas.
- When mounting solar panel at a height adhere to all relevant safety regulations.
- Be sure to use components (cables, fuses, etc) with ratings greater than 25% of solar panel/s maximum current ratings.

2.1. ELECTRICAL INSTALLATION

Installation should be performed by experienced installers.

- Before connecting solar panel, Please keep the contacts clean and dry.
- Before mounting the solar panel test the output of the with a multimeter. (if test fails contact Sunshine Solar)
- Ensure the polarity of the solar panel is correctly wired to the solar charge controller (if this is not adhered to the warranty will be void).
- PV modules can be wired in series or in parallel. The number of Modules in series and in parallel shall be designed according to the system configuration.
- Every positive cable to the battery(ies) should have an adequate fuse.
- This fuse should be place between the battery and solar charge controller.

2.2 Fixing information

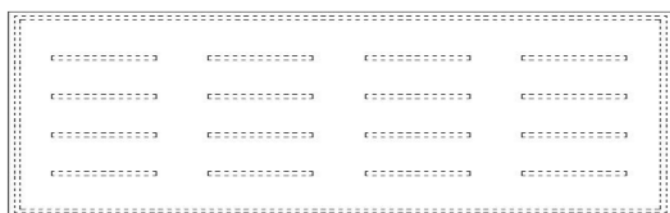


Fig 1.

Ensure that the solar module backsheet and the surface to be mounted are clean before mounting, and we recommend the use of a suitable adhesive like Bostick STR 360. The solar module should be glued to the surface to be mounted as shown in Fig 1. Then fill the gap between the solar module and the surface to be mounted with adhesive to prevent moisture from entering.

3. MAINTENANCE

A well set-up PV array requires a minimal maintenance, however performance and reliability can improve by adopting these simple tips.

The amount of electricity generated by a solar panel is proportional to the amount of light falling on it.

A solar panel with shaded cells will produce less energy and therefore it is important to keep modules clean.

- Do not clean the solar panel in conditions of wind, heavy rain or heavy snow.
- Use a soft cloth together with clean warm water.
- When cleaning the solar panel, do NOT step on the solar panel and do NOT spray on the backside of the module or the cables.
- Take care to avoid severe thermal shocks which might damage the solar panel. Clean the solar panel with water which has a similar temperature to solar panel being cleaned.
- Do not clean the solar panel using high pressurised water.

4. WARRANTY

- Sunshine Solar Ltd guarantees that for 3 years from the date of delivery, its Flexible solar panel shall be free from defects in materials and workmanship under normal, application, installation, use and service conditions. If the Flexible solar panel fails to conform to this warranty, then for a period ending 3 years from date of delivery to the customer, Sunshine Solar Ltd will repair or replace the product. The repair or replacement shall be the sole and exclusive remedy provided under the Limited Product Warranty and shall not extend beyond the 3 year period.

5. DISCLAIMER

- Sunshine Solar Ltd will not be responsible for any consequential loss, personal injury, or installation Error. Nothing in these conditions excludes or limits the liability of the Supplier for death or personal injury caused by the Supplier's negligence or fraudulent misrepresentation.