

AJR Auto Electrics



Semi-flexible solar panel data of 100W Directory

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Instruction Manual

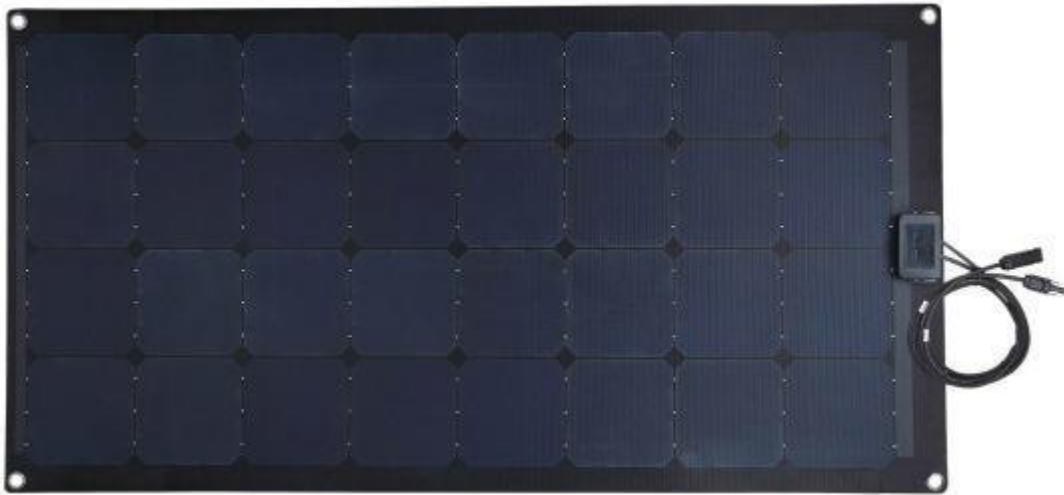
Tips for the installer

This manual includes information about the safe use of Semi-flexible solar panel.

Read these instructions carefully and observe the explanations and please also observe the instructions for the other components which make up the total photovoltaic system.

Packing Contents

- 1- Semi-flexible solar panel



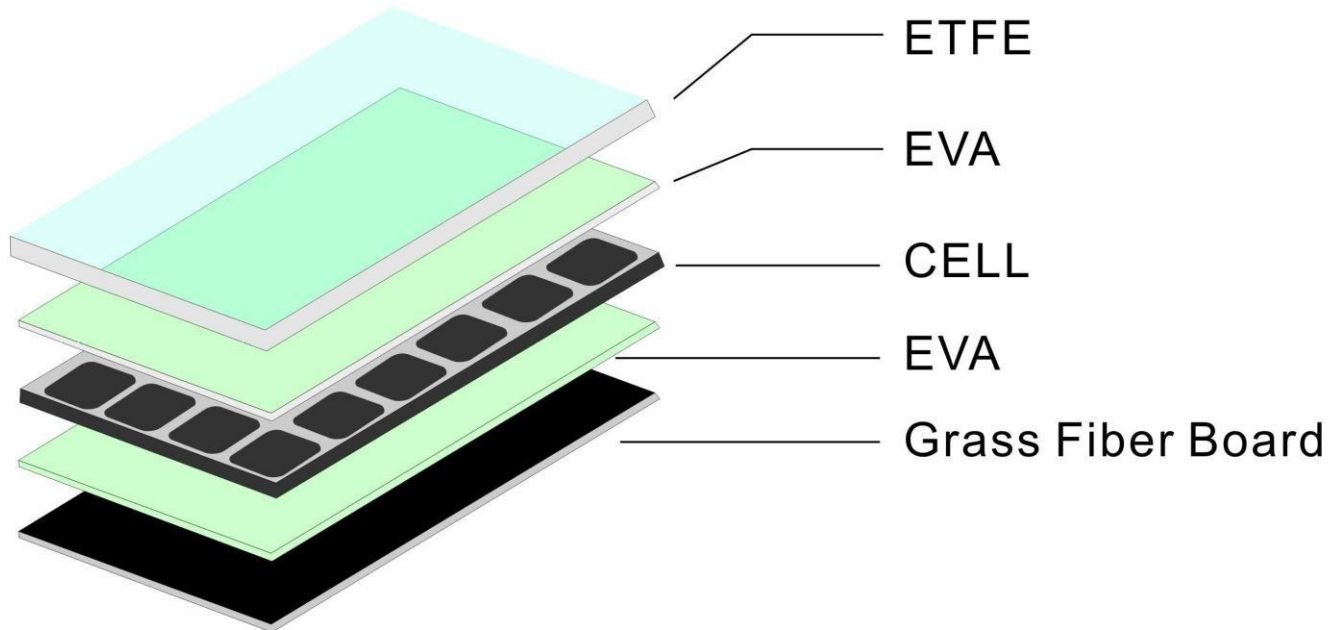
Product Description

Solar captures the sun's energy to create power. This product is designed to charge Standard 12 Volt automotive batteries and also will charge laptop batteries.

The back sheet is made of fibreglass, it is lighter and softer and with a better combination of ETFE film than plastic.

The panel has monocrystalline cells with high efficiency up to 22%, making this solar panel the most efficient of its kind.

The first layer is ETFE materials, this material can absorb sunlight, and will not like other brand PET flexible solar panel reflect light.



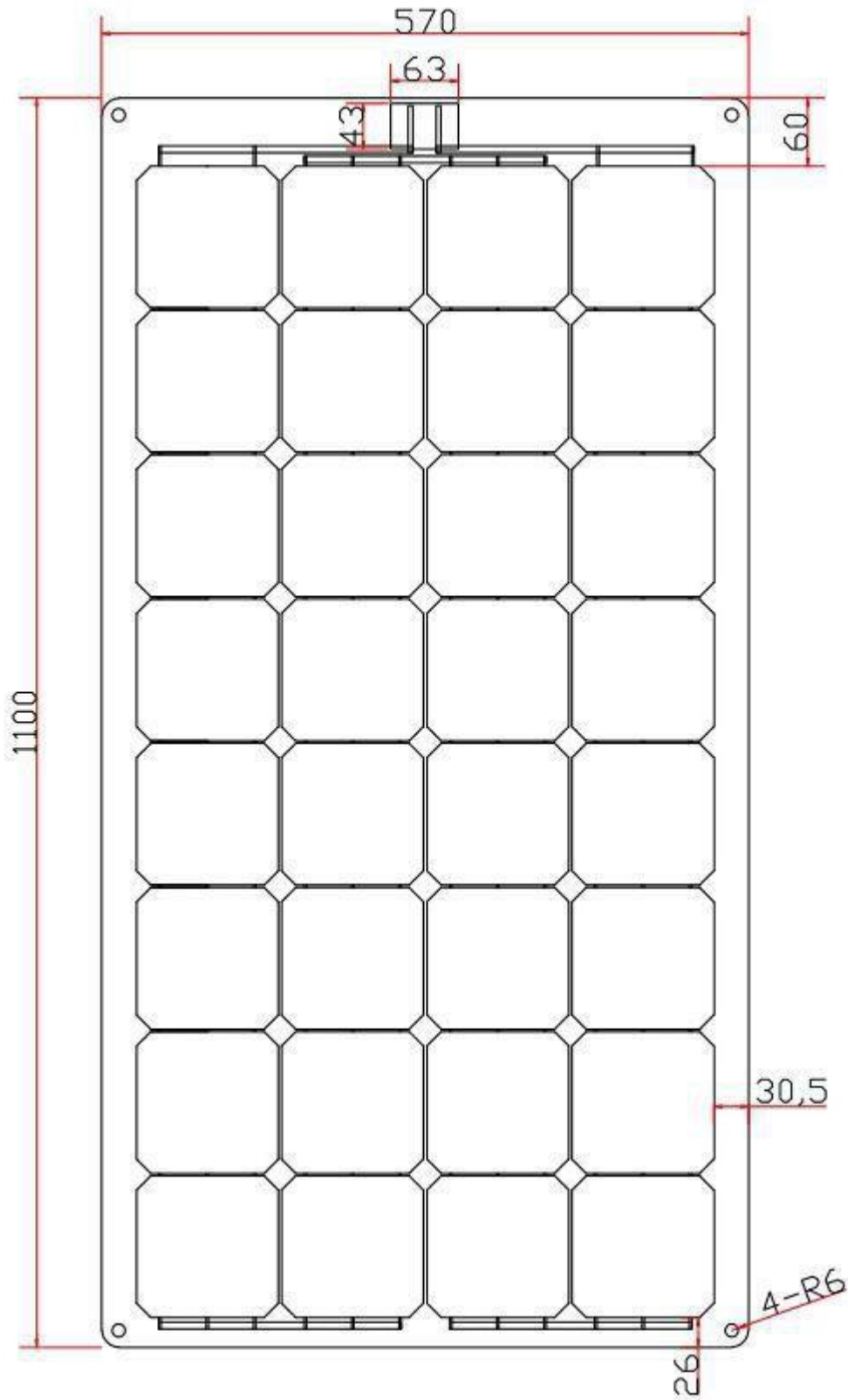
Safety Warnings

- Do not puncture, cut, or alter the laminate in any way. Doing so could result in electrical shock, may cause a fire, and will void the warranty. There is no field serviceable components or components that can be field altered in the laminate.
- Product is designed to be used on 12 Volt configurations in parallel ONLY. Positive (+) to Positive (+), Negative (-) to Negative (-).
- Product should be placed free from flammable gases.
- Make sure Semi-flexible solar module secured in place or stored while vehicle is in motion to prevent physical damage or harm to personal property.
- Semi-flexible film solar module is water resistant, yet the quick connect wiring and MC4 connectors must be kept dry.

Parameter of 100W Semi-flexible solar panel

- 1 - Maximum Power 100W
- 2 - Current at Pmax 5.88A
- 3 - Voltage at Pmax 17V
- 4 - Open circuit voltage 21.24V
- 5 - Short Circuit Current 6.1A
- 6 - Back sheet Fiberglass
- 7 - Encapsulation ETFE
- 8 - Solar cells Sunpower Back Contact solar cell
- 9 - Solar cell efficiency >22%
- 10 - Solar panel size 1100*570*2.5mm
- 11 - Packing size 1190*590*42mm
- 12 - Carton size 1220*257*630mm
- 13 - Net Weight 2.7KG
- 14 - Gross Weight 5.5KG
- 15 - Packing weight (5pcs) 28KG
- 16 - Cable 2x1500mm 2.5mm² cables
- 17 - Connector standard MC4 connectors
- 18 - Thickness 2.5mm
- 19 - Power Tolerance $\pm 3\%$
- 20 - Maximum System Voltage 500V

Type size drawing



Wire drawing

Firstly, connect the Victron solar controller and the solar panel with the charging cable through input port.

Secondly, connect the Victron solar controller and the battery together via the battery terminals.

Finally, connect the solar controller and the 12V load through the load end.



Notice: the above connections must be paid highly attention to the “+” , “-” polarity, reversed connection is definitely prohibited !!!!!

Installation

1. They allow an easy installation, also suitable for mobility and installations on Motor home surfaces.
2. Holes on panels are pre-drilled for fast mounting and securing, perfect for non-permanent installations.
3. The flexible solar panel can be affixed by adhesive, grommets or Velcro (with which you can easily attach or detach the panels).
4. The flexible solar panel can be installed without costly rebuilding the roof.