

# Violetta Solargear VS12-M50SPV Solar Panel

## Operating Instructions

Thank you very much for purchasing our product. Please read this manual thoroughly before using this product, and retain it for future reference in order to use the product safely, and to make the most of its features. If you use other products together with this product, please read the operating instructions of those products thoroughly before use as well.

### Product Summary

A mono crystalline silicon flexible solar panel for on-vehicle PV systems designed for powering a broad range of appliances. Composed of a combination of an ultra-thin, light, highly efficient and detachable solar panel and a high capacity and long life battery compartment for ultimate portability, reliability, safety, weather resistance and ruggedness at low cost in business, disaster prevention, leisure and everyday living.

### Applications

Charging the built-in 12V battery in a vehicle by solar panels on the roof and powering a broad range of appliances through AC100V, DC12V and DC5V output.

### Features

- A light yet impact resistant flexible solar panel with protector foam for strong adhesion to the vehicle and for protecting the roof from scratches.
- Highly efficient mono crystalline solar cells.
- Cargo tightening belts with neodymium magnets and silicon protector labels for easy mounting on and demounting from the roof of a vehicle without using tools.
- An only 3.2mm thick heat resistant output cable can be drawn into a cargo room through the gap between a body and a door or a hatch.

### Important Safety Instructions

**Caution** Please follow the instructions below. Failure to comply may damage this device, cause the built-in battery to burst or result in leakage, fire and injury.

- Charge only the specified batteries.
- Do not allow metal objects to touch the input/output connectors.
- Do not short circuit, or disassemble this device.
- Do not put this device into water.
- Do not use or leave this device near fire.
- Do not use or leave this device in enclosed spaces.
- Do not use or leave this device on the roof of a vehicle without tightening the belts.
- Keep away the magnets from persons with pacemakers.
- Keep away the magnets from small children.
- Keep away the magnets from cellular phones, precision equipments, watches, magnetic cards and magnetic tapes.
- Stop charging in case of leakage from the battery.
- Stop charging in case the battery becomes unusually hot.

### Important Note

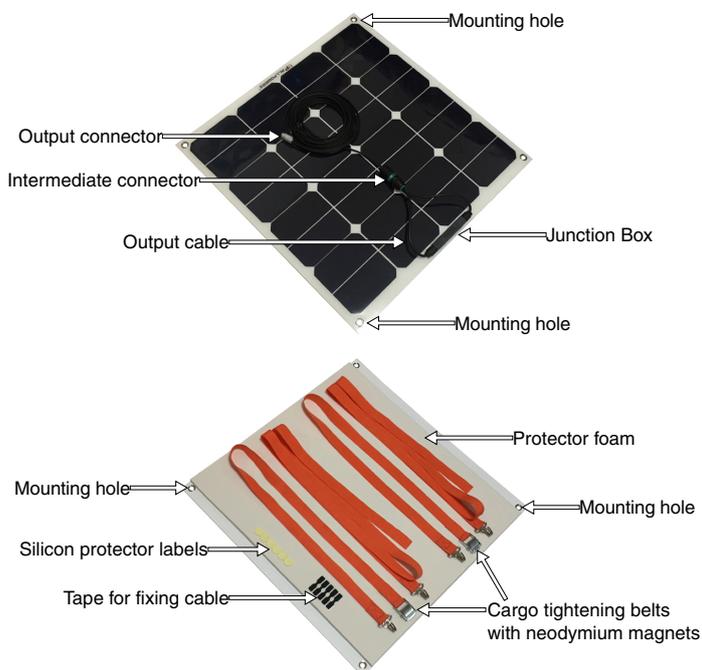
We are not responsible for any physical damage to vehicles and appliances, any loss of memorized data, any interruption of business, and any loss of business opportunities caused by this product.

### Specifications

- Max. power\*: 50.0W (18.0V 2.78A)
- Open circuit voltage\*: 21.6V
- Short circuit current\*: 3.0A
- Operating temperature: -40 - 80°C
- Dimensions (WXDXH): 665X500X approx. 12.5mm (excl. protruding parts)
- Weight: approx. 2.5kg (excl. accessories)
- Output cable: HHFF cable with connectors X 5m
- Safety features: a Schottkey diode for reverse current prevention
- Accessories: Cargo tightening belts with neodymium magnets X 2.8m (1.0m for buckle side) X2  
Silicon protector labels X6  
Tape for fixing cable X5

\*Panel temperature 25°C AM1.5 1kW/m2

### Feature Diagram



### How to Use

#### Mounting the Solar Panel

- 1 To avoid scratching the vehicle, attach the silicon protector labels to the back of the magnets.
- 2 Mount the solar panel on the roof of a vehicle, and attach the hooks of cargo tightening belts to the mounting holes from rear side of the panel.



- 3 Open the doors, draw the cargo tightening belts into the vehicle, and tighten the buckle inside the vehicle. You can also attach the belts to roof rails or roof carriers, and tighten the buckle outside the vehicle.

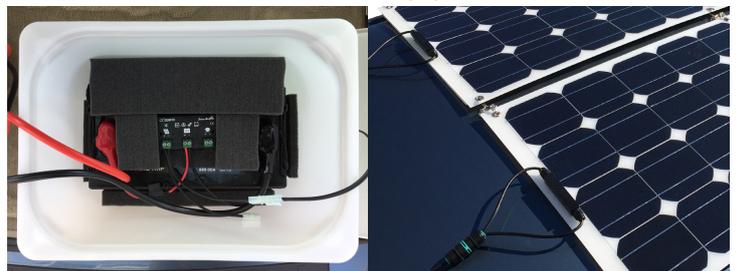


#### Charging the built-in Battery

- 1 Draw the output cable into the cargo room through the gap between the body and the door or the hatch. Open and close the door or the hatch several times to make sure not to damage the cable by doing so. You can fix the cable by the attached tape or cable clamps available on the market.



- 2 Connect the the output connector of the solar panel with the input connector of the battery compartment. It start charging the batteries, once the vehicle parks under the sun.
- 3 You can connect 2 solar panels for quick charging the batteries.



**Note:** The whole area of the solar panel needs to be irradiated. If there is a shaded area on it, the battery cannot be charged efficiently due to low output current.

#### Powering Appliances

- Please read the operating instructions manual of the battery compartment.

#### Maintenance

- Clean this product with a dried or dampened cloth. Do not use oil, solvents, petrol or paint thinners for cleaning.

#### Warranty

- 1 year from the date of purchase

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Design and specifications are subject to change without notice.

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