# Violetta Solargear VS12-M18SP 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 dust and waterproof mobile PV systems designed for powering a broad range of appliances. Composed of a combination of an ultra-thin, light and highly efficient solar panel and a compact, lightweight yet high capacity battery compartment for ultimate portability, reliability, safety, impact resistance, weather resistance and ruggedness in business, disaster prevention, leisure and everyday living.

## Applications

Charging the built-in 12V battery by sunlight, and powering a broad range of appliances through AC100V, AC220V, DC12V and DC5V output.

## Features

- A light yet impact resistant flexible solar panel just 2.0mm in thickness.
- Highly efficient mono crystalline solar cells.
- Strong neodymium magnets for easy mounting on a bag, on a metal fence, on a metal handrail or on the back of a glass window.
- Dust and water proof cables and connectors for weather resistant outdoor installations.

## 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 in unstable high places.
- 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

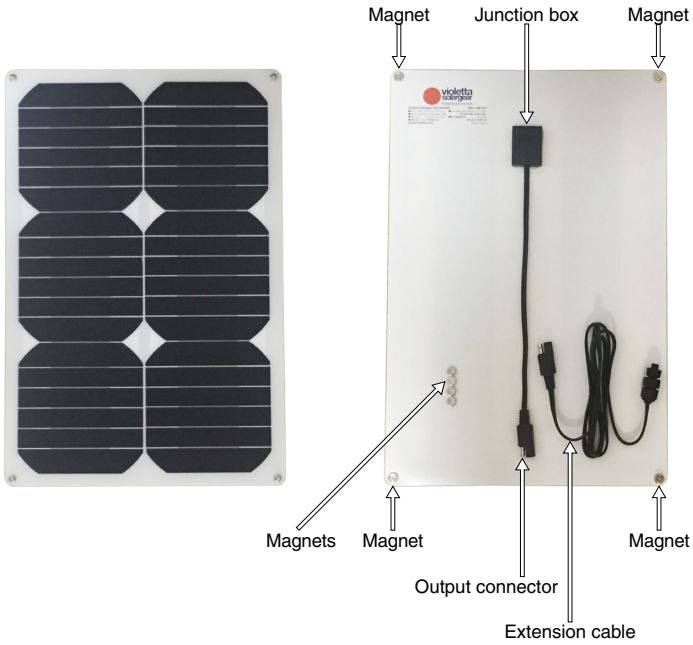
We are not responsible for any physical damage to appliances, any loss of memorized data, any interruption of business, and any loss of business opportunities caused by this product.

## Specifications

| | |
|---|---|
| ●Max. power*: | 18.0W (18.0V 1.0A) |
| ●Open circuit voltage*: | 23.6V |
| ●Short circuit current*: | 1.15A |
| ●Operating temperature: | -30 - 80℃ |
| ●Dimensions (WXDXH): | 280X420X2.0 / 12.0mm |
| ●Weight: | approx. 350g (excl. accessories) |
| ●Output cable: | IP65 dust and water proof cable with connectors X 0.25m for **VS12-B11NHK Battery Compartment** + extension cable X 1.5m for the other models |
| ●Safety features: | a Schottkey diode for reverse current prevention |
| ●Accessories: | 4 pcs. of Φ10X4mm neodymium magnets for mounting on a bag |

*Panel temperature 25℃ AM1.5 1kW/m2

## Feature Diagram

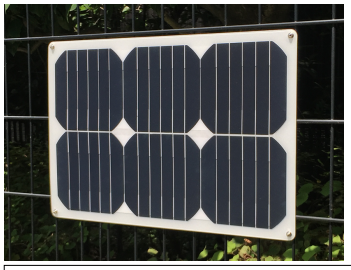



## How to Use

### Mounting the Solar Panel

**1** To mount the solar panel on a bag, place it on a bag, and stick 4 additional magnets on all the corners of the back of the panel inside of the bag.

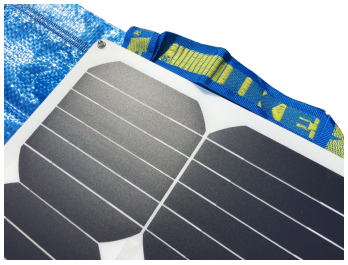
**2** To mount the solar panel on a metal fence or on a metal handrail, stick 4 magnets on all the corners of the back of the panel directly to it. You can also mount the panel on the back of a glass window by removing 4 magnets and fixing them on the face of the panel with a 5.5mm wrench and a Phillips head screwdriver. If the magnetic force is not enough, add appropriate number of magnets.



### Charging the built-in Battery

**1** Connect the solar panel to the battery compartment. To connect it to **VS12-B11NHK Battery Compartment**, connect the output connector directly with the input connector of the battery compartment. To connect it to the other battery compartments, connect the extension cable first, and connect the output connector with the input connector of the battery compartment.

**2** Face the solar panel towards the sunlight, and charge the built-in battery. For the most efficient charging, adjust the direction and angle of the solar panel 90 degrees in opposition to the sun rays.



**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.

**3** You can connect 2 solar panels to **VS12-B22NHS**, **VS12-B33NHS Battery Compartment** for quick charging.

**⚠Caution** To avoid overcharging the built-in battery, do not connect 2 solar panels to **VS12-B11NHS Battery Compartment**.

**4** To keep away from dust and water, and to avoid short circuit, close the cap of the input connector once you have finished charging the built-in battery.

### 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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