

Violetta Solargear VS12-B230LA Battery Compartment

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

An deep cycle battery compartment for stationary home PV systems designed for powering a broad range of appliances. Composed of a combination of a light yet impact resistant solar panel with MC4 connectors and a high capacity and long life battery compartment for versatility, expandability and weather resistance at low cost in disaster preparedness, leisure and everyday living.

Applications

Charging the built-in 12V batteries with solar panels or with built-in AC charger and powering a broad range of appliances through AC100V, DC12V and DC5V output.

Features

- 2 pcs. of built-in 12V 115Ah deep cycle batteries offer maintenance free and long life.
- An efficient EP SOLAR Tracer 3210AN MPPT charge controller accepts PV arrays with up to 580W (390W rated) of Pm and with 92V of Voc. It can also charge lithium batteries.
- A 1200W pure sine wave DC-AC inverter with 2 AC100V outlets and a DC5V USB receptacle for powering a broad range of appliances and with an indicator for the voltage of the battery and power consumption of the appliances.
- An AC battery float charger for charging in the night and in bad weather.
- Auxiliary battery compartments available to double or triple the output capacity.

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 allow metal objects to touch the terminals of the batteries.
- 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.
- 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

- Built-in battery: AC DELCO M31MF deep cycle battery X2
- Nominal capacity*: 2760Wh (12V 230Ah)
- Max PV array: Pm: 580W (390W rated) Voc: 92V
- Max output: 1200W (AC100V inverter outlet)
- 2.1A (DC5V USB)
- 30A (DC12V charge controller terminals)
- Operating temperature (charge)**: -25 - 50°C
- Operating temperature (discharge)**: 0 - 40°C (AC100V inverter outlet and DC5V USB)
- -25 - 50°C (DC12V charge controller terminals)
- Dimensions (WXDXH): 580X450X300mm (excl. protruding parts)
- Weight: approx. 62.0kg (excl. AC battery charger)
- PV input terminals: MC4 connectors
- AC charger input terminals: SAE connector
- Output terminals: AC100V inverter outlet X 2
- DC5V USB receptacle X 1
- DC12V charge controller terminals X 1
- Input & output terminals: twin terminals + cable glands with sealing plugs
- Safety features: EP SOLAR Tracer 3210AN charge controller
- 40A fuse for short circuit prevention
- Accessories: Ohashi Sangyo 490 1200W sine wave DC-AC inverter
- DC12V 5A AC battery float charger

*20 hr rate **No freezing

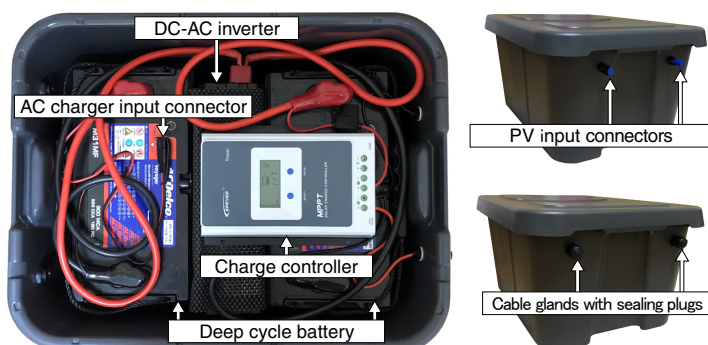
Warranty

- 1 year from the date of purchase

Maintenance

- To protect the built-in battery from over-discharging, charge it immediately when the charge controller indicates low voltage, or charge it at least every 6 month.
- The life of the built-in battery varies widely depending on the operating environment. Replace the battery every 3 - 5 years, or when the operating time becomes notably short.
- Clean this product with a dried or dampened cloth. Do not use oil, solvents, petrol or paint thinners for cleaning.

Feature Diagram



How to Use

Connecting the solar panel

- 1 Connect the output cables of the solar panel or the extension cables to this product. Pull out the blue waterproof caps from MC4 connectors. Align the connectors and mate them together by hand until a "click" is heard and/or felt.

⚙️ **Note:** Pull the connectors lightly to make sure they are locked.

- 2 The Universal tool is used to disconnect the connectors once mated as pictures below.



Connecting the AC battery charger

- 1 Connecting the AC battery charger to the SAE input connector.



Charging the built-in Batteries

- 1 Face the solar panel towards the sunlight, and charge the built-in battery. To mount the solar panel on the fence or on the ground, s-hooks, fixing ties or fixing pegs can be used. For the most efficient charging, adjust the direction and angle of the solar panel 90 degrees in opposition to the sun rays. Use the AC battery charger in the night and in bad weather.

Powering Appliances

- 1 After charging the built-in battery, open the lid and take out the provided DC-AC inverter.
- ⚙️ **Note:** You do not need to fully charge the built-in battery before powering appliances, but the operating time varies widely depending on the battery status and the power consumption of appliances.
- 2 To power appliances with AC100V or DC5V input, turn on the provided DC-AC inverter, and connect the appliances to the inverter. You can power up to 2 appliances with AC100V input simultaneously.



- 3 To power appliances with DC12V input, connect the input cables of the appliance to the load terminals of the controller.
- 4 To monitor the status of the solar panel and the battery, refer to the LCD indicators of the built-in charge controller. Please refer to the instruction manual of the controller for details.



Night



Battery capacity



Charging



Battery over discharged



No charging



Battery over voltage

- 5 After you have finished powering appliances with AC100V or DC5V input, turn off the provided DC-AC inverter, and disconnect the appliance from the inverter. After you have finished powering appliances with DC12V input, disconnect the input cables of the appliance from the load terminals of the controller.

- 6 To keep away from dust and water, and to avoid short circuit, close the lid of this product, once you have finished powering appliances.

- 7 You can double or triple the battery capacity to connect **VS12-B230LAA auxiliary battery compartments** sold separately with this product.

⚙️ **Note:** Connecting 3 or more **VS12-B230LAA auxiliary battery compartments** is subject to the fire services act.

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Design and specifications are subject to change without notice.

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