

Violetta Solargear VS12-B11NHS 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

A Ni-MH rechargeable battery compartment for IP67 dust and waterproof mobile PV systems designed for powering a broad range of appliances. Composed of a combination of an ultra-thin, light and efficient solar panel and a compact, lightweight yet rugged 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 Ni-MH batteries by sunlight, and powering a broad range of appliances through AC100V pure sine wave (inverter outlet), DC5V (USB) or DC12V (cigar lighter receptacle or dust and water proof connectors) output.

Features

- An IP67 dust and water proof Pelican Case with a fail-safe automatic pressure equalization valve as the battery compartment.
- A built-in 12V 11Ah Ni-MH battery with superior charge efficiency at high temperatures under the sun, excellent overcharge endurance, long service life and high safety for air transport.
- IP67 dust and water proof connectors for weather resistant outdoor installations.
- A 400W pure sine wave DC-AC inverter with 2 AC100V outlets, a DC12V cigar lighter receptacle and 2 DC5V USB receptacles.
- A battery checker with 5 LEDs for easy monitoring of the status of the battery.
- Dust and water proof power supply to appliances with DC12V input with Extension Cable or DC Power Cable (sold separately).
- 2 input connectors for DC Power Cable (sold separately) to double the output capacity. 2 cables required to charge appliances with power consumption of 60W to 120W.

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 block the automatic pressure equalization valve on the battery compartment.
- 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: Ni-MH rechargeable battery
- Nominal capacity**: 132Wh (12V 11Ah)
- Charge time*: approx. 7 hours (with VS12-M30SF solar panel)
- Max output: 120W (AC100V inverter outlet)
2.4A (DC5V USB)
10A (DC12V cigar lighter receptacle)
- Operating temperature (charge)**: 0 - 45°C
- Operating temperature (discharge)**: 0 - 40°C (AC100V inverter outlet, DC5V USB and DC12V cigar lighter receptacle)
- Operating temperature (storage)**: -20 - 55°C (1 week) -20 - 45°C (1 month)
-20 - 35°C (3 months) -20 - 25°C (1 year)
- Dimensions (W×D×H): 235×111×192mm
- Weight: approx. 3.4kg (incl. accessories)
- Input/output terminals: IP67 dust and water proof connector X 2
- Output terminals:
 - AC100V inverter outlet X 2
 - DC5V USB receptacle X 2
 - DC12V cigar lighter receptacle X 1
- Safety features: a thermostat for overcharging prevention
a thermostat for short circuit prevention
- Cycle life: 500 cycles
- Accessories: Ohashi Sangyo 1787 400W pure sine wave DC-AC inverter

*Panel temperature 25°C AM1.5 1kW/m2

**Discharge at 0.2C to 10.0V at 20°C

***No freezing

Feature Diagram



How to Use

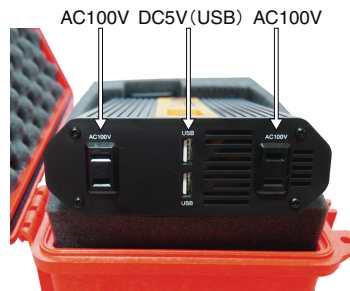
Charging the built-in Battery

- Please read the operating instructions manual of the solar panel.



Powering Appliances

- 1 After charging the built-in battery, open the lid of the battery compartment.
- 2 To power appliances with AC100V or DC5V input, turn on the provided DC-AC inverter, and connect the appliance to the inverter. To power appliances with DC12V input, connect the cigar lighter plug of the appliance to the cigar lighter receptacle of the 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.

- 3 To power appliances with DC12V input outdoors, connect Extension Cable or DC Power Cable to dust and water proof connectors and the processed end to the appliances.
- 4 To monitor the status of the battery, press the button of the battery checker, and refer to the LED indicator. A green LED turns on when battery level is OK. An orange LED turns on when battery level is low. A red LED or no LED turns on when battery is discharged and needs to be charged immediately.

- ⚠ **Note:** When you are in an emergency or mission critical operations, monitor the status of the battery frequently.



- 5 After you have finished powering appliances with AC100V or DC5V input, turn off the provided DC-AC inverter, and disconnect the appliances from the inverter. After you have finished powering appliances with DC12V input, disconnect the appliances from the cigar lighter receptacle of the inverter or from dust and water proof connectors.
- 6 To keep away from dust and water, and to avoid short circuit, close the lid of this product and cover the dust and water proof connectors, once you have finished powering appliances.

- 7 You can connect another battery compartment with DC Power Cable (sold separately) to double the output capacity to power appliances with power consumption of 60W or less. 2 cables required to power appliances with power consumption of 60W to 120W.

- ⚠ **Note:** You cannot use DC Power Cable to power appliances with power consumption of over 120W.



Maintenance

- To protect the built-in battery from over-discharging, charge it at least once 6 months.
- 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.

Warranty

- 1 year from the date of purchase

STUDIO DEL SOLE INC.

1-101, City Court Meguro, 2-10-34, Kamiosaki, Shinagawa-ku, Tokyo 141-0021, Japan.

Tel: +81-3-5423-6801 Fax: +81-3-5423-6802 E-mail: support@violetta.com

www.violetta.com

Design and specifications are subject to change without notice.

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