Violetta Solargear VS12-B100LA 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 AGM deep cycle 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 AGM deep cycle battery by sunlight, and powering a broad range of appliances through AC100V pure sine wave and DC12V output. A built-in nightlight function can control DC12V load such as LED light at night and is widely programmable.

Features

- An IP67 dust and water proof Pelican Case with a fail-safe automatic pressure equalization valve as the battery compartment. Equipped with a retractable extension handle and strong polyurethane wheels with stainless steel bearings.
- A built-in 12V 100Ah AGM deep cycle battery which offers exceptional 650 cyclic use at 50% discharge with maintenance-free operation and high safety for air transport.
- A built-in Phocos CXN20 charge controller which provides a perfect PWM regulation with integrated temperature compensation, extraordinary display, programming and safety functions. Acoustic warnings are built in, as well as a programmable nightlight function. An external temperature sensor, a remote display, and a USB interface are available optionally.
- IP67 dust and water proof input connectors for weather resistant outdoor installations.
- 4 input connectors for 2-4 solar panels for quick charging.
- A 1500W pure sine wave DC-AC inverter with 2 AC100V outlets for powering a broad range of appliances.

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:	AGM deep cycle battery
Nominal capacity*:	1200Wh (12V 100Ah)
Max output:	1500W (AC100V inverter outlet)
	40A (DC12V charge controller terminals)
Operating temperature (charge)**:	-10 - 50℃
Operating temperature (discharge)**:	0 - 40℃ (AC100V inverter outlet)
	-25 - 50℃ (DC12V charge controller terminals)
Dimensions (WXDXH):	500X305X457mm
Weight:	approx. 43.0kg (incl. accessories)
Input terminals:	IP67 dust and water proof connector X 4
Output terminals:	AC100V inverter outlet X 2
	DC12V charge controller terminals X 1
Safety features:	Phocos CXN40 charge controller
Cycle life:	1500 cycles / 30% discharge
	650 cycles / 50% discharge
	500 cycles / 75% discharge
Accessories:	Denryo SK1500-112 1500W pure sine wave DC-AC inverter

*20 hr rate at 25℃
**No freezing

Maintenance

- To protect the built-in battery from over-discharging, charge it immediately when the charge controller flashes, 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.

Warranty

- 1 year from the date of purchase

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Design and specifications are subject to change without notice. Assy in Japan 21-04-17

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 and take out the provided DC-AC inverter.

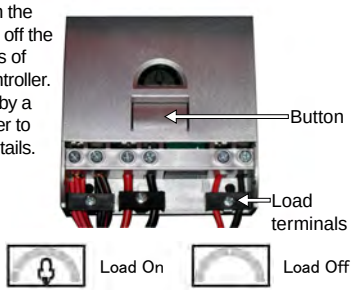
Note: You do not need to fully charge the built-in battery before powering appliances, but the operating time varies widely depending on the battery status and the power consumption of appliances.

2 To power appliances with AC100V input, turn on the provided DC-AC inverter, and connect the appliance to the inverter. You can power 2 appliances simultaneously.

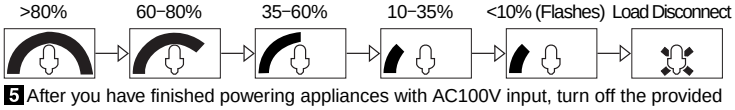
Note: To power appliances that consume more than 1500W, use other DC-AC inverters with higher capacity. In such cases, connect DC-AC inverters directly to the built-in battery. If you connect DC-AC inverters to DC12V load terminals of the built-in charge controller, it may be damaged by overcurrent.

3 To power appliances with DC12V input, push the button of the built-in charge controller to shut off the load output first, and connect the input cables of the appliance to the load terminals of the controller. You can also control the load output at night by a programmable nightlight function. Please refer to the instruction manual of the controller for details.

Note: When you use this battery compartment as an outdoor power-supply, make sure to attach a cable gland to the output cable to avoid dust and water.



4 To monitor the state of charge of the battery, refer to the LCD display of the built-in charge controller. As long as the solar panel supplies enough voltage to charge the battery, this is indicated by up-moving bars alternately. The battery levels are displayed in 6 steps as follows. You can also set an acoustic signal which indicates the change of the state of charge. Please refer to the instruction manual of the controller for details.



5 After you have finished powering appliances with AC100V input, turn off the provided DC-AC inverter, and disconnect the appliance from the inverter. After you have finished powering appliances with DC12V input, push the button of the built-in charge controller to shut off the load output first, and 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 the battery compartment, once you have finished powering appliances.