

## Sriya Sriyaekzc9vwfy1-11

# Sriya Solar Controller 12V 24V (30A) User Manual

Model: Sriyaekzc9vwfy1-11

## INTRODUCTION

Thank you for choosing the Sriya Solar Controller. This device is designed to manage the power flow from your solar panels to your battery bank, ensuring efficient charging and protecting your batteries from overcharge and over-discharge. It features an intelligent three-phase charging management system, a clear LCD display, and dual USB outputs for convenient device charging. Please read this manual thoroughly before installation and operation to ensure proper use and longevity of your solar controller.

## PRODUCT FEATURES

- **Intelligent Three-Phase Charging:** Utilizes an industrial control chip for comprehensive battery charging management.
- **Clear LCD Display:** Large screen clearly shows charging/discharging current, temperature, battery voltage, and other operational parameters.
- **High Safety Protections:** Built-in safeguards against over-current (with auto reset), short circuit, open circuit, reverse connection, and over-discharge.
- **Dual USB Output:** Two 5V, 2.5A USB ports for charging mobile phones and other USB-powered devices.
- **Adjustable Parameters:** Allows for customization of charging and discharging parameters.
- **Power-Off Memory:** Retains settings even after power loss.
- **Light and Relay Control:** Supports advanced control functions for various applications.

## TECHNICAL SPECIFICATIONS

| Parameter    | Value                                                   |
|--------------|---------------------------------------------------------|
| Product Size | Approx. 16.5 x 10.5 x 4.5 cm (6.5 x 4.13 x 1.77 inches) |

| Parameter                    | Value                                        |
|------------------------------|----------------------------------------------|
| System Voltage               | 12V / 24V (Automatic Adjustment)             |
| Maximum Photovoltaic Voltage | 23V (for 12V battery), 46V (for 24V battery) |
| USB Output                   | Dual 5V, 2.5A (Max)                          |
| Standby Power                | <10mA                                        |
| Working Temperature          | -35°C to +60°C                               |
| Item Weight                  | Approx. 313g (11.04oz)                       |
| Material                     | ABS                                          |
| Item Model Number            | Srliyaekzc9vwfy1-11                          |

## IMPORTANT SAFETY INSTRUCTIONS

- Ensure all wiring is correctly connected before powering on the controller. Incorrect wiring can damage the device and connected components.
- Always connect the battery first, then the solar panel, and finally the load. Disconnect in the reverse order.
- Install the controller in a well-ventilated area, away from direct sunlight, high temperatures, and moisture.
- Do not attempt to disassemble or repair the controller yourself. Contact qualified personnel for service.
- Use appropriate wire gauges for connections to prevent overheating and power loss.
- Ensure the battery voltage matches the controller's system voltage (12V or 24V).
- Keep children away from the solar power system components.

## SETUP AND INSTALLATION

### Package Contents

Before installation, please verify that your package contains the following items:

- 1 x Srliya Solar Controller (30A)
- 1 x User Manual

### Wiring Diagram and Connection Steps

The Srliya Solar Controller features clearly labeled terminals for easy connection. Follow the steps below carefully:



*This image shows the front of the Sriya Solar Controller, highlighting the LCD screen, control buttons, dual USB output ports, and the input/output terminals at the bottom.*

1. **Connect the Battery:** Connect the positive and negative terminals of the battery to the corresponding battery terminals on the controller. The controller will automatically detect the battery voltage (12V or 24V). Ensure correct polarity.
2. **Connect the Solar Panel:** Connect the positive and negative terminals of your solar panel(s) to the corresponding solar panel terminals on the controller. Ensure correct polarity.
3. **Connect the DC Load (Optional):** Connect the positive and negative terminals of your DC load to the corresponding load terminals on the controller. Ensure correct polarity.

**Important:** Always connect the battery first, then the solar panel, and finally the load. Disconnect in the reverse order: load, then solar panel, then battery.

## OPERATING INSTRUCTIONS

### LCD Display Overview

The LCD display provides real-time information about your solar power system. Key indicators include:



*A clear view of the solar controller's front panel, with the LCD display showing various operational parameters such as voltage and battery status.*

- **Battery Voltage:** Displays the current voltage of the battery bank.
- **Charging Current:** Shows the current flowing from the solar panel to the battery.
- **Discharging Current:** Indicates the current drawn by the DC load.
- **Temperature:** Displays the internal temperature of the controller.
- **Battery Status Icon:** Illustrates the battery charge level.
- **Solar Panel Icon:** Indicates if solar charging is active.
- **Load Icon:** Shows if the DC load is active.

## Button Functions

The controller has three buttons for navigation and settings adjustment:

- **Menu Button (Left):** Press to cycle through display modes and enter/exit setting menus.
- **Up Button (Middle):** Used to increase values or navigate upwards in menus.
- **Down Button (Right):** Used to decrease values or navigate downwards in menus.

## Parameter Settings

To adjust charging and discharging parameters:

1. Press the **Menu** button until you reach the desired parameter setting screen (e.g., over-discharge voltage, charge recovery voltage).
2. Press and hold the **Menu** button for a few seconds until the displayed value starts flashing.
3. Use the **Up** and **Down** buttons to adjust the value.
4. Press the **Menu** button again to confirm the setting and exit the flashing state.

## USB Charging

The dual USB output ports provide 5V, 2.5A (max) for charging mobile devices. Simply connect your USB charging cable to the controller's USB port and your device.



*A detailed close-up of the dual 5V 2.5A USB output ports, designed for charging mobile devices directly from the controller.*

## MAINTENANCE

Regular maintenance ensures optimal performance and extends the lifespan of your solar controller.

- **Cleaning:** Periodically clean the controller's exterior with a dry, soft cloth. Do not use harsh chemicals or abrasive cleaners.
- **Connections:** Annually check all wiring connections for tightness and corrosion. Loose connections can cause resistance and heat buildup.
- **Ventilation:** Ensure the installation area remains well-ventilated and free from obstructions to allow proper heat dissipation.
- **Inspection:** Visually inspect the controller for any signs of damage, discoloration, or unusual odors.

## TROUBLESHOOTING

If you encounter issues with your Sriya Solar Controller, refer to the table below for common problems and solutions.

| Problem                                | Possible Cause                                                                            | Solution                                                                                                                                         |
|----------------------------------------|-------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| Controller not powering on / LCD blank | Battery not connected or low voltage; reverse polarity.                                   | Check battery connections and voltage. Ensure correct polarity. Charge battery if critically low.                                                |
| No charging current from solar panel   | Solar panel not connected; insufficient sunlight; reverse polarity; damaged panel/wiring. | Check solar panel connections and polarity. Ensure adequate sunlight. Inspect panel and wiring for damage.                                       |
| Load not working                       | Load not connected; over-discharge protection active; load overcurrent; reverse polarity. | Check load connections and polarity. Verify battery voltage is above over-discharge threshold. Reduce load if current exceeds controller rating. |
| USB ports not charging                 | Battery voltage too low; device not compatible; faulty USB cable.                         | Ensure battery is sufficiently charged. Try a different USB cable or device.                                                                     |
| Controller overheating                 | Poor ventilation; excessive load/charging current.                                        | Ensure proper airflow around the controller. Reduce load or check for short circuits.                                                            |

## WARRANTY AND SUPPORT

The Sriya Solar Controller is manufactured to high-quality standards. For specific warranty information, please refer to the documentation provided at the time of purchase or contact your retailer. If you require technical assistance or have questions not covered in this manual, please contact Sriya customer support through your purchase platform or the manufacturer's official channels.