

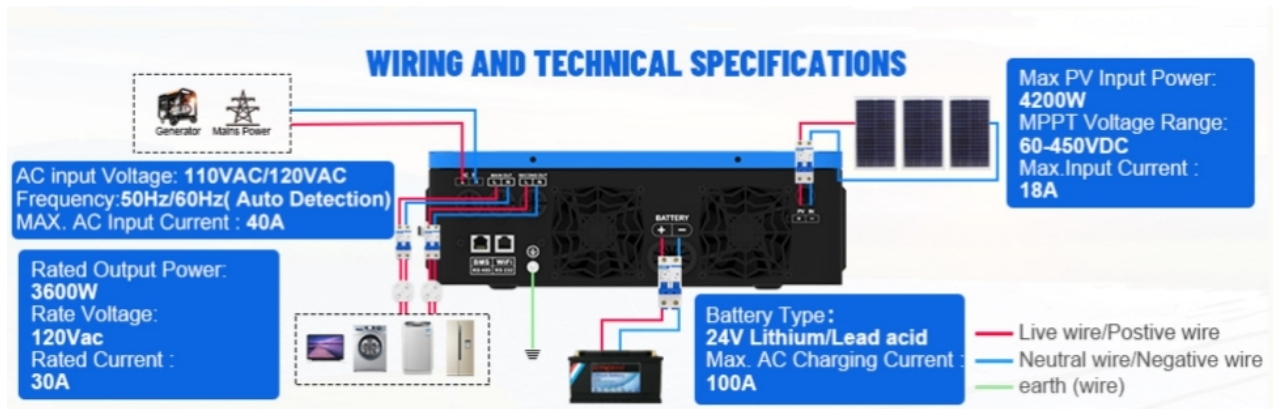
SRGFTS ECO-LV 3.6KW PLUS

SUMRY Solar Inverter Charger User Manual

Model: ECO-LV 3.6KW PLUS | Brand: SRGFTS

1. INTRODUCTION

This manual provides essential information for the safe and efficient operation of your SUMRY Solar Inverter Charger. This all-in-one unit combines a 3600W power inverter, a 120A MPPT solar charge controller, and a 100A AC battery charger, designed for home energy systems. Please read this manual thoroughly before installation and use, and keep it for future reference.



About Dual Output:

When program 41 is selected disable(default) L2F, program 42 is selected invalid, both Main and Second output have AC power to run loads.

If program 41 is set to USE L20, the Main output will stop working when the battery voltage falls below the range set by Program 42. Only the second output port can work. The setting range is 20V-26VDC. Second Ooutput power is 1200W.

About PV Input:

The maximum solar input voltage that this 3600 watt inverter can accept is 500VDC. Considering that sometimes the sun is particularly good, the solar input voltage can exceed 500VDC. So it is recommended that the maximum open circuit voltage of the connected solar panel is 450VDC. PV Start-up voltage needs >90Vdc for initial charging.

The SUMRY Solar Inverter Charger is versatile, suitable for various applications such as home backup, off-grid living, workshops, and outdoor activities.

2. SAFETY INFORMATION

Always observe the following safety precautions to reduce the risk of electric shock, fire, or injury.

- Installation must be performed by qualified personnel.
- Ensure all wiring is correctly sized and properly insulated.
- Do not disassemble the inverter. There are no user-serviceable parts inside.
- Keep the inverter away from flammable materials, moisture, and direct sunlight.
- Ensure adequate ventilation around the unit to prevent overheating.
- Always disconnect all power sources (PV, battery, utility) before performing any maintenance or wiring.

3. INCLUDED COMPONENTS

The following items are included in your product package:

- 3600W Solar Inverter Charger Unit
- Instruction Manual (this document)

4. PRODUCT OVERVIEW

The SUMRY Solar Inverter Charger is a robust solution for managing solar power, battery storage, and utility power for your home or off-grid system.

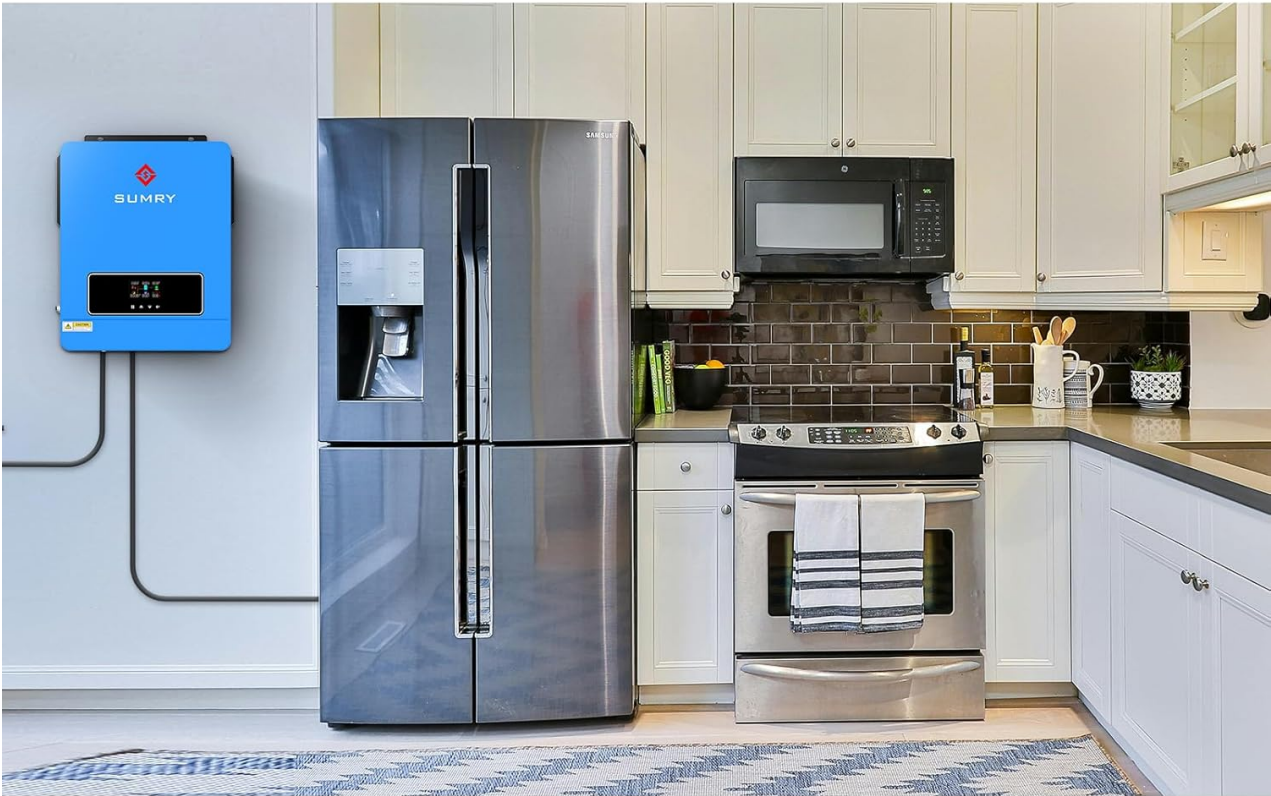
Key Features

- **All-in-one Inverter Charger:** Combines a 3600 watt rated/7200 watt peak power inverter with a built-in 120A MPPT solar charge controller and 100A AC battery charger. Supports PV input voltage range 60V-500VDC, Max. PV input power 4000w, 18A.
- **Pure Sine Wave Inverter:** Provides stable grid-like output of 110V/120VAC, ensuring no interference with sensitive electronic devices. Suitable for general household appliances and inductive loads within its power range.
- **Work with or without Battery:** Compatible with most 24V battery types including AGM, Gel, Lead-acid, Lithium-ion, and LiFePO4. Can also operate without a battery, using PV power directly to run loads, provided PV input voltage exceeds 120V.
- **Hybrid Solar Inverter:** Allows configuration of charging and output priority among solar panels, battery, or utility, enabling energy storage and direct use. Ideal for household, workshop, power outage, and emergency backup scenarios.
- **Easy Setting and Monitoring:** Features an LCD display for operating status and input/output information, allowing parameter adjustments like battery charging current. Optional WiFi module for remote monitoring is sold separately.
- **Safe and Reliable:** Equipped with built-in silent cooling fans and multiple protections against overload, overheat, over current, and short circuit. Smart battery charge design optimizes battery life.

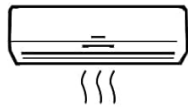


The main unit of the SUMRY Solar Inverter Charger.

Powerful 3600watts Inverter Peak Power 7200watts



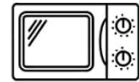
**Fridge
(About 120W)**



**Air conditioner
(About 1100W)**



**Washing Machine
(About 400W)**

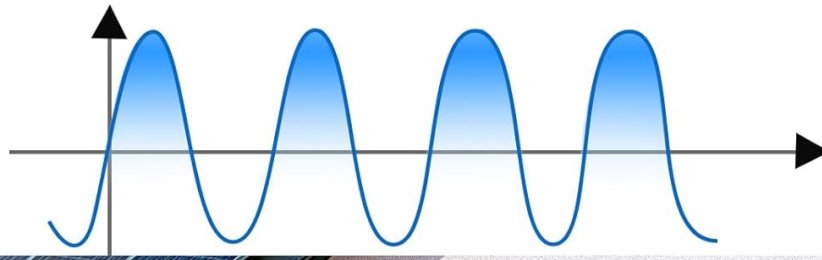


**Microwave Oven
(About 1000W)**

The inverter provides 3600 watts of continuous power, capable of running common household appliances.

3600W Pure Sine Wave Inverter

Pure Sine Wave Solar Inverter with 120A MPPT max 4200W solar charge ensures cleaner and smoother power to prolong the life of sensitive appliances ,capacity while protect your sensitive appliances



The pure sine wave output ensures clean and stable power, protecting sensitive electronics.

Compatible with most kinds of 24V Batteries



Support Battery-free running

can power loads from PV array without battery connected



The inverter supports a wide range of 24V batteries and can also operate in a battery-less mode, drawing power directly from PV arrays.

All Round Protection for you and your devices

Multi-functional safety protection - More Reliable & Stable



Comprehensive protection features ensure the safety and reliability of the inverter and connected devices.



The hybrid design allows for flexible energy management between solar, battery, and utility sources.

5. SETUP

Unboxing and Initial Inspection

Carefully remove the inverter from its packaging. Inspect the unit for any visible damage. If damage is found, contact your supplier immediately.

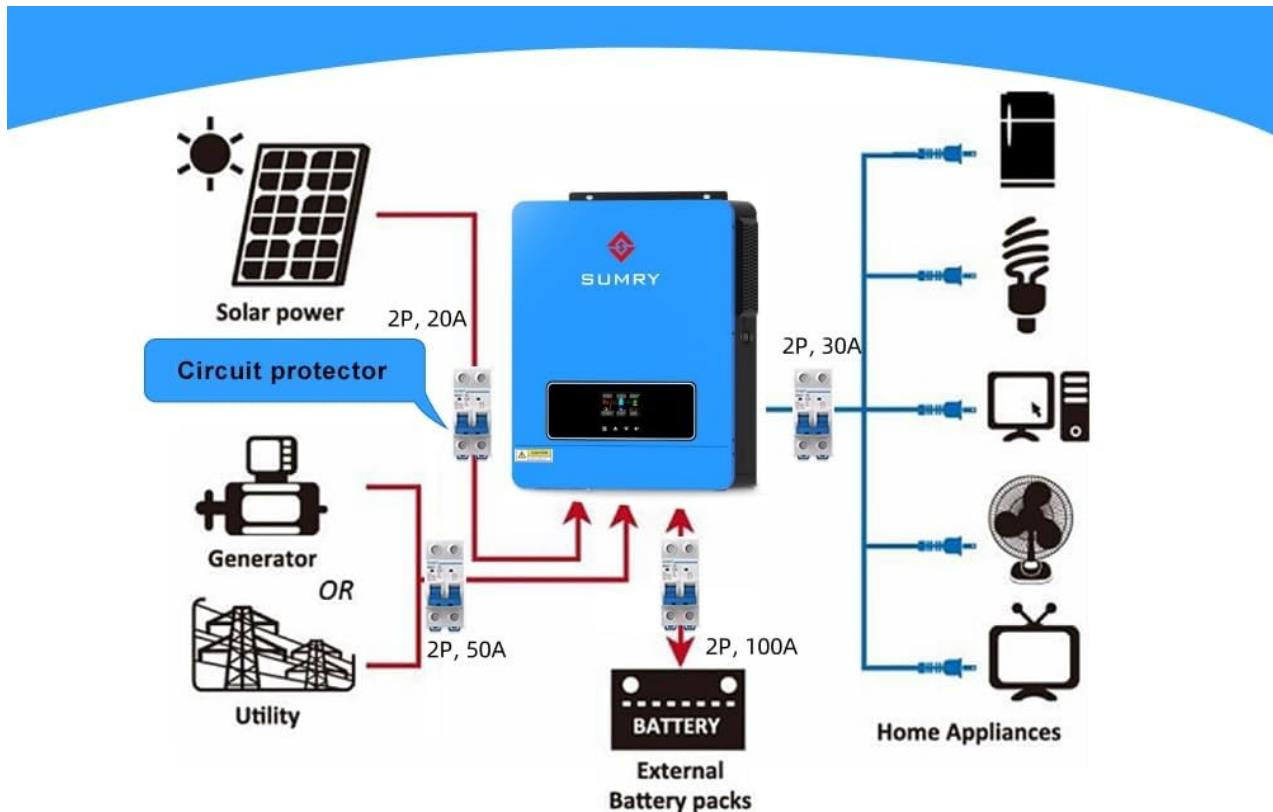
This video demonstrates the unboxing, physical overview, and initial connection steps for the SUMRY Solar Inverter Charger.

Mounting and Placement

- Choose a suitable location that is dry, well-ventilated, and protected from direct sunlight and moisture.
- Ensure sufficient clearance around the inverter for proper airflow and cooling.
- Mount the inverter vertically on a sturdy surface using appropriate fasteners.

Wiring Connections

All wiring should be performed by a qualified electrician in accordance with local electrical codes. Ensure all circuit breakers are off before making any connections.



Installation knowledge

Before installing and using the inverter, it is recommended to install 4 circuit breakers in the following 4 positions:

1. Between the battery pack and the inverter battery input
2. Between the solar panel and the photovoltaic input of the inverter
3. Between the power input of the grid and the inverter
4. Between inverter output and load

The circuit breaker is to effectively prevent the misconnection or reverse connection of the mains input and the inverter output ; when there is a short circuit, load short circuit, or overload in the output, the circuit breaker can directly cut off the circuit to protect the inverter

It is recommended to install 4 circuit breakers in the following positions: 1. Between the battery pack and the inverter battery input. 2. Between the solar panel and the photovoltaic input of the inverter. 3. Between the power input of the grid and the inverter. 4. Between inverter output and load. This helps prevent misconnection or reverse connection and protects the inverter from short circuits or overloads.

SUMRY Sustainable Power Solutions for You Safe Efficient Green



Refer to this diagram for correct wiring of AC input, main output, second output, battery, and PV input. Note the maximum PV input voltage and recommended open circuit voltage for optimal performance.

6. OPERATING INSTRUCTIONS

LCD Display and Control Buttons

The inverter features an LCD display that shows real-time operating status, input/output information, and allows for parameter configuration. Use the control buttons to navigate menus and adjust settings.



The LCD display provides comprehensive monitoring and easy setting adjustments. Remote monitoring is available with an optional WiFi module.

Operating Modes

The inverter supports various operating modes to optimize energy usage based on your needs:

- **Solar First:** Prioritizes solar power for charging and loads.
- **Solar and Utility:** Uses solar power primarily, with utility as a backup.
- **Only Solar:** Relies solely on solar power.

Output modes include Mains First, Solar First (default), and SBU (Solar-Battery-Utility) priority.

INPUT

Three Safe Charging Modes



OUTPUT

Three Output Modes



The inverter offers flexible input charging and output priority modes to suit different energy management strategies.

Battery-Less Operation

This inverter can operate without a battery connected. In this mode, the inverter directly uses PV power to run loads. Ensure the PV input voltage exceeds 120V for stable operation in battery-less mode.

7. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your inverter.

- **Cleaning:** Periodically clean the exterior of the inverter with a dry, soft cloth. Ensure ventilation openings are free from dust and debris.
- **Connections:** Annually check all electrical connections for tightness and signs of corrosion.
- **Environment:** Ensure the installation environment remains within the specified temperature and humidity ranges.
- **Battery Health:** If using batteries, monitor their health and charge levels as recommended by the battery manufacturer.

8. TROUBLESHOOTING

This section provides solutions for common issues you might encounter. For problems not listed here, please contact customer support.

Problem	Possible Cause	Solution
Inverter not turning on	No power from battery/PV; loose connections; blown fuse.	Check battery voltage and PV input. Verify all connections are secure. Inspect and replace fuses if necessary.
No AC output	Overload; short circuit; high/low battery voltage; inverter fault.	Reduce load. Check for short circuits in wiring. Verify battery voltage is within operating range. Restart inverter.
Low PV charging current	Insufficient sunlight; dirty solar panels; PV array mismatch.	Ensure panels are in direct sunlight. Clean panels. Check PV array configuration and voltage.
Overheat warning	Poor ventilation; excessive ambient temperature; blocked fans.	Ensure adequate clearance around inverter. Improve room ventilation. Clean fan vents.

9. TECHNICAL SPECIFICATIONS

Detailed specifications for the SUMRY Solar Inverter Charger (Model: ECO-LV 3.6KW PLUS):

Specification	Value
Product Dimensions	13.78 x 4.33 x 16.54 inches
Item Weight	18.7 pounds
Item model number	ECO-LV 3.6KW PLUS
Brand	SRGFTS
Recommended Uses For Product	Farm, Garage, Home, Office, Vehicle, Workshop
Power Source	Solar, Utility and Battery Powered
Wattage	3600 watts
Included Components	3600W Solar Inverter, Instruction Manual

10. WARRANTY AND SUPPORT

Your SUMRY Solar Inverter Charger is backed by a manufacturer's warranty. For specific warranty terms and conditions, please refer to the warranty card included with your product or contact SRGFTS customer support.

For technical assistance, troubleshooting, or service inquiries, please contact SRGFTS customer support through the vendor's official channels or the platform where the product was purchased.