# THREE-PHASE HYBRID INVERTER

# USER MANUAL

SUN-8K-SG04LP3 / SUN-10K-SG04LP3 / SUN-12K-SG04LP3

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# PREFACE

This Installer Manual contains information needed for proper installation, operation, maintenance, and care of the Sunsynk Three-Phase Hybrid Inverter. A deep understanding of the instructions described in this document will help you get the most of your new inverter.

This document should be read thoroughly, and all the procedures described in this manual should be followed carefully. If you have questions or concerns about the operation and maintenance of this product, please contact our customer support.

All personnel involved in the installation, setup, operation, maintenance, and repair of this machine should read and understand this manual, mainly its safety instructions. Substandard performance and longevity, property damage, and personal injury may result from not knowing and following these instructions.

In order to ensure long product life, Sunsynk recommends that you utilize the product and perform maintenance by correctly following the instructions described in this guide. The manufacturer’s warranty does not cover any damage resulting from the neglect of these instructions.

Sunsynk assumes no liability for damage caused by operation contrary to what is specified in this operating manual.

All information in this User Guide is based on the latest product information available at the time of printing approval. Sunsynk reserves the right to make changes at any time without notice and without incurring any obligation.

Please always keep this manual together with the inverter as a reference to everyone who uses this product.

# INDEX


**1. SAFETY 5**

**1.1. General Safety Information 5**
**1.2. Symbols 5**
**1.3. Safety Instructions 6**
**1.4. Disposal Remarks 6**

**2. PRODUCT INTRODUCTION 7**

**2.1. System Overview 7**
**2.2. Dimensions 8**
**2.3. Features 9**
**2.4. Basic System Architecture 10**

**3. TECHNICAL SPECIFICATIONS 11**

**4. INSTALLATION 13**

**4.1. Parts List 13**
**4.2. Selecting the Mounting Area 14**
**4.3. Mounting the Inverter 15**
**4.4. Battery Connection 17**
4.4.1. Function Ports Definition 18
4.4.2. Temperature Sensor Connection for Lead-Acid Battery 19
**4.5. Connecting the AC and Backup Load Connection 20**
**4.6. Connecting the CT Coil 23**
**4.7. Earth Connection (MANDATORY) 24**
**4.8. PV Connection 25**
4.8.1. PV Module Selection 25
4.8.2. PV Module Wiring 26
**4.9. System Wiring for Inverter 28**
**4.10. Wiring Diagram 29**

**5. OPERATION 30**

**5.1. Display 30**
**5.2. Switching ON/OFF 31**
**5.3. Home Page 31**
**5.4. Status Page 32**
**5.5. System Flow Page 33**

**5.6. SETUP PAGE 34**
**5.7. SET TIME (CLOCK) 35**
**5.8. SET COMPANY NAME / BEEPER / AUTO DIM 35**
**5.9. FACTORY RESET AND LOCK CODE 36**
**5.10. BATTERY SETUP PAGE 37**
**5.11. GENERATOR AND BATTERY PAGE 38**
**5.12. BATTERY DISCHARGE PAGE 40**
**5.13. SETTING UP A LITHIUM BATTERY 42**
**5.14. PROGRAM CHARGE / DISCHARGE TIMES 46**
**5.15. GRID SUPPLY VOLTAGE AND FREQUENCY – GRID SUPPLY PAGE 48**
5.15.1. REACTIVE POWER SETTING (QV) 49
5.15.2. ACTIVE POWER SETTING (VW): 49
5.15.3. VOLT VARIABLE MODE (VOLT-VAR - VV) 50
**5.16. ADVANCED SETTINGS FOR PARALLELING INVERTERS (UNDER DEVELOPMENT) 50**
**5.17. SOLAR POWER GENERATED 51**
**5.18. GRID POWER 51**
**5.19. ADVANCED SETTINGS FOR WIND TURBINE 52**
**5.20. ADVANCED SETTINGS FOR AUXILIARY LOAD 54**
**5.21. ADVANCED SETTINGS FOR PEAK POWER SHAVING 55**
**5.22. FAULT CODES 56**
**5.23. OPERATION MODES 59**

**6. COMISSIONING 62**

**6.1. STARTUP / SHUTDOWN PROCEDURE 62**
**6.2. INFORMATION FOR COMMISSIONING THE INVERTER 63**
**6.3. GDFI FAULT 64**

**7. MAINTENANCE 64**

**APPENDIX A 64**

**APPENDIX B 65**

**APPENDIX C 65**

**APPENDIX D 65**

**APPENDIX E 66**

# 1. SAFETY

## 1.1. General Safety Information

- This device should only be used in accordance o instructions within this manual and in compliance with local, regional and national laws and regulations. Only allow this device to be installed, operated, maintained, repaired by other persons who have also read and understood this manual. Ensure the manual is included with this device should it be passed to a third party.
- DO NOT allow minors, untrained personnel, or person(s) suffering from a physical or mental impairment that would affect their ability to follow this manual, install, maintain or repair this device.
- Any untrained personnel who might get near this device while it is in operation MUST be informed that it is dangerous and instructed carefully on how to avoid injury.

## 1.2. Symbols

| | |
|---|---|
| ⚠ WARNING | This symbol indicates information that if ignored, could result in personal injury or even death due to incorrect handling. |
| ⚠ CAUTION | This symbol indicates information that if ignored, could result in personal injury or physical damage due to incorrect handling. |
| *NOTICE* | Indicates information that is considered important, but not hazard-related. |

## 1.3. Safety Instructions

**⚠ WARNING**

**HIGH LIFE RISK DUE TO FIRE OR ELECTROCUTION.**

**The Sunsynk Three-Phase Hybrid Inverter can only be installed by a qualified licensed electrical contractor. This is not a DIY product.**

- Be sure to read this manual thoroughly before installation.
- Do not attempt to install the inverter by yourself. Installation work must be carried out in compliance with national wiring standards and by suitably qualified personnel only. Do not turn on the power until all installation work is complete.
- Do not disassemble the inverter. If you need repair or maintenance, contact a professional service centre.
- Always use an individual power supply line protected by a circuit breaker and operating on all wires with a distance between contacts of at least 3mm for this unit.
- The unit must be correctly grounded and the supply line must be equipped with a suitable breaker and RCD to protect people.
- Disconnect all wires/cables before performing any maintenance or cleaning to reduce the risk of electrical shock.
- The unit is not explosion-proof, so it should not be installed in an explosive atmosphere.
- Never touch electrical components immediately after the power supply has been turned off since the system can still have residual energy, so electric shock may occur. Therefore, after turning off the power, always wait 5 minutes before touching electrical components.
- This unit contains no user-serviceable parts. Always consult an authorised contractor for repairs.

## 1.4. Disposal Remarks

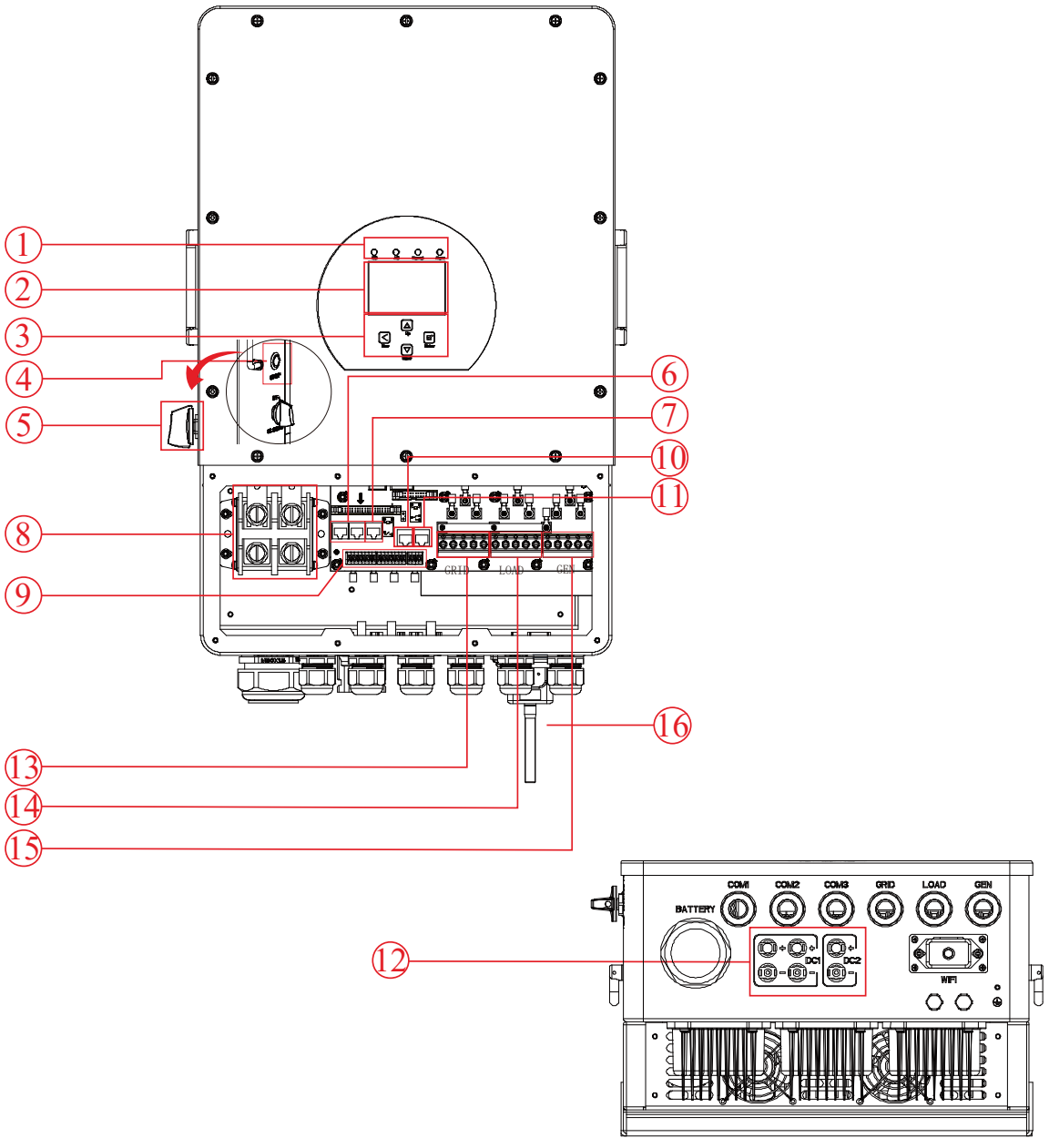
**DO NOT** dispose this product with domestic waste!

Electrical devices should be disposed of in accordance with regional directives on electronic and/ or electronic-waste disposal. In case of further questions, please consult your supplier. In some cases, the supplier can take care of proper disposal.

## 2. PRODUCT INTRODUCTION

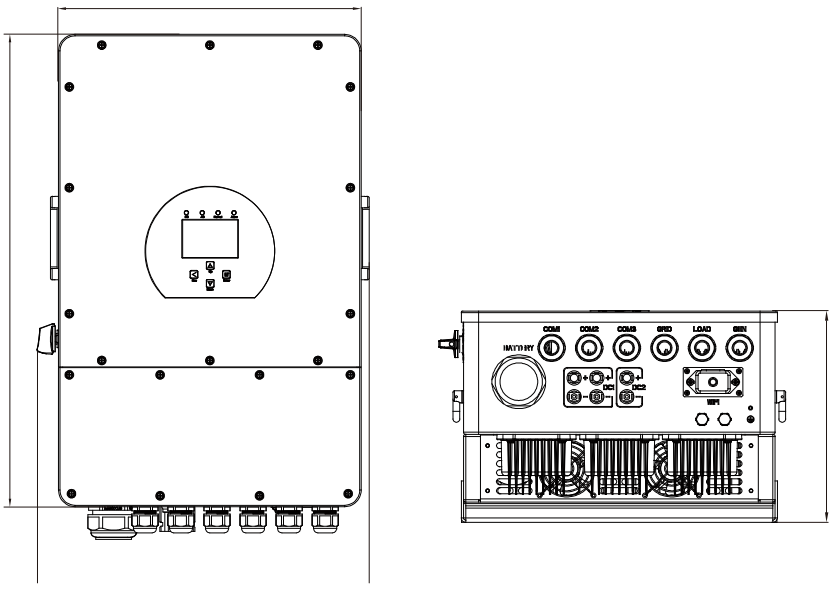
The Sunsynk Three-Phase Hybrid Inverter is a highly efficient power management tool that allows the user to hit those ‘parity’ targets by managing power-flow from multiple sources such as solar, mains power (grid) and generators, and then effectively storing and releasing power as and when utilities require.

### 2.1. System Overview



1: Inverter Indicators
2: LCD Display
3: Function Buttons
4: Power ON/OFF Button
5: DC Switch
6: Parallel Port
7: Meter-485 Port
8: Battery Input Connectors
9: Function Port
10: Modbus Port
11: BMS Port
12: PV Input with Two MPPT
13: Grid
14: Load
15: Generator Input
16: Wi-Fi Interface

## 2.2. Dimensions



Inverter Size

Mounting bracket