DATOUBOSS DT-4862L

DATOUBOSS 6200W Hybrid Solar Inverter 48V User Manual

Model: DT-4862L

1. Introduction

This manual provides essential information for the safe and efficient operation of your DATOUBOSS 6200W Hybrid Solar Inverter 48V. Please read this manual thoroughly before installation and use, and retain it for future reference. This inverter is designed to convert direct current (DC) from solar panels or batteries into alternating current (AC) for household appliances, offering flexible power solutions with or without battery operation.





Figure 1: Front view of the DATOUBOSS 6200W Hybrid Solar Inverter.

2. Safety Instructions

Observe the following safety precautions to prevent injury and damage to the inverter or connected equipment.

- **Electrical Hazard:** Installation and maintenance must be performed by qualified personnel only.
- **Battery Connection:** Do not disconnect batteries while the unit is in operation. This can cause severe damage to the inverter and pose an electrical shock risk.
- **Read Manual:** Always read the user manual completely before operating the inverter.
- **Ventilation:** Ensure adequate ventilation around the inverter to prevent overheating.
- **Environment:** Do not expose the inverter to rain, snow, spray, or any liquids. Install in a dry, protected area.
- **Grounding:** The inverter must be properly grounded.



Figure 2: Caution label indicating important safety warnings regarding battery disconnection and authorized personnel operation.



Figure 3: Visual representation of the inverter's comprehensive protection features, including over-voltage, over-current, short circuit, overload, under-voltage, over-charge, over-temperature, and backfill protection.

The inverter includes built-in surge and lightning protection to safeguard your system from electrical damage and sudden voltage spikes, enhancing the lifespan of connected components.

3. Product Overview

3.1 Key Features

- **Hybrid Inverter:** 6200W rated power, 48V DC input, Pure Sine Wave output.
- **PV Compatibility:** Supports PV field up to 8500W, inverter PV power 6500W.
- **MPPT Charge Controller:** Integrated 120A MPPT regulator. MPPT Voltage Range: 60-500V DC.
- **Flexible Operation:** Can operate with or without batteries.
- **Protection:** Built-in lightning protection, short circuit, over-current, over-voltage, undervoltage, overload, and overheating protection.

- **Monitoring:** LCD display and three LED indicators for real-time system data and status.
- **Cooling:** Temperature-controlled fan for optimal heat dissipation.
- **EMI Filter Design:** Effectively suppresses electromagnetic interference.

3.2 Appearance and Components

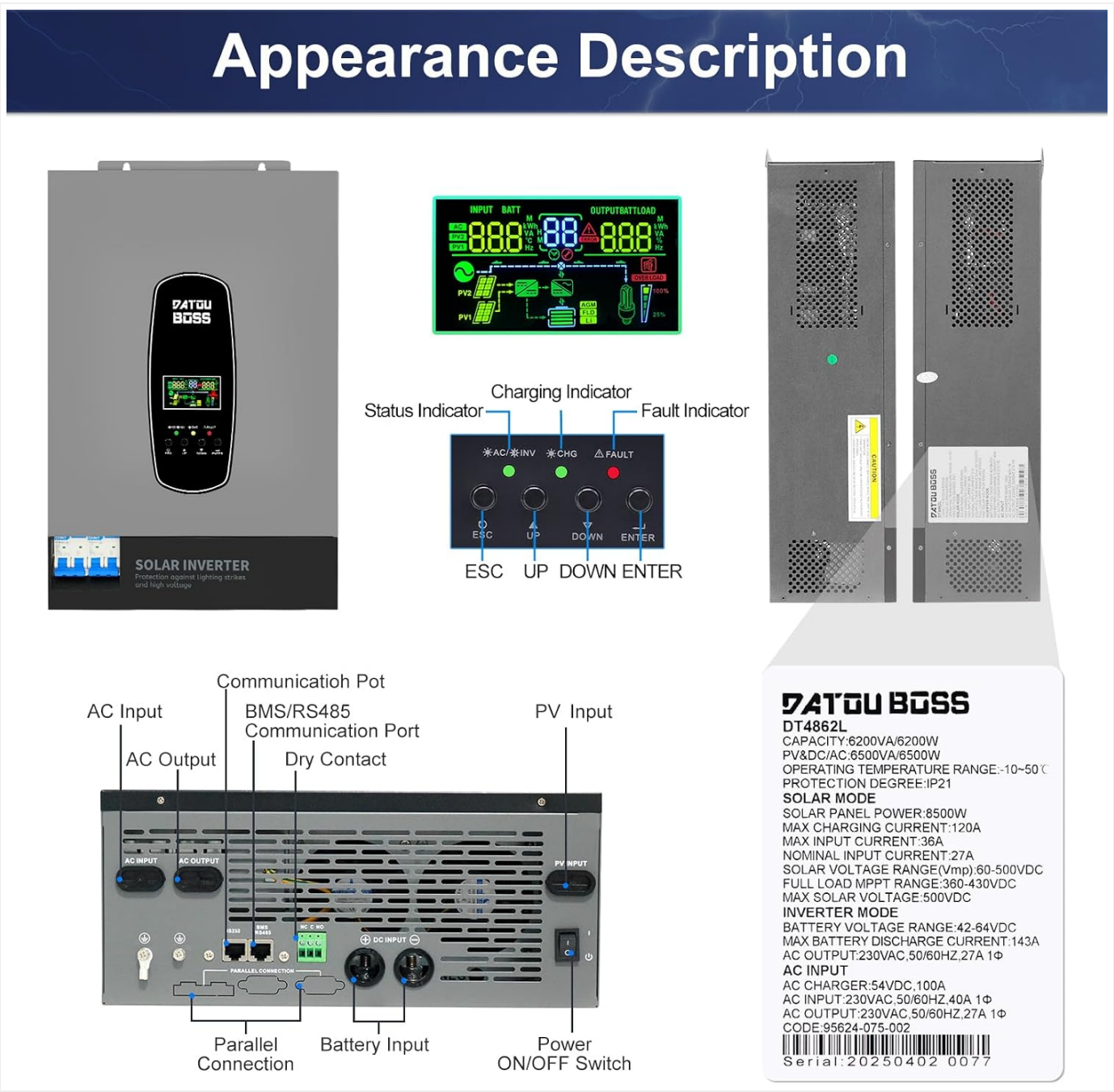


Figure 4: Detailed view of the inverter's front panel and rear connections, including AC input/output, communication ports (BMS/RS485, Dry Contact), PV input, parallel connection, battery input, and power ON/OFF switch. The front panel features a status indicator, charging indicator, fault indicator, LCD display, and control buttons (ESC, UP, DOWN, ENTER).

3.3 What's in the Box

- DATOUBOSS 6200W Hybrid Solar Inverter 48V
- User Manual
- Mounting hardware (e.g., screws, anchors)

4. Setup

4.1 Installation Location

Choose a dry, well-ventilated area away from direct sunlight, heat sources, and flammable materials. Ensure sufficient clearance around the inverter for proper airflow.

4.2 System Connection

Refer to the diagram below for a typical system connection. Solar arrays are recommended to be connected in series.

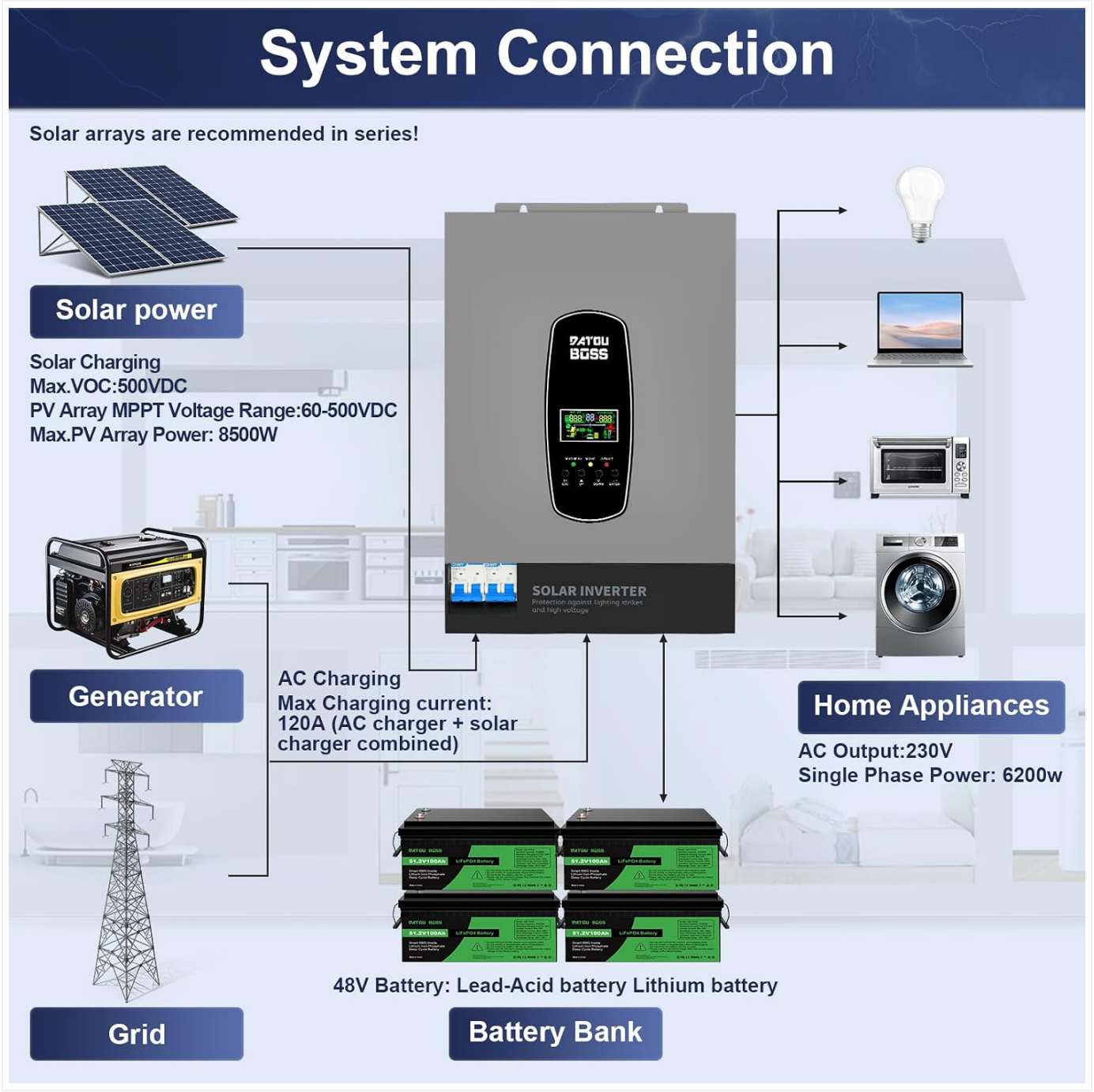


Figure 5: Diagram illustrating the system connection, including solar power input (Max.VOC: 500VDC, PV Array MPPT Voltage Range: 60-500VDC, Max.PV Array Power: 8500W), generator input, grid connection, battery bank (48V Lead-Acid or Lithium), and AC output to home appliances (230V, 6200W).

4.3 Battery Compatibility

The inverter supports various battery types, including lead-acid (GEL, AGM, FLD, SLD) and lithium batteries (LI). For lithium batteries, set the battery type to "User-defined" in program 05. The inverter also supports three communication protocols: Growatt, Pylontech, and Voltronic.



Figure 6: Illustration showing the inverter's compatibility with GEL, AGM, FLD (Flooded), LI (Lithium), and SLD (Sealed Lead-Acid) battery types.

5. Operating

5.1 LCD Display and Indicators

The LCD screen provides real-time system data, charging status, and working status. Three LED indicators dynamically display the operating status. Error codes are displayed for quick diagnosis and troubleshooting.

5.2 Charging Modes

Selectable charging modes allow customization based on your energy needs:

- **Solar Priority:** Solar power is prioritized for charging.
- **Network Priority:** Grid power is prioritized for charging.
- **Hybrid Charging (Solar+Network):** Utilizes both solar and grid power for charging.

- **Network Only:** Only grid power is used for charging.

5.3 Output Modes

The inverter offers three output modes to manage power distribution:

- **Network Priority:** Grid power is prioritized for powering loads.
- **PV Priority:** Solar power is prioritized for powering loads.
- **Battery Priority:** Battery power is prioritized for powering loads.

5.4 Operation Without Battery

The inverter can operate without a battery. In mains or photovoltaic mode, consumption can be powered directly, offering flexibility for various installation needs.

6. Maintenance

Regular maintenance ensures optimal performance and longevity of your inverter.

- **Cleaning:** Keep the inverter clean and free from dust. Use a dry cloth for cleaning.
- **Ventilation:** Ensure the ventilation openings are not blocked. The intelligent cooling fan operates based on temperature to maintain optimal heat dissipation.
- **Connections:** Periodically check all electrical connections for tightness and signs of corrosion.
- **Environment:** Monitor the installation environment to ensure it remains within specified temperature and humidity ranges.

7. Troubleshooting

If you encounter issues, refer to the LCD display for error codes. These codes provide a quick diagnosis for troubleshooting. Common issues and their potential solutions are listed below:

- **No Power Output:** Check input power (PV, grid, battery), ensure all connections are secure, and verify the ON/OFF switch is in the 'ON' position.
- **Overload Warning:** Reduce the connected load. The inverter has overload protection.
- **Overheating:** Ensure proper ventilation. Clean any dust from the fan and vents.
- **Battery Not Charging:** Check PV input voltage and current, battery connections, and selected charging mode.

For persistent issues or complex error codes, contact customer support.

8. Specifications

Feature	Specification
Model Number	DT-4862L
Battery Output Rated Power	6200W
Inverter PV Power	6500W
Max. PV Field Support	8500W
Max. Open Circuit Voltage (PV)	500V DC

Feature	Specification
Rated Input Current (PV)	27A
MPPT Charge Regulator	120A
MPPT Voltage Range	60-500V DC
Recommended PV Voltage Range	360-430V DC
AC Output Voltage	230V AC
Frequency	50/60Hz Auto
Product Dimensions	12.28 x 5.31 x 19.49 inches
Item Weight	22.6 pounds
Protection Degree	IP21
Recommended Use	Photovoltaic Power Supply for Private Homes



Figure 7: Back view of the inverter, showing the specification label with model number DT-4862L and other technical details. Serial: 20240724 0262 (Example serial number from image).

9. Warranty and Support

DATOUBOSS provides professional technical support and comprehensive after-sales service. If you have questions or technical problems during use, please contact us by email. Our experienced support team will assist you quickly and reliably to ensure worry-free use of your inverter.
Please refer to your purchase documentation for specific warranty terms and contact information.

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. Privacy details.

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question

Answered questions about this manual

What are the optimal settings for the DATOUBOSS 6200W Hybrid Solar Inverter (DT-4862L) when using a DATOUBOSS 48V 100Ah LiFePO4 battery?

To optimize your DATOUBOSS 6200W Hybrid Solar Inverter (DT-4862L) for use with a 48V 100Ah LiFePO4 battery, you should configure the following settings in the inverter's setup menu:Battery Type (Program 05): Set this to...

Read full answer