

DATOUBOSS FBM-JC-1116-EU-3

DATOUBOSS 48V 314Ah LiFePO4 Battery and 11KW Hybrid Inverter System User Manual

1. OVERVIEW

The DATOUBOSS All-in-One Energy Storage System integrates a 48V 11000W hybrid inverter with a 48V 314Ah LiFePO4 battery, offering a comprehensive solution for energy storage. This unit is designed for ease of use, eliminating the need for separate component purchases, complex wiring, or communication setups. Its robust design and integrated features make it suitable for various applications, including household energy storage, off-grid solar installations, and emergency power supply.

The system features a movable pulley system at its base, allowing for easy relocation without manual installation after unpacking.

Key Features:

- **Integrated Design:** Combines hybrid inverter and LiFePO4 battery into a single unit.
- **High Capacity:** 16.07 kWh battery capacity for extended energy storage.
- **Advanced Battery Management System (BMS):** Provides comprehensive protection against overcharge, over-discharge, overcurrent, short circuit, over-temperature, and under-temperature.
- **User-Friendly Interface:** Equipped with an LCD color touchscreen for intuitive operation and real-time monitoring.
- **Mobility:** Integrated casters for easy movement.
- **Communication:** Supports RS232 and RS485 for system integration and monitoring.



Figure 1: Integrated System Components. This diagram illustrates how the hybrid inverter, MPPT controller, and LiFePO4 battery pack are combined into a single DATOUBOSS All-in-One unit.

2. SAFETY INFORMATION

Read all safety instructions carefully before installation and operation. Failure to follow these instructions may result in electric shock, fire, serious injury, or death. Keep this manual for future reference.

- **Qualified Personnel:** Installation and maintenance must be performed by qualified personnel only.
- **Electrical Safety:** Ensure all power sources are disconnected before performing any wiring or maintenance. Use appropriate personal protective equipment (PPE).
- **Ventilation:** Install the unit in a well-ventilated area to prevent overheating. Maintain adequate clearance around the unit for airflow.
- **Environment:** Avoid exposure to direct sunlight, rain, snow, or excessive dust. Do not operate in environments with flammable gases or corrosive substances.
- **Weight:** The unit is heavy (144 kg). Use proper lifting techniques or equipment when moving. The integrated casters are for easy repositioning on flat surfaces.
- **Battery Handling:** Do not open the battery compartment. The LiFePO4 battery contains a built-in BMS for safety. Any tampering voids the warranty and can be dangerous.
- **Emergency Shutdown:** Familiarize yourself with the location of all ON/OFF switches and circuit breakers for emergency shutdown procedures.



Figure 2: Circuit Breakers. These circuit breakers are essential for maintaining solar power supply stability and safety. Ensure they are correctly installed and accessible.

3. COMPONENTS

The DATOUBOSS All-in-One system consists of the main unit with integrated battery and inverter. Key external components and indicators are detailed below:

Front Panel:

- **Touchscreen Display:** For monitoring and configuration.
- **ON/OFF Indicator Light:** Shows system power status.
- **Operation Indicator Light:** Indicates system operational status (e.g., RUN, 100%, 75%, 50%, 25%).
- **Alarm Indicator Light:** Alerts to system warnings or faults.
- **Reset Button:** For system reset.
- **Battery Indicator Light:** Displays battery charge level.

Rear Panel:

- **AC IN ON/OFF Switch:** Controls the AC input.
- **PV ON/OFF Switch (x2):** Controls the photovoltaic (solar) inputs.
- **ON/OFF Inverter Switch:** Controls the inverter function.

- **ON/OFF Battery Switch:** Controls the battery power.
- **AC OUT ON/OFF Switch:** Controls the AC output.
- **PV Interface (x2):** Connections for solar panel input.
- **AC Input:** Connection for grid power or generator input.
- **AC Output (x2):** Connections for AC loads.



Figure 3: Front and Rear Panel Layout. This image identifies the various switches, ports, and indicators on the front and rear panels of the DATOUBOSS system.

4. SETUP

Follow these steps for initial setup of your DATOUBOSS All-in-One Energy Storage System.

4.1 Unpacking and Placement

1. Carefully unpack the unit and inspect for any shipping damage. Report any damage to your supplier immediately.
2. Place the unit on a flat, stable surface. The integrated swivel casters allow for easy movement.
3. Ensure adequate ventilation around the unit. Maintain at least 20 cm clearance from walls or other obstructions.
4. Avoid placing the unit in direct sunlight, near heat sources, or in areas with high humidity or dust.



Figure 4: Swivel Casters. The 360-degree swivel casters facilitate easy mobility and positioning of the unit.

4.2 Electrical Connections

All electrical connections must be performed by a qualified electrician in accordance with local electrical codes and regulations.

1. **Ensure all switches on the rear panel are in the OFF position.**
2. **Solar Panel Connection:** Connect your solar panels to the PV Interfaces (x2) on the rear panel. Ensure correct polarity (+/-).
3. **AC Input Connection:** If connecting to the grid or a generator, connect the AC input cable to the AC Input port.
4. **AC Output Connection:** Connect your household loads or appliances to the AC Output ports (x2).
5. **Grounding:** Ensure the unit is properly grounded.

4.3 Initial Power-Up

1. After all connections are secure and verified, switch ON the Battery Switch on the rear panel.
2. Switch ON the Inverter Switch.
3. If using solar power, switch ON the PV ON/OFF Switches.
4. If using grid power, switch ON the AC IN ON/OFF Switch.
5. The touchscreen display will power on, and the system will begin its startup sequence.

5. OPERATION

The DATOUBOSS system features an intuitive LCD color touchscreen for monitoring and controlling the unit.

5.1 Touchscreen Interface

The touchscreen allows you to view real-time power information, system status, and configure various settings. Navigate through menus by tapping the screen.

- **Monitoring:** View current power generation (PV), battery charge/discharge, grid interaction, and load consumption.
- **System Setup:** Access menus for Battery Setting, Grid Setting, Charge Setting, Basic Setting, Advanced Function, and Device Info.
- **Warning Mode:** The system will display warning codes or messages on the screen if an issue is detected. Refer to the Troubleshooting section or contact support for detailed solutions.



Figure 5: Touchscreen Power Flow Display. This screen provides a visual representation of power generation, storage, and consumption, allowing for easy monitoring of your energy system.



Figure 6: LCD System Setup Menu. This display shows the main menu for configuring system parameters, including battery, grid, and charging settings.

5.2 Operating Modes

The system supports various operating modes, configurable via the touchscreen, to optimize energy usage based on your needs (e.g., self-consumption, time-of-use, backup mode). Consult the detailed electronic manual for specific mode configurations.

6. MAINTENANCE

Regular maintenance ensures optimal performance and longevity of your DATOUBOSS system.

- **Cleaning:** Keep the unit clean and free from dust. Use a dry, soft cloth for cleaning. Do not use liquid cleaners or solvents.
- **Ventilation:** Periodically check that the ventilation openings are not blocked.
- **Connections:** Annually inspect all electrical connections for tightness and signs of corrosion. Ensure all cables are securely fastened.
- **Battery Health:** The integrated BMS monitors battery health. No user-level maintenance is required for the internal battery. Avoid fully discharging the battery frequently to prolong its lifespan.
- **Software Updates:** Check for available software updates as recommended by DATOUBOSS to ensure optimal system performance and compatibility.

7. TROUBLESHOOTING

The DATOUBOSS system is designed for reliability. If you encounter an issue, the touchscreen display will often show an error or warning code. Refer to the detailed electronic manual for a comprehensive list of error codes and their solutions.

Common Issues and Basic Solutions:

- **No Power/Display Off:**
 - Check if the main power switches (Battery, Inverter, AC IN) are ON.
 - Verify all power cables are securely connected.
 - Check for tripped circuit breakers.
- **No Solar Charging:**
 - Ensure PV ON/OFF switches are ON.
 - Check solar panel connections and ensure they are receiving sunlight.
 - Verify PV input voltage and current on the display.
- **No AC Output:**
 - Ensure AC OUT ON/OFF switch is ON.
 - Check if the inverter is operational (Inverter switch ON, no error codes).
 - Verify connected loads are not exceeding the system's output capacity.
- **Warning/Error Codes:**
 - Note the specific code displayed on the touchscreen.
 - Consult the comprehensive troubleshooting guide in the electronic manual for detailed steps.
 - If the issue persists, contact DATOUBOSS customer support.

8. SPECIFICATIONS

Technical specifications for the DATOUBOSS 48V 314Ah LiFePO4 Battery and 11KW Hybrid Inverter System (Model FBM-JC-1116-EU-3).

Parameter	Value
Model Number	FBM-JC-1116-EU-3
Battery Type	Lithium Iron Phosphate (LiFePO4)
Battery Capacity	314 Ah / 16.07 kWh
Nominal Voltage	51.2 V
Hybrid Inverter Rated Output Power	11000 W
PV Inverter Rated Output Power	12000 W
Maximum PV Input Power	2 x 7500 W
MPPT Tracking Range	90 - 500 VDC
Maximum PV Input Voltage	500 VDC
Maximum PV Input Current	18 A
Maximum Charging Current	150 A
Output Voltage	220/230/240 VAC $\pm 5\%$
Output Frequency	50/60 Hz $\pm 0.1\%$
Waveform	Pure Sine Wave
Operating Temperature	-10 ~ 50 °C
Noise Level	<50 dB
Dimensions (L x W x H)	580 x 580 x 643 mm
Weight	144 kg
Communication Interfaces	RS232, RS485
Battery Cycles	8000+ cycles

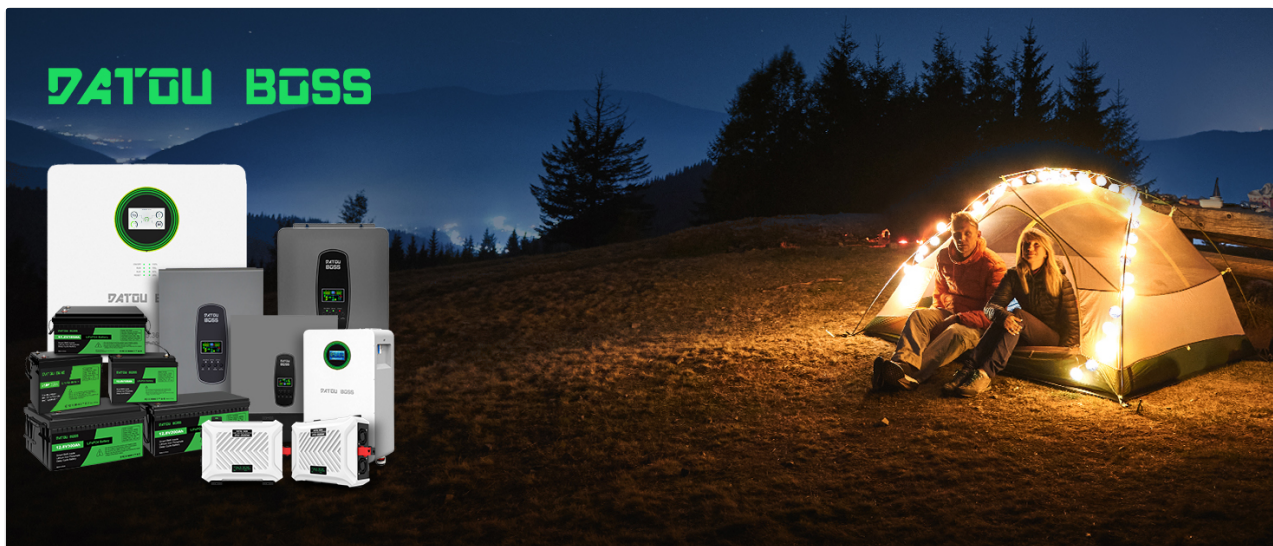


Figure 7: Product Specifications Overview. This image provides a visual summary of the key technical specifications for the DATOUBOSS energy storage system.

9. WARRANTY AND SUPPORT

DATOUBOSS is committed to providing high-quality products and excellent customer service.

9.1 Warranty Information

This DATOUBOSS All-in-One Energy Storage System comes with a **5-year warranty** from the date of purchase. This warranty covers defects in materials and workmanship under normal use. Please retain your proof of purchase for warranty claims.

The integrated LiFePO4 battery is designed for 8000+ cycles, ensuring long-term performance.

9.2 Customer Support

If you have any questions, require technical assistance, or need to report an issue, please contact DATOUBOSS customer service. Our professional support team is available 24 hours a day to assist you. For detailed electronic manuals in various languages or specific troubleshooting guidance, please contact us via the Amazon Backend messaging system or through the contact information provided with your purchase.