DATOUBOSS FBM-JC-6215-EU-3

DATOUBOSS 48V 6200W Hybrid Inverter + 48V 300Ah LifePO4 Battery User Manual

Model: FBM-JC-6215-EU-3 | Brand: DATOUBOSS

1. Product Overview

The DATOUBOSS integrated energy storage system is an all-in-one unit combining a powerful 48V 6200W hybrid inverter and a 48V 300Ah Lithium Iron Phosphate (LiFePO4) battery. This integrated design eliminates the need to purchase an inverter and battery separately, simplifying wiring and communication.

The unit is equipped with movable pulleys at the bottom for easy relocation after unpacking, making it an ideal choice for large portable power stations.

The integrated battery features Grade A LiFePO4 cells, offering higher energy density, stable performance, and increased power output. Its built-in 150A Battery Management System (BMS) provides comprehensive protection against overcharge, over-discharge, overcurrent, short circuit, overheating, and under-temperature conditions, ensuring extended battery life and safety.

With a battery capacity of 15.36 kWh, this mobile all-in-one power bank provides ample power for long-term energy storage. It supports RS232 and RS485 communication, making it suitable for home energy storage, off-grid solar systems, and emergency power supply.

The DATOUBOSS all-in-one machine features a user-friendly color LCD touchscreen for easy operation and monitoring of machine information. The warning mode assists in identifying and resolving issues efficiently. Detailed solutions for error codes are provided in the manual, and professional technical support is available if needed.

Figure 1.1: Front view of the DATOUBOSS all-in-one energy storage system, highlighting its compact design and integrated display.

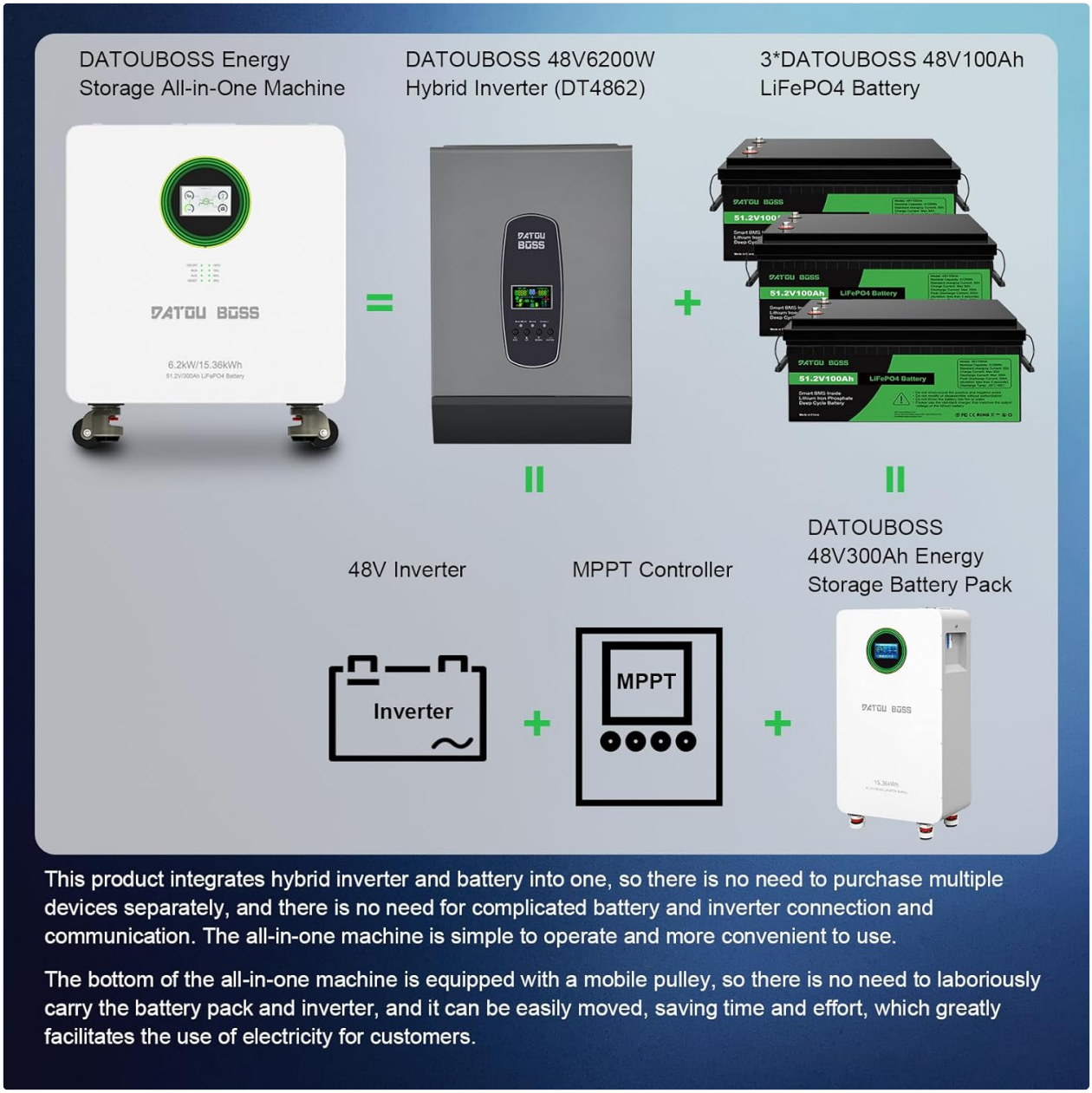


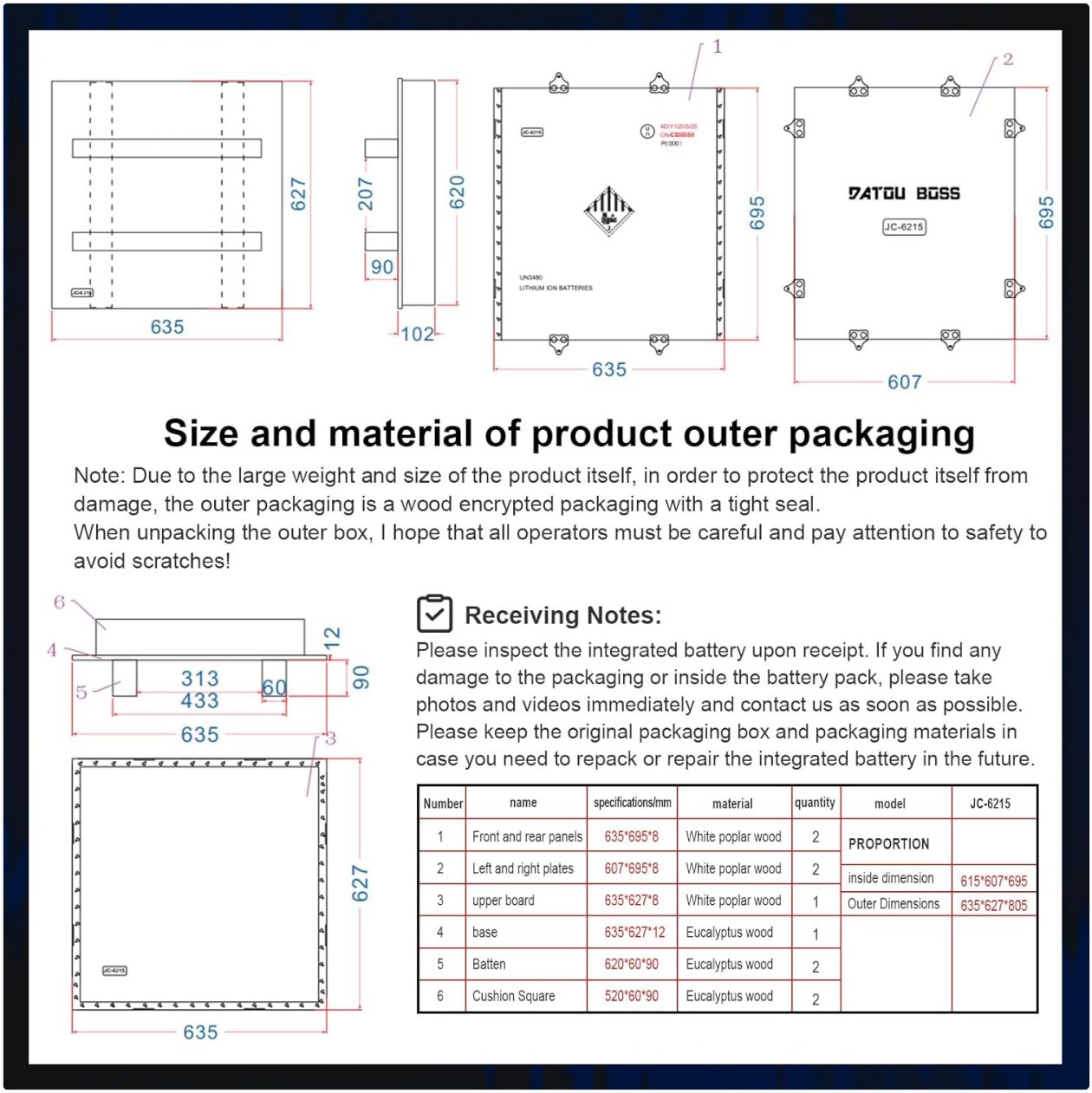
Figure 1.2: Diagram illustrating the integrated nature of the DATOUBOSS system, combining a hybrid inverter and LiFePO4 battery into a single unit.

2. Setup and Installation

This section provides guidelines for setting up and installing your DATOUBOSS energy storage system. Due to the product's size and weight (100 kg), careful handling and consideration of its movable pulleys are essential for positioning.

2.1 Unpacking and Inspection

Upon receipt, carefully inspect the integrated battery unit. If any damage to the packaging or the product itself is found, document it with photos and videos immediately and contact customer support. The outer packaging is a wood-encrypted package with a tight seal to protect the product during transit. When unpacking, exercise caution to avoid scratches.



Number	name	specifications/mm	material	quantity	model	JC-6215
1	Front and rear panels	635*695*8	White poplar wood	2	PROPORTION	
2	Left and right plates	607*695*8	White poplar wood	2	inside dimension	615*607*695
3	upper board	635*627*8	White poplar wood	1	Outer Dimensions	635*627*805
4	base	635*627*12	Eucalyptus wood	1		
5	Batten	620*60*90	Eucalyptus wood	2		
6	Cushion Square	520*60*90	Eucalyptus wood	2		

Figure 2.1: Detailed dimensions of the product and its outer wooden packaging, crucial for handling and placement planning.

2.2 Physical Placement

The unit is equipped with movable pulleys at the bottom, allowing for direct movement after unpacking without manual installation. Choose a suitable location that is dry, well-ventilated, and within the specified operating temperature range (-10 to 50°C).

Figure 2.2: Illustration of the product's dimensions and the integrated movable pulleys for easy positioning.

2.3 Wiring Connections

Ensure all installations follow applicable local and national electrical codes. The rear panel of the unit provides

clearly labeled ports for PV input, AC input, and AC output. Refer to the diagram below for detailed wiring instructions.

- **PV+ Positive terminal port**
- **PV- Positive terminal port**
- **AC IN + Utility direct charge positive terminal port**
- **AC IN - Direct charging positive terminal for utility power**
- **AC IN Utility direct charging ground wire connector**
- **AC OUT + Inverter output positive terminal port**
- **AC OUT - Inverter Output Negative Terminal Port**
- **AC OUT inverter output ground wire ground port**

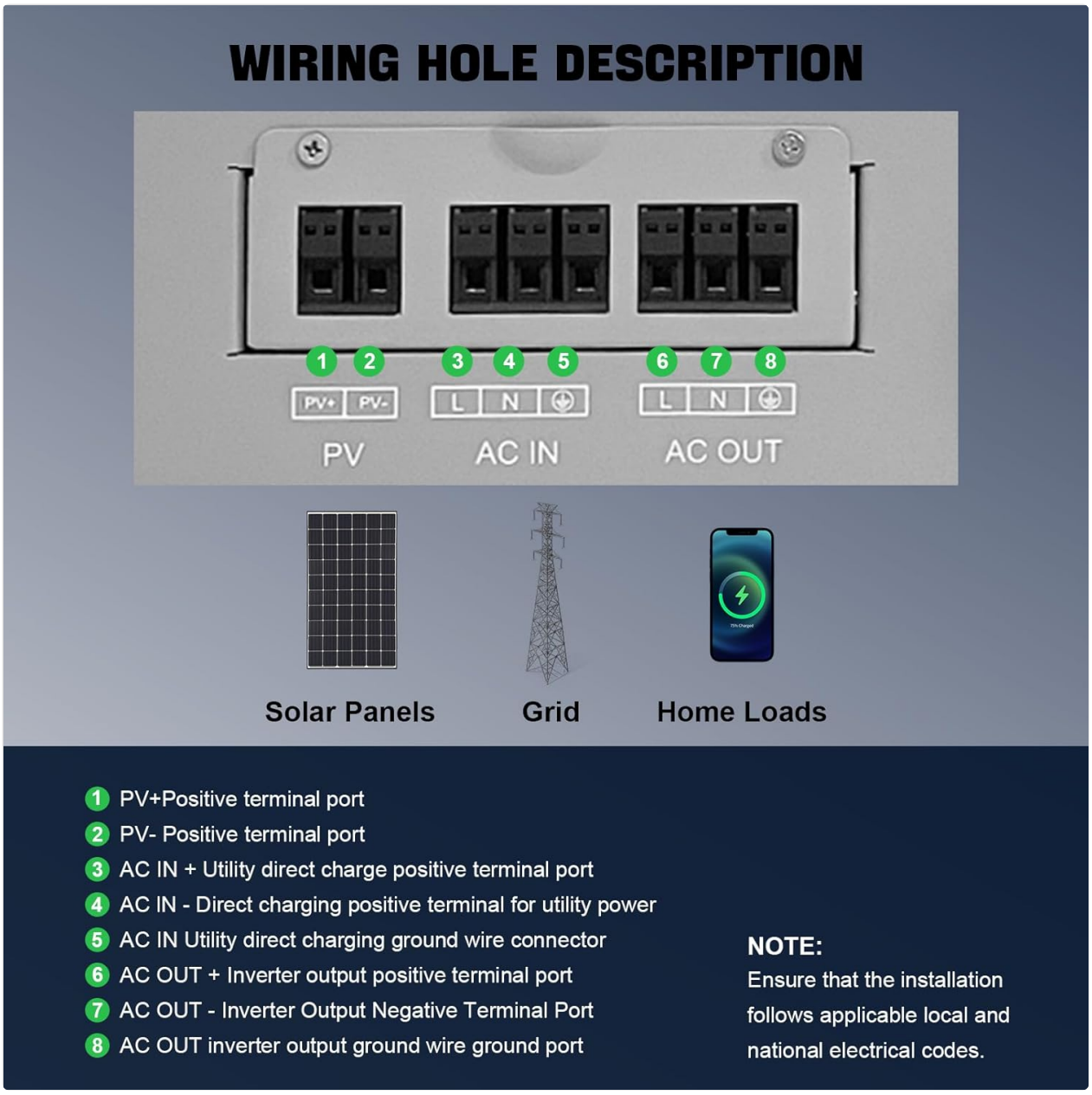


Figure 2.3: Detailed diagram of the wiring ports on the rear panel, showing connections for solar panels, grid input, and home loads.

2.4 Communication Interface

The unit includes RS232 and RS485 interfaces for communication. The RS232 interface can connect to a matching WiFi module for wireless communication and remote data monitoring. The RS485 interface enables communication with other batteries.

- **RS485 Pinout:**
  - 1 corresponds to 485B
  - 2 corresponds to 485A

Ensure to check which two pins of the battery are 485A and 485B for successful communication.

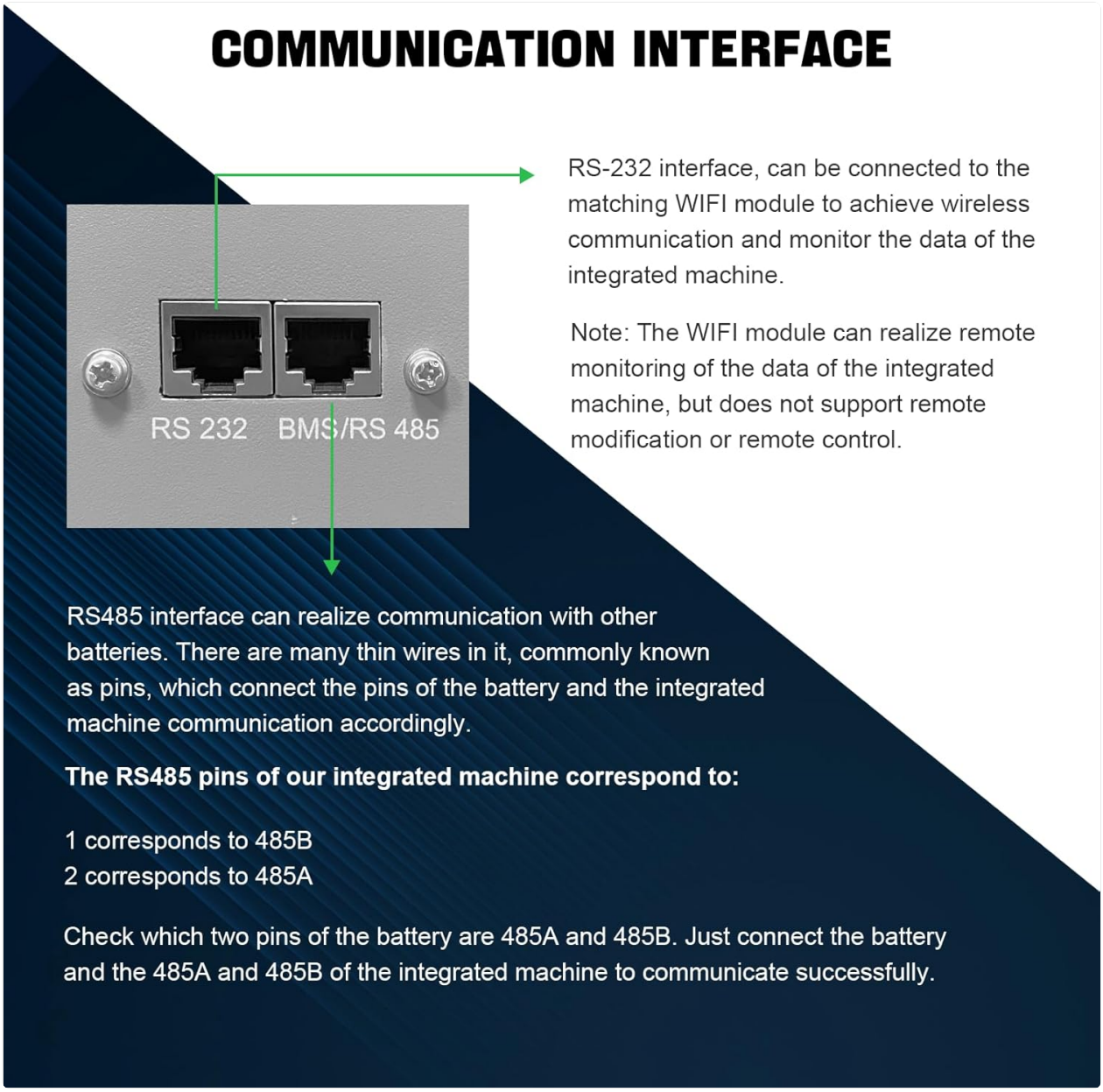


Figure 2.4: Close-up view of the RS232 and BMS/RS485 communication ports on the unit.

3. Operating Instructions

The DATOUBOSS all-in-one system is designed for user-friendly operation via its integrated color LCD touchscreen.

3.1 Touchscreen Operation

The touchscreen allows for easy navigation and monitoring of system information. You can switch between multiple pages to view real-time data such as power generation, consumption, battery status, and more. The

intuitive interface simplifies control compared to traditional button-based systems.

Figure 3.1: Illustration of the interactive color touchscreen display, showing various system parameters and an intuitive user interface.

3.2 Indicator Lights and Buttons

The front panel features several indicator lights and a reset button for quick status checks and system control.

- **ON/OFF Indicator Light:** Shows power status.
- **RUN Indicator Light:** Indicates operational status.
- **ALM (Alarm) Indicator Light:** Illuminates when a warning or error occurs.
- **RESET Button:** Used to reset the system.
- **Battery Indicator Light:** Displays battery charge level (100%, 75%, 50%, 25%).

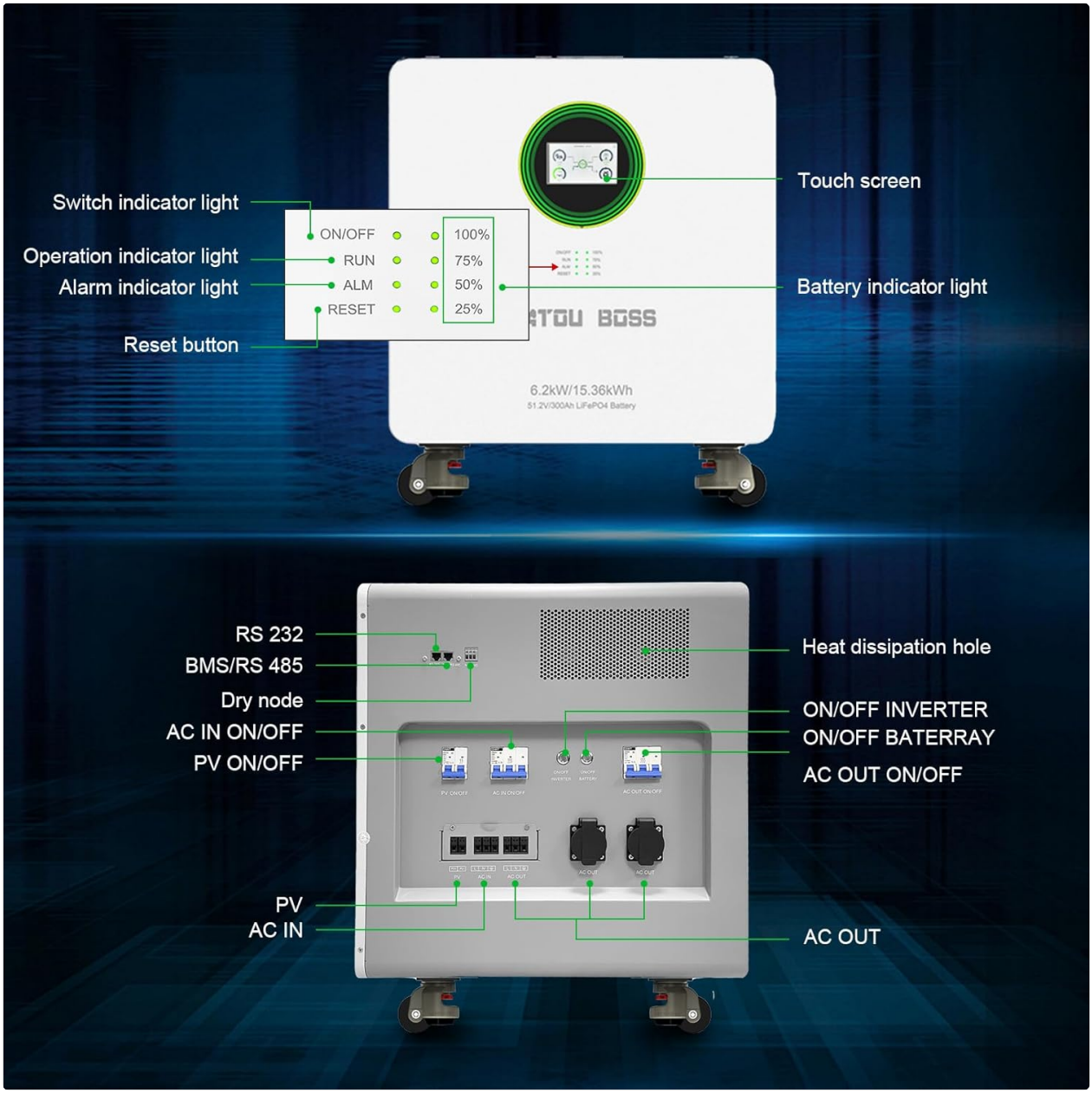


Figure 3.2: Overview of the front panel, detailing the touchscreen, indicator lights (ON/OFF, RUN, ALM, Battery), and reset button.

4. Maintenance

Regular maintenance ensures the longevity and optimal performance of your DATOUBOSS energy storage system. The integrated LiFePO4 battery is designed for high durability with 8000+ cycles at 70% SOH (State of Health) at 25°C, and 3000 cycles at 70% SOH at 45°C.

4.1 General Care

- Keep the unit clean and free from dust. Use a soft, dry cloth for cleaning.
- Ensure proper ventilation around the unit. Do not block the heat dissipation holes.
- Operate the system within the specified working temperature range of -10°C to 50°C and working environment humidity of 20%-95% (non-condensing).
- Store the unit in a temperature range of -15°C to 60°C if not in use for extended periods.

4.2 Battery Health

The built-in 150A BMS actively protects the LiFePO4 battery. While the BMS manages most aspects of battery health, avoiding extreme discharge or charge cycles when possible can further extend its lifespan. Monitor the battery indicator light and touchscreen for charge levels.

5. Troubleshooting

The DATOUBOSS system is equipped with a warning mode on its touchscreen to help identify and resolve issues. If error codes or warning codes appear, refer to this section for guidance.

5.1 Common Issues and Solutions

Problem	Possible Cause	Solution
System not turning on	No power input; Main switch off; Internal fault.	Check AC input and PV input connections. Ensure the main power switch is ON. If problem persists, contact support.
Alarm light (ALM) illuminated	Overload; Over-temperature; Battery fault; Other system error.	Check the touchscreen for specific error codes. Reduce load if overloaded. Ensure proper ventilation. If battery fault, contact support.
Touchscreen unresponsive or blank	System off; Software glitch; Hardware issue.	Ensure the unit is powered on. Try pressing the RESET button. If still unresponsive, contact support.
No power output (AC OUT)	Output switch off; Overload protection; Inverter fault.	Check AC OUT connections. Verify output switch is ON. Reduce connected load. Consult the manual for specific inverter fault codes.

If you encounter error codes or warnings that you cannot resolve using the provided solutions, or if the problem persists, please contact DATOUBOSS professional technicians directly for assistance.

6. Specifications

Detailed technical specifications for the DATOUBOSS 48V 6200W Hybrid Inverter + 48V 300Ah LifePO4 Battery system.

6.1 Overall Parameters

Parameter	Value
Product Model	JC-6215
Battery Type	LiFePO4 battery 300Ah
Battery Capacity	15.36 kWh
Dimensions (L × W × H)	550 × 541 × 638 mm
Weight	100 kg
Nominal Voltage	51.2V
25°C Cycle Life	8000 cycles, 70% state of health (SOH)
45°C Cycle Life	3000 cycles, 70% state of health (SOH)
PV Charging Mode	MPPT
PV Input Maximum Power	8500W
MPPT Tracking Range	60-500Vdc
Optimum Voltage	300-400Vdc
Maximum PV Input Voltage	500Vdc
Maximum PV Input Current	27A
Maximum PV Charging Current	120A
Maximum AC Charging Current	100A
Maximum Charging Current	120A
Input Form	L+N+PE
Rated Input Voltage	220/230/240VAC
Voltage Range	90-280VAC ±3V; UPS mode: 170-280VAC ±3V
Frequency Range	50Hz/60Hz (adaptive)

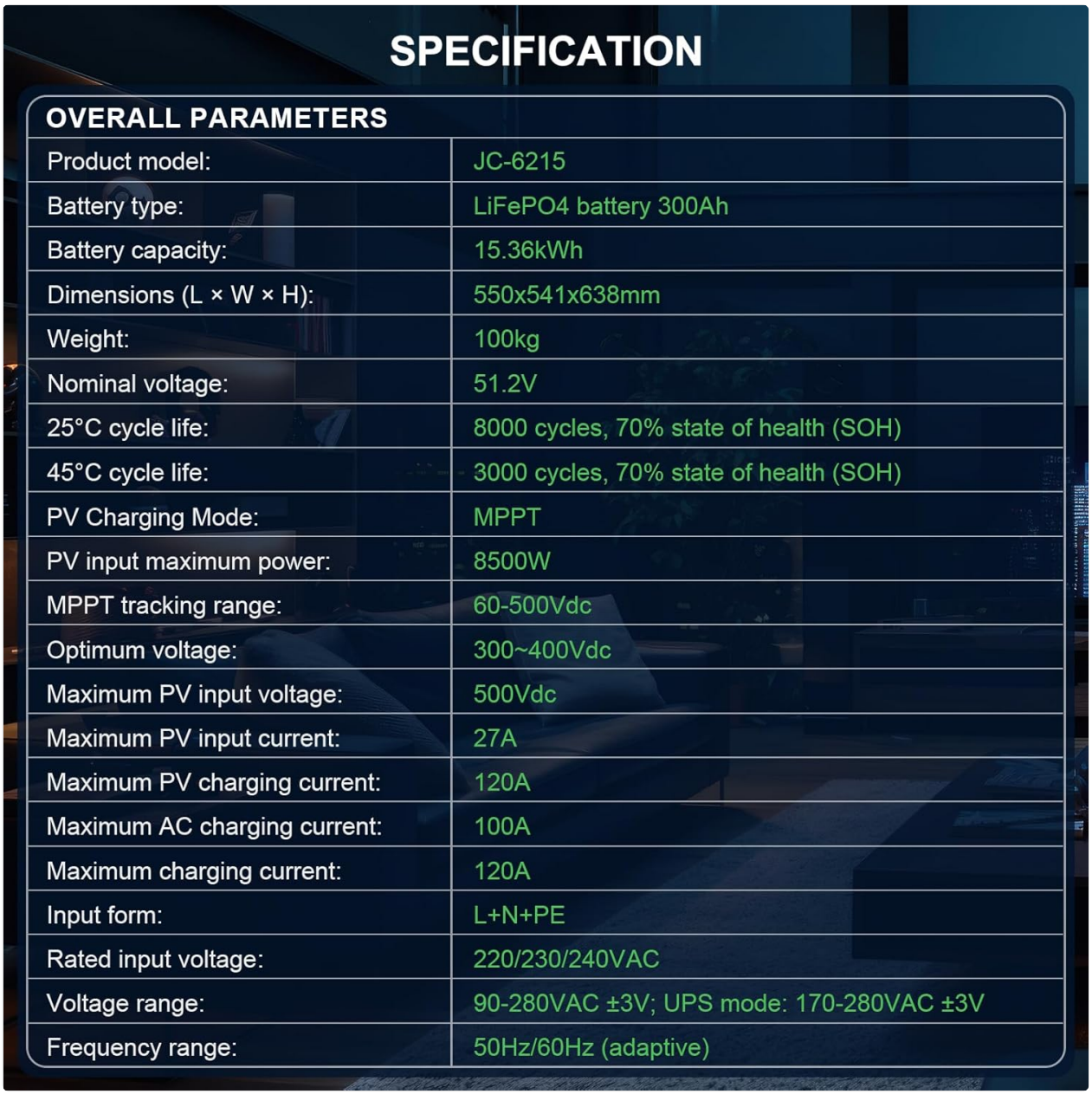


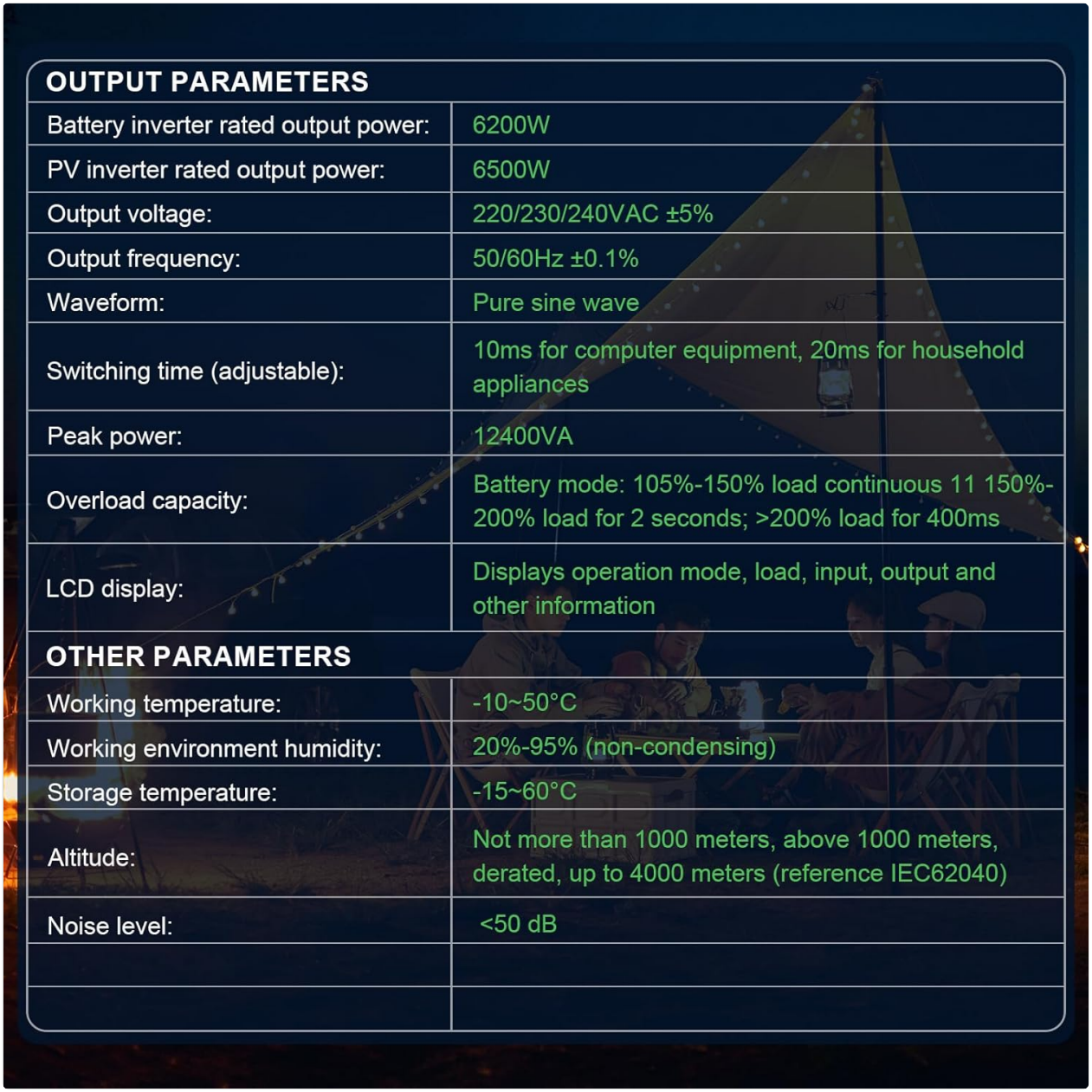
Figure 6.1: Table detailing the overall technical parameters of the DATOUBOSS energy storage system.

6.2 Output Parameters

Parameter	Value
Battery Inverter Rated Output Power	6200W
PV Inverter Rated Output Power	6500W
Output Voltage	220/230/240VAC ±5%
Output Frequency	50/60Hz ±0.1%
Waveform	Pure Sine Wave
Switching Time (adjustable)	10ms for computer equipment, 20ms for household appliances
Peak Power	12400VA
Overload Capacity	Battery mode: 105%-150% load continuous 11s; 150%-200% load for 2 seconds; >200% load for 400ms
LCD Display	Displays operation mode, load, input, output and other information

6.3 Other Parameters

Parameter	Value
Working Temperature	-10~50°C
Working Environment Humidity	20%-95% (non-condensing)
Storage Temperature	-15~60°C
Altitude	Not more than 1000 meters; above 1000 meters, derated, up to 4000 meters (reference IEC62040)
Noise Level	<50 dB



OUTPUT PARAMETERS	
Battery inverter rated output power:	6200W
PV inverter rated output power:	6500W
Output voltage:	220/230/240VAC ±5%
Output frequency:	50/60Hz ±0.1%
Waveform:	Pure sine wave
Switching time (adjustable):	10ms for computer equipment, 20ms for household appliances
Peak power:	12400VA
Overload capacity:	Battery mode: 105%-150% load continuous 11 150%-200% load for 2 seconds; >200% load for 400ms
LCD display:	Displays operation mode, load, input, output and other information
OTHER PARAMETERS	
Working temperature:	-10~50°C
Working environment humidity:	20%-95% (non-condensing)
Storage temperature:	-15~60°C
Altitude:	Not more than 1000 meters, above 1000 meters, derated, up to 4000 meters (reference IEC62040)
Noise level:	<50 dB

Figure 6.2: Table detailing the output and other environmental parameters of the DATOUBOSS energy storage system.

7. Warranty and Support

DATOUBOSS is committed to the quality of its products and provides comprehensive customer support.

7.1 Product Warranty

This all-in-one machine comes with a**5-year warranty**. This warranty covers defects in materials and workmanship under normal use.

Figure 7.1: Visual representation of DATOUBOSS's commitment to product lifespan, warranty, and customer service.

7.2 Customer Service

DATOUBOSS offers professional **24-hour customer service**. If you have any questions about the product, require technical assistance, or need to report an issue, please do not hesitate to contact us. We are dedicated to providing friendly and patient customer support.

While a paper English manual is included with the product, electronic manuals in various languages are available upon request. Please contact us via the Amazon Backend if you require an electronic version in a different language.