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## DATOUBOSS FBM-JC-6215-EU-1

# DATOUBOSS All-in-One Home Energy Storage System User Manual

Model: FBM-JC-6215-EU-1

## 1. INTRODUCTION

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The DATOUBOSS All-in-One Home Energy Storage System is an integrated solution combining a 48V 6.2kW hybrid inverter and a 48V 300Ah Lithium Iron Phosphate (LiFePO<sub>4</sub>) battery. This design simplifies installation by eliminating the need for complex wiring and communication between separate inverter and battery units. The system is equipped with mobile casters for convenient relocation, making it suitable for various applications including solar energy storage, RVs, and residential use.

## 2. PRODUCT OVERVIEW

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This system features a high-density LiFePO<sub>4</sub> battery with a 15.36 kWh capacity, managed by an integrated 150A Battery Management System (BMS) for comprehensive protection against overcharge, over-discharge, overcurrent, and short circuits. The unit includes a color touch screen for intuitive operation and monitoring, and supports RS232 and RS485 communication protocols.



Figure 2.1: Front view of the DATOUBOSS All-in-One Home Energy Storage System, showcasing its compact design and integrated display.

**DATOU BOSS**

# HOME ENERGY STORAGE ALL-IN-ONE MACHINE

Combination of 48V6200W hybrid inverter  
and 48V300AH battery



Battery type: **lithium iron phosphate battery 300Ah**

Battery capacity: **15.36kWh**

Nominal voltage: **51.2V**

PV input maximum power: **8500W**

MPPT tracking range: **60-500Vdc**

Maximum PV input voltage: **500Vdc**

Maximum PV input current: **27A**

Maximum charging current: **120A**

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**

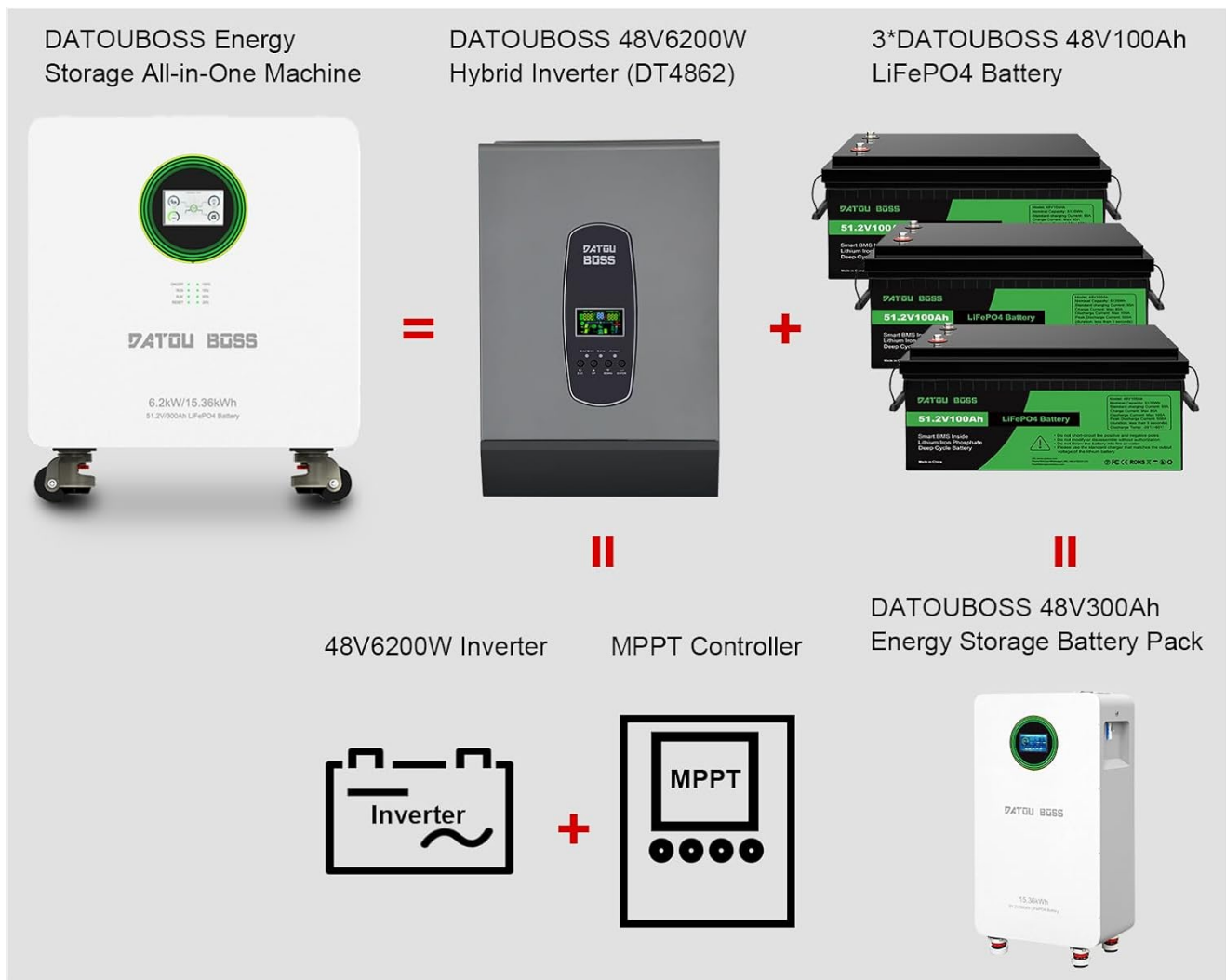
Operating temperature: **-10~50°C**

Noise level: **<50 dB**

Weight: **100kg**

Dimensions (length × width × Height):  
**550x541x638mm**

Figure 2.2: Overview of key specifications for the DATOUBOSS system, including battery type, capacity, nominal voltage, and inverter output power.



This product integrates hybrid inverter and battery into one, so there is no need to purchase multiple devices separately, and there is no need for complicated battery and inverter connection and communication. The all-in-one machine is simple to operate and more convenient to use.

The bottom of the all-in-one machine is equipped with a mobile pulley, so there is no need to laboriously carry the battery pack and inverter, and it can be easily moved, saving time and effort, which greatly facilitates the use of electricity for customers.

Figure 2.3: Diagram illustrating the integration of the hybrid inverter and LiFePO4 battery into the DATOUBOSS all-in-one unit, highlighting its simplified setup.

### 3. SAFETY NOTES AND WARNINGS

Read, understand, and follow all instructions before using or installing this product. Save all applicable instructions and documentation for future reference.

- Wear safety equipment and use insulated tools.
- Installation should be carried out by a professional.
- Use the appropriate size wiring.
- Ensure that the installation follows applicable local and national electrical codes.
- Ensure that the system is properly grounded.
- Ensure the battery is installed in a location suitable for the electronic device.
- Keep the battery within the safe temperature range for stable operation.
- Clean the battery with a suitable cleaner (e.g., sandpaper, dry cloth) and do not use any spray cleaners, liquids, aerosols, or solvents to clean the paint.
- Make sure all fasteners are properly tightened.

- Do not burn, crush, or puncture the battery.
- Do not place the battery in a hazardous/flammable environment where it could come into contact with corrosive chemicals or vapors.
- Do not store or install this product in radiators, collectors, cookers, or enclosures that may remain overheated.
- Do not immerse the product in liquid.
- Risk of fire, explosion, and burns. If electrical odor or overheating occurs, safely disconnect circuit breakers and call the fire department.
- Keep away from damaged batteries and any liquid (electrolyte) or gas (flammable) leaking from batteries. If inadvertently inhaled, evacuate the contaminated area and seek medical assistance.
- If battery leakage fluid comes into contact with eyes or skin, flush the affected area with running water for 15 minutes and seek medical attention.
- In the event of a fire, do not use water! Use only dry powder fire extinguishers. If possible, move the battery pack to a safe place before it catches fire.

## SECURITY: NOTES AND WARNINGS

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- 2 Installation should be carried out by a professional.
- 3 Use the appropriate size.
- 4 Ensure that the installation follows applicable local and national electrical codes.
- 5 Ensure that the system is properly grounded.
- 6 Ensure that the battery is installed in a location suitable for the electronic device
- 7 Please keep the battery within the safe temperature range for stable operation.
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- 9 Make sure all fasteners are properly tightened.
- 10 Do not burn, crush or puncture the battery.
- 11 Do not place the battery in a hazardous/flammable environment where it could come into contact with corrosive chemicals or vapours.
- 12 Do not store or install this product in radiators, collectors, cookers or enclosures that may remain overheated.
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- 17 In the event of a fire, do not use water! Use only dry powder fire extinguishers. If possible, move the battery pack to a safe place before it catches fire.



6.2kW/15.36kWh  
48V/200Ah LFP/EC Battery

**READ, UNDERSTAND AND FOLLOW ALL INSTRUCTIONS:**  
Before using or installing this product, fully read and understand all applicable instructions and documentation. Save all manuals and documentation for future reference.

Figure 3.1: Important safety guidelines and warnings for the installation and operation of the DATOU BOSS system.

## 4. SETUP

### 4.1 Preparation

Ensure the equipment is powered off before beginning any installation. It is strongly recommended that installation be performed by a qualified professional electrician to ensure safety and compliance with all electrical codes.

### 4.2 Installation Tools

Required tools include a Phillips screwdriver, a torque wrench or pliers for secure connections, and appropriate size cables and terminals that match the battery pack's current requirements and dimensions.

### 4.3 Unpacking and Inspection

Before installation, carefully inspect the equipment. Ensure that the packaging is intact and that all components, including the integrated energy storage system and the user manual, are present and undamaged.

### 4.4 Location and Environmental Requirements

- Do not install the product in hostile environments. The ambient temperature should be maintained between 0°C and 55°C for optimal performance.
- Avoid installing near heat sources such as radiators or direct sunlight, and ensure the unit is not in an enclosed space that could lead to overheating.

- Ensure adequate ventilation around the unit.
- The unit should be installed vertically on a solid wall.

### 4.5 Wiring Hole Description

The rear panel of the unit features clearly labeled ports for PV input, AC input, and AC output. Refer to the diagram below for detailed port identification and ensure all connections comply with local and national electrical codes.

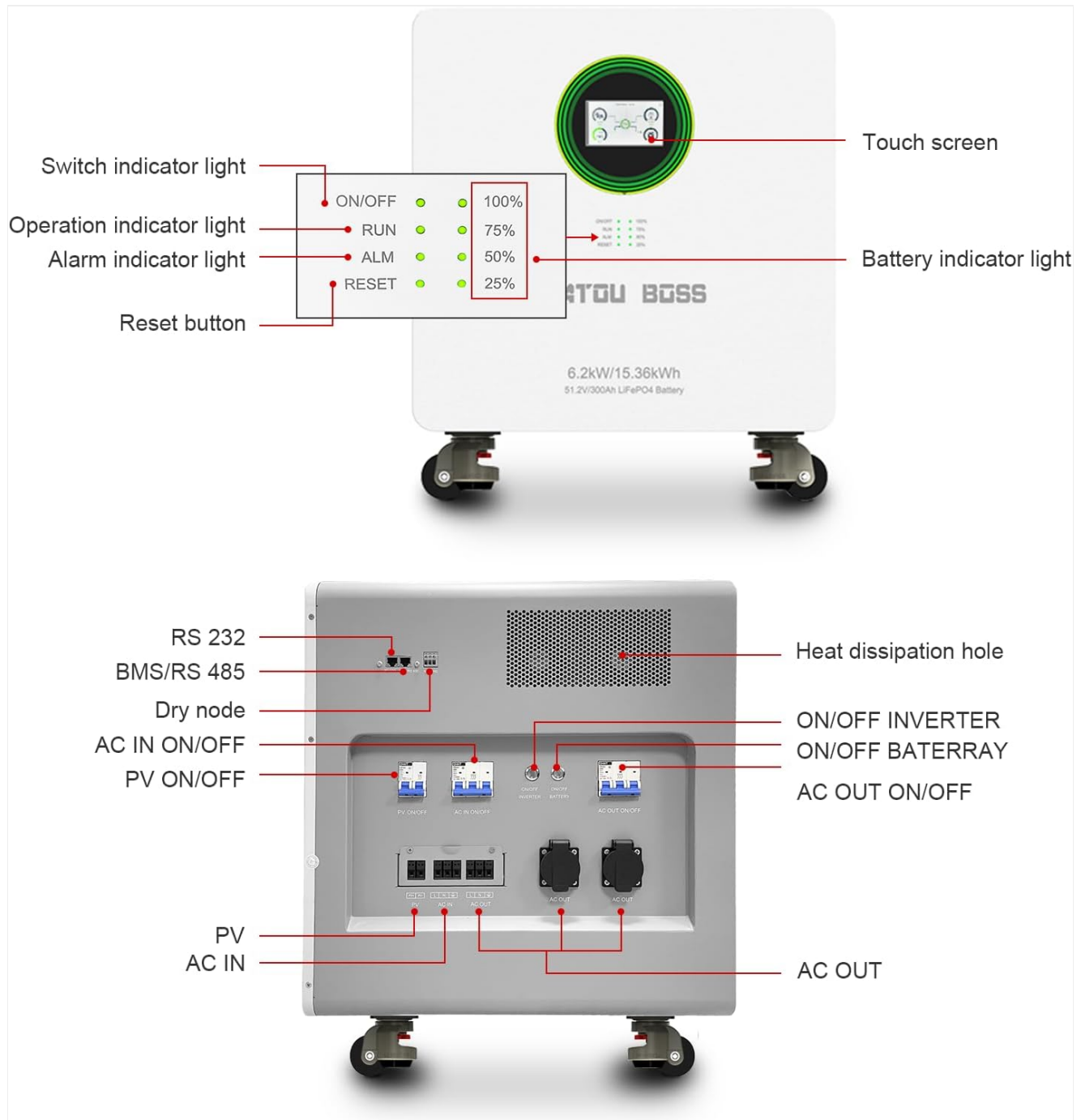
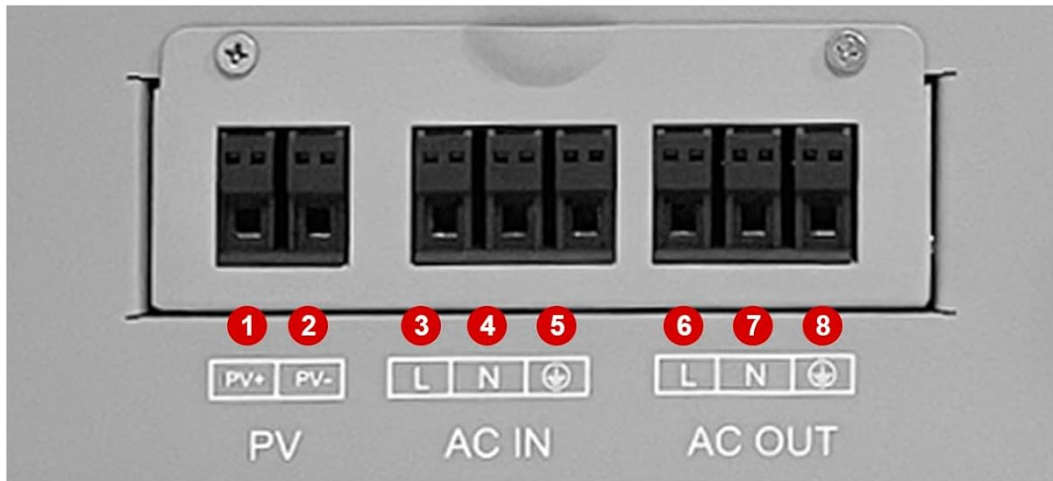


Figure 4.1: Detailed view of the rear panel, showing the various input and output ports for PV, AC, and communication.

# WIRING HOLE DESCRIPTION



**Solar Panels**



**Grid**



**Home Loads**

- ❶ PV+ Positive terminal port
- ❷ PV- Positive terminal port
- ❸ AC IN + Utility direct charge positive terminal port
- ❹ AC IN - Direct charging positive terminal for utility power
- ❺ AC IN Utility direct charging ground wire connector
- ❻ AC OUT + Inverter output positive terminal port
- ❼ AC OUT - Inverter Output Negative Terminal Port
- ❽ AC OUT inverter output ground wire ground port

## NOTE:

Ensure that the installation follows applicable local and national electrical codes.

Figure 4.2: Wiring diagram illustrating connections for solar panels, grid input, and home loads. Ensure proper polarity and grounding.

1. **PV+:** Positive terminal port for photovoltaic input.
2. **PV-:** Negative terminal port for photovoltaic input.
3. **AC IN +:** Utility direct charge positive terminal port for AC power.
4. **AC IN -:** Utility direct charge negative terminal port for AC power.
5. **AC IN Ground:** Utility direct charge ground wire connector.
6. **AC OUT +:** Inverter output positive terminal port.
7. **AC OUT -:** Inverter output negative terminal port.
8. **AC OUT Ground:** Inverter output ground wire ground port.

## 5. OPERATING

### 5.1 Touch Screen Interface

The DATOUBOSS system features a color touch screen for intuitive control and monitoring. This interface allows users to

easily navigate through different pages to view system status, adjust settings, and identify any warnings or errors.

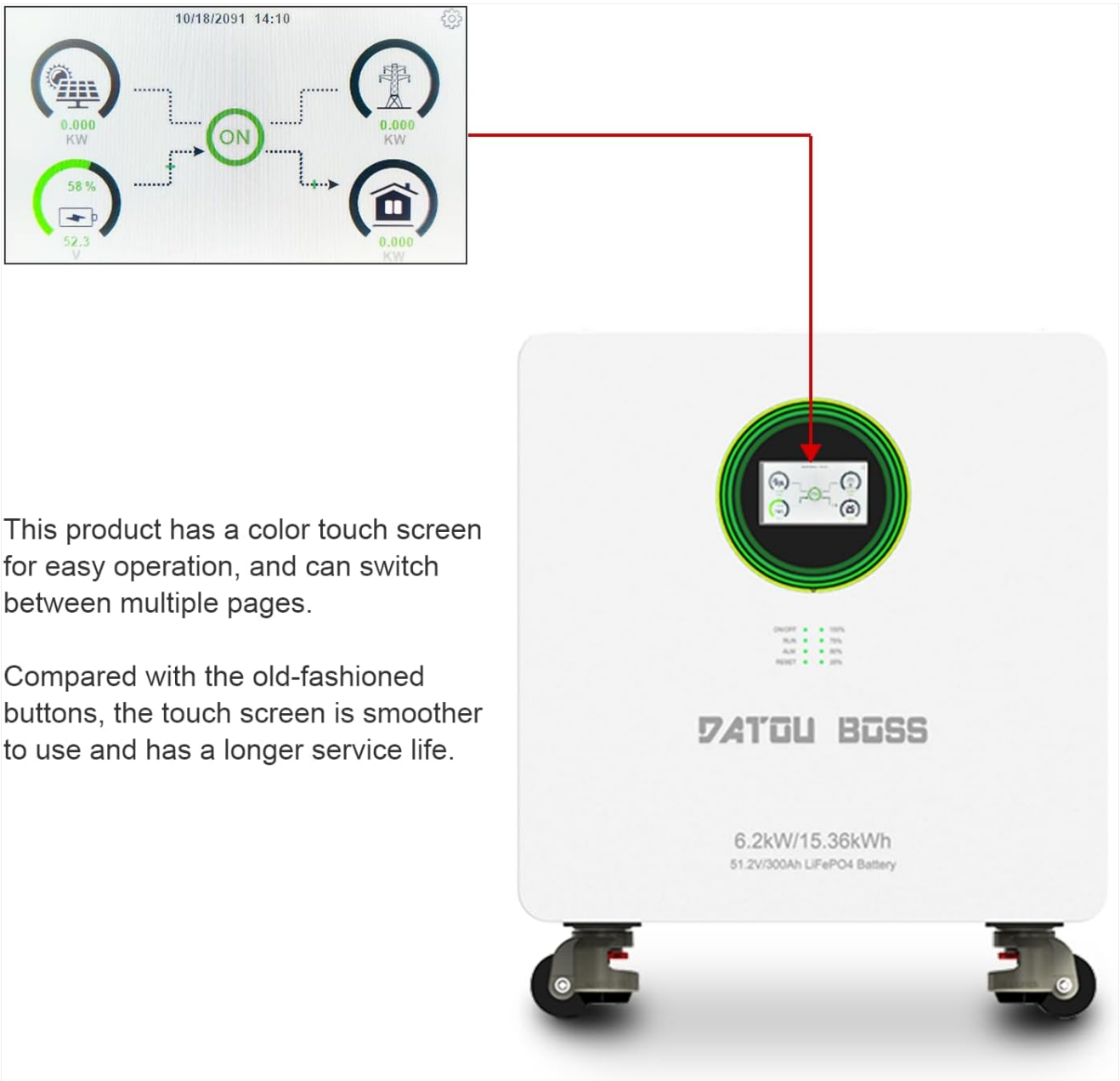


Figure 5.1: The color touch screen display, showing real-time operational data and system status.

## 5.2 Communication Interface

The unit is equipped with RS232 and RS485 communication ports. The RS232 interface can connect to a Wi-Fi module for wireless communication and remote monitoring of system data. The RS485 interface facilitates communication with other batteries, connecting the battery pins to the integrated machine's communication pins.

Detail			
Machine Type:	6248	Lcd Version:	V 01.20.03
Inverter Type:	HPVINV02	Driver Version:	V 20.03
Boosting Temper:	25 °C	Main Version:	V 40.01
Machine Temper:	26 °C		
MPPT Temper:	24 °C		
MOS Temper:	26 °C		
LAP Status:	Normal		Back

Figure 5.2: Close-up of the RS232 and BMS/RS485 communication ports on the DATOUBOSS system.

### 5.3 Home Screen Description

The home screen provides an overview of the system's operational data, including PV input, AC input, load consumption, and battery status. It displays the date and time, and allows access to system settings.

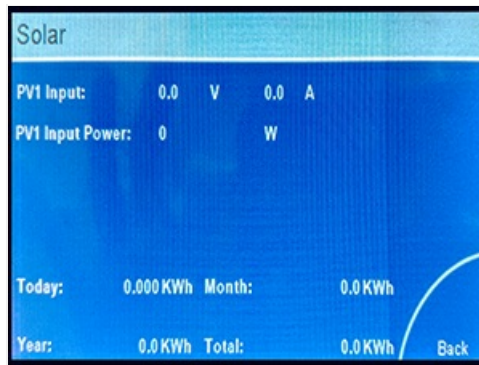


Figure 5.3: The main home screen display, showing real-time energy flow and system status indicators.

### 5.4 System Settings Menu

The system settings menu allows configuration of various parameters to optimize performance and tailor the system to specific needs. Access this menu by pressing the system configuration icon on the home screen.



Figure 5.4: The system settings menu, providing access to various configuration options.

- **Battery Setting:** Configure battery type, charge voltage, float voltage, cut-off voltage, and equalization parameters.
- **System Work Mode:** Configure ECO function, output priority (e.g., solar priority, battery priority), and output type.
- **Grid Setting:** Adjust input voltage range, grid connection mode, and charge start/end times.
- **Charge Setting:** Select charge priority (solar first, solar and AC simultaneously), maximum charge current, etc.
- **Advanced Function:** Configure dual output voltage thresholds, discharge time, recovery delay, etc.
- **Device Info:** Set system time, screen brightness, RGB light switch, and view detailed device information.

### 5.5 Detailed Screen Views

The system provides detailed screens for various components and parameters:

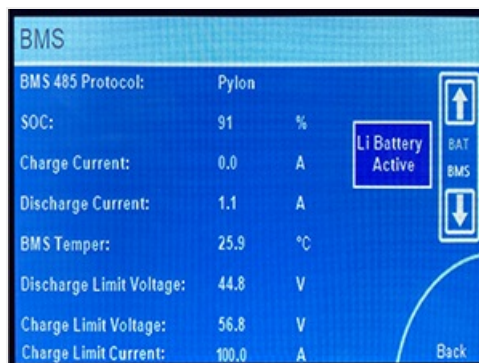


Figure 5.5: Detail screen showing machine type, inverter type, and various temperature readings.

# INSTRUCCIONES DE INSTALACIÓN DEL PRODUCTO



## Herramientas necesarias para la instalación

- Destornillador Phillips/llave dinamoétrica/alcates para remaches de tamaño adecuado: Conecte la batería mediante los cables/terminales.
- Cable correcto: un cable que coincida con la corriente segura del paquete de baterías.
- Terminales correctos: cumplen con las dimensiones de instalación del paquete de baterías y los requisitos de terminales de corriente de seguridad.

## Instrucciones de instalación

### Desembalaje e inspección

Inspeccione el equipo antes de la instalación. Asegúrese de que el embalaje esté intacto. El paquete debe contener los siguientes elementos.

- Sistema integrado de almacenamiento de energía en el hogar
- Manual del usuario

**¡ADVERTIR!** Al momento de instalar el producto es necesario apagar y desconectar la alimentación.

## Preparación

Instale el equipo con la alimentación apagada. Se recomienda que la instalación la realice un electricista profesional

Montaje en pared: antes de elegir una ubicación de montaje, tenga en cuenta lo siguiente:

1. Utilice dispositivos de seguridad y herramientas aisladas de acuerdo con los códigos eléctricos locales y nacionales aplicables únicamente por personal calificado que haya leído, comprendido y seguido estrictamente todas las instrucciones de este manual.
2. Ubicación y entorno aplicables:
  - 1 No instale el producto en entornos hostiles. La temperatura ambiente debe estar entre 0°C y 55°C para garantizar un funcionamiento óptimo.
  - 2 No se permiten productos químicos ni vapores peligrosos, inflamables o corrosivos.
  - 3 No hay fuentes de calor como radiadores, colectores o estufas cerca que puedan transferir calor a la batería o atrapar el exceso de calor en el gabinete.
  - 4 No hay o puede que no haya niños ni mascotas alrededor.
  - 5 No instale la máquina todo en uno sobre materiales de construcción inflamables. Se recomienda instalarlo verticalmente sobre una pared sólida.
  - 6 Asegúrese de mantener los demás objetos y superficies que se muestran a la derecha para permitir suficiente espacio para la disipación del calor y suficiente espacio para quitar los cables.
  - 7 Instale el dispositivo multifunción a la altura de los ojos para que siempre pueda leer la pantalla LCD.
  - 8 Asegúrese de que esté correctamente conectado a tierra, trenzado, apretado y cableado.

Figure 5.6: Solar screen displaying PV input voltage, current, power, and daily/monthly/yearly energy production.

# SECURITY:NOTESANDWARNINGS

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- 15 Keep away from damaged batteries and any liquid (electrolyte) or gas (flammable) leaking from batteries. If inadvertently inhaled, evacuate the contaminated area and seek medical assistance
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Figure 5.7: Battery screen showing battery type, BMS communication status, voltage, charge/discharge current, and bus voltage.

# TAMAÑO Y MATERIAL DEL EMBALAJE DEL PRODUCTO

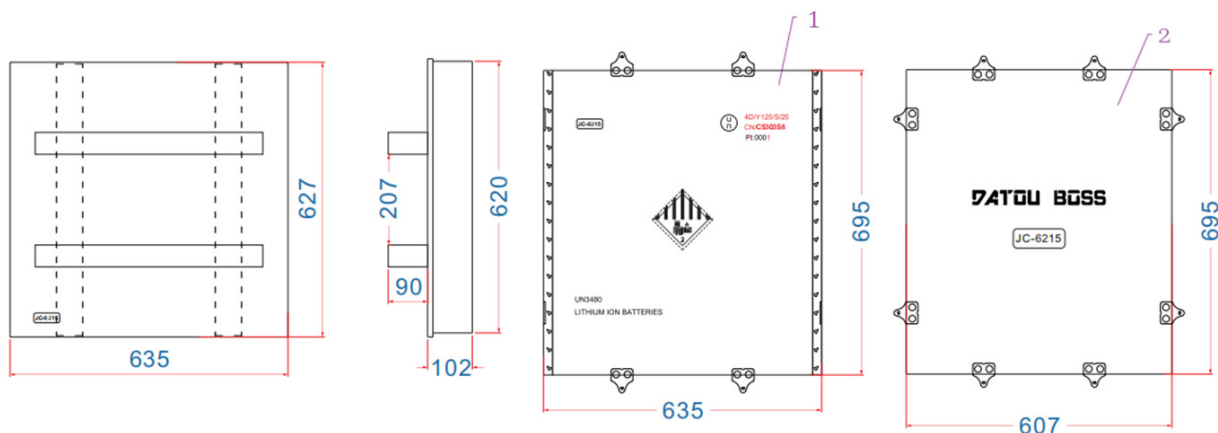


Figure 5.8: BMS screen providing details on BMS protocol, State of Charge (SOC), charge/discharge current, BMS temperature, and charge/discharge limits.

## 6. MAINTENANCE

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

## 6.1 General Care

- Keep the unit clean and free from dust and debris. Use a dry cloth for cleaning. Avoid using abrasive cleaners, solvents, or liquids that could damage the unit's finish or internal components.
- Ensure proper ventilation is maintained around the unit to prevent overheating. Regularly check that air vents are not obstructed.

## 6.2 Battery Care

The integrated LiFePO4 battery is designed for long life and features a robust Battery Management System (BMS) that protects against common issues such as overcharge, over-discharge, and extreme temperatures. No user-level battery maintenance is typically required beyond ensuring the unit operates within specified environmental conditions.

## 7. TROUBLESHOOTING

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The DATOUBOSS system's LCD screen will display warning or error codes if an issue arises. These codes are designed to help identify problems quickly.

- Refer to the detailed solutions provided in the comprehensive user manual (available electronically upon request) for specific error code interpretations and troubleshooting steps.
- If you are unable to resolve an issue using the manual's guidance, or if you encounter persistent problems, please contact DATOUBOSS professional technical support for assistance.

## 8. SPECIFICATIONS

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The following tables detail the overall, input, and output parameters of the DATOUBOSS All-in-One Home Energy Storage System.

## SPECIFICATION

OVERALL PARAMETERS	
Product model:	JC-6215
Battery type:	LiFePO4 battery 300Ah
Battery capacity:	15.36kWh
Dimensions (L × W × H):	550x541x638mm
Weight:	100kg
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)
INPUT PARAMETERS	
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 8.1: Overall and Input Parameters of the DATOUBOSS All-in-One System.

OUTPUT PARAMETERS	
Battery inverter rated output power:	6200W
PV inverter rated output power:	6500W
Output voltage:	220/230/240VAC $\pm 5\%$
Output frequency:	50/60Hz $\pm 0.1\%$
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:	Displays operation mode, load, input, output and other information
Noise level:	<50 dB

Figure 8.2: Output and Other Parameters of the DATOUBOSS All-in-One System.

## 9. WARRANTY AND SUPPORT

DATOUBOSS stands behind the quality of its products.

- **Warranty:** This all-in-one machine comes with a 5-year warranty.
- **Customer Support:** Professional 24-hour customer service is available.
- **Contact:** For any product-related questions, technical assistance, or to request electronic manuals in various languages, please do not hesitate to contact us through Amazon. Our friendly and patient customer service team is ready to assist you.