

seplos BMS 3.0version Type-A

Seplos 3.0 Type-A Smart BMS User Manual

Model: 3.0-A 48V 200A 13S LiFePO4

INTRODUCTION

This user manual provides comprehensive instructions for the installation, operation, and maintenance of the Seplos 3.0 Type-A Smart Battery Management System (BMS). This BMS is designed for 48V (51.2V) 13-series (13S) LiFePO4 battery packs with a 200A current rating. It features integrated Bluetooth, CAN, and RS485 communication protocols, along with an LCD display for real-time monitoring.

The Seplos 3.0 BMS ensures the safe and efficient operation of your battery system by providing essential protections and balancing functions.

KEY FEATURES

- **Smart Battery Management:** Monitors and manages 13-series LiFePO4 battery cells.
- **High Current Rating:** Supports up to 200A continuous discharge current.
- **Parallel Operation:** Capable of connecting up to 16 BMS units in parallel for larger battery systems.
- **Communication Interfaces:** Integrated Bluetooth, CANbus, and RS485 for versatile monitoring and control.
- **LCD Display:** Provides real-time battery information directly on the unit.
- **Comprehensive Protection:** Includes passive balancing, overvoltage, undervoltage, overtemperature, overload (discharge), overcurrent, and short-circuit protection.
- **Inverter Compatibility:** Compatible with a wide range of inverters, including Growatt, Goodwe, Sofar, SMA, Victron, DEYE, Luxpower, Sermatec, Renac, TBB Power, Solis, Foxess, and IMEON.

PACKAGE CONTENTS

Verify that all items are present in the package:

- 1 x Seplos 3.0 Type-A Smart BMS (with CAN/RS485 and temperature sensor)
- 1 x Connection Cable
- 1 x LCD Display
- Integrated Bluetooth Module
- Adapter (if specified for your variant)

PRODUCT OVERVIEW AND COMPONENTS

The Seplos 3.0 Type-A BMS consists of the main circuit board and an external LCD display. Below is a diagram identifying key components and connection points.

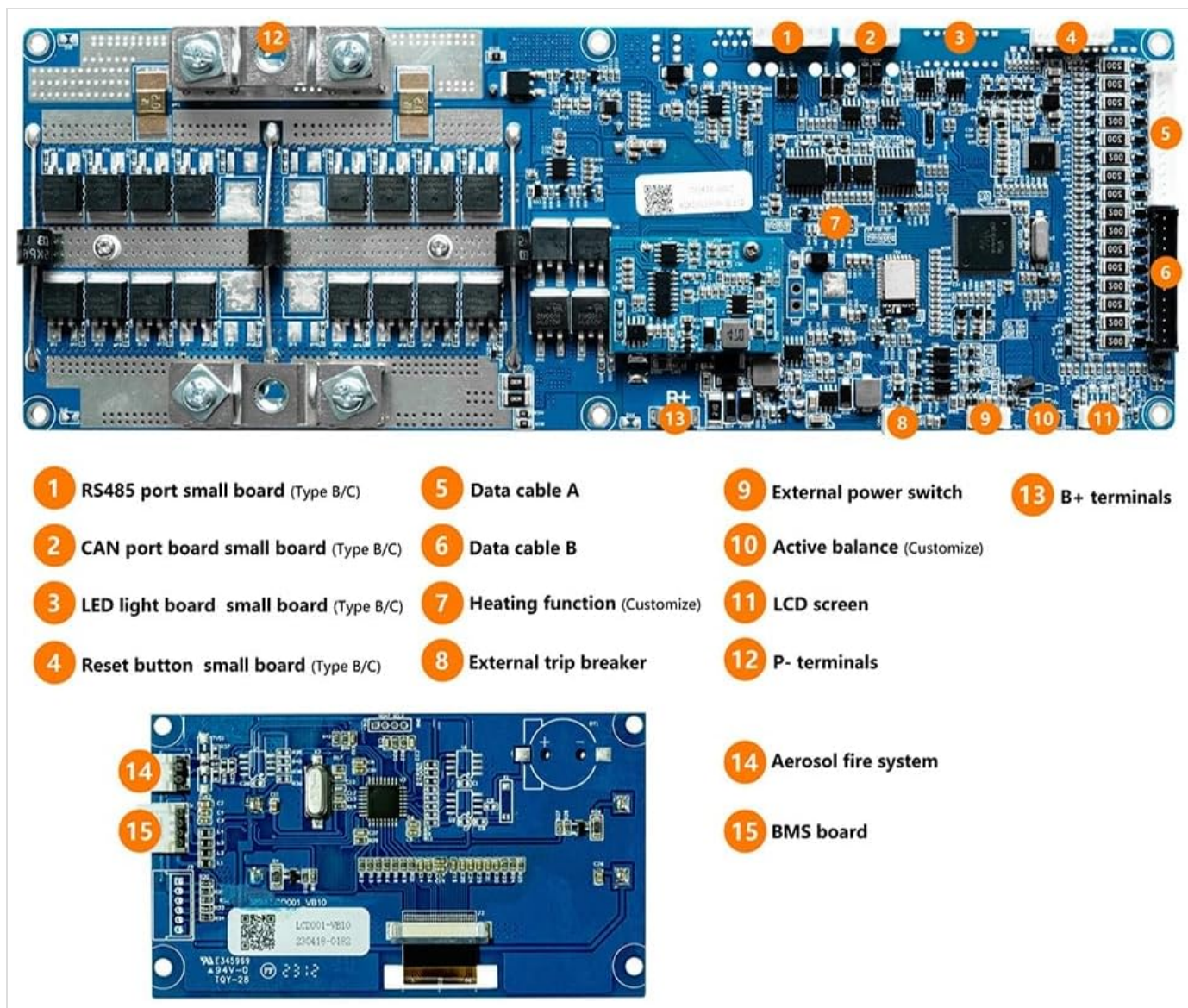


Image: Detailed view of the Seplos 3.0 Type-A BMS circuit board with numbered components. Key components include RS485 port, CAN port, LED light board, reset button, data cables, heating function, external trip breaker, external power switch, active balance, LCD screen, B+ terminals, P- terminals, aerosol fire system, and BMS board.

1. **RS485 Port:** For RS485 communication.
2. **CAN Port:** For CANbus communication.
3. **LED Light Board:** Status indicators.
4. **Reset Button:** For resetting the BMS.
5. **Data Cable A & B:** Connectors for external modules or communication.
6. **Heating Function (Customize):** Optional heating element connection.
7. **External Trip Breaker:** Connection point for an external circuit breaker.
8. **External Power Switch:** For controlling BMS power.
9. **Active Balance (Customize):** Optional active balancing module connection.
10. **LCD Screen:** External display for real-time data.
11. **B+ Terminals:** Positive battery connection points.
12. **P- Terminals:** Negative load/charge connection points.
13. **Aerosol Fire System:** Connection for an optional fire suppression system.
14. **BMS Board:** The main circuit board.

SETUP AND INSTALLATION

Proper installation is crucial for the safe and reliable operation of your battery system. Always ensure the battery pack is disconnected from

any power sources before beginning installation.

Safety Precautions

- Wear appropriate personal protective equipment (PPE), including safety glasses and insulated gloves.
- Ensure all connections are secure and properly insulated to prevent short circuits.
- Do not connect the BMS to a battery pack with damaged cells or incorrect voltage.
- Refer to the detailed wiring diagram provided with your specific battery pack for correct cell balancing wire connections.

Wiring Connections

Connect the BMS to your 13S LiFePO4 battery pack and external devices as follows:

1. **Balance Wires:** Connect the balance wires from your battery cells to the designated balance port on the BMS. Ensure the wires are connected in the correct sequence (B0, B1, B2... B13) according to your battery configuration. Incorrect wiring can damage the BMS and battery.
2. **B+ and P- Terminals:** Connect the main positive terminal of the battery pack to the B+ terminal on the BMS. Connect the negative load/charge terminal to the P- terminal on the BMS.
3. **LCD Display:** Connect the provided cable from the LCD display to the corresponding port on the BMS.
4. **Communication Ports (CAN/RS485):** If connecting to an inverter or other external communication devices, use appropriate cables to connect to the CAN or RS485 ports.
5. **External Power Switch:** Connect an external power switch to the designated pins if you wish to control the BMS power externally.

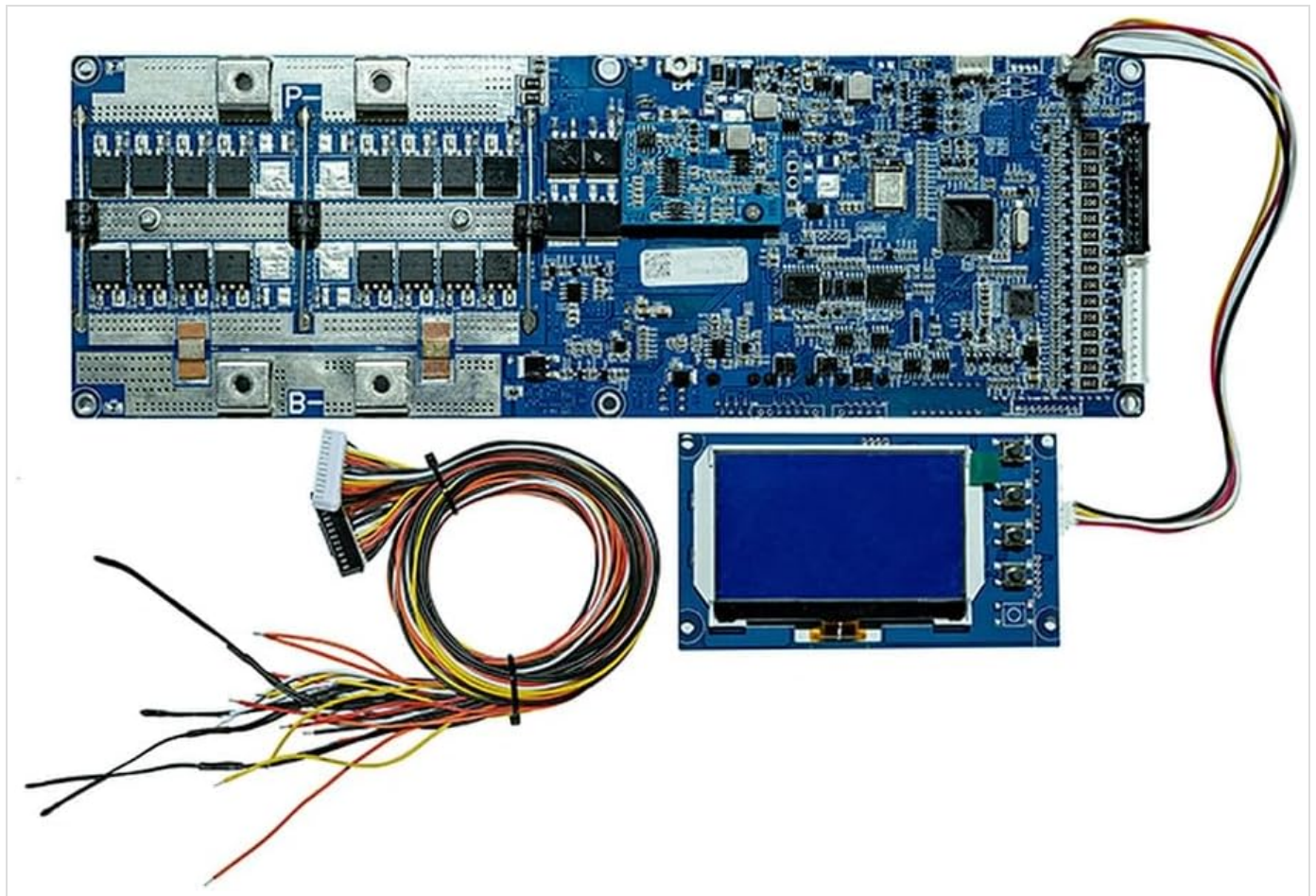


Image: The Seplos 3.0 Type-A BMS board, showing the main board, the wiring harness for cell balancing, and the external LCD display. This illustrates the components involved in the physical setup.

OPERATING INSTRUCTIONS

Initial Power-Up

After all connections are made, power on the BMS. The LCD display should illuminate and show real-time battery data.

LCD Display Operation

The LCD display provides immediate access to critical battery parameters such as voltage, current, temperature, and state of charge (SOC). Use the buttons on the LCD module to navigate through different screens and view detailed cell information.

Bluetooth Communication

The integrated Bluetooth module allows for wireless monitoring of your battery system via a smartphone application. The application supports both Apple (iOS) and Android systems and is available in multiple languages, including English.

1. Download the official Seplos BMS application from your device's app store.
2. Enable Bluetooth on your smartphone.
3. Open the Seplos BMS app and search for available devices.
4. Select your BMS from the list to connect.
5. Once connected, you can view real-time data for each battery pack, monitor individual cell voltages, and check protection statuses.



Image: Screenshots of the Seplos BMS smartphone application, demonstrating the user interface for monitoring battery data via Bluetooth. The app displays overall battery voltage, current, state of charge, and individual cell information.

CANbus and RS485 Communication

The BMS supports CANbus and RS485 communication protocols for integration with compatible inverters and other energy management systems. These protocols allow for advanced monitoring and control, enabling the BMS to communicate critical battery status to the

inverter for optimized system performance.

The BMS has built-in protocols for various inverter brands. Refer to the inverter manufacturer's documentation for specific connection and configuration details. The BMS can automatically match or allow manual switching of inverter protocols.

Compatible with most inverters

警告: 0条警告信息 >
保护: 0条保护信息 >

52.9V 0.0A SOC: 49.1%

电池总压: 52.9V
充放电流: 0.0A
电池容量: 100.0AH
最低温度: 36.6℃
最高温度: 36.7℃
循环次数: 1

电池信息
电池组 1 >

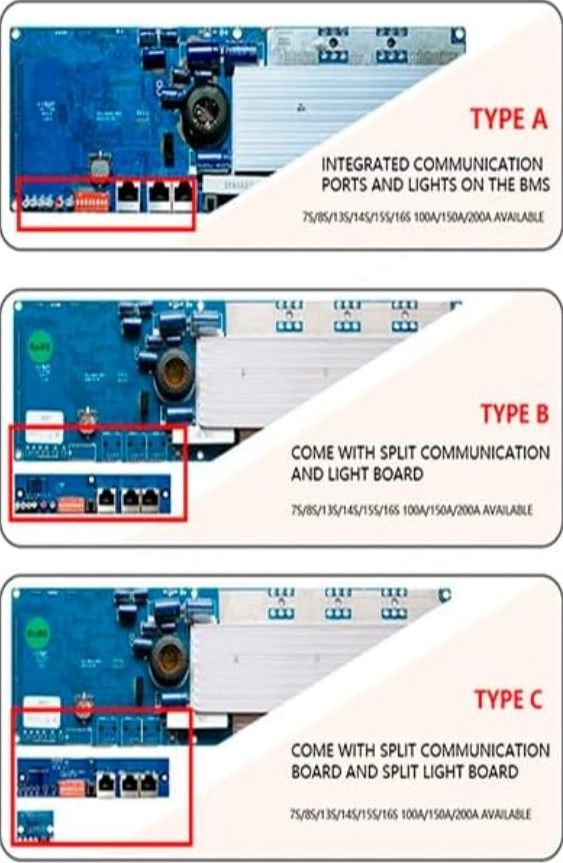
PYLONTECH	Growatt
SRNE	Deye
BLUESUN	LUPOWER ^{TEX}
SAKO	Voltronic Power Advancing Power
MEGAREVO	MUST
SOROTEC Power Solutions Expert	Sumry >>
SACOLAR	victron energy Smart Power
GT	SOFAR 首航新能源
GOODWE YOUR SOLAR ENGINE	
..... customization	

Image: A visual representation of various inverter brands compatible with the Seplos BMS, including Pylontech, Growatt, SRNE, Deye, Bluesun, Luxpower, SAKO, Voltronic Power, Megarevo, MUST, Sorotec, Sumry, SACOLAR, Victron Energy, GT, Sofar, Goodwe, and others.

PC Software Monitoring

For detailed parameter configuration and advanced monitoring, the Seplos BMS can be connected to a computer using dedicated PC software. Ensure you use the correct software version (BatteryStudio for BMS 3.0) for compatibility.

SEPOS BMS 3.0



USER GUIDES

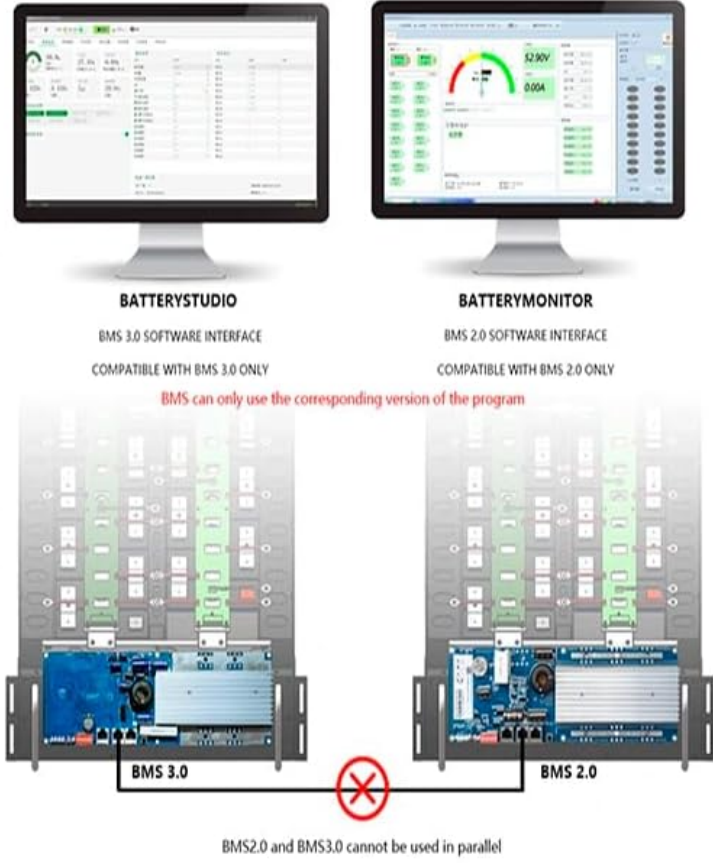


Image: Diagram illustrating different types of Seplos BMS 3.0 (Type A, B, C) and their communication board configurations, alongside a comparison of compatible PC software: BatteryStudio for BMS 3.0 and BatteryMonitor for BMS 2.0. It emphasizes that BMS 2.0 and 3.0 cannot be used in parallel.

Parallel Operation

The Seplos 3.0 BMS supports parallel connection of up to 16 units, allowing for scalable battery systems. When operating in parallel, ensure all BMS units are of the same version (BMS 3.0) and configured correctly for synchronized operation. The Bluetooth app can view data for each battery pack in a parallel state.

MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your Seplos BMS and battery system.

- **Visual Inspection:** Periodically inspect the BMS and all connections for any signs of damage, corrosion, or loose wiring.
- **Firmware Updates:** Check the manufacturer's website for any available firmware updates for the BMS to ensure you have the latest features and bug fixes.
- **Environmental Conditions:** Ensure the BMS operates within its specified temperature and humidity ranges to prevent damage.
- **Cleaning:** Keep the BMS free from dust and debris. Use a soft, dry cloth for cleaning. Do not use liquids or abrasive cleaners.

TROUBLESHOOTING

This section addresses common issues you might encounter with your Seplos 3.0 Type-A BMS.

Problem	Possible Cause	Solution
BMS not powering on / LCD blank	Loose connections, battery voltage too low, external power switch off.	Check all wiring, especially B+ and P- terminals. Ensure battery voltage is within operating range. Verify external power switch is in the ON position.

Problem	Possible Cause	Solution
Bluetooth connection issues	Bluetooth disabled on phone, app not updated, BMS out of range, interference.	Ensure phone Bluetooth is on. Update the Seplos BMS app. Move closer to the BMS. Reduce potential interference sources.
BMS triggers protection (e.g., overvoltage, overcurrent)	Battery cells unbalanced, excessive charge/discharge current, high/low temperature.	Check individual cell voltages via LCD or app. Reduce charge/discharge current. Ensure operating temperature is within limits. Allow passive balancing to occur.
Inverter not communicating with BMS	Incorrect CAN/RS485 wiring, incompatible protocol, inverter settings incorrect.	Verify CAN/RS485 wiring. Ensure the BMS protocol matches the inverter. Check inverter communication settings. Consult inverter manual.

SPECIFICATIONS

The following specifications apply to the Seplos 3.0 Type-A Smart BMS (Model: 3.0-A 48V 200A 13S).

Feature	Detail
Model Number	seplos BMS 3.0version Type-A
Battery Type Compatibility	LiFePO4 (Lithium Iron Phosphate)
Cell Series	13S (13 cells in series)
Nominal Voltage	48 Volts (51.2V system)
Continuous Current Rating	200 Amps
Communication Protocols	CANbus, RS485, Bluetooth
Display Type	LCD
Parallel Capability	Up to 16 units
Efficiency	95%
Manufacturer	SEPLOS

WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the manufacturer's official website or contact your point of purchase. Keep your purchase receipt as proof of purchase.

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