

## **BMS 16S 30A 59V Balanced 18650 Li-ion Lithium Battery Charger Protection Board**

The BMS 16S 30A 59V Balanced Li-ion Battery Protection Board is a high-performance module designed to safely manage and protect 16-series 18650 lithium-ion battery packs. Engineered for both professional and DIY applications, this Battery Management System (BMS) ensures optimal performance, enhanced battery life, and complete safety by providing balanced charging and robust protection against overcharge, over-discharge, overcurrent, and short-circuit conditions.

This 16S (16-cell series) BMS is ideal for electric vehicles, energy storage systems, solar battery packs, robotics, and high-capacity DIY battery projects, offering reliable protection and stable performance for 59V nominal voltage battery packs.

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**BMS 16S**  
**30A 59V Balanced 18650 Li-ion Lithium Battery Charger Protection Board**[/caption]

## **Balanced Charging for Maximum Battery Life**

The BMS 16S 30A module features cell balancing technology, which ensures that all 16 cells are charged evenly. Balancing prevents individual cells from overcharging or undercharging, which is crucial for maintaining long-term performance, capacity, and safety.

Key benefits of balanced charging include:

- Reducing voltage differences between individual cells
- Improving energy efficiency and overall battery lifespan
- Preventing thermal runaway and potential hazards
- Ensuring consistent performance across the battery pack

With a rated continuous current of 30A, this BMS can handle moderate to high load applications while protecting the battery pack from potential damage during both charging and discharging cycles.

## **Comprehensive Battery Protection**

Safety is the core function of this BMS module. The 16S 30A BMS provides full protection features for lithium-ion 18650 cells, including:

- **Overcharge Protection:** Prevents the voltage of each cell from exceeding safe limits
- **Over-Discharge Protection:** Avoids deep discharge that can permanently damage cells
- **Overcurrent Protection:** Protects the battery pack from excessive current during load or charge
- **Short-Circuit Protection:** Immediately cuts off output if a short circuit is detected
- **Temperature Monitoring (optional):** Ensures battery pack operates within safe thermal limits

These protections make the BMS 16S 30A 59V module suitable for high-capacity battery packs used in both professional and DIY applications.

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**BMS 13S (48V-30A)**



**BMS 16S 30A 59V Balanced 18650**

**Li-ion Lithium Battery Charger Protection Board**

## **Easy Integration**

Designed for easy installation and compatibility, the 16S 30A BMS is suitable for DIY battery packs and professional setups:

- **Series Configuration:** Supports up to 16 cells in series for a 59V nominal voltage system
- **Clear Connections:** Includes labeled B+, B-, P+, and P- terminals for straightforward wiring
- **Compact PCB Design:** Efficient layout suitable for space-constrained battery enclosures
- **Wide Compatibility:** Works with 18650 Li-ion cells and similar lithium-based battery types

**Its simple design allows engineers and hobbyists to assemble and monitor their battery packs safely without complex circuitry.**

### **Wide Range of Applications**

**The 16S 30A 59V Balanced Li-ion BMS is suitable for numerous applications:**

- **Electric Vehicles:** E-bikes, scooters, electric motorcycles, and golf carts
- **Energy Storage Systems:** Solar battery banks, UPS systems, and renewable energy storage
- **Portable Power Packs:** High-capacity battery systems for tools or electronics
- **Robotics:** Provides safe and reliable power management for robots and automated systems
- **DIY Projects:** Custom battery packs for experimentation, electronics prototypes, and personal projects

**Its versatility makes it a critical component for anyone building or maintaining 59V Li-ion battery systems.**

### **Benefits**

- **Moderate Current Handling:** Supports 30A continuous current safely
- **Balanced Charging:** Ensures uniform cell voltage and extends battery life
- **Comprehensive Safety Features:** Overcharge, over-discharge, overcurrent, and short-circuit protection
- **Reliable Construction:** High-quality PCB and durable components for long-term use
- **Wide Compatibility:** Works with 16S 18650 Li-ion cells and compatible battery types

### **Conclusion**

**The BMS 16S 30A 59V Balanced 18650 Li-ion Battery Protection Board is an essential tool for anyone building, maintaining, or upgrading high-capacity lithium-ion battery packs. Its balanced charging capability, robust safety features, and moderate current handling ensure long-term reliability, optimal performance, and user safety for your battery systems.**

**Whether for electric vehicles, energy storage, robotics, or DIY high-voltage battery packs, this BMS module provides stability, efficiency, and peace of mind. By investing in the 16S 30A 59V Li-ion BMS, you ensure your lithium-ion battery pack is protected, balanced, and optimized**

for safe, efficient operation, making it a must-have component for professional and DIY battery projects.