

BMS 3S 10A 12.6V Lithium Battery Charger Protection Module

The **BMS 3S 10A 12.6V Lithium Battery Charger Protection Module** is a high-quality, reliable solution designed to **protect and manage 3-series lithium-ion or lithium-polymer battery packs**. With a **10A charge and discharge rating**, this module ensures your 12.6V battery packs operate safely, efficiently, and with extended longevity. Whether you are building **DIY battery packs, portable electronics, electric vehicles, or hobbyist projects**, this 3S BMS provides the necessary protections to safeguard your investment in lithium-ion technology.

This protection module is engineered to prevent **overcharge, over-discharge, overcurrent, and short-circuit events**, protecting your cells from potential damage. Its compact design and lightweight construction make it easy to integrate into **18650 or 21700 lithium battery packs**, delivering both safety and performance without adding unnecessary bulk.

Key Features

- **Battery Type:** 3S Li-Ion / LiPo (11.1V nominal, 12.6V fully charged)
 - **Charge & Discharge Current:** 10A, suitable for medium to high-drain devices
 - **Protection Functions:** Overcharge, over-discharge, short-circuit, overcurrent
 - **Compact Design:** Lightweight and easy to integrate into battery packs
 - **Battery Compatibility:** 3S lithium-ion or lithium-polymer battery packs, including 18650 or 21700 cells
 - **Applications:** DIY electronics, electric scooters, e-bikes, portable devices, robotics, and hobby projects
-

Benefits

- **Enhanced Battery Safety:** Protects your battery pack from overcharging, over-discharging, short circuits, and overcurrent, minimizing risk of failure and prolonging battery lifespan.
- **High Current Capacity:** The 10A rating allows for medium to high power usage, making it ideal for portable devices, e-bikes, and robotics.
- **Durable and Reliable:** Designed for stable and long-lasting operation under normal and high-load conditions.

- **Easy Integration:** Compact form factor simplifies installation in DIY projects or professionally assembled battery packs.
 - **Versatile Use:** Perfect for electronics enthusiasts, hobbyists, and professionals building custom battery packs or portable power solutions.
-

Applications

DIY Battery Packs

Ideal for building **3S lithium-ion battery packs** with 18650 or 21700 cells, ensuring safe and reliable performance.

Electric Vehicles and E-Bikes

Supports safe operation in **e-bikes, electric scooters, and other small EVs**, handling moderate to high currents without compromising battery life.

Portable Electronics

Perfect for powering **LED lighting systems, portable fans, and handheld devices**, providing consistent voltage and protection.

Hobby and Maker Projects

Suitable for **RC cars, drones, robotics, and DIY electronics**, allowing hobbyists to safely build custom lithium battery solutions.

Emergency and Backup Systems

Can be integrated into **backup battery packs or portable power supplies**, ensuring devices remain powered in critical situations.

Specifications

Specification	Details
Module Type	3S BMS
Battery Configuration	3S Li-ion / LiPo (11.1V nominal, 12.6V full charge)
Charge Current	10A

Specification	Details
Discharge Current	10A
Protection	Overcharge, over-discharge, short circuit, overcurrent
Compatible Cells	18650, 21700, or equivalent Li-ion cells
Dimensions	Compact and lightweight

Installation Tips

- Always check battery polarity before connecting the BMS.
 - Solder or connect wires securely to ensure stable electrical connections.
 - Do not exceed the rated 10A current to prevent damage to the module and battery pack.
 - Suitable for **assembling 3S lithium battery packs** for DIY projects, e-bikes, or portable electronics.
-

Conclusion

The **BMS 3S 10A 12.6V Lithium Battery Charger Protection Module** is an essential component for anyone building **safe, efficient, and high-performance lithium-ion battery packs**. Its **overcharge, over-discharge, overcurrent, and short-circuit protections** safeguard your battery cells while extending their operational life.

This module is **perfect for DIY electronics enthusiasts, hobbyists, and professionals** who require reliable and compact battery management solutions for **3S lithium battery packs**. With a **10A high-current rating**, it supports moderate to high-drain applications such as **e-bikes, electric scooters, robotics, portable power supplies, and DIY battery packs**.

Investing in the **3S 10A BMS module** ensures your lithium-ion battery packs operate **safely, reliably, and efficiently**, giving you confidence in your electronics projects, portable devices, and energy solutions.