

# 18650 Battery Protection Module

FIT0869

## Product Overview

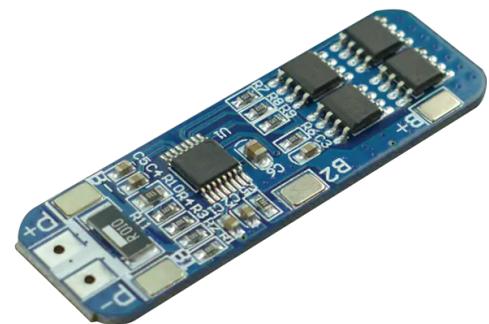
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For the most up-to-date information, visit [www.mouser.com](http://www.mouser.com) or the supplier's website.

## Description

DFRobot 18650 Battery Protection Module allows three 18650 battery cells to be added together to create a rechargeable battery pack. This module features overcharge, over-discharge, overcurrent, and short circuit protections.

The 18650 battery protection module also features a sophisticated design, 5A to 8A maximum working current, 4.25V to 4.35V $\pm$ 0.05V overcharge voltage range, and less than 6 $\mu$ A Quiescent current. When three 18650 batteries or polymer lithium batteries are combined in series, the maximum instantaneous current can reach up to 10A. This module enhances the service life and ensures the security of the 18650 battery pack. The 18650 battery protection module is used in solar street lamp battery packs and monitoring backup power supply.



## Features

- For three 18650 batteries or polymer lithium batteries combined in series
- 10.8V (rated voltage of polymer battery)
- 11.1V (rated voltage of 18650 or 3.7V lithium battery)
- 12.6V (fully charged lithium battery)
- 10A discharge
- Protection mechanism:
  - Overcharge
  - Over-discharge
  - Overcurrent
  - Short-circuit

## Specifications

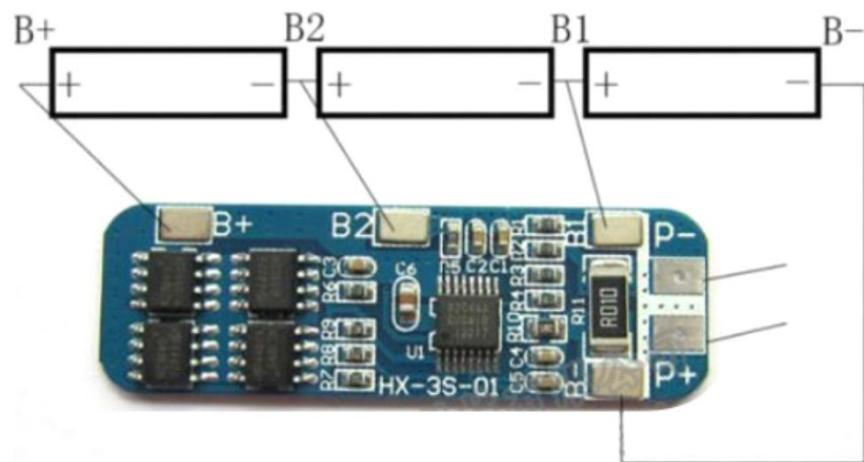
- HX-3S-01 model
- -40°C to 85°C working temperature range
- 50mm x 16mm x 1mm/1.97" x 0.63" x 0.04" dimensions
- 5A to 8A maximum working current
- 4.25V to 4.35V $\pm$ 0.05V (single lithium battery) overcharge voltage range
- 9A to 10A transient current
- Less than 6 $\mu$ A Quiescent current
- Less than 60m $\Omega$  internal resistance
- 2.3V to 3V $\pm$ 0.05V over-discharge voltage range

## Applications

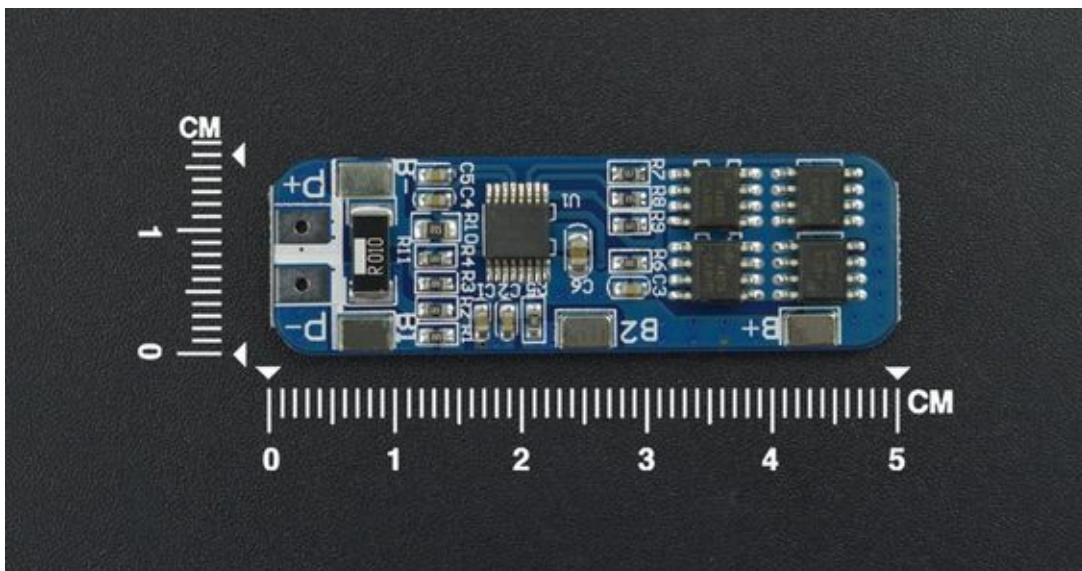
- Solar street lamp battery packs
- Monitoring backup power supply

## 18650 Battery Protection Module Overview

P+ and P - have the same port for input and output



## Dimensional Diagram



## Mouser Part Number

[View Part](#)

To learn more, visit <https://www.mouser.com/new/dfrobot/dfrobot-18650-battery-protection-module/>