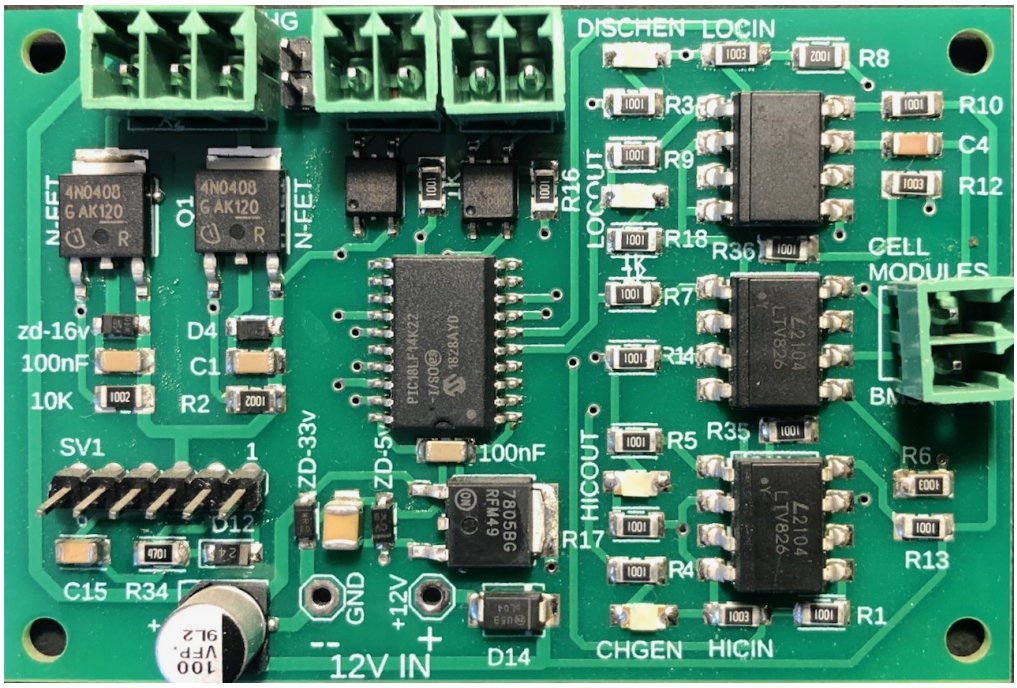
# EV Power BCU-MICRO20 V1.0 Datasheet.




## Introduction

The EV Power BCU-MICRO20 is a second generation (Gen2) simple battery control unit (BCU) designed to monitor up to four CBM-4S modules connected in series. It works in combination with the CBM-4S modules via a polarized one wire interface.

The Gen2 system is designed for modular battery arrangements of up to four batteries (one CBM-4S per 4 cell battery) connected in series 12-60VDC.

Cell voltages are monitored and the polarized NC Loop interface (patent pending) can indicate a high cell voltage on any cell in the battery or separately distinguish a low cell voltage back to the BCU.
The BCU-MICRO20 takes different actions (shut off charge or discharge) depending on the battery cells state, which was not possible with the Gen1 system. Two green LEDs indicate Charge Enabled and Discharge Enabled (On when OK).

Cell balancing is is performed by the slave modules CBM-4S. The BCU-MICRO20 only monitors the cell loop and switches on/off the charge and discharge contactors (or switched enable lines) as required by the battery state.

Cell temperatures are monitored by the slave CBM-4S modules and a temperature out of range will disable both charge and discharge.

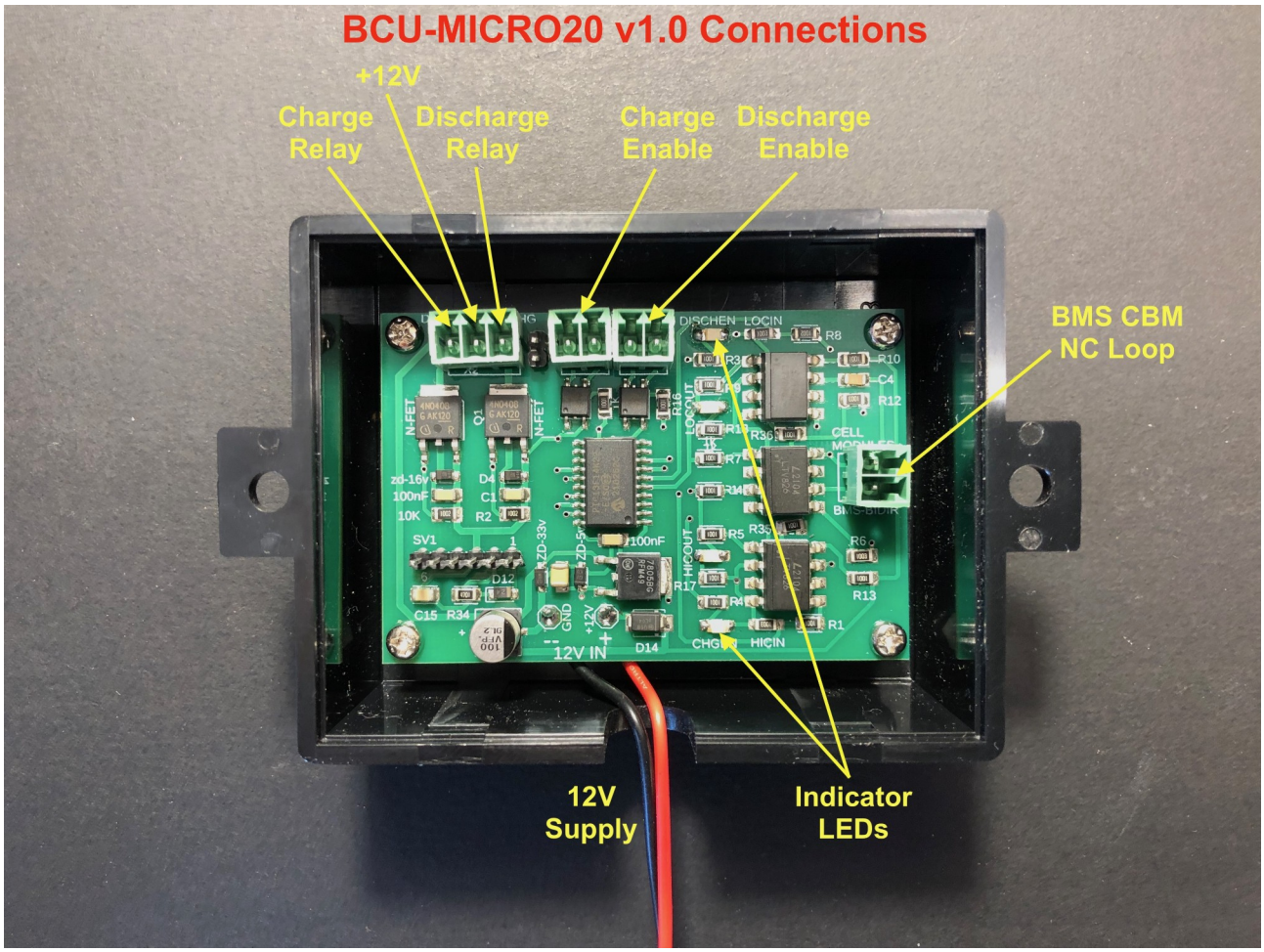
## Features

- Simple installation and intuitive operation.
- Cell Chemistry agnostic, LiFePo4, NCM, LTO, SIB etc
- Single wire interface between multiple batteries and a Battery Control Unit.

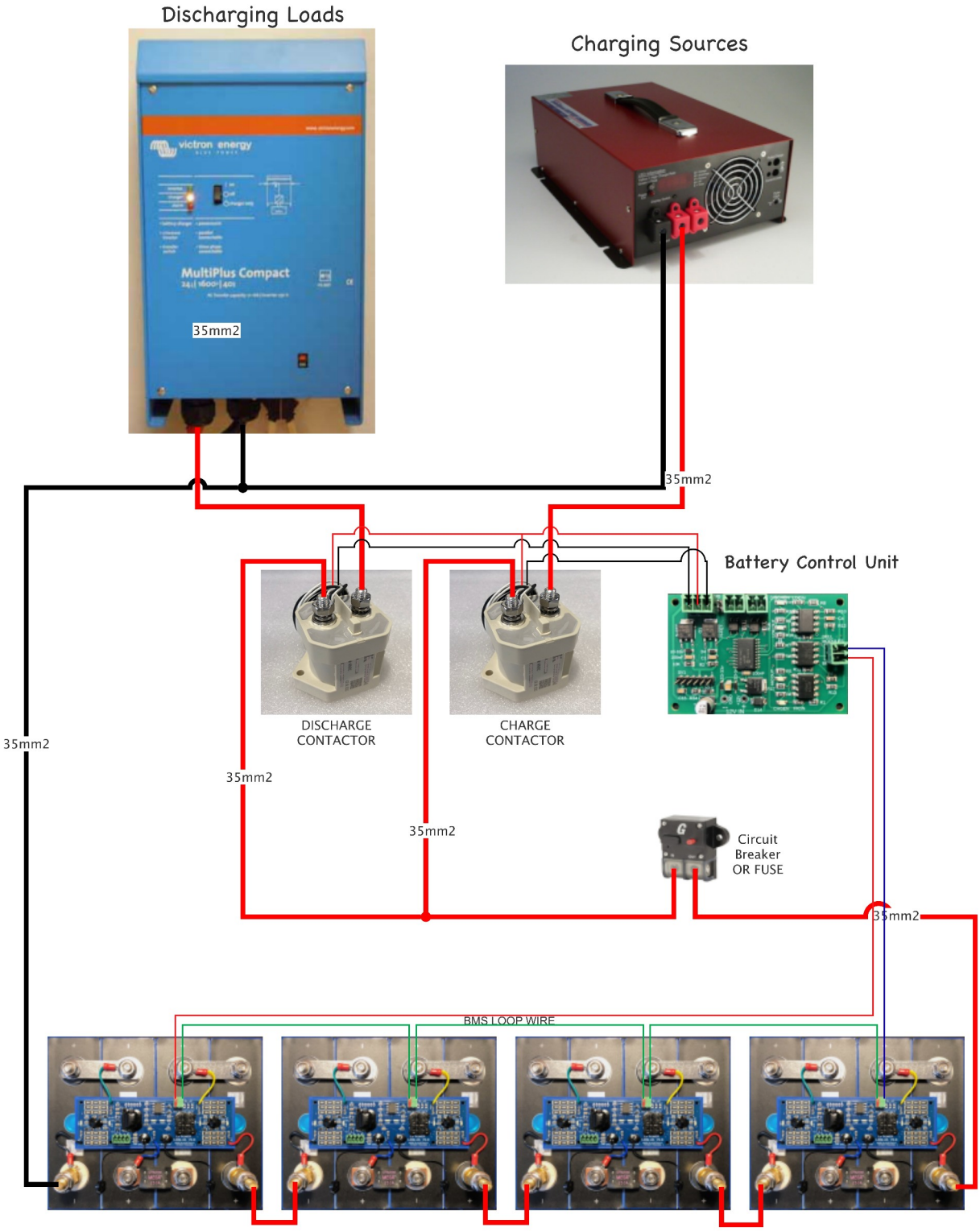
- Gen2 NC Loop – polarized one wire normally closed (daisy chain) signal interface.
- Distributed cell balancing via CBM-4S slave modules..
- 12V supply.
- Backwards compatible with Gen1 non-polarised NC loop interface.

## Specifications

| | |
|---|---|
| Supply Voltage | 8 - 18VDC |
| Battery Capacity Range | Any |
| Operating Battery Voltage Range | 6 - 60VDC |
| Operating Current | 15mA |
| Operating Temperature Range | -20°C to +70°C |
| Number of CBMs monitored | Up to 16 |
| Enclosure Dimensions | 90 x 70 x 32mm(h) |
| Weight | 85g |



# CBM-4S 48V Pack Wiring Example




4 X 4 CELL BATTERIES CONNECTED IN SERIES FOR 48V (51.2Vnom.)