





BMS featuring custom Battery Management Boards



## **Battery Management System**

The RDVS Battery Management System (BMS) provides a complete battery electronics and vehicle interface solution.

The BMS comprises one or more 'Integrated Battery Interface System' master controllers, each monitoring and interfacing with up to 15 'Battery Measurement Board' cell-level modules. It provides overall control of battery charging / discharging and cell balancing for most common cell chemistries, as well as vehicle HV precharge, contactor control and isolation monitoring. Safety integrity is achieved through multiple hardware safety shutdown systems and robust software which can form part of an ISO26262 compliant system.

Typical applications include: Full EV, Hybrid EV, Range Extended EV, Stationary power systems and Maritime systems.







Interface to vehicle HV and LV systems

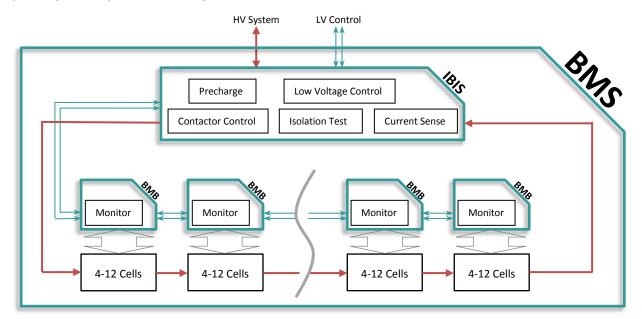
- Expandable modular design allows for up to 18,000 cells in single battery system
- Dual CAN communication with vehicle system and between modules
- Provides State of Charge, Depth of Discharge and State of Health data
- HV contactor control and precharge
- Isolation monitoring
- Simple internal connectivity including multiple hardware safety lines
- UDS diagnostic features

## **Physical Attributes**

- > 'Battery Measurement Boards' measure 160mm x 75mm
- Battery connections: 16-way JST CPT
- 'Integrated Battery Interface System' measures 300mm x 200mm x 80mm
- LV vehicle connections: 23- and 14-way Ampseal
- HV vehicle connections: Hardwired, or Tyco HV800 (or customer specified)

For more information on 'Battery Management Board' and 'Integrated Battery Interface System' see relevant datasheets

## **Battery Management System Block Diagram**







Standard Battery Management Board

Standard Integrated Battery Interface System





