### BMS Specifications

We are using a orion BMS made by Ewert Energy System, inc in USA. The main features of our BMS are:

1. Able to monitoring every cell voltage
2. Easily programmable and upgradeable on the field
3. Can enforce min. and max. cell voltages, max current limits, & temperature limits
4. Intelligently balancing each cell
5. Continously monitors state-of-charge and retains data about battery history
6. Integration with 3rd party smartphone apps (Torque, EngineLink)
7. Thermal Management & Voltage Protection
8. CANBUS Interfaces, OBD-II Support (support many scan tools) and Automotive Noise Immunity.

And for the safety of the Orion BMS are:

1. Isolation fault detection
2. Calculate the state of health, charge current limit, discharge current limit and Internal resistance of each cell
3. High immunity to EMI and other noise
4. High accuracy cell voltage measurement
5. On/Off outputs for controlling charge and discharge
6. 0-5V analog outputs for gradual current reduction (improves usable range of battery) and,
7. Thermal management controls for battery cooling/heating.

We using 1 BMS added with arduino uno to control and monitor voltage, current, state of health and temperature from 72 cell with 3.6 volt each cell and max. Voltage up to 260 volt. The Orion BMS will attach in the accumulator container and also added with (galvanic isolation between GLV and TS is we use Nomex paper at each end of connector to make sure the high voltage and low voltage doesn’t touch each other)(masih sama atau ngga?)



