atc International

Rechargable Energy Storage System

3.2.2021

Energy Storage System / Specifications

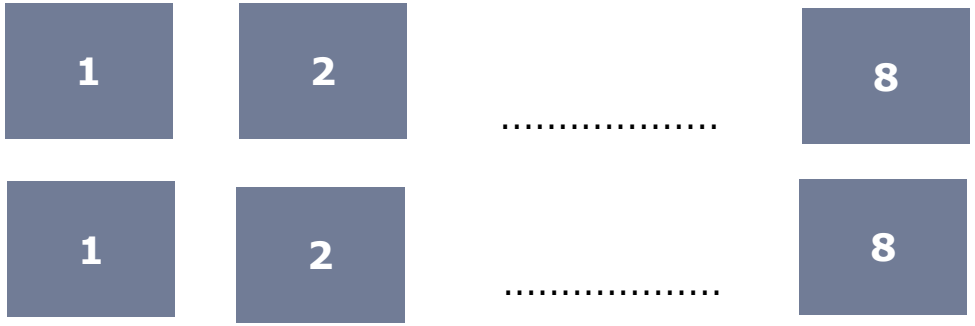
- Lithium Ion NMC Chemistry
- Two different sizes / capacity
- CANBus 2.0b 29Bit Communication Protocol
- UN ECE R100 v2 Certified
- Paralel / Series Connection Available
- 3000 Cycles with %85 DOD @25C°

Energy Storage System / Charge / Discharge

Model	EVolt-35	Evolt-70
Full Capacity	35 kWh	70 kWh
Usable Capacity	31 kWh / 93Ah	62 kWh / 93Ah
Voltage Nominal	326	651
Voltage Max	371	742
Voltage Min	255	510
Continuous Discharge Current	1.5C / 135A	1.5C / 135A
Charge Current	1C / 90A	1C / 90A
Peak Discharge Current 60 sec	2.5C / 230A	2.5C / 230A
Weight	255kg	504kg
Volume	163L	352L
Gravimetric Energy Density	137Wh/kg	138Wh/kg
Volumetric Energy Density	214 Wh/L	198 Wh/L

Energy Storage System / Configuration

Sample with TRES 35 --- 2 Serial 8 Paralel



325V x 2 = 650V

93Ah x 8 = 744Ah

483 kWh Total Capacity

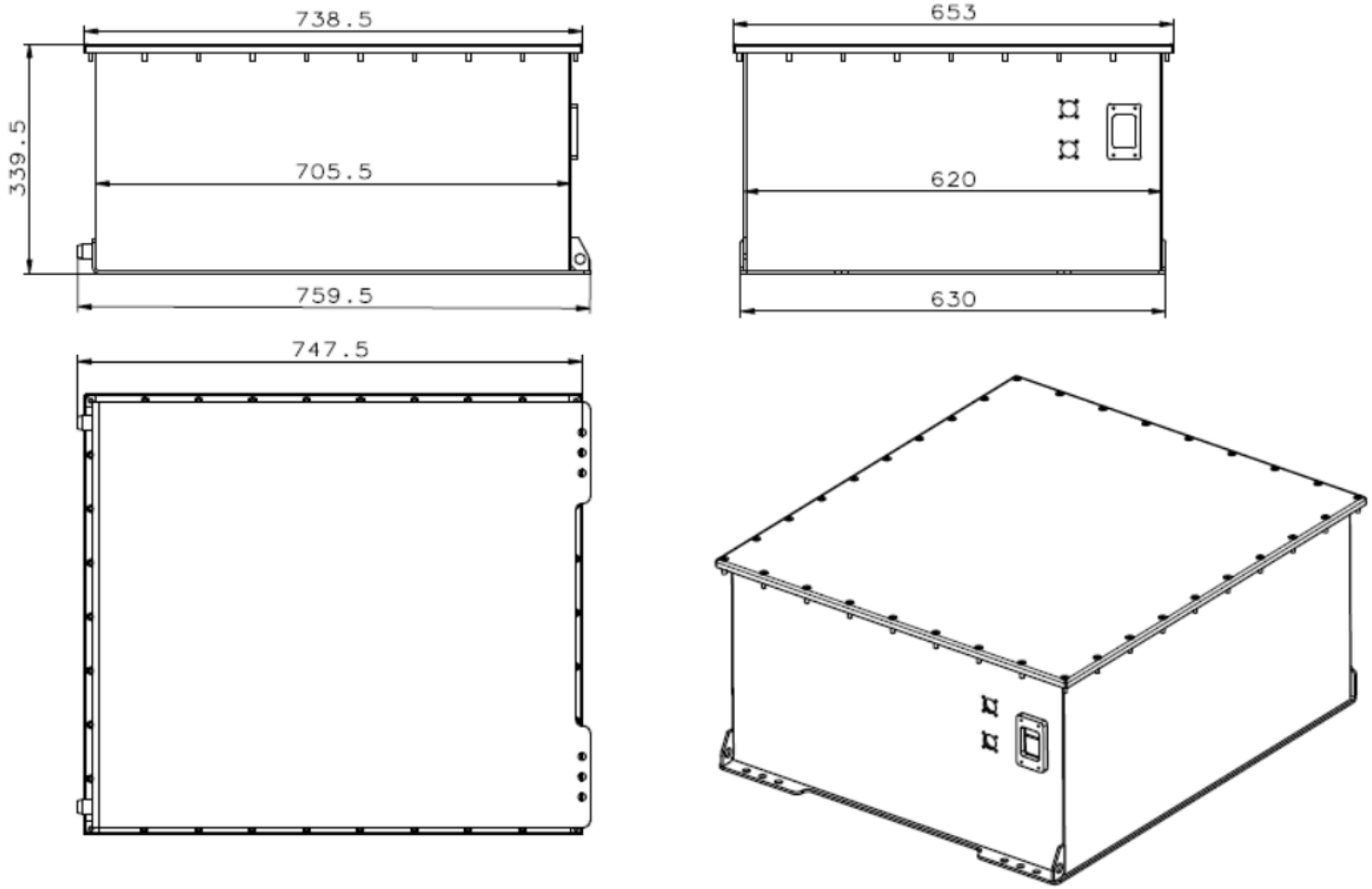
Sample with TRES 70 – 16 Paralel

650V

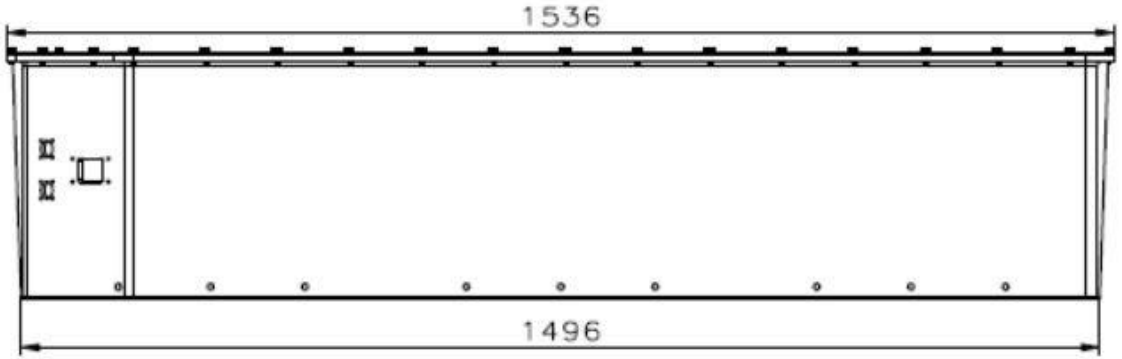
93Ah x 16 = 1488 Ah

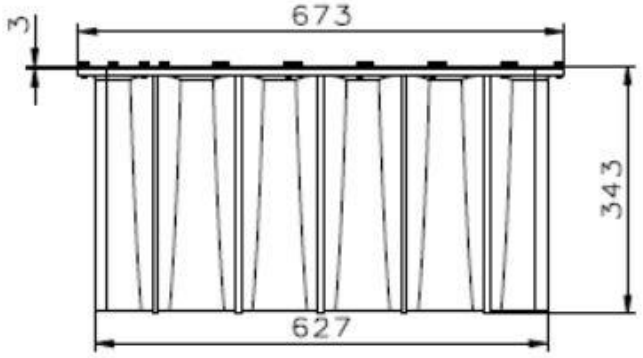
967kWh Total Capacity

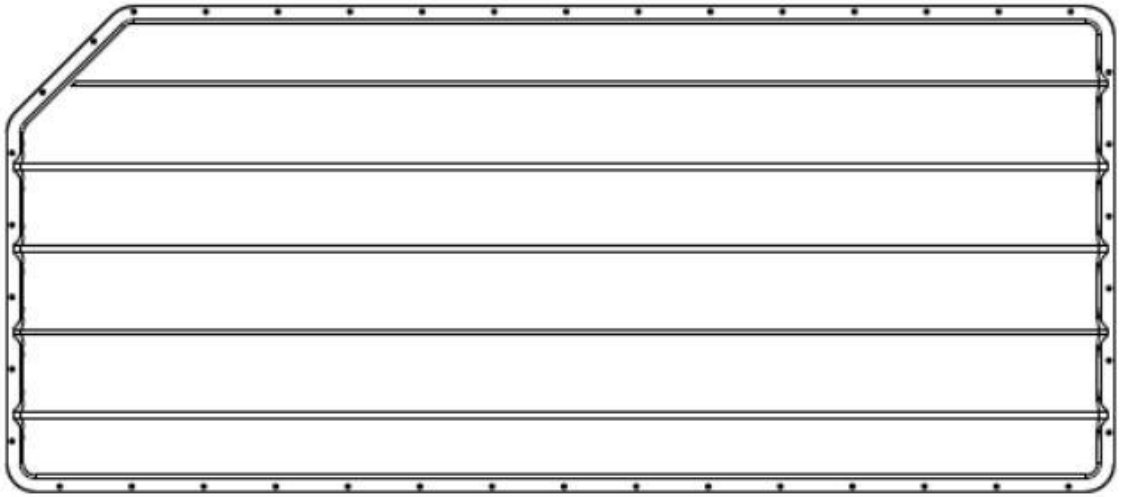
Case: Carbon Steel with Cataphoresis Coating

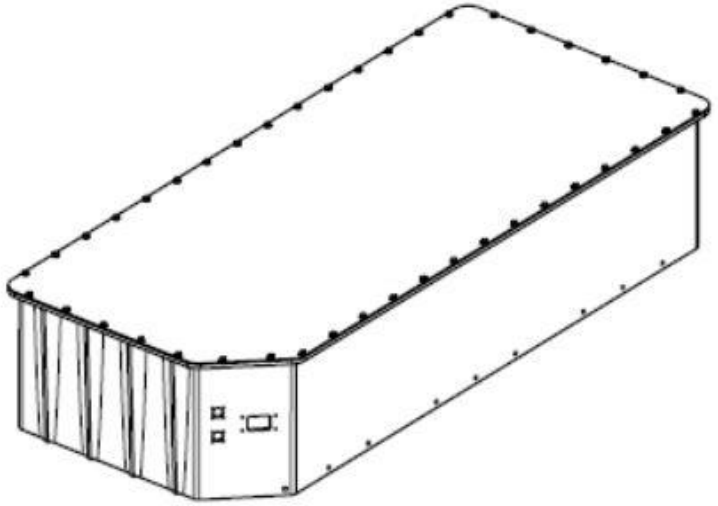


Case: 7mm Aluminium Cast Box



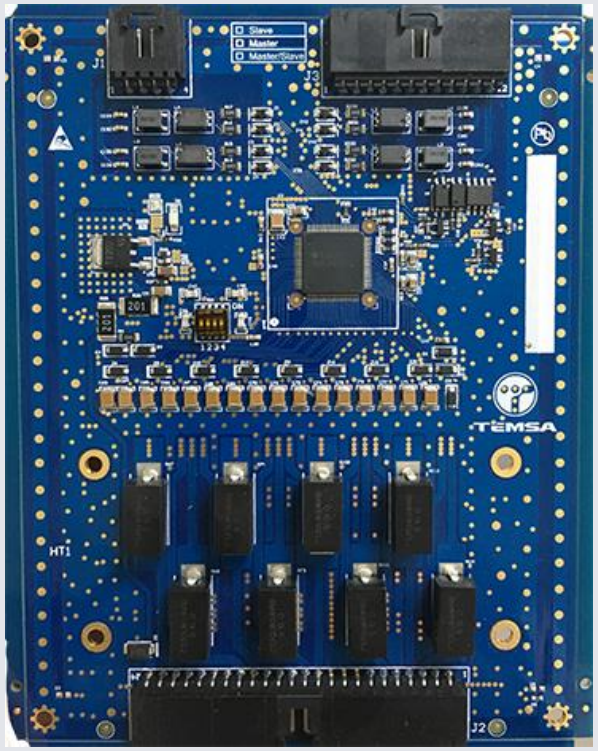






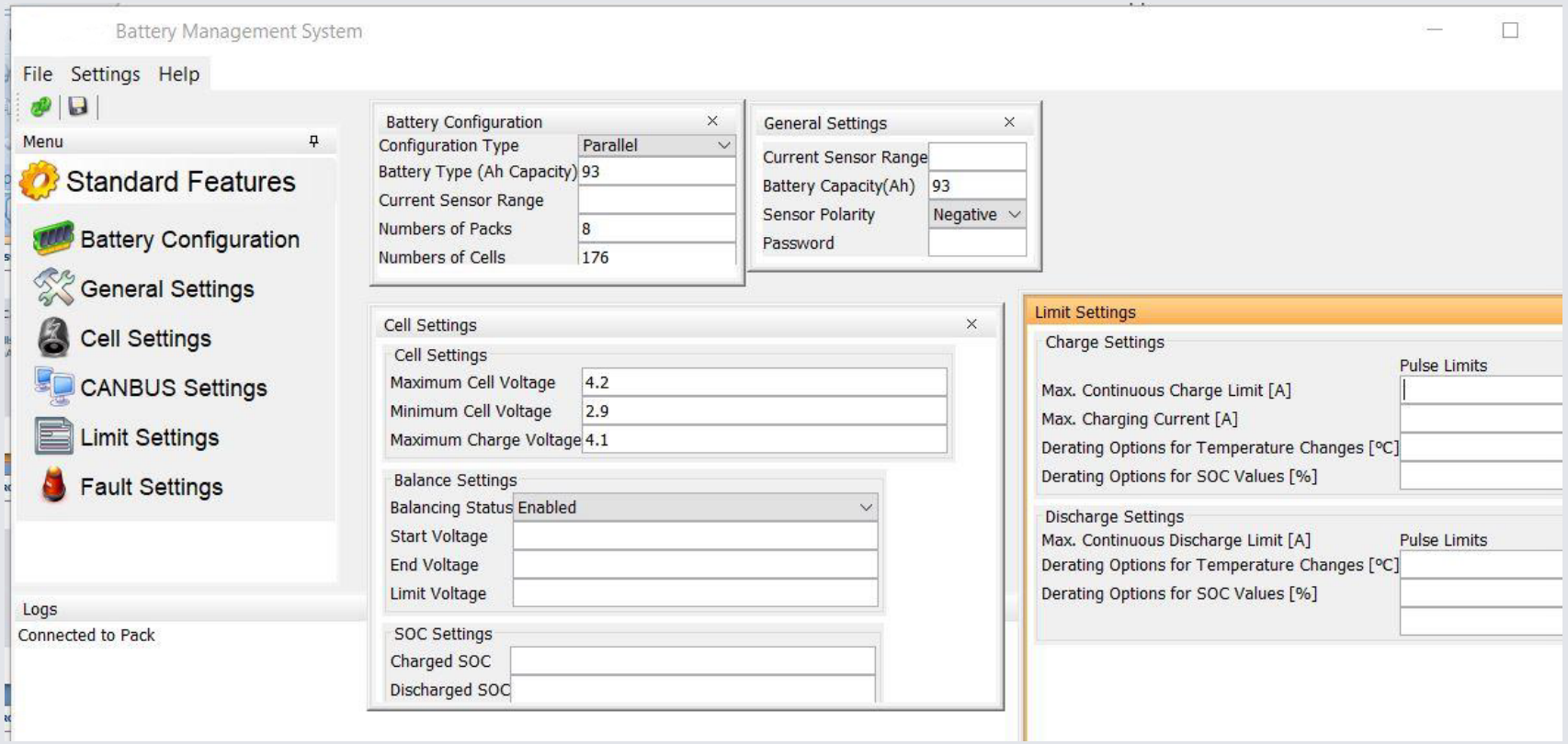
Energy Storage System - BMS

- BMS Card produced and programmed
- 16 cells passive balancing
- 350mA Balancing Circuitry for each cell



Energy Storage System – BMS GUI

BMS can be configured by GUI according to the EV.
If energy pack sold as a seperate product.



Energy Storage System – Options

Options available with battery pack

- Power Distribution Box
- Precharge System
- Charger Communication System

ISO 15118

DIN 70121

SAE J 1772

- Power Cable Harness
- Phoneix CCS2 Plug