Vinci-EV
BMS for Li-ion traction packs
for BEVs, HEVs, PHEVs

Complete Battery Management System
for vehicle traction pack.
Outstanding versatility, feature rich.
Up to 62 battery modules

Standard specifications:

- 96 ~ 350 V, or 400 V ~ 900 V, nominal
- Any Li-ion chemistry
- Up to 62 banks, up to 24 cells / bank
- Master / slave topology
- Wire or fiber-optic links to slaves
- Wired (tap wires) or distributed (cell boards)
- Redundant, dual BMS framework for reliability
- Bullet-proof against tap mis-wire within slave
- Rugged, sealed, automotive grade packaging
- Thermal management: up to 1 sensor / cell
- Contactor driver, precharge
- Hall Effect or shunt current sensing
- Ground fault detector
- Energy (BEV, top balance, 100 % SoC), power (HEV, mid balance, 50 % SoC) or both (PHEV)
- SoC, SoH, extensive fault check, data logging
- CAN bus, PIDs (OBD II)
- CAN chargers: Brusa, Current Ways, Eltek...
- CAN Motor drivers: MES, TM4...
- Monitoring and field configion with GUI
- Off the shelf, stocked

Applications:

- BEV, HEV, PHEV
- Passenger vehicle, trucks
- Race motorcycles or cars
- Industrial vehicles, mining
- Marine traction
- Aviation propulsion

Elithion's Vinci:
the most advanced family of
off-the-shelf BMS solutions

The Vinci family of BMS solutions is the culmination of Elithion's years of experience in Battery Management Systems.

Each Vinci BMS solution is carefully tailored to a given application, fulfilling its every need.

We wrote the book on Li-ion BMS... literally.

Options

Slaves:
- Wired (tap wires to cells)
  - 6~12 x cells
  - 13~16 x cells
- Distributed (cell-boards)
  - Cable to master
  - Fiber optic to master

Charging station:
- J1772

Balancing:
- Dissipative ("passive")
- Charge transfer ("active")

Current sensing:
- Hall Effect, cable mount
- Shunt

External protector + sensor:
- Contactor set 100 ~ 2000 A

Communication links:
- WiFi
- USB

Pre-made wiring:
- Li-ion voltage taps
- Control harness

Adapters:
- USB
- 12 V power supply

Example:
Single series string, single case, wired

Example:
Single series string, multiple cases, fiber-optic

Example:
Multiple series strings, permanently connected in parallel