

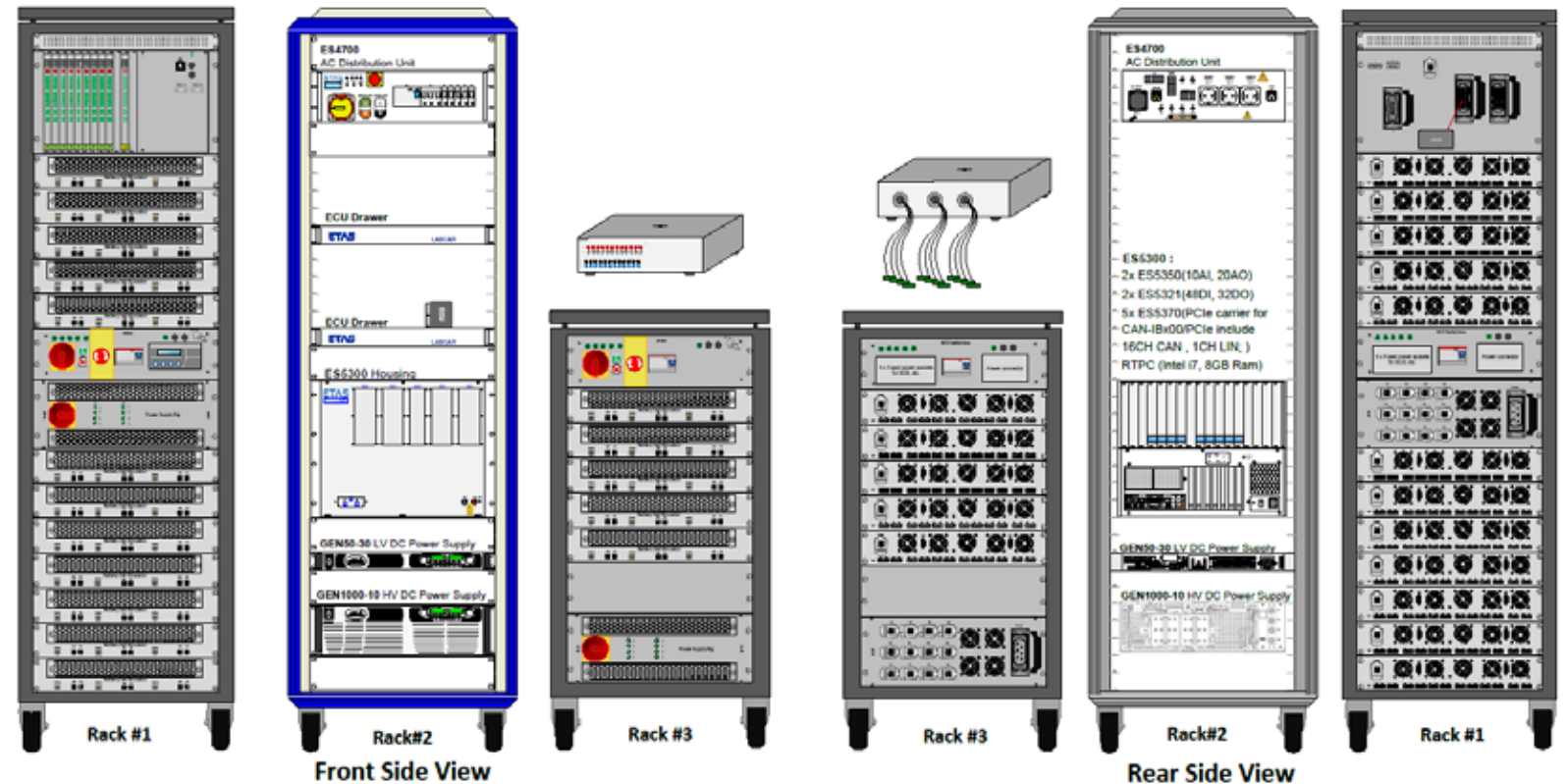
BMS test system solution with 200 cells and with 96 temperature emulation channels

Typical system offering:

- Engineering service
- Training (3 days)
- 200 cells BCS
- 3 x Racks & Harnesses
- AC Distribution Units
- RTPC with 10 CAN controllers
- BMS power-supply (Battery Node)
- ECU Rack appliances (Drawers)
- LABCAR Software

Optional add-ons:

- Temp. emulation channels
- Additional I/O for BMS
- Breakout Box
- High voltage power-supply
- Shunt emulation capability
- Isolation-Check module (2 Channels)
- Plant model



- ü The ETAS Battery Cell Simulator **shortens the time required** for BMS test and pre-calibration
 - ü **Safe** in office testing, e.g. electrical fault and isolation checks and testing of critical battery states
 - ü **Efficient** setup of test situation by the click of a button...
 - ü **Cost savings**, i.e. no waste, reduction of hazards, and reduction of development time
 - ü **Increased test coverage** through system automation and duplication (different test levels)
 - ü **Highly accurate and 100% reproducible** electrical simulation of battery voltages and currents, as well as resistance variations of temperature sensors
- ü **Highly flexible and open** system architecture:
 - ü Scalable from 4 to 240 cells
 - ü Wide range of BCS cards to fit performance AND price expectations of customers
- ü **Highest balancing current ranges** with 1 module – with up to 4.9A source and 4.5A sink current
- ü Off the shelf on-board **current measurement** (mA / μ A / Coulomb Counting) and **fault insertion** capabilities
- ü **Highest DC voltage accuracy** +/- 0.5mV also at high currents (sense)
- ü Provision of ETAS or Third-Party **battery plant models**
- ü HiL system data are **fully synchronized with INCA** measurements (no manual alignment of data)
- ü Extensive **global project experience**



The next generation of autonomous and connected vehicles is driving an increase in the use of complex, connected and **electrified** systems with unprecedented **safety** and **security** needs. With over 25 years of **automotive** experience, ETAS, a subsidiary of Robert Bosch LLC, is a single source of reliable, cutting- edge **hardware and software tools and services** that make automotive **embedded systems** safe and secure. ETAS removes the unknown from the development process and delivers **peace of mind**.

For more information about ETAS and its products, go to: www.etas.com