

APPLICATIONS

Examples

Application Development

Batteries have to be qualified for specific applications, requiring the measurement of all relevant battery parameters:

- Voltage
- Spectral impedance
- Capacity
- Temperature



The commonly used cylindrical cells (e.g. 18650) can be fully characterized with a compact and complete measuring system.

Recommended devices: BTC1, CTA

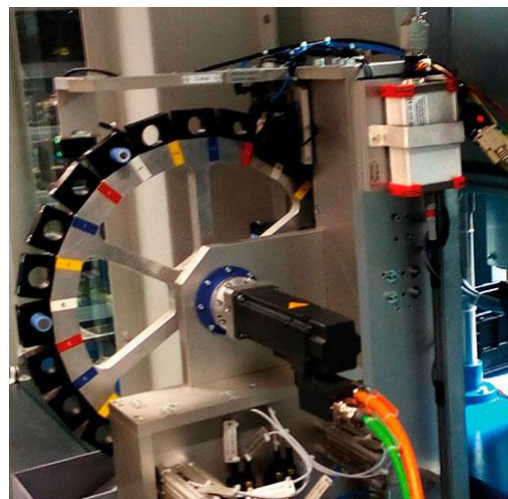
Application Cell Inspection

In the incoming inspection of large quantities of battery cells, short cycle times are required.

Our compact instruments can be remotely controlled and easily integrated into production lines for batteries.

Within just 1 second they measure:

- Voltage
- AC Impedance
- DC Impedance



For high quantities and/or short cycle times, instruments can be operated in parallel.

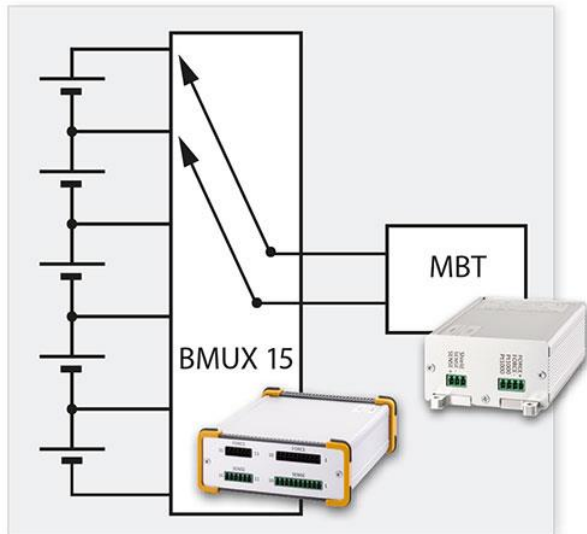
Recommended devices: MBT family

Application EoL Testing

For higher voltage and energy single cells are stacked and interconnected by welding.

End-of-Line-Testing verifies the quality of the welding process and ensures that the cells are not affected by mechanical stress during assembly.

Up to 15 cells can be switched to one measuring instrument by our Battery Multiplexer BMUX15. By comparing the measured values with each other deviations can be detected quickly and safely.



Recommended devices: MBT, BMUX15

Application Service

Battery states can be estimated via 2 parameters:

- The open circuit voltage (OCV) is dependent on the state of charge (SoC),
- The AC impedance (RAC) increases with decreasing capacity / SoH

Reference value of OCV and RAC are stored as tables which allow conversion into SoC and SoH.

Recommended device: BST1

