



BATTERY LIBRARY



- ▶ The Battery Library allows you to model a battery's electric and thermal behavior as well as cell aging. Easy to adapt in terms of the storage system complexity, geometry, statistical effects and electrical precision, the Battery Library is ideal to be used in industry as well as academic research. The Battery Library is suited for the design of automotive and grid systems.

▶ MODELLING APPROACHES

- Comprehensive calculation of the thermal, electrical and aging behavior
- Description of statistical effects and inter-cell influences in battery packs
- Example implementation of a battery management system

▶ PARAMETERIZATION

- Built-in electrical parameterization tool in Dymola
- Obtain the electrical circuit parameters from current measurement
- Including validation function of the results.

▶ TYPICAL FIELDS OF APPLICATION

- Battery or hybrid electric vehicle modelling
- Optimization of operation strategies
- Lifetime investigations
- Smart grid design

FEATURES

- Ready-to-use implementation of important ISO norms for batteries.
- Preconfigured models for several cell shapes and chemistries
- Physical class interfaces makes the library compatible with all Modelica Libraries



Modelon