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1801 leXsolar-Emobility Professional

Order code: **5501.1801**



Cena bez DPH

2.561,00 Eur

Price with VAT

3.098,81 Eur

Parameters

Subject

Energy storage technology

Quantitative unit

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For storing electrical energy many different battery technologies are already on the market. But what application needs which battery type, what capacity does the battery need to have and what loading performance is the best to guarantee a long durability? Due to the problem

of storing renewable energy, these are questions which need to be worked on in technical training. With leXsolar-EStore Professional, the characteristics of different battery types can be analyzed. In addition, the kit helps students to find out more about the different fields of application. The kit comes with different battery technologies such as lead, NiMH or Lithium-Polymer(LiPo) as well as a PEM-fuel cell. For the correct determination of the internal resistance four-terminal sensing is possible. With the integrated ChargerModule batteries are always ready to use and battery charging methods can be addressed in experiments.

Experiments:



Setup of a simple

circuit

- Ohm's law
- Series connection of ohmic resistances
- Parallel connection of ohmic resistances
- Start-up and idling behavior of a motor
- Nominal voltage and capacity of voltage sources
- Four-terminal sensing
- Internal resistance of voltage sources
- Series connection of voltage sources
- The capacitance of a battery module
- The energy density of battery modules
- The R_i efficiency of a battery module
- The total efficiency of a battery module
- Temperature-dependent behavior of the lithium-polymer cell
- The charging process of a capacitor
- The discharge process of a capacitor
- I-V characteristics of the single NiMH battery module

- 1 x 1100-62 Potentiometermodul 110 Ohm Pro
- 1 x L2-02-017 Propeller
- 1 x L2-04-059 Safety test lead, 50cm, red
- 1 x L2-04-060 Safety test lead, 50cm, black
- 1 x L2-04-066 Safety test lead, 25cm, red
- 1 x L2-04-067 Safety test lead, 25cm, black
- 1 x L2-04-102 NiZn-battery AAA
- 3 x L2-05-068 Safety short-circuit plug, with mid socket
- 1 x L2-06-011 Digital multimeter
- 1 x L2-06-067 Reversible Fuel cell
- 1 x L3-01-072 Aluminium case Estore-Professional
- 1 x L3-01-092 Insert EMobility Professional 1801
- 1 x L3-03-081 leXsolar-DVD Professional
- 1 x L2-04-021 NiMH battery AAA
- 1 x L3-03-165 Einräumplan 1801 EMobility Professional