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TECHNICAL PRODUCT INFORMATION

Test & measurement instruments

- ▶ high - quality
- ▶ moderate prices
- ▶ excellent precision

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Short Description

The BIM-HV-B is an economical, easy to use and compact battery tester for systems up to 900V. It combines the function of a **battery tester** and of a **battery analyzer** and allows a quick test of batteries independently of their technology. Besides high voltage batteries, also low-voltage systems (12V, 24V, 48V) down to cell level can be tested.

The measurement module is connected to a PC via USB interface for data communication and power supply. Operation is via a graphical user interface (GUI) which operates and displays the results; alternatively, a programming interface can be provided.



Features

As a **battery tester** the instrument measures the voltage and the internal resistance at a single frequency.

As a **battery analyzer** the unit measures the voltage plus the impedance over a broad frequency range. The actual capacity of high voltage systems can be determined from impedance values, e.g. for second life applications.

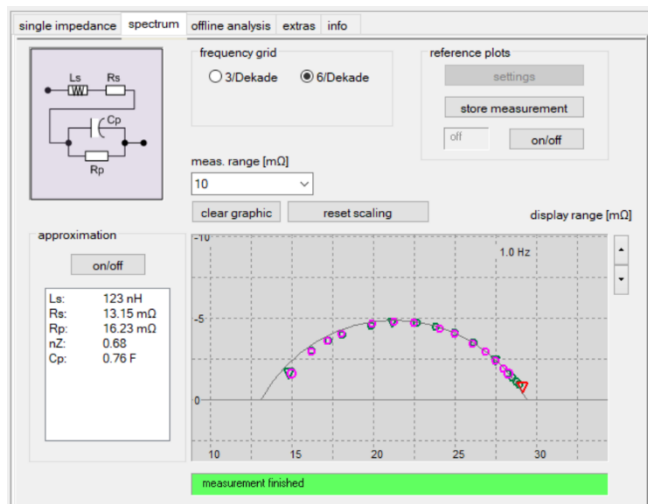
Applications

Standard Battery Tests

- Measurement of battery voltage between 0V and 900V
- Measurement of the internal resistance

Battery Analysis


- Measurement of the complex impedance between 1Hz and 1kHz (impedance spectrum) and presentation as Nyquist plot
- Approximation of model parameters (equivalent circuit parameters)
- Determination of SoH (state of health) or residual capacity by comparison with reference values



Presentation of Results

The measurement results are displayed on a graphical user interface (GUI). All results are automatically logged and stored in a log file. Single measurements can be stored in CSV format, enabling easy generation of reports or further processing and analyzing with spreadsheet programs.

Specifications

Parameter	Value
Impedance ranges	10mΩ, 100mΩ and 1Ω
Resolution	0,1%
Accuracy	±1% of display ±0,3% of range / ±2°
Presentation	Ohmic part / capacitive part or magnitude / phase
Measurement mode	Single measurement
Frequency range	1 Hz 1 kHz
Duration of single measurement	1 sec 6 sec, depending on frequency
Duration for complete scan	12 sec / 22 sec
Measurement currents	0,2A _{ss} , discharging (unipolar)
Measurable battery voltages	2V...900V
Voltage measurement	0...100V / 0...900V switchable
Resolution; Accuracy	10mV / 100mV; 0,1%
Measurement port	4x 4mm safety plugs (four-wire technique)
Communication interface	USB, galvanically isolated
Data export	As log file or as CSV file in single measurement
Data evaluation	Calculation of model parameters, offline analysis
Operation	PC with a graphical user interface (GUI) and programming interface
Power supply	via USB port, galvanically isolated, 500mA
Temperature range	0...+40°C
Protection class	II (protection isolation)
Dimensions (LxWxH)	23 x 15 x 9cm
Weight	1.3kg
	The device meets the requirements of the EC Directive 2004/108/EC (EMC Directive)

Delivery

- Impedance measuring instrument BIM-HV-B
- High voltage measuring cable 1m
- USB cable
- English Manual