



Life Cycle Module Test System

Applications

- Full featured test system for quality control and R&D
- Life Cycle Testing: Perform charge/ discharge cycling of batteries or modules to obtain charge and discharge capacity, energy and DC
- Automotive Battery Testing
- Starting, Lighting and Ignition (SLI) Testing
- Traction Battery Testing

Features & Benefits

The LCN is an invaluable tool for automotive, industrial and electric vehicle battery developers. By providing increased laboratory accuracy, flexibility and efficiency, the LCN is an ideal solution for testing and designing consistently high quality batteries, verifying rigorous battery specifications and research and development of new battery materials.

Additional features include:

- Circuit isolation for separate cycling of battery cells or batteries within a pack
- Testing of single cells to zero volts
- Modules are installed on slide-out rails for cost effective circuit additions and upgrades to standard cabinets; modular construction allows efficient maintenance and service
- Reliable design and sturdy construction
- Operation via microcontroller and Bitrode's VisuaLCN Lab Client Software

- Up to 99 control program steps, with up to 10 limit conditions per step
- Network control for hundreds of circuits from a single host computer
- Graphical data presentation and analysis with VisuaLCN software, or tabular data review in customerdesigned Microsoft Access format
- Temperature monitoring is standard on most models

General Specifications

Voltage: 0-100V

Current: Up to 1000A

Circuits: up to 21

Power: up to 100kW

Data Sampling Rate: up to 1 sec

Input Power Supply: 3-phase, 50/60 Hz

Accuracy: $\pm 0.1\%$ of FS*

*Accuracy values are conservative assuming operation will be through the standard temperature range of 0-40° C and RH from 10-90% (noncondensing). Units calibrated and maintained in a temperature and humidity controlled environment can expect an accuracy of 0.02-0.05%FS.













System Options

- Cell Voltage Monitoring for cells or multiple cell monoblocks
- Multiple temperature monitoring
- Temperature compensation
- Reference electrodes with input resistance up to 100 mega-ohms
- Cell Switching Module(CSM) allows batteries to be removed from a series once they reach a specified limit condition

- Programmable analog or digital inputs & outputs
- Multiple current ranges up to three per circuit
- Customer specified alarms and faults
- Custom designed test leads, cell or battery handling fixtures
- Optional 2000 step program
- Optional 0.1 second data
- Pressure monitoring in user specified ranges

Photos





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