# MCV

HEV Battery
Cell Testina

EV/ HEV Battery Cell Testing System

### Highlights

The Bitrode MCV product is a full-featured life cycle test system for development of automotive, industrial and consumer batteries.





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### **Applications**

- Standard Electric Vehicle Tests:
  - Federal Urban Driving Schedule (FUDS and SFUDS)
  - Dysistance
- Automotive Battery testing

### **Key Features**

- Parallel circuit operation for greater flexibility in test specification
- · Constant current, power or voltage control
- Bipolar capacity for discharging to below zero volts (optional)
- Optional inputs can be assigned to any test channel
- Program execution is independent from the PC with VisuaLCN™ software
- Remote Binary Protocol via Ethernet connection available for 3rd party software control
- Program headers available in software for global control
- Each circuit is operated by the Bitrode's Windowsbased VisuaLCN™ software program via the VisuaLCN™ Lab Client software
- VisuaLCN™ product platform allows users to:
  - create custom test profiles
  - monitor test progress of each test circuit
  - analyze the collected data in the Access or SQL server database



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## **General Specifications**

Duty Cycle:	100%
Accuracy: *	$\pm$ 0.05% Full Scale & $\pm$ 0.025% at 25oC $\pm 5 o$ C
Data Acquisition Rate:	100ms max*
Rise Time (10-90%):	50ms*
Input Power Supply:	3 - phase, 50/60 Hz
Ambient Temperature:	0 - 40°C
Control Software:	VisuaLCN™ Lab Client
Interface:	Ethernet

\* High Accuracy Upgrades available for existing MCV Machines

# **Technical Specifications**

Current Ranges (A):	0 to 300 (2700A in parallel) –up to three
	ranges per circuit optional*
Current Resolution (A):	0.001 to 0.1A (Based on maximum current
	value)
Voltage Ranges (V):	0 to 18
Voltage Resolution (V):	0.001 to 0.01V (Based on maximum voltage
	value)
Circuits:	up to 96**

- \* Note: Other ranges and specifications can be available on request.
- \*\* Depending on voltage and current configuration.
  \*\*\* All specifications are subject to change without notice.

### **Software / Hardware Options**

- Cell Voltage Monitoring
- Temperature Monitoring
- Digital Input/Output
- Pressure Monitoring
- Ramp Charge/Discharge
- Expressions-based program limit conditions
- Constant resistance discharge
- Internal resistance calculation
- Bipolar voltage capability

- Charge/Discharge AH/WH
- Real Time Clock
- Sub-step Sampling
- Remote Input Output (RIO) system
- CAN interface
- Open Protocol Interface via Ethernet connection available for 3rd party software control
- Environmental Chamber Interface
- EIS Meter Interface

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