

# EV/HEV Battery Cell Test System

## Model MCV

### Features for Cell Testing in EV/HEV Test Labs

- Drive simulations with standard Electric Vehicle tests: FUDS, SFUDS, GSFUDS, DST and ECE-15L
- Drive Cycle Conversion automates test program development from acquired battery usage data
- Constant Current, Power or Voltage Control
- Bipolar capacity for discharging cells to below zero volts
- Parallel circuit operation for greater flexibility in test specification
- Assignable Data Channels
- Test control and data management with Bitrode's VisualCN Lab Client software suite

Voltage: 0-5V (other voltages optional)

Current: 1 $\mu$ A-300A

Accuracy:  $\pm$ 0.1% of full operating scale

Resolution:  $\pm$ 16 bit

Data Sampling Rate: 100ms (other ranges optional)



*Bitrode Model MCV96-1/.01/.001-5*



*Bitrode Model MCV16-100-5*

### System Options

- Multiple current ranges per circuit
- High impedance cell voltage monitoring
- Temperature compensation - adjusts voltage per battery temperature
- Pressure monitoring in user-specified ranges
- Internal resistance
- Programmable analog or digital inputs and outputs
- Remote input and output with Bitrode's RIO system
- Constant resistance discharge
- Customer-specified alarms and faults
- Custom-designed test leads
- Custom-designed cell or battery handling fixtures

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Model* **	Constant Current Amp Range ( $\pm$ 0.1%)	Charge Voltage ( $\pm$ 0.1%)	Discharge Voltage ( $\pm$ 0.1%)	Constant Wattage
MCV96-1/.01/.001-5	0.0000-1.0000	0.000-5.000	0.000-5.000	5.000W
MCV96-5/.5/.005-5	0.000-5.000	-5.000-5.000	-5.000-5.000	29.00W
MCV16-25-12	0.00-25.00	0.000-18.000	0.000-18.000	450.00W
MCV48-50-5	0.00-50.00	0.000-5.000	0.000-5.000	290.0W
MCV12-100-12	0.00-100.00	0.000-18.000	0.000-18.000	1800W
MCV16-100-5	0.00-100.00	0.000-5.000	0.000-5.000	500.0W
MCV9-300-5	0.0-300.0	0.000-5.000	0.000-5.000	1500W

Model* **	Circuits per Cabinet	Cabinet Input Amps (50 or 60HZ) Three Phase			Dimensions <sup>†</sup> in/cm			Weight <sup>†</sup> lb/kg
		230V	400V	480V	W	D	H	
MCV96-1/.01/.001-5	96	10.9	6.3	5.2	35/89	44/112	87/221	1500/675
MCV96-5/.5/.005-5	96	32	18	15	35/89	44/112	87/221	1800/810
MCV16-25-12	16	35.5	20	17	23/59	34/87	78/199	1200/540
MCV48-50-5	16	119	68	57	67/171	34/87	78/199	3000/1350
MCV12-100-12	16	110	64	53	67/171	34/87	78/199	3000/1350
MCV16-100-5	16	77	44	37	45/115	34/87	78/199	1800/810
MCV9-300-5	4	125	72	60	67/171	34/87	84/214	3000/1350

\* If required specifications do not appear in this table, contact Bitrode Corporation; custom product engineering is one of our greatest strengths.

\*\* Module names are interpreted as follows: MCVxx-yy-zz, where xx indicates number of circuits per cabinet, yy indicates amperage and zz indicates voltage.

† Dimensions and Weight may vary according to design requirements.



**BITRODE CORPORATION**  
 1642 Manufacturers Drive  
 St. Louis, Missouri 63026  
 USA  
 Tel: (636) 343-6112  
 Fax: (636) 343-7473  
 email: sales1@bitrode.com  
 web: www.bitrode.com

**BITRODE CORPORATION EUROPE**  
 Via Spagna, 13  
 37069 Villafranca  
 Verona, Italy  
 Tel: +39 (045) 633 5797  
 Fax: +39 (045) 630 3911  
 email: sales@bitrode.co.uk