

BMOD0083 P048

BMOD0165 P048



TYPICAL FEATURES AND BENEFITS

- Ultra-low internal resistance
- Highest power performance available
- Lowest time constant
- 48.6 V operating voltage
- Individually balanced cells
- Over 1,000,000 duty cycles
- Voltage and temperature sensor output included
- Compact, rugged, fully enclosed splash-proof design

TYPICAL APPLICATIONS

- Transportation
- Automotive
- Industrial
- UPS
- Telecommunication

PRODUCT SPECIFICATIONS

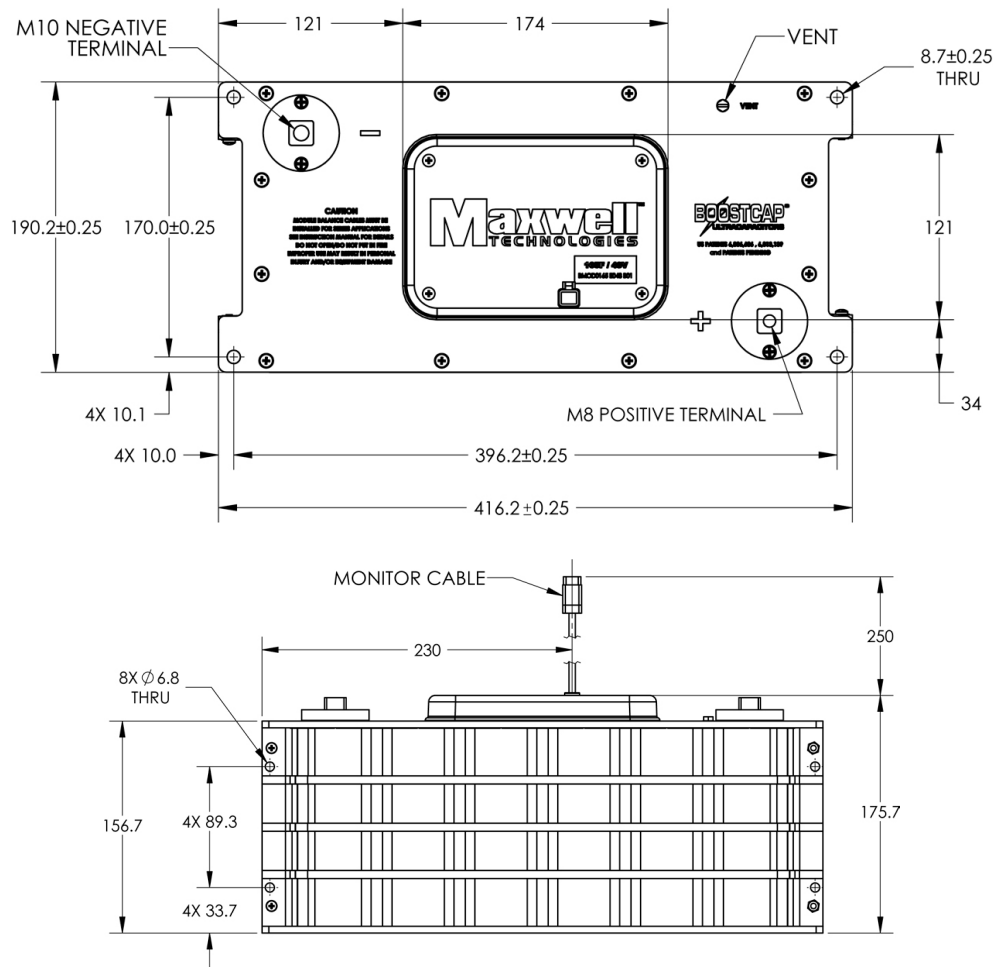
CAPACITANCE	BMOD0083	BMOD0165
Nominal capacitance	80 F	165 F
Tolerance capacitance	+20% / -5%	
VOLTAGE		
Rated voltage	48.6 V DC	
Surge voltage	50.4 V DC	
Maximum operating voltage	750 V DC	
Isolation voltage	2,500 V AC	
RESISTANCE		
ESR, DC Max., room temperature	12.3 mΩ	7.1 mΩ
Resistance tolerance	Max.	
Thermal resistance (Rth)	0.39	0.25
TEMPERATURE		
Operating temperature range	-40°C to +65°C	
Storage temperature range	-40°C to +70°C	
Temperature characteristics		
Capacitance change	± 5% at 25° C (at -40°C)	
Internal resistance change	± 150% at 25° C (at -40°C)	
POWER		
Pd	2,000 W/kg	3,200 W/kg
Pmax	5,400 W/kg	7,900 W/kg
ENERGY		
E _{max}	2.48 Wh/kg	3.81 Wh/kg

LIFESPAN	BMOD0083	BMOD0165
Endurance	After 1,500 hours application of rated voltage at 65°C. Within % of initial specified value.	
Capacitance change	<20% decrease	
Internal resistance change	<60% increase	
Life test	After 10 years at rated voltage and 25°C. Within % of initial specified value.	
Capacitance change	30% decrease	
Internal resistance	150% increase	
Shelf Life	After 1,500 hours storage at 65°C without load shall meet specification for endurance.	
CYCLES		
Capacitors cycled between specified voltage and half rated voltage under constant current at 25°C (1,000,000).		
Capacitance change	30% decrease	
Within % of initial specified value.		
Internal resistance	150% increase	
Within % of initial specified value.		
CURRENT		
Leakage current	3.0 mA	5.2 mA
After 72 hours at 25°C. Initial leakage current can be higher.		
Short circuit current (Isc)	3,900 A	4,800 A
CAUTION: Current possible with short circuit from UR. Do not use as an operating current.		
Maximum continuous current	115 A	150 A
Maximum peak current, 1 sec	2,000 A	4,000 A
1 second, 10% duty cycle		
CONNECTION		
Terminal	Screw	
MONITORING (IN-BUILT)		
Balancing	VMS (Voltage Management System)	
Fan voltage	N/A	
Thermal monitoring	NTC	
SIZE		
Dimensions	See drawing	
(L x W x H) (mm) (±0.5mm)		
Volume	8.5 L	12.6 L
Weight	11.0 kg	14.2 kg
RATINGS		
Humidity resistance	IP65	
Vibration resistance	SAE J2380	



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DIMENSIONS (mm)

Part number	L (±0.25mm)	W (±0.25mm)	H (±0.25mm)	s (±0.5mm)
BMOD0083 P048	416.2	190.1	103.2	53.7
BMOD0165 P048	416.2	190.1	156.7	89.3

Product dimensions are for reference only unless otherwise identified. Product dimensions and specifications may change without notice. Please contact Maxwell Technologies directly for any technical specifications critical to application.

MOUNTING RECOMMENDATIONS

Modules can be secured at 8 locations, 4 front face and/or 4 bottom face, at provided holes for M8 bolt. Follow user manual instructions for terminal, balance and output connections.

MARKINGS

Modules are marked with the following information: Rated capacitance, rated voltage, product number, name of manufacturer, positive and negative terminal, warning marking, serial number.

Maxwell Technologies, Inc.
Worldwide Headquarters
9244 Balboa Avenue
San Diego, CA 92123
USA
Tel: +1 858 503 3300
US Free Call: +1 877 511 4324
Fax: +1 858 503 3301

Maxwell Technologies SA
CH-1728 Rossens
Switzerland
Tel: +41 (0)26 411 85 00
Fax: +41 (0)26 411 85 05

Maxwell Technologies, GmbH
Brucker Strasse 21
D-82205 Gilching
Germany
T: +49 (0)8105 24 16 10
F: +49 (0)8105 24 16 19

Maxwell Technologies, Inc.
Shanghai Representative Office
Rm.2104, Suncome Liauw's Plaza
738 Shang Cheng Road, Pudong New Area
Shanghai 200120, P.R. China
Tel: +86 21 5836 5733
Fax: +86 21 5836 5620

Online: www.maxwell.com • Email: info@maxwell.com