Terminal Lugs

Series: BMOD

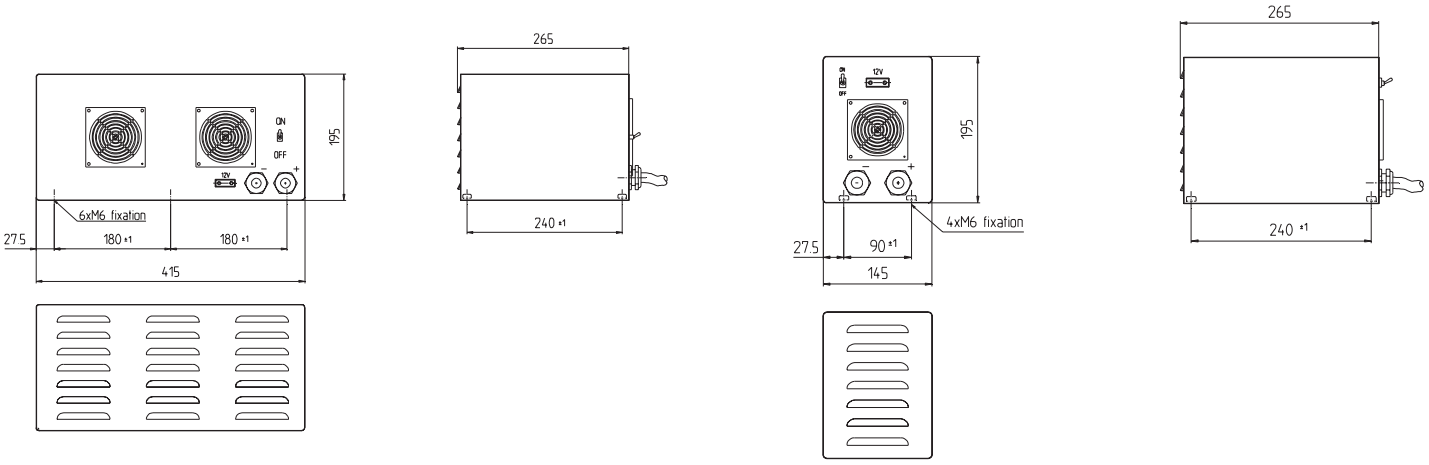
› Features:

- Reliable operation at very low temperatures and low voltages is guaranteed
- The ability to carry out 500,000 charging and discharging cycles
- Operating life of more than 10 years
- Needs no maintenance

› Applications:

- Automotive subsystems
- Heavy duty vehicle subsystems

› Dimensions:



Case size	Dimensions, mm			Weight [g]	Vol. [l]	Typical package qty
	L	W	T			
BMOD0115AV	415	195	265	16000	22	1
BMOD0115PV	415	195	265	15000	22	1
BMOD0117AV	145	195	265	6500	7.5	1
BMOD0117PV	145	195	265	6000	7.5	1

Product dimensions and specifications may change without notice. Please contact Maxwell Technologies directly for any technical specifications critical to application.

Specifications:

	Product Specification					
	BMOD0115AV	BMOD0115PV	BMOD0117AV	BMOD0117PV	Tolerance	Standard
Mounting	Bolt down					
Capacitance, C_R [F]	145	145	435	435	+/- 20%	
Voltage, U_R	42		14			
Internal resistance, DC [ohm]	0.01	0.01	0.0042	0.0042	+/- 25 %	
Internal resistance, 1 kHz [ohm]	0.0054	0.0054	0.0018	0.0018	+/- 25 %	
Rated current, [A]	600	600	600	600		5s discharge to 1/2 U_R
Leakage current [mA]	10	10	10	10		72 hrs, 25°C
Operating temp. range [C]	-40 to 65					
Storage temp. range [C]	-40 to 70					
Endurance, Capacitance [F]	< 20% decrease					1000 hrs @ U_R and 70°C
Endurance, Resistance [ohm]	< 40% increase					
Power, P_d [W/kg]	1323	1323	904	904		
Power, P_v [W/l]	962	962	784	784		
Life Time	△C < 20% decrease, ESR < 200% increase					from initial value after 10y @ 25°C
Cycle Life	△C < 20% decrease, ESR < 200% increase					from initial value after 500K cycles @ 25°C
Balancing Option	Active	Passive	Active	Passive		See additional technical information

Markings: Modules are marked with the following information

Rated capacitance, Rated voltage, product number, name of manufacturer, positive and negative terminal, warning marking

Mounting Recommendations:

Bolt down using allocated slots. Components should not be operated outside recommended limits.

Additional Technical Information:

In the majority of applications, the ultracapacitors are connected in series and parallel in order to reach the required voltage which generally lies in the range of 14 and 700 Vdc.

Cell voltage balancing which is required to protect the capacitors from over-charging can be implemented in any of the following three methods:

- Passive device for equalizing the voltages with resistances
- Passive device for equalizing the voltages with diodes
- Active device for equalizing the voltages

Today Maxwell offers an active sharing device which ensures balanced cell voltages and a maximum energy stored with a high efficiency. This voltage balancing device allows individual cells of up to 2.5 V to be combined in modules with an operating voltage of several hundred volts.

Note: If modules are connected in series, proper module-to-module balancing needs to be done to ensure each individual module in the string is not overcharged. Contact Maxwell sales staff for further information.

Patent Pending

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