

Pole Connections

Series: BMOD



> Features:

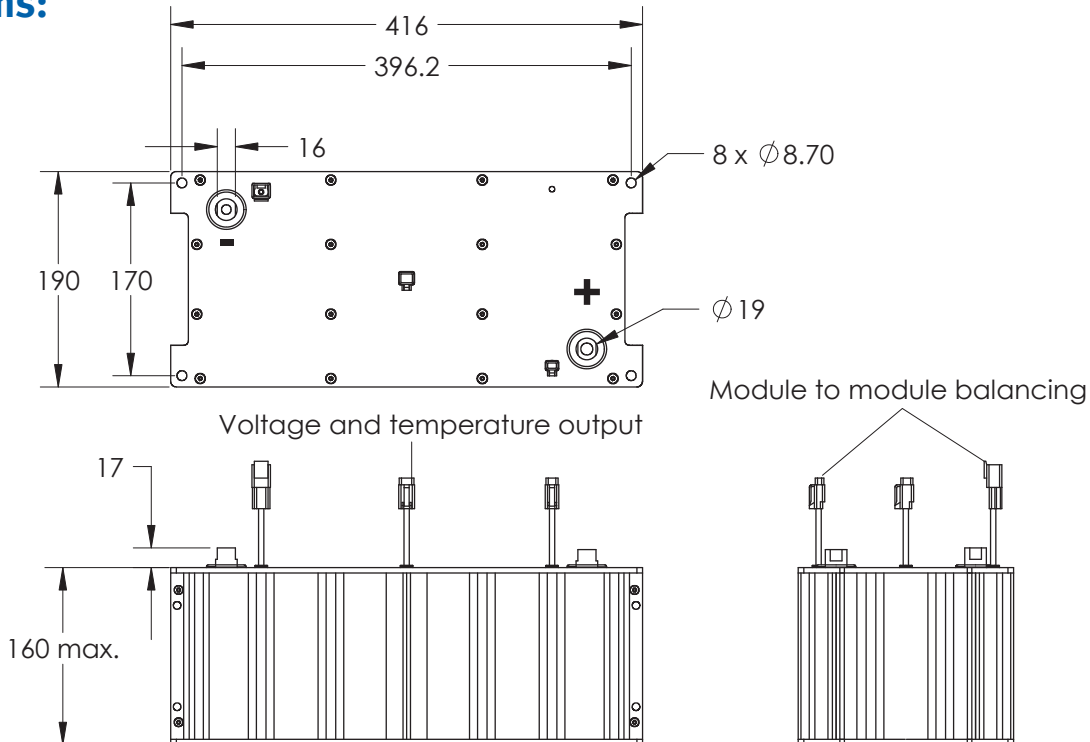
- > 48.6 V operating voltage
- > Compact, rugged, fully enclosed and splash proof design
- > Polarized waterproof connectors
- > Individually balanced cells
- > Mountable option included
- > Module-to-module balancing
- > Voltage and temperature sensor output included



> Applications:

- > Automotive subsystems
- > Heavy duty vehicle subsystems
- > Rail system power
- > Power quality
- > Fuel cells

> Dimensions:



Sales Part #	Balancing	Dimensions, mm			Weight [kg]	Vol. [l]	Typical package qty
		L	W	T			
BMOD2600-48	Active	416	160	190	13.5	13.4	1

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

> Specifications:

	Product Specification		
	BMOD2600-48	Tolerance	Standard
Interconnects	Threaded Screw terminals		Pos. M8 x 1.25; Neg. M10 x 1.5, 6H x 15mm deep
Capacitance, C_R [F]	144	+ 20%	
Voltage, U_R	48.6		
Internal resistance, DC [mohm]	11	Max.	Discharging at Constant Current (25°C)
Internal resistance, 100 Hz [mohm]	8	Max.	
Thermal resistance, k_f [°C/W]	0.27		$\Delta T = D k_f I_c^2 R_d$
Short circuit current, I_{SC} [A]	5000		Caution , current possible with short circuit from U_R
Leakage current [mA]	5	Max.	72 hrs, 25°C
Operating temp. range [C]	-40 to 65		
Storage temp. range [C]	-40 to 70		
Endurance, Capacitance [F]	< 20% decrease from initial		1500 hrs @ U_R and 65°C
Endurance, Resistance [ohm]	<60% increase from initial		
Maximum energy, E_{max} [Whr/kg]	3.4		Full discharge from U_R
Peak Power Density, [W/kg]	5,400		Matched load
Power, P_d [W/kg]	1,900		See additional technical information
Life Time	$\Delta C/C_R < 30\%$, ESR < 2.5 x increase		from initial spec after 10 years @ U_R and 25°C
Cycle Life Time	$\Delta C/C_R < 20\%$ decrease, ESR < 2x increase		from initial spec after 1M cycles (U_R to 1/2 U_R) @ 25°C (I=100A)

> Markings: Modules are marked with the following information

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

> Mounting Recommendations:

The module can be secured at 8 locations with clearance for M8 or .312” screws. Refer to layout drawing for hole spacing. Maximum torque for M8 and M10 screw terminal is 10Nm. Terminal post must be secured across 16mm wrench flats while tightening. Optimal heat transfer for module cooling is at flat ends of module.

> Additional Technical Information:

$$P_d = (0.12 \times E^2 / R_d) / M$$

$$\Delta T = D k_f I_c^2 R_d$$

E = charge voltage (U_R)

M = capacitor weight (kg)

D = duty cycle

R_d = internal resistance (DC)

V = capacitor volume (l)

I_c = continuous current

Patents Pending

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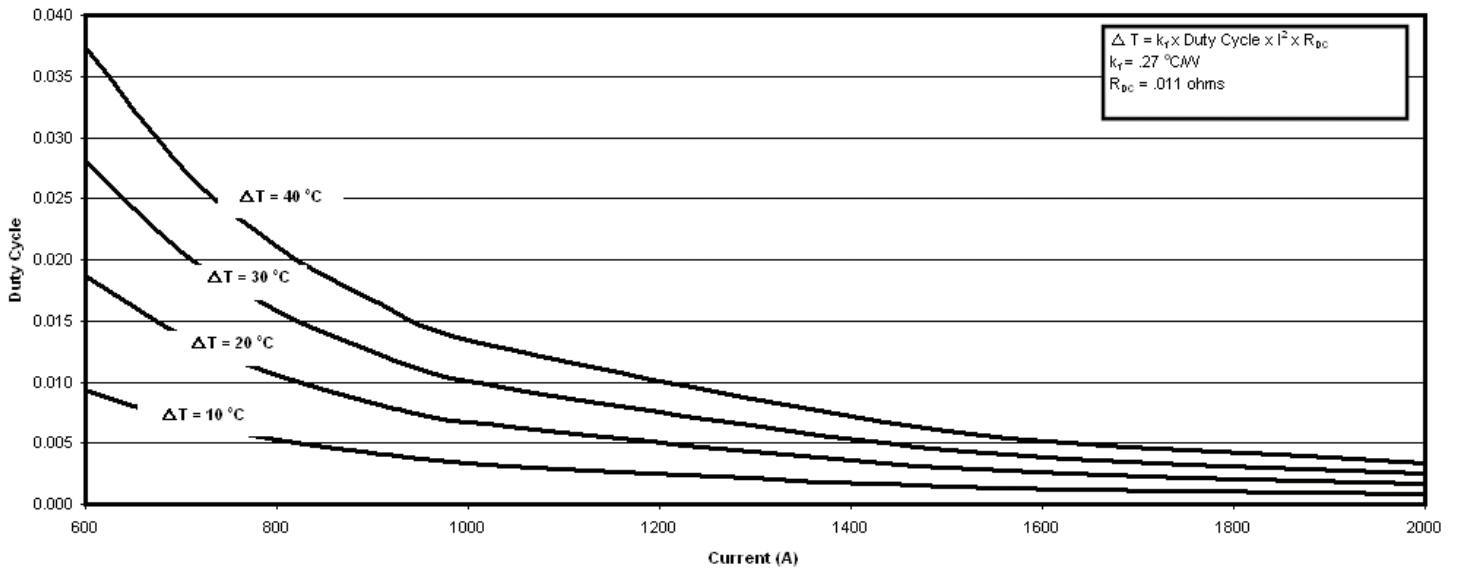
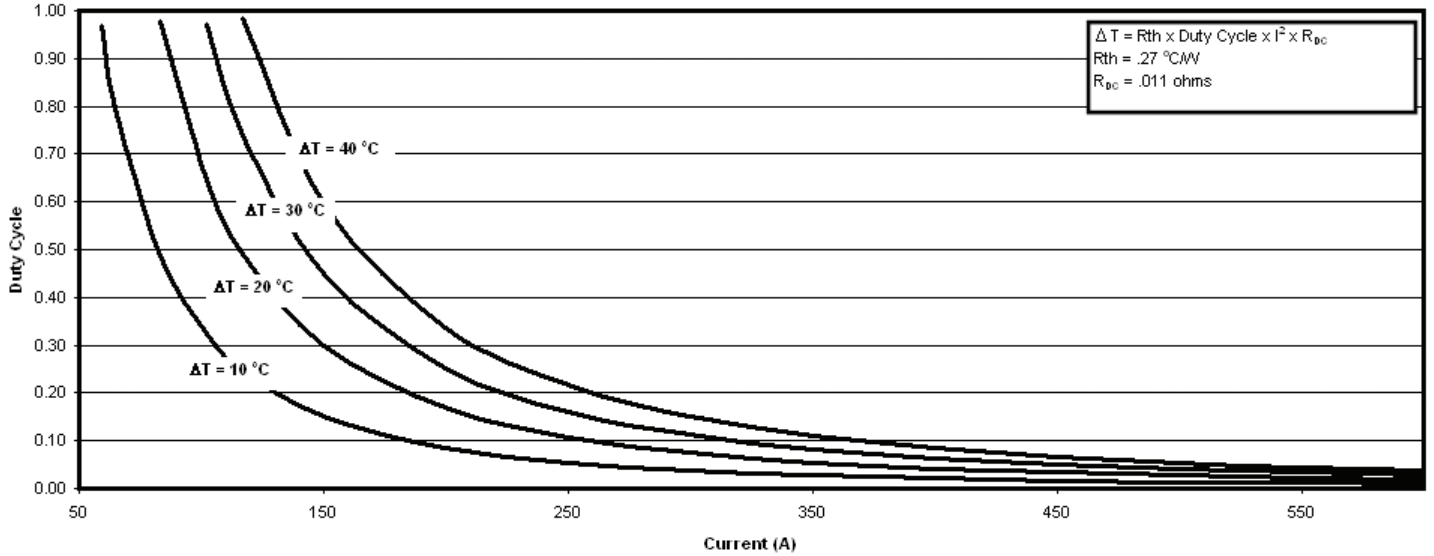
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› **ΔT - duty cycle vs. operating current:**

› Curves generated under free convection at 25°C ambient



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