

Series: MC



› **Features:**

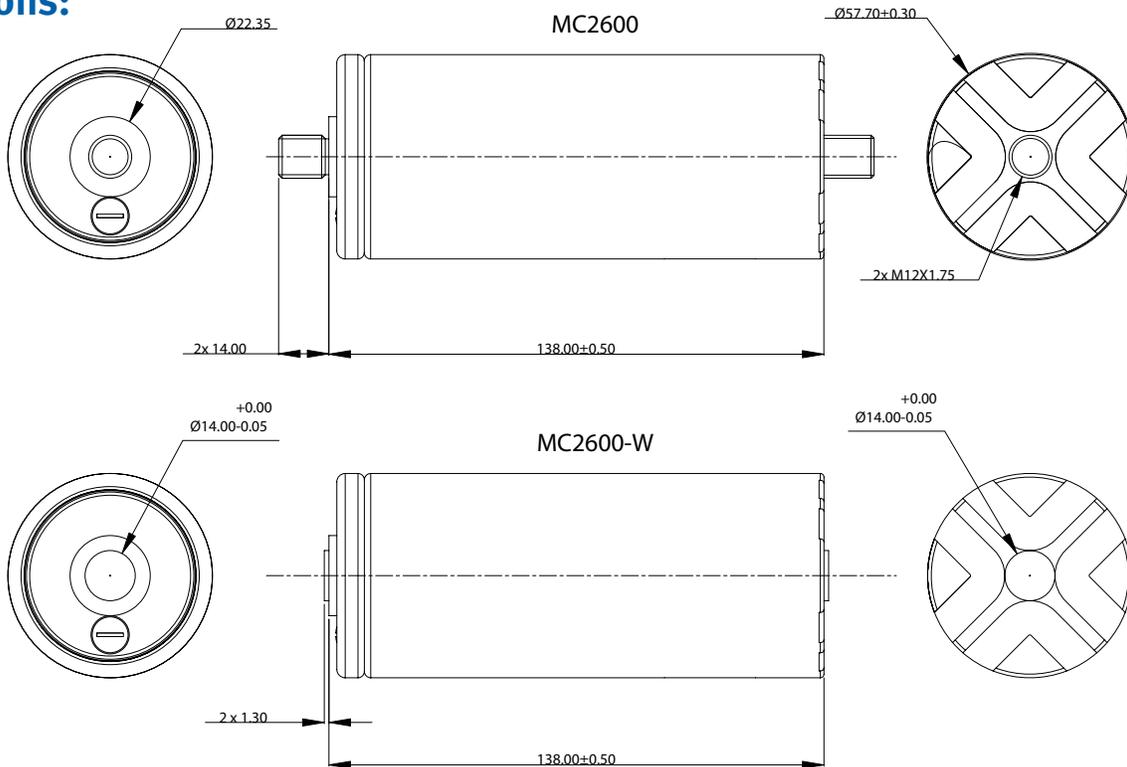
- › 2.7 V operating voltage
- › Over 1M duty cycles
- › Threaded terminal or weldable post versions
- › Ultra-low internal resistance



› **Applications:**

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

› **Dimensions:**



Sales Part #	Dimensions, mm		Weight [g]	Vol. [l]	Typical package qty
	L	Ø			
MC2600	166	57.7	470	0.36	15
MC2600-W	138	57.7	470	0.36	15

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

> **Specifications:**

	Product Specification			
	MC2600	MC2600-W	Tolerance	Standard
Interconnects	Threaded Terminal	Weldable Post		(2X) M12 x 1.75 -6h x 14mm long
Capacitance, C <sub>R</sub> [F]	2,600		+20%	
Voltage, U <sub>R</sub>	2.7			
Internal resistance, DC [mohm]	0.40		Max.	Discharging at Constant Current (25°C)
Internal resistance, 100 Hz [mohm]	0.28		Max.	
Thermal Resistance, R <sub>th</sub> [°C/W]	3			$\Delta T = D R_{th} I_c^2 R_d$ See Page 3 for Current Chart
Short circuit current, I <sub>sc</sub> [A]	5,000			<b>Caution</b> , current possible with short circuit from U <sub>R</sub>
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 <sub>R</sub> and 65°C
Endurance, Resistance [mohm]	< 60% increase from initial			
Maximum Energy, E <sub>max</sub> [Whr/kg]	5.6			Full discharge from U <sub>R</sub>
Peak Power Density [W/kg]	10,400			Matched load
Power, P <sub>d</sub> [W/kg]	4,100			See additional technical information
Life Time	$\Delta C/C_R < 30\%$ , ESR < 2.5 x increase			from initial spec after 10 years @U <sub>R</sub> and 25°C
Cycle Lifetime	$\Delta C/C_R < 20\%$ decrease, ESR < 2x increase			from initial spec after 1M cycles (U <sub>R</sub> to 1/2 U <sub>R</sub> ) @ 25°C (I = 100A)

> **Markings: Capacitors are marked with the following information**

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

> **Mounting Recommendations:**

Do not reverse polarity.

Maximum torque for M12 screw terminals are 10Nm.

Cells are designed to be connected into series or parallel strings.

> **Additional Technical Information:**

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

$$\Delta T = D R_{th} I_c^2 R_d$$

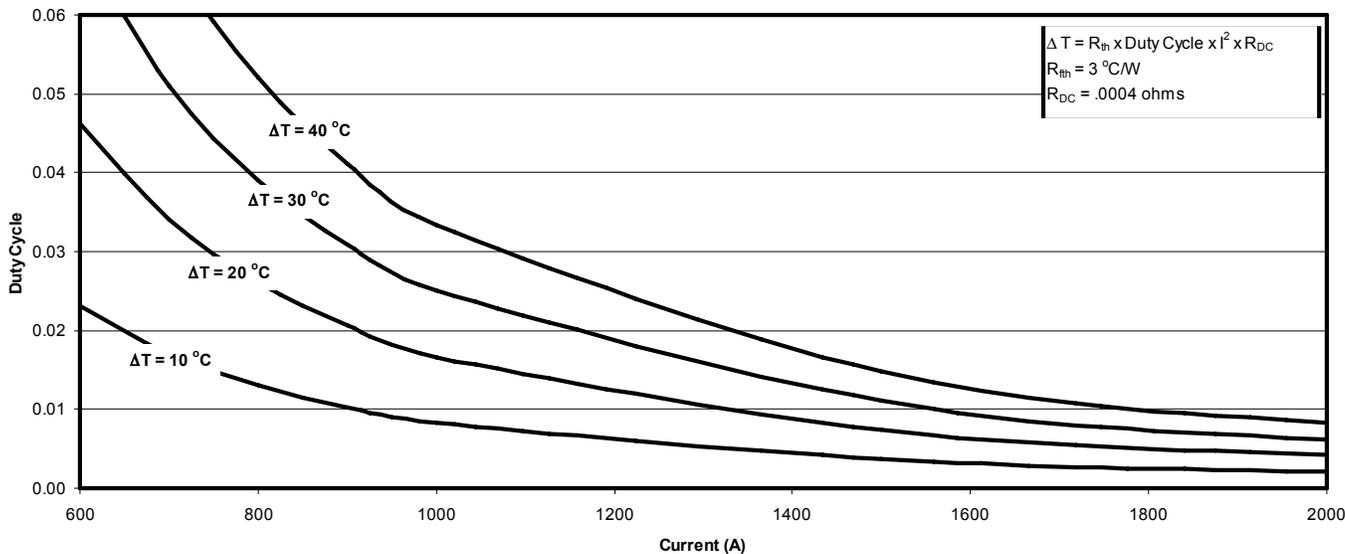
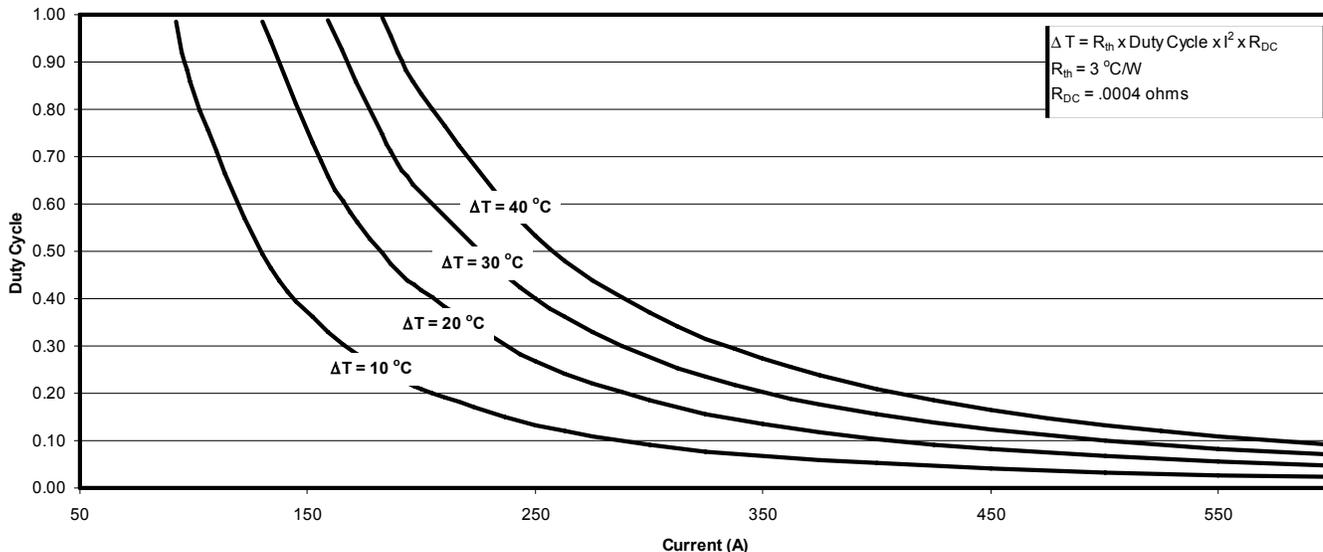
E = charge voltage (U<sub>R</sub>)  
R<sub>d</sub> = internal resistance (DC)

M = capacitor weight (kg)  
V = capacitor volume (l)

D = duty cycle  
I<sub>c</sub> = continuous current

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

› Curves generated under free convection at 25°C ambient



Patent Pending

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