



Series: iCAP

Features:

- Made in USA
- Weldable screw terminals
- Highest power performance available
- RoHS compliant
- Long life
- Extreme temperature Operating range

Applications:

- High power
- High rate cycling
- High cycle life (>1,000,000 cycles)

Markets:

- Automotive subsystem
- Engine starting
- Rail systems
- Hybrid drive trains
- Material handling/utility vehicles
- Regen brake energy capture
- Backup power
- Grid/power correction
- UPS/carry through power

Markings:

Products are marked with the following:

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



Operating

Voltage, Rated	2.7 V
Voltage, Surge	2.85 V
Capacitance Tolerance	+10% / -0%

Temperature

Range, Operational	-40°C to 65°C
Range, Storage	-40°C to 70°C

Life

DC	10 years, rated voltage, 25°C
	$\Delta C < 20\%$ decrease, ESR < 100% increase
Endurance	1000 hrs, rated voltage, 60°C
	$\Delta C < 20\%$ decrease, ESR < 100% increase
Shelf	1000 hrs, no voltage, 70°C
	$\Delta C < 20\%$ decrease, ESR < 100% increase
Cycle	>1,000,000 cycles, Rated to half rated voltage, 25°C
	$\Delta C < 20\%$ decrease, ESR < 100% increase

Standards Compliance (pending)

RoHS UL810a BS EN 60068-2-6,27,29 IEC 60068
2-14 SAE J2464 J2390 J1455 ASTM B117 IP65
MIL 810 B-(516.3-5, 514.3-1, 509.2-1)



Product Specifications

Part Number	RSC2R7308LR
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Electrical

Capacitance (F)	3000
ESR, DC \leq (m Ω) [10ms]	0.26
ESR, AC 1kHz \leq (m Ω)	0.22
Inductance \pm 20(nH)	60
72hr Leakage \leq (mA)	5.0

Cycling

Current, Peak [1s] (A)	2300
Continuous Current (A)*	145
Current, Short Circuit (A)	10,000

Thermal

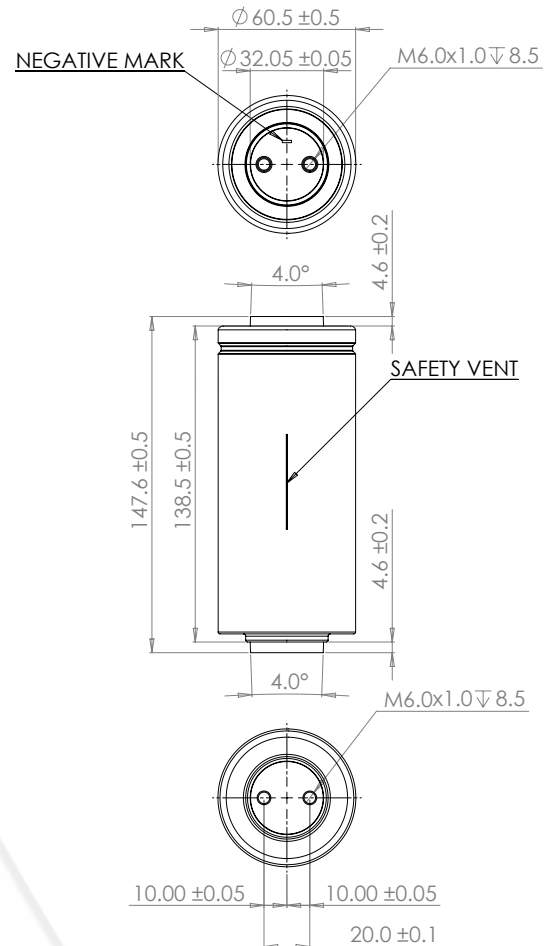
Resistance, Thermal ($^{\circ}$ C/W)	4
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Energy/Power

E_{max} (Whr)	3.04
E_{max} (Whr/kg)	6.0
E_{max} (Whr/L)	7.7
P_{max} (kW/kg)	16.2
P_{max} (kW/L)	20.9
P_d (kW/kg)	6.6

Physical

D (mm)	60.5
L (mm)	138
Mass (kg)	0.510
Volume (L)	0.397
Volume of ACN (L)	0.240
Screw Threads	M6X1
Max Torque	5 Nm (44 Inch/Lbs)



Additional Technical Information

Product specification test methods available in separate document.

*Rated current = continuous current with 20° C temperature rise.

Mounting Recommendation

Do not reverse polarize. Solder following recommendations in *Notes on Using Ultracapacitors*, available at www.ioxus.com.



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