

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)
- System prototyping/testing with available integration kit (iKIT60MM2V7A2S)

Markets:

- Automotive subsystem
- Engine starting
- Regen energy capture
- Backup power
- Grid/power correction
- UPS/ride 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	-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, 65°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

RoHS UL810a BS EN (IEC) 60068-2-6,14,27
SAE J2380 ISO 16750-3 (T14) Chinese RoHS



Product Specifications

Part Number	RSC2R7128LR	RSC2R7208LR	RSC2R7308LR
Capacitance (F)	1200	2000	3000
ESR, DC \leq (m Ω) [10ms]	0.30	0.28	0.26
ESR, AC 1kHz \leq (m Ω)	0.25	0.22	0.2
Inductance \pm 20(nH)	60	60	60
72hr Leakage \leq (mA)	2	4.2	5

Cycling

Current, Peak [1s] (A)	1200	1800	2300
Continuous Current (A)*	90	120	145
Current, Short Circuit (A)	10,000	12,000	13,000

Thermal

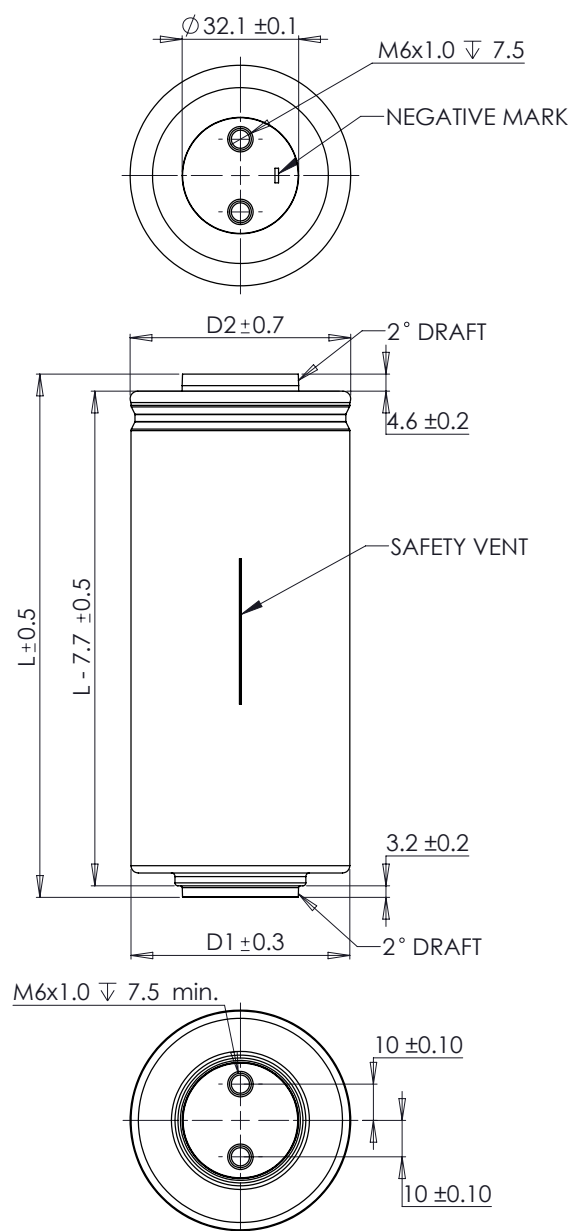
Resistance, Thermal ($^{\circ}$ C/W)	5	4.5	4
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Energy/Power

E _{max} (Whr)	1.2	2.0	3.0
E _{max} (Whr/kg)	4.1	5.2	6.0
E _{max} (Whr/L)	6.2	7.3	7.7
P _{max} (kW/kg)	21	17	14
P _{max} (kW/L)	31	23	18
Pd (kW/kg)	10	8.0	6.6

Physical

D1 (mm) (+/- 0.3)	60.2		
D2 (mm) (+/- 0.7)	60.7		
L (mm) (+/- 0.5)	80	108.1	144
Mass (kg)	0.29	0.39	0.51
Volume (L)	0.196	0.277	0.397
Volume of ACN (L)	0.093	0.140	0.240
Screw Threads	M6X1		



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. Contact your Ioxus representative for ordering and application information regarding sizing and to purchase integration kits



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