

AE Series

Soft-pack LIC Cell 软包式LIC 单体

Typical applications 典型应用

- Rail transit
- Smart power grids
- Tunnel and mining locomotives
- Port trucks
- Pure electric buses
- Energy-saving elevators
- Emergency UPS
- Electric tools
- Ferries, sightseeing cars, golf carts, AGV and RGV
- Hybrid power-driven engineering and harbor machinery
- Wind, solar and other renewable-energy storage
- Other high-power and high-energy applications



Branding illustration / 品牌外观示意

Electrical characteristics 电气特性

Parameter / 项目	Specification / 规格
Rated voltage / 额定电压	2.5-4.0 V
Operating temperature / 工作温度	-25 to +55 °C
Surge voltage / 浪涌电压	4.35 V
Capacitance range / 容量范围	3000-20000 F
Capacitance tolerance at 25 °C / 容量偏差	-20% to +20%

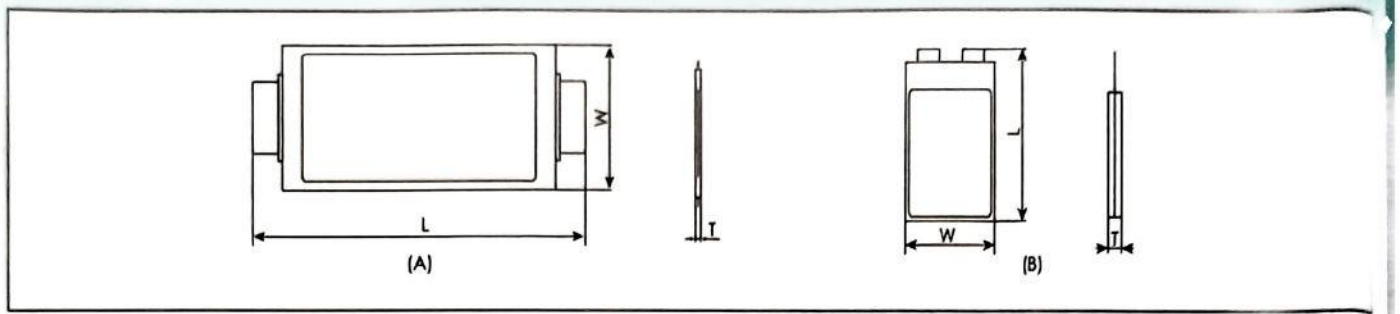
Reliability characteristics 可靠性特性

Test / 项目	Condition / 条件	Requirements / 要求
Temperature characteristics 温度特性	-25 to +55 °C -25 至 +55 °C	Capacitance change: within 50% of initial value at 25 °C ESR _{AC} : "4 × initial specified value 容量变化: 50% 以内; 内阻: ≤4 倍
High-temperature load 高温负荷	Rated voltage, 55 °C, 1,000 h 额定电压, 55 °C, 1,000 小时	Capacitance change: within 20% of initial value ESR _{AC} : "2 × initial specified value 容量变化: 20% 以内; 内阻: ≤2 倍
High-temperature storage 高温存储	55 °C, 1,000 h 55 °C, 1,000 小时	Capacitance change: within 20% of initial value ESR _{AC} : "2 × initial specified value 容量变化: 20% 以内; 内阻: ≤2 倍
Cycle life 循环寿命	50,000 cycles, 25 °C 2.5-4.0 V 50,000 次充放电循环, 25 °C	Capacitance change: within 20% of initial value ESR _{AC} : "2 × initial specified value 容量变化: 20% 以内; 内阻: ≤2 倍

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Dimensions 外形尺寸



Dimensions in mm. Tolerances are shown in the drawing.

Ratings and part numbers 额定值与料号

U _R (Surge Voltage) Code 额定电压 (浪涌电压) 代码	Rated Capacitance 额定容量 25℃ (*)	Storage Energy 储存能量, 25℃	Impedance 内阻		Rated Current 额定电流	Self-discharge 自放电 (72hrs)	Dimension 尺寸 (L*W*T)	P/N 产品代码
			ESR _{DC} 直流内阻	ESR _{AC} 交流内阻 (1KHz)				
(V)	(F)	(Wh)	(mΩ)	(mΩ)	(A)	(V)	(mm)	
4.0 (4.35) 4R0	3000	5.95	≤6.5	≤3.5	8	≥3.92	100 x 60 x 9.2 (B)	SCCHAE4R0308M
	10000	18.5	≤2.5	≤1.5	25	≥3.92	300 x 123 x 5.2 (A)	SCCHAE4R0109M
	15000	30.0	≤1.5	≤1.2	37.5	≥3.92	300 x 123 x 8.2 (A)	SCCHAE4R0159M
	17000	34.0	≤1.2	≤1.2	42.5	≥3.92	300 x 123 x 8.3 (A)	SCCHAE4R0179M
	20000	42.0	≤1.1	≤1.0	50	≥3.92	300 x 123 x 10.8 (A)	SCCHAE4R0209M

*Refer to 《Ultra-capacitor for electric vehicles QC/T-741-2014》 for the test method of rated cap.

*额定容量的测试方法参见《车用超级电容器 QC/T-741-2014》