

Typical application 典型应用

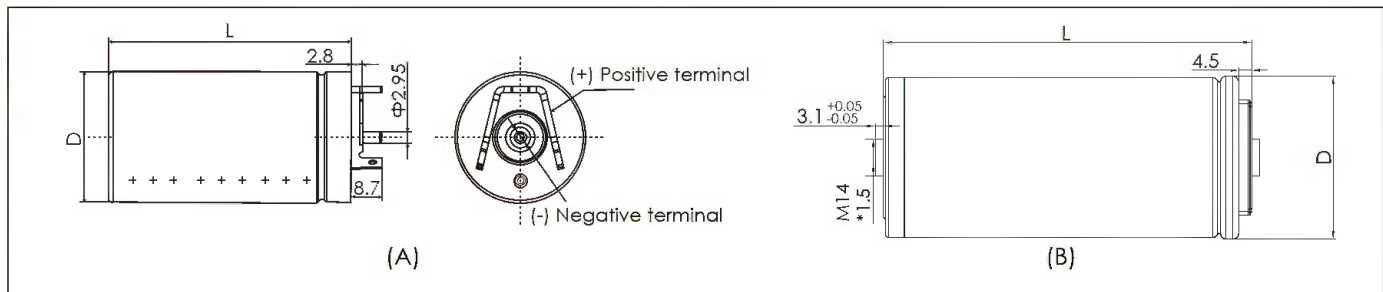
- Rail transit 轨道交通
- Smart power grids 智能电网
- Tunnel locomotive, mining locomotive 隧道机车、矿用机车
- Port truck 码头车
- Pure electric bus 纯电动公交车
- Ferry, sightseeing car, golf cart, AGV and RGV 渡轮、观光车、高尔夫球车、AGV及RGV
- Energy saving elevator 节能电梯
- Hybrid power driven engineering machinery and harbor machinery 混合动力工程机械及港口机械
- Emergency UPS 应急后备电源
- Electric tools 电动工具
- Wind power, solar and other renewable energy storage 风电、光伏等可再生能源储能
- Other high power and high energy applications 其他对功率和能量要求比较高的工况应用



Items 项目	Characteristics 特性		
Rated Max. Operating Voltage 额定最高工作电压	4.0 V		
Rated Min. Operating Voltage 额定最低工作电压	2.5 V		
Min. Allowable Operating Voltage 最低允许工作电压	2.0 V		
Operating Temperature Rang 工作温度范围	-25~+65°C		
Surge Voltage 浪涌电压	4.35 V		
Capacitance Range 容量范围	3000~32000 F		
Capacitance Tolerance 容差范围(25°C)	M: -20~+20%		
Temperature Characteristics 温度特性	The specifications shall be met at category temperature range from -25°C to 65°C 在-25°C至65°C温度范围内, 应满足规范	Capacitance change 容量变化	Within 50% of the initial value at 25°C 在25°C时初始值的50%以内
		ESR _{AC} change 交流内阻变化	Not more than 4 times of the initial specified value at 25°C 不超过25°C时初始规定值的4倍
High Temperature Loaded 高温负荷	The specifications shall be met after rated voltage applied at 65°C for 1000 hours 在65°C温度下, 以额定电压恒压1000h后, 应满足规范	Capacitance change 容量变化	Within 20% of the initial value 在初始值的20%以内
		ESR _{AC} change 交流内阻变化	Not more than 2 times of the initial specified value 不超过初始规定值的2倍
High Temperature Storage 高温存储	The specifications shall be met after storage at 65°C for 1000 hours 在65°C温度下, 储存1000h后, 应满足规范	Capacitance change 容量变化	Within 20% of the initial value 在初始值的20%以内
		ESR _{AC} change 交流内阻变化	Not more than 2 times of the initial specified value 不超过初始规定值的2倍
Cycle Life 循环寿命	The specifications shall be met after 50,000 cycles at 25°C, cycle of charge/discharge from 2.5~4.0V 在25°C温度下, 2.5~4.0V充放电循环50000次后, 应满足规范	Capacitance change 容量变化	Within 20% of the initial value 在初始值的20%以内
		ESR _{AC} change 交流内阻变化	Not more than 2 times of the initial specified value 不超过初始规定值的2倍

Dimensions 尺寸

mm



Ratings for HGA Series HGA 系列额定值

U _s (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 (ΦD×L)	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	5.00	≤3.0	≤2.5	13	≥3.92	33×62(A)	SCCHGA4R0308M
	4000	6.50	≤2.8	≤2.3	16.3	≥3.92	33×77(A)	SCCHGA4R0408M
	5000	8.30	≤2.7	≤2.2	21	≥3.92	33×90(A)	SCCHGA4R0508M
	6000	10.00	≤2.5	≤2.0	26	≥3.92	33×105(A)	SCCHGA4R0608M
	6500	10.80	≤2.3	≤1.8	28	≥3.92	35×105(A)	SCCHGA4R0658M
	11000	15.50	≤0.47	≤0.46	55	≥3.92	60×74(B)	SCCHGA4R0119M
	25000	36.00	≤0.46	≤0.45	100	≥3.92	60×138(B)	SCCHGA4R0259M
32000	50.00	≤0.50	≤0.48	52	≥3.92	60×138(B)	SCCHGA4R0329M	

* Refer to (GB/T 34870.1-2017 Super capacitors - Part 1: General) for the test method of rated cap.

*额定容量的测试方法参见 (GB/T 34870.1-2017 超级电容器 第1部分: 总则)