

High Power Cycling

HYBRID SUPERCAPACITOR PRISMATIC CELLS



Hybrid SuperCapacitors

Musashi's Hybrid SuperCapacitor (HSC) products deliver unparalleled high-power density energy storage to meet the diverse needs of an electrified world with flexible configurations.

Our adoption of the world's first prismatic design for a hybrid supercapacitor has resulted in exceptional durability and much higher heat dissipation efficiency than ordinary cylindrical types. The CP Series Prismatic Cells offer an optimal solution for OEMs and System Integrators seeking to tailor voltages and energy storage capacities according to their specific requirements.

Key Benefits

- High operating voltage (3.8V)
- High output ($\approx 1300\text{A}$ charge/discharge)
- High energy density ($\approx 26\text{Wh} / \text{L}$)
- Rapid charging/discharging due to large current capabilities up to 360A per UL 810A
- High durability (over 1 million 100% discharge / recharge cycles)



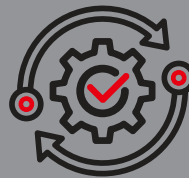
High Power Density

Saves space in your facility or enclosure



Long Product Life

More than 15 years, even in the most challenging environments



High Cycle Life

Achieve up to 1M+ full discharge/recharge cycles



Safe and Reliable

No thermal runaway and over a decade in the field



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BEYOND**

Specification Overview

Highlights

- Wide operating temperature range without performance degradation (-30°C to 70°C)
- High safety (no thermal runaway concerns)
- Minimal self-discharge (voltage drop at 10,000 hours less than 5%)
- Attractive Total Cost of Ownership with greater than 15-year lifespan
- UL 810A Recognized, UL 9540A Tested



		CPO3300SD	CPP4100SA
Rated Voltage		3.8V ~ 2.2V	
Initial characteristics	Capacitance (F) Nominal Value	3300F	4100F
	Capacity (Ah)	1.4Ah	1.8Ah
	DC-IR (mΩ)	0.7mΩ	1.0mΩ
	Gravimetric energy density	13Wh/kg	17Wh/kg
	Volumetric energy density	20Wh/L	26Wh/L
	Gravimetric power density	10kW/kg	9kW/kg
	Volumetric power density	15kW/L	13kW/L
	Continuous charge & discharge current*	360A	360A
Maximum discharge current (1 sec)		1300A	1200A
Cycle durability (100% DOD)		≥1,000,000	≥100,000 (≥2,000,000@DOD60%)
Cycle counts required to 80% capacitance retention			
Operating temperature range - °F / °C		-22°F - 158°F / -30°C - 70°C	-22°F - 158°F / -30°C - 70°C
Dimensions - inches / mm		5.91" x 3.67" x 0.62" / 150.2 x 93.2 x 15.8mm	
Weight - ounces / grams		12.1oz / 343g	11.4oz / 323g

*Per UL 810A rating

Characteristics Data

