

BATTERY CAPACITORS

HIGH ENERGY TYPE

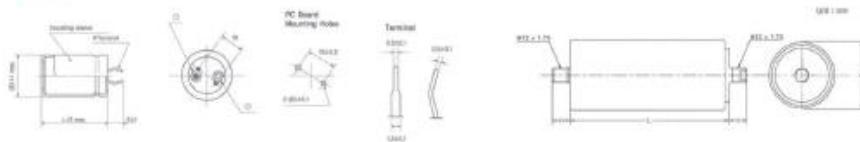
A perfect combination of lithium ion battery and super capacitor technology by SAMWHA is possible to simultaneously achieve high energy density (>110Wh/L), high power density (>1kW/kg), long cycle-life and safety



Specifications

Item	Characteristics	
Operating temperature range	-20 ~ +50℃	
Rated Voltage(Surge)	2.7VDC (2.8V)	
Cut-off voltage	1.6V	
Capacitance tolerance	-10 ~ +20% at 20℃	
Low temperature characteristics	Capacitance change	Within ± 40% of initial value at +20℃
	Internal resistance	Less than 200% of initial at +20℃
	Test time	1000 hours
Endurance	Capacitance change	Within ± 40% of initial value
	Internal resistance	Less than 200% of initial at specified value
Shelf life	After 1000 hours no load test same as endurance	
Cycle Life (25℃) ⁽¹⁾⁽²⁾	15,000 cycles	(1) ΔC < 40% and Δ ESR < 200% of initially specified value, respectively and LC < specified value (2) Cycle : between rated voltage and half rated voltage under constant current at 25℃

Drawing(not to scale)



Product list

Type	Rated Voltage(V)	Capacity(1.6~2.7V)		ESR, 1kHz (mΩ)	ESR, DC (mΩ)	LC(72hr) (mA Max.)	Specific Energy		Weight (g)	Dimension φD×L(mm)
		(F)	(mAh)				(Wh/kg)	(Wh/L)		
Snap-in	2.7	1500	600	20	24	4	31.7	57.9	31	22×45
		3300	1100	17	20	6	40.1	63.7	54	35×35
		6500	2200	11	17	10	43.5	73.6	98	35×60
		9000	3900	8	14	15	45.4	76.7	130	35×82
Axial	2.7	9500	3300	1.3	1.5	6	14.5	42.4	430	60×52
		20000	6400	1.1	1.3	9	25.2	62.5	520	60×74
		33000	9800	1.0	1.2	11	34.4	74.7	630	60×102
		70000	19000	0.9	1.1	15	56.7	116.8	810	60×138

* For the special capacitance or design, please contact our sales representatives or product engineers.