

Li Battery v. Super Capacitor Comparison

	LiSoCL2	LiMnO2	LiPO	EDLC	LIC
Rechargeable	Yes	Yes	Yes	Yes	Yes
Cycle life	500~1000	300~700	200~300	>500,000	>20,000
Charging Time	0.3~3 hrs	0.3~3 hrs	2~3 hours	1~30 seconds	1min~1 hour
Discharging Time	1~5 Hours	0.5~1 hour	0.5~1hours	1~30 seconds	1sec~1 hour
Voltage	3.0~3.8v	3.0~3.7v	3.0~3.7v	0~3v	2.5~3.8v
Pulse current	very low	high	not suitable	Very High	High
Energy Density Wh/kg	500~700	100~150	15~90	4	8
Power Density W/kg	50~200	50~200	55~220	2000~5000	500~1000
Effiiciency	0.7~0.85	07~0.85	0.65~0.75	0.90~0.95	0.90~0.95
Operating Temperature	-55c~+85c*	-30~+60c	-20~+70c*	-40c~+85c*	-25~+85c*
Life time	5~15 years	10years	2~3 years	10~50 years	10~20 years
RoHS	No	NO	Some	Yes	Yes
WEEE/REACH	No	NO	No	Yes	Yes
Transporting	Major Concerns with Li	Issues	Issues	none	none
end of life costs	Yes	Yes	Yes	none	none
Cost per watt	Low	Medium	Low	High	Medium
Cost of Product	Low	Medium	Medium	Low	Medium
Weakness			High flammability		Min 2.5v
End of life	Costly	Costly	Costly	no cost	no cost

