

Characteristics of Energy Storage Device

SAMWHA ELECTRIC

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Section	Electrolyte Capacitor	Green-Cap(EDLC)	Rechargeable Battery
Discharging Time	$10^{-6} \sim 10^{-3}$ sec	1 ~ 30 sec	0.3 ~ 4 hrs
Charging Time	$10^{-6} \sim 10^{-3}$ sec	Sec ~ min	0.5 ~ 5 hrs
Operating Temperature	-40°C ~ 125°C	-40°C ~ 85°C	-20°C ~ 60°C
Energy Density(Wh/kg)	< 0.1	1 ~ 15	30 ~ 100
Power Density(W/kg)	>10,000	1,000 ~ 4,000	50 ~ 2,000
Charge/Discharge efficiency	~ 1.0	0.9 ~ 0.95	0.7 ~ 0.85
Charge/Discharge Cycle Life	Infinite	> 500,000	500 ~ 2,000
Discharge Graph			