SUN BEST (HK) INTERNATIONAL CO., LTD.

Performance Comparison of various Rechargeable Batteries

There are five types of rechargeable batteries commercially available. The following table compares their performance and application. Currently the most popular rechargeable batteries are Ni-Cd, Ni-MH and Li-Ion in consumer electronic industry, which are among our major products.Using rechargeable battery can save Environmental and save your money.

Performance Comparison of various Rechargeable Batteries					
Parameters	Lead acid	Ni-Cd	Ni-M-H	Liquid Li-Ion	Polymer Li-ion
Voltage (V)	2	1.2	1.2	3.6	3.6
Weight energy density (Wh/Kg)	35	50	80	125	170
Volume energy Density (Wh/l)	80	150	200	320	400
Cycle life (times)	300	500	500	800	1000
Self discharge (%/ month)	0	25-30	30-35	6-9	2-5
Electrolyte state	Liquid	Liquid	Liquid	Liquid	Polymer Gel
Min. thickness	> 10 mm	>3mm	>3mm	>3mm	<1mm
Memory effect	no	yes	no	No	No
Pollution	yes	yes	No	No	No
Production cost	lowest	Low	middle	High	Middle
Advantages	High drain current and low cost	Middle drain current and low cost, smaller volume	Middle drain current and cost, higher capacity	higher capacity and lighter weight	Highest capacity, lighter weight and flexible shape
Disadvantages	Too heavy	Environmental not friendly	Higher self-discharge and weight	Low drain current and higher cost	Low drain current and very high cost
Applications	Car and lighting	Power tool, cordless phone and emergency lighting etc.	Toy, PDA,, MP3 and digital camera etc	Cellular phone and laptop computer	Laptop computers