AA battery wikipedia

AA battery wikipedia

AA batteries are common in portable electronic devices. An AA battery is composed of a single electrochemical cell that may be either a primary battery (disposable) or a rechargeable battery. Several different chemistries are used in their construction. The exact terminal voltage, capacity and practical discharge rates depend on cell chemistry; however, devices designed for AA cells will usually only take 1.2-1.5 V unless specified by the manufacturer.

Alkaline AA cells have a weight of roughly 23 g (0.81 oz),[7] lithium AA cells around 15 g (0.53 oz),[8] and rechargeable Ni-MH cells around 31 g (1.1 oz).[9]

NiMH and lithium-ion AA/14500 cells can supply most of their capacity even when under a high current drain (0.5A and higher), unlike alkaline and zinc-chloride ("Heavy Duty"/"Super Heavy Duty") cells which drop to a small fraction of their low current capacity before even reaching 1 C.[14][15][16][17]

By 2023, several brands of 1.5 V Li-ion rechargeable batteries in both AA and AAA sizes (with voltage converting circuitry in even the small AAA casing) were available. They use various charging methods, without the special Kentli ring third electrode. Some have special chargers--a charger for a 1.2 V cell will not provide sufficient voltage--but do not use a third electrode.[21] Others have a USB port built into the cell itself.[22]

In 2011, AA cells accounted for approximately 60% of alkaline battery sales in the United States. In Japan, 58% of alkaline batteries sold were AA, known in that country as tansan (). In Switzerland, AA batteries totaled 55% in both primary and secondary (rechargeable) battery sales.[23][24][25]

In zinc alkaline AA batteries, a zinc gel slowly turns into a ceramic as power is consumed. This means that fully charged batteries do not bounce when dropped onto a hard surface, but fully discharged batteries do. Because the transition occurs gradually and non-linearly, a bounce does not mean that a battery is fully depleted, but a non-bounce does mean it has charge left. Researchers at Princeton University produced a video showing bounce height with each 10% of discharge.[26]

Contact us for free full report

Web: https://www.sumthingtasty.co.za/contact-us/
Email: energystorage2000@gmail.com
WhatsApp: 8613816583346