

Energizer Battery Systems

Typical Characteristics

	Nickel-Metal Hydride (NiMH)	Carbon Zinc (Zn/MnO₂)	Alkaline Manganese Dioxide (Zn/MnO₂)	Lithium Iron Disulfide (Li/FeS₂)	Silver Oxide (Zn/Ag₂O)	Zinc Air (ZnO₂)	Lithium Manganese Dioxide (Coin) (Li/MnO₂)	Lithium Manganese Dioxide (Cylindrical) (Li/MnO₂)
Electrochemical System	Nickel-Metal Hydride	Zinc-Manganese Dioxide	Zinc-Alkaline Manganese Dioxide	Lithium-Iron Disulfide	Zinc-Silver Oxide	Zinc-Oxygen	Lithium Manganese Dioxide	Lithium Manganese Dioxide
Nominal Voltage	1.2V	1.5V	1.5V	1.5V	1.5V	1.45V	3.0V	3.0V
Negative Electrode (Anode)	Metal Hydride	Zinc	Zinc	Lithium Metal	Zinc	Zinc	Lithium Metal	Lithium Metal
Positive Electrode (Cathode)	Nickel Hydroxide	Manganese Dioxide	Manganese Dioxide	Iron Disulfide	Silver Oxide	Oxygen (from ambient air)	Manganese Dioxide	Manganese Dioxide
Electrolyte	Potassium hydroxide (aqueous)	Zinc chloride (aqueous)	Potassium hydroxide (aqueous)	Lithium salt in organic solvent	Potassium or sodium hydroxide (aqueous)	Potassium hydroxide (aqueous)	Lithium salt in organic solvent	Lithium salt in organic solvent
Rechargeable?	Yes	No	No	No	No	No	No	No
Temperature Range (operating)	Discharge 0°C to 50°C (32°F to 122°F)	-18°C to 55°C (0°F to 130°F)	-18°C to 55°C (0°F to 130°F)	-40°C to 60°C (-40°F to 140°F)	-10°C to 55°C (14°F to 130°F)	-10°C to 50°C (14°F to 122°F)	-20°C to 60°C (-4°F to 140°F)	-40°C to 60°C (-40°F to 140°F)
Typical Applications	Devices requiring frequent battery replacement	Low drain devices	General purpose devices	High drain or extreme temperature applications	Precision miniature electronics	Hearing assistance devices	Compact long- life devices	Professional and industrial applications

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