Nickel-metal hydride batteries from Panasonic for solar-powered applications

Excellent charge characteristics even at high ambient temperatures

Hamburg, 23. July 2018: Solar-powered applications require rechargeable batteries that will function reliably even under harsh ambient conditions. Nickel-metal hydride (Ni-MH) batteries from Panasonic provide reliable energy even at high temperatures and extended periods without sunlight; in addition to a long life, they also have a low self-discharge rate.

Panasonic’s rechargeable Ni-MH batteries are the ideal choice for solar-powered street lights, window blinds, advertising displays, buoys, parking lot lighting, and numerous other applications. Panasonic is among the market leaders in the development and production of photovoltaic modules. “Building on this experience we have continued developing our rechargeable nickel-metal hydride batteries, which are ideal for use in harsh operating conditions, since they are designed for reliable charging and discharging even at temperatures below 0°C and above 60°C”, explains Ikuo Katsumata, chief engineer at Panasonic Industry.

The U series from Panasonic comprises Ni-MH batteries that are especially suitable for use in solar-powered applications: The five models BK60AAAHU, BK120AAHU, BK1100FHU, BK220SCHU and BK310CHU have capacities from 550 - 12,000 mAh and can be used in a broad temperature range from -20 to as high as 85°C. Even at a temperature of 75°C the new Ni-MH batteries from Panasonic consistently demonstrate excellent charge characteristics. In addition, they have a low self-discharge rate. Compared to standard battery types, the life has been nearly doubled to 6-10 years. The batteries are IEC62133-certified and contain no hazardous substances such as cadmium or lead – this means they are safe, environmentally friendly and are not subject to IATA restrictions during transport.

A current example for the use of Panasonic nickel-metal hydride batteries is in GPS buoys for locating sharks off the coast of Australia. Under normal conditions the GPS buoys are powered by solar cells, and excess energy is stored in the Ni-MH batteries. Solutions from Panasonic meet the stringent requirements for reliability and long-term use so that they play a major role in the success of this life-saving application.

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Captions
1: Excess solar energy is stored in nickel-metal hydride (Ni-MH) batteries in the buoy; alkaline-manganese batteries are used for the backup system.

2: Ni-MH batteries from Panasonic can be used in a broad temperature range and have excellent charge characteristics even at high temperatures.

3: Solar buoys enable real-time warning as soon as a shark has been caught.

Photo: Marine Instruments

Meta title: Ni-MH batteries from Panasonic for solar-powered applications
Meta description: Broad temperature range, long life, low self-discharge rate: Panasonic nickel-metal hydride batteries have numerous convincing advantages.

Keywords: nickel-metal hydride, NiMH, rechargeable battery, accumulator, battery life, solar-operated, industrial batteries, solar applications

Deep link: https://eu.industrial.panasonic.com/products/batteries-energy-products


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Panasonic started manufacturing batteries back in 1931. Today, with numerous production sites around the globe, the corporation offers the widest product range of any battery manufacturer worldwide. The product spectrum includes batteries in diverse technologies, including primary batteries (lithium, carbon-zinc and alkaline) and rechargeable secondary batteries (lithium-ion, nickel-metal-hydride, nickel-cadmium and sealed lead-acid batteries).

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