

Batteries for Solar Powered Outdoor Lighting

NiMH Button Cells



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A new focus on rechargeable energy is evident recently as designers look to move from standard light bulbs to high power LEDs for outdoor applications. As the light source is no longer the limiting factor on temperature specification, the battery is receiving more attention in this application.

Battery challenge

The main challenges for this battery are reliable operation at the extended temperature range from outdoor use, leakage free consist performance, several years of lifetime in daily use, low internal resistance, charging possibility by solar cells, and low service effort. Generations of NiMH batteries used in the automotive environment offer secure operation in this surrounding with no stress to the battery due to superior cell construction, while the hermetically sealed housing design gives high stability even under extreme temperature and humidity conditions

For more information, please visit our website:

<https://www.varta-ag.com/de/industrie/produktloesungen/nickel-metallhydrid>

Technical solution:

NiMH Button Cells Technology



6/V 500 HT SK S PCBD
VKB No: 55750 306 012



3/V 500 HT SK S PCBD
VKB No: 55750 303 013

Characteristics	6/V 500 HAT ; 3/V500 HT
Voltage	7,2V ; 3,6V
Cont. discharge current	500mA
Capacity	500mAh
Discharge Temperature range	-20°C to +85°C
Overcharge capability	0.45mA continuous at 20°C for 6 years
Weight	90g ; 45g

VARTA Microbattery's NiMH 6/V 500 HT and 3/V 500 HT batteries (powerful85 family) offer robust, rechargeable battery solutions with reliable power for supplying LED powered standalone outdoor illumination.

7.2 V: PCBD version

3.6 V: PCBD version, for other versions, please contact VARTA Microbattery

- wide temperature range from -20 to +85°C
- long lifetime
- high reliability – due to special sealing construction
- simple charging system so continuous charging possible
- ROHS compatible
- Halogen and Perchlorate free
- UL recognized cell
- environmentally friendly NiMH technology