

## **Cell Specification**

p 675 accu

Sealed Rechargeable Ni-MH Button Cell

# Specification of "Size 675" rechargeable NiMH cell for hearing aids

### Requirements:

Type Number: 54600

Technology: Nickel Metal Hydride

Nominal voltage: 1.2 V

Nominal capacity: 60 mAh

Typical capacity: 68 mAh (after standard charge 16h/6 mA, discharge @ 12

mA up to 1.0 V, at 23°C)

Internal Resistance DC, fully charged: 3 - 6 Ohm

Impedance AC at 1 kHz, fully charged: 0.4 – 0.8 Ohm

Dimensions: similar ("size 675") Zinc-Air cell

Diameter: 11.6 mm Height (max. at delivery): 5.4 mm

Volume: 0.57 cm³
Weight approx: 2.0 g
Energy density approx: 140 Wh/L

Temp. range:

Charge: 0 to +50 °C

Discharge: -20 to +50 °C (full capacity from 0 to +50 °C; charge 0.2 CA

for 7h @ RT)

Storage: -40 to +50 °C

Charging method:

Recommended charging: Temperature compensated CC-CV charge

(for fhurter information please consult VARTA)

Standard Charging: 0.1CA (6 mA) for 16h

Accelarated charging: 0.2CA (12mA) for 7h (time controlled, max. voltage 1.60 volt)



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Note: excessive overcharge lead to cell swelling and

increase the internal resistance.

Overcharge: continuous 0.1 CA up to 1 year @ RT

Charge retention: >80% of nominal capacity after 1 month storage at 20°C

Cycle life: > 500 cycles according to IEC 61951-2

Swelling: Dependent on the overcharge current and the ambient

temperature the cell thickness can temporary exceed the

max. value of 5.40mm.

Overcharge @ 0.1CA max. thickness 5.50 mm Overcharge @ 0.2CA max. thickness 5.65 mm

Deflection space in battery compartment has to be considered accordingly in hearing aids

Note: cell swelling in above range is no indication for cell failure and has no impact for life expectancy.

#### **Further characteristics:**

All other characteristics not specifically mentioned in this document should comply with characteristics of Varta Microbattery's standard program of rechargeable NiMH button cells as described in "High Performance Rechargeable Ni-MH Button Cells, Sales program and Technical Handbook", published June 2004.