

# HIGH TEMPERATURE SERIES

## Nickel-Metal Hydride

### VHT Cs

The new Ni-MH VHT range has been especially designed to fit the emergency lighting and power back-up requirements. This range complements the Ni-Cd VT range.

The VHT Cs is designed to accept a permanent charge in high temperature environments such as security lighting equipment. The VHT Cs offers capacities of 2.0 Ah to fit the needs for energy, required by security and lighting devices.

To meet customers requirements, Saft provides custom-designed and standardized battery packs.

For your battery design and system needs, please contact Saft's engineers.

#### Applications

- Emergency lighting
- Professional lighting
- Power back-up systems

#### Main advantages

- Good charge efficiency at high temperatures
- Permanent charge
- Excellent storage retention

#### Technology

Foam positive electrode  
Metal-hydride negative electrode

#### Temperature range in discharge

+ 5°C to + 55°C

#### Storage

Recommended: - 5°C to + 25°C  
Relative humidity: 65 ± 5%

Data are given for single cells

Please consult Saft for utilization of cell outside this specification.



#### Electrical characteristics

Nominal voltage (V)	1.2
Typical capacity (mAh)*	2200
IEC rated capacity (mAh)*	2000
IEC designation	HRT 23/43
Impedance at 1000 Hz (mΩ)	5.3

\* Charge 16h at C/10, discharge at C/5

#### Dimensions

Diameter (mm)	22.0 ± 0.05
Height (mm)	42.4 ± 0.2
Top projection (mm)	0.85 ± 0.2
Top flat area diameter (mm)	10.0 ± 0.1
Weight (g)	59

Dimensions are given for bare cells

#### Charge conditions

Rate	Time (h)	Temp. (°C)	Charge current (mA)
Standard	16	+ 5 to + 45	200

End of charge cut-off is requested: -dV method, 5 mV/cell

The maximum battery temperature recommended during charge is + 45°C

#### Maximum discharge current

Continuous (A) at + 20°C	2.0
Peak (A) at + 20°C*	10

\* Peak duration: 0.3 second - final discharge voltage 0.6 volt/cell



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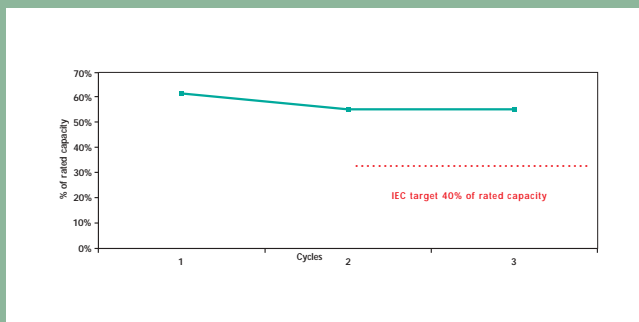
Nickel-Metal Hydride

VHT Cs

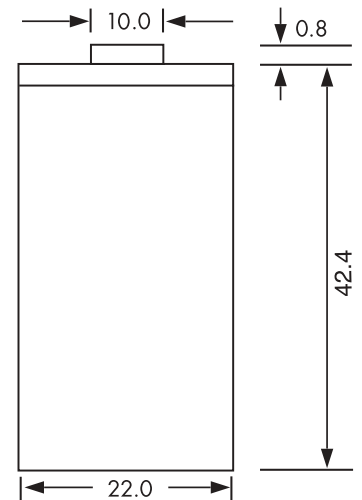
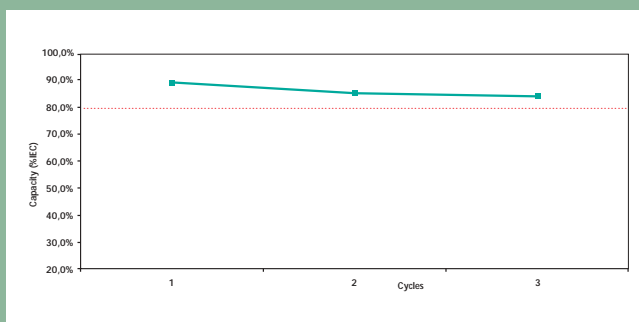
## Typical performances

For graphs shown, C is the IEC5 capacity

### Charge efficiency at + 40°C in permanent overcharge



### Charge efficiency at + 55°C in permanent overcharge



## Saft

### Rechargeable Battery Systems

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