

# High Temperature Series

## Nickel-Metal Hydride

### VHT Cs

The Ni-MH VHT range has been specially designed to fit the emergency lighting and high temperature 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 capacity of IEC 2.0 Ah.

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
- Back-up systems

#### Main advantages

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

#### Technology

- Foam positive electrode
- Metal-hydride negative electrode

#### Temperature range in discharge

- 10°C to + 55°C

#### Storage

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



#### Electrical characteristics

Nominal voltage (V)	1.2
Typical capacity (mAh)*	2200
IEC rated capacity (mAh)*	2000
IEC designation	HRMT 23/43
Impedance at 1000 Hz (m Ω)	5

\* Charge 16 h 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)	48

Dimensions are given for bare cells.

#### Charge conditions

Rate	Time (h)	Temp. (°C)	Charge current (mA)
Standard	16	- 10 to + 55	200
Permanent	-	-	up to 100

#### Maximum discharge current

Continuous (A) at + 20°C	15
Peak (A) at + 20°C*	130

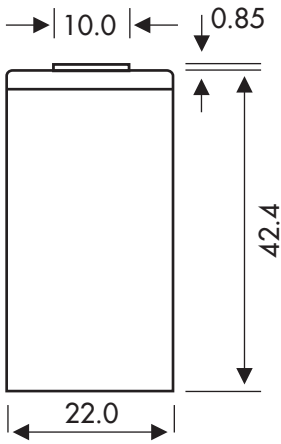
\* Peak duration: 0.3 second - final discharge voltage 0.6 volt/cell.



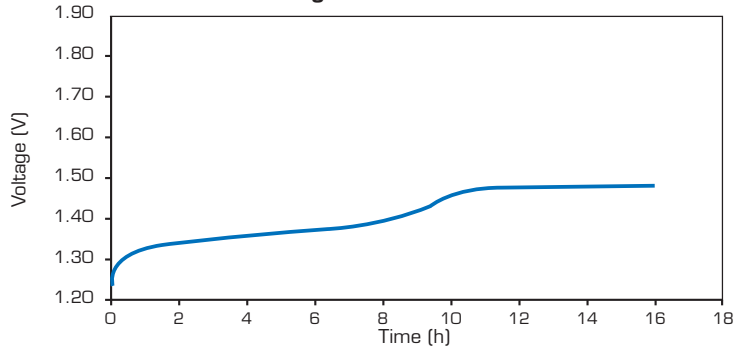
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### Typical performances

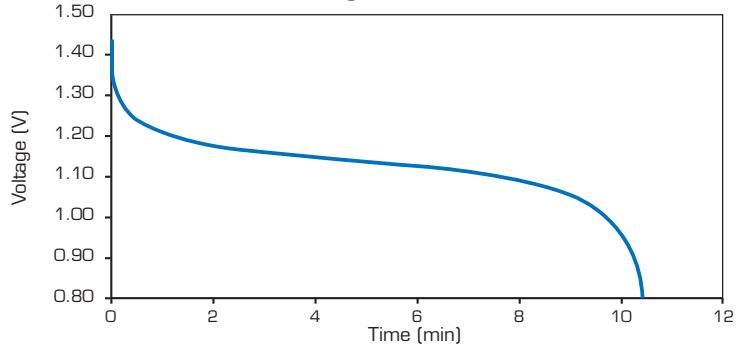
For graphs shown, C is the IEC<sub>5</sub> capacity.  
Dimensions are in mm.



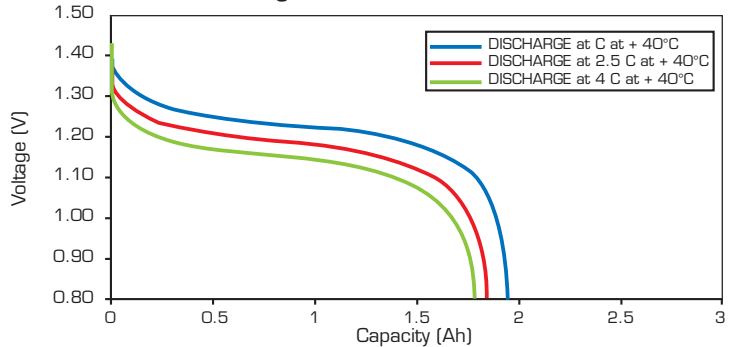
Charge at C/10 at + 40°C



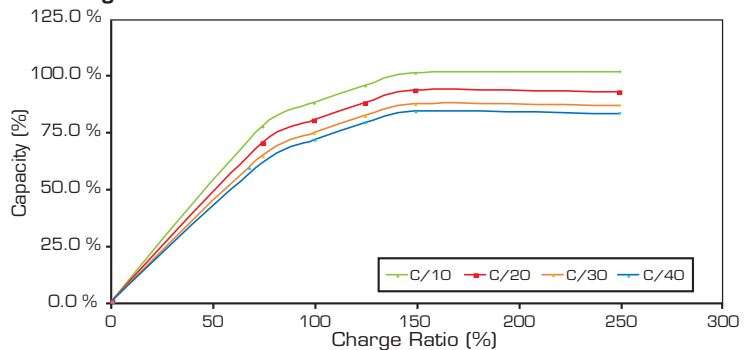
Discharge at 5C at + 40°C



Discharge at + 40°C at different rates



Charge at + 55°C at different rates and different % of charge



Data are given for single cells.  
Please consult Saft for utilization  
of cell outside this datasheet.

Data in this document are subject to change  
without notice and become contractual only  
after written confirmation by Saft.

## Saft Rechargeable Battery Systems

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