# High Temperature Series Nickel-Metal Hydride VHT 7/5 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 7/5 Cs is designed to accept a permanent charge in high temperature environments such as in security lighting equipment. With an IEC capacity of 4.0 Ah, the VHT 7/5 Cs particulary suits slim design fixtures as it provides the same capacity as a Ni-Cd D cell in a smaller diameter.

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  $\pm$  5%



Electrical characteristics	
Nominal voltage (V)	1.2
Typical capacity (mAh)*	4200
IEC rated capacity (mAh)*	4000
IEC designation	HRMT 23/62
Impedance at 1000 Hz (m $\Omega$ )	20

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

Dimensions	
Diameter (mm)	$22.0 \pm 0.05$
Height (mm)	60.0 ± 0.3
Top projection (mm)	0.85 ± 0.2
Top flat area diameter (mm)	10.0 ± 0.1
Weight (g)	74

Dimensions are given for bare cells.

Charge conditions Rate	Time (h)	Temp. (°C)	Charge current (mA)
Standard	16	- 10 to + 55	400
Permanent	-	-	up to 200

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

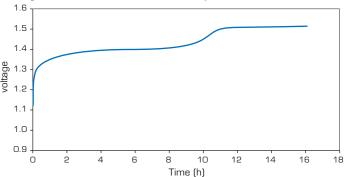
\* Peak duration: 0.3 second - final discharge voltage 0.6 volt/cell.



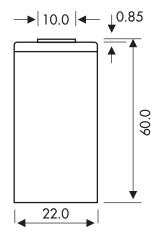
#### **Typical performances**

For graphs shown, C is the  $\mathrm{IEC}_5$  capacity.

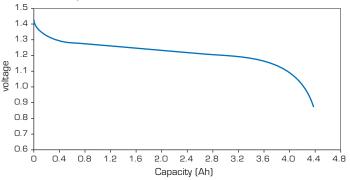
## Charge 16h at C/10 at room temperature



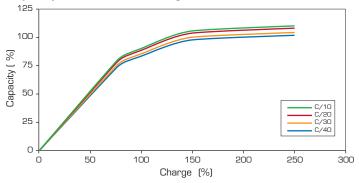
Dimensions are in mm.



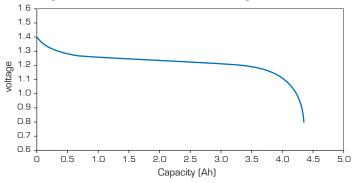
Discharge at C/5 after charge 16h at C/10 at room temperature



#### Capacity after different charge rate at +40°C



#### Discharge at 0.25C at +55°C after charge at C/20 at +55°C



Data are given for single cells. Please consult Saft for any use of this cell in other conditions than those given in this data sheet.

# Saft

#### **Rechargeable Battery Systems** 12, rue Sadi Carnot

93170 Bagnolet - France Tel.: +33 (0)1 49 93 19 18 Fax: +33 (0)1 49 93 19 68 Email: rbs.info@saftbatteries.com

# DOC Nº11115-2-0607

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