# **High Temperature Series**

# Nickel-Cadmium VST AA

The VST AA cell is designed to accept a permanent charge for a minimum of 4 years in high temperature environments (up to + 40°C as required by the IEC international standard) such as in emergency lighting equipments.

To meet customers' requirements, Saft will provide custom-designed and standardized battery packs.

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

#### **Applications**

- Emergency lighting
- Memory back-up systems
- Security devices

#### Main advantages

- Good charge efficiency at high temperatures
- Permanent charge especially at low charge rate (down to 20 mA)

#### **Technology**

- Foam positive electrode
- Plastic bonded negative electrode

## Temperature range in discharge

- 20°C to + 70°C

#### Storage

Recommended:  $+ 5^{\circ}\text{C}$  to  $+ 25^{\circ}\text{C}$ Relative humidity:  $65 \pm 5 \%$ 



Electrical characteristics	
Nominal voltage (V)	1.2
Typical capacity (mAh)*	860
IEC minimum capacity (mAh)*	800
IEC designation	KRMT 15/51
Impedance at 1000 Hz (m $\Omega$ )	30

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

Dimensions	
Diameter (mm)	13.9 ± 0.1
Height (mm)	48.9 ± 0.3
Top projection (mm)	0.8 ± 0.2
Top flat area diameter (mm)	4.0 ± 0.2
Weight (g)	26

Dimensions are given for bare cells.

Charge conditions			
Rate	Time (h)	Temp. (°C)	Charge current (mA)
Standard	16	+ 15 to + 40	80
Permanent		+ 15 to + 40	40
Trickle*			12 - 25

<sup>\*</sup> Trickle charge follows full charge.

Maximum discharge current	
Continuous (A) at + 20°C	2.8
Peak (A) at + 20°C*	15

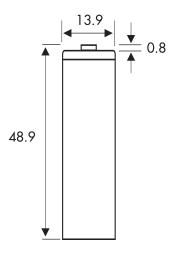
 $<sup>^{\</sup>star}$  Peak duration: 0.3 second - final discharge voltage 0.65 volt/cell.



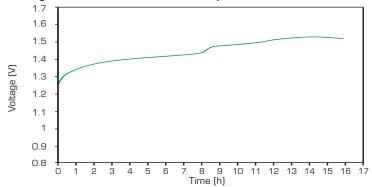
#### Typical performances

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

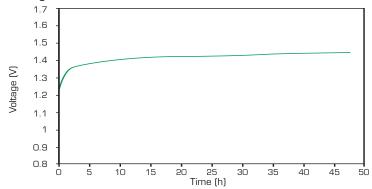
Dimensions in mm.



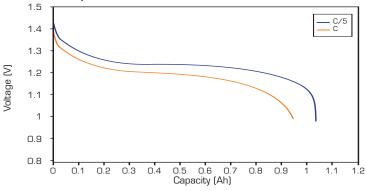
### Charge 16h at C/10 at room temperature



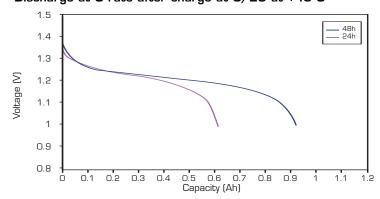
#### Charge 48h at C/20 at +40°C



# Discharge at various rates after charge 16h at C/10 at room temperature



## Discharge at C rate after charge at C/20 at +40°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

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