

# HIGH TEMPERATURE SERIES

## Nickel-Cadmium

### VT 1/2 D

The VT 1/2 D cell is designed to accept a permanent charge (C/20) for a minimum of 4 years in high temperature environments (up to +40°C) such as security lighting installations.

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

#### Main advantages

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

#### Technology

- Sintered positive electrode
- Plastic bonded negative electrode

#### Temperature range in discharge

-20°C to +60°C

#### Storage

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

Data are given for single cell.

Please consult Saft for utilization of cell outside this specification.

#### Electrical characteristics

Nominal voltage (V)	1.2
IEC typical capacity (mAh) at C/5	2500
IEC minimum capacity (mAh) at C/5	2200
IEC designation	KRMT 35/38
Impedance at 1000 Hz (mΩ)	10

#### Dimensions

Diameter (mm)	32.3 +/- 0.2
Height (mm)	36.8
Top projection (mm)	0.8 +/- 0.2
Top flat area diameter (mm)	10.5
Weight (g)	80

Dimensions are given for bare cells

#### Charge conditions

Rate	Time (h)	Temp. (°C)	Charge current (mA)
Standard	16	+10 to +65	220
Permanent		+15 to +45	110
Trickle *		-5 to +65	80

End of charge cut-off is requested: -dV or dT°C/dt

\* Trickle charge follows quick or fast charge

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

#### Maximum discharge current

Continuous (A) at +20°C	11
Peak (A) at +20°C*	40

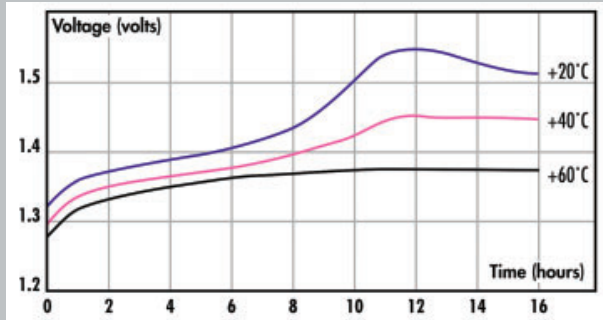
\* Peak duration: 0.3 second - final discharge voltage 0.65 volt/cell



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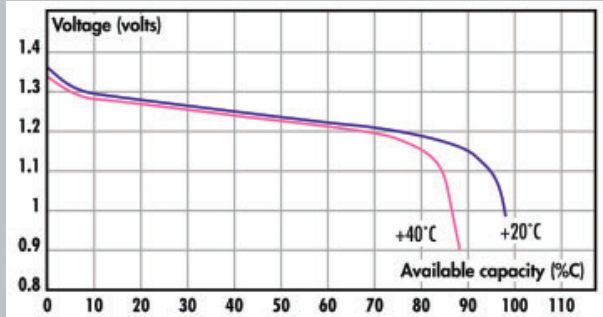
Nickel-Cadmium  
VT 1/2 D

## Voltage in normal charge (current 0.1 C)

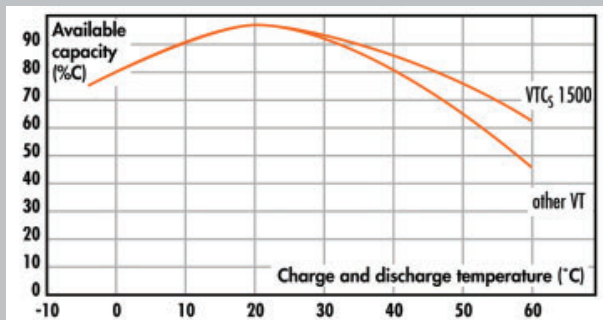


## Voltage in discharge at 0.5 C rate

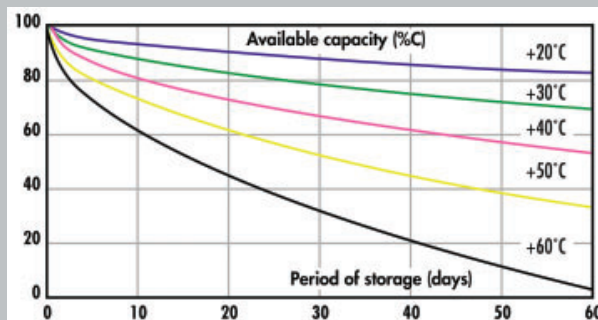
(after charge 0.05 C x 48 hours)



## Available capacity (discharge at 0.05 C x 48 hours)



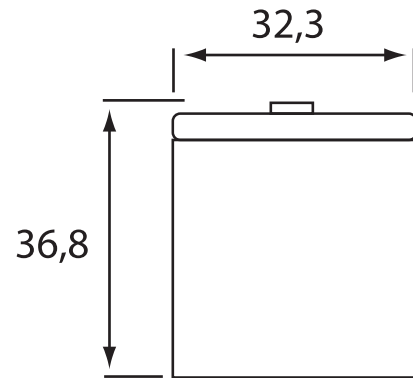
## Charge retention (between +20°C and +60°C)



## Typical performances

For graphs shown, C is the IEC<sub>5</sub> capacity.

Dimensions are in mm.



## SAFT

### Rechargeable Battery systems

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