

# High Temperature Series

## Nickel-Cadmium

### VT D



This cell is specially designed to accept a permanent overcharge in high temperature environment, such as emergency lighting equipment (minimum of 4 years up to + 40°C as required by the IEC international standard).

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 units
- Security devices
- Memory back-up systems

#### Main advantages

- Good charge efficiency at high temperature
- High energy retention
- Longer lifetime at high temperature

#### Technology

- Sintered positive electrode
- Plastic bonded negative electrode

#### Temperature range in discharge

- 20°C to + 70°C

#### Storage

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

#### Electrical characteristics

Nominal voltage (V)	1.2
Typical capacity (mAh)*	4300
IEC minimum capacity (mAh)*	4000
IEC designation	KRMT 33/62
Impedance at 1000 Hz (m Ω)	6

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

#### Dimensions

Diameter (mm)	32.15 ± 0.10
Height (mm)	59.9 ± 0.4
Top projection (mm)	3.1 ± 0.4
Top flat area diameter (mm)	5.6
Weight (g)	120

Dimensions are given for bare cells.

#### Charge conditions

Rate	Time (h)	Temp. (°C)	Charge current (mA)
Standard	16	+ 15 to + 40	400
Permanent		+ 15 to + 40	200
Trickle*			100 to 200

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

\* Trickle charge follows full charge.

#### Maximum discharge current

Continuous (A) at + 20°C	14
Peak (A) at + 20°C*	150

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

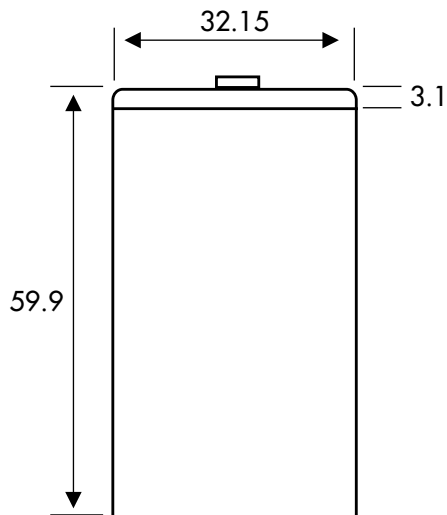


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**Typical performances**

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

Dimensions are in mm.



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

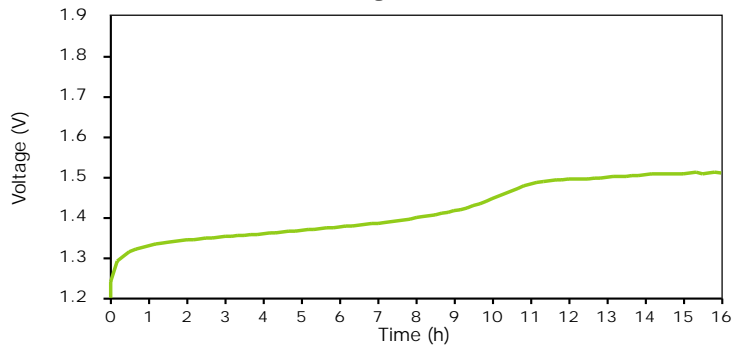
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**Saft  
Rechargeable Battery Systems**

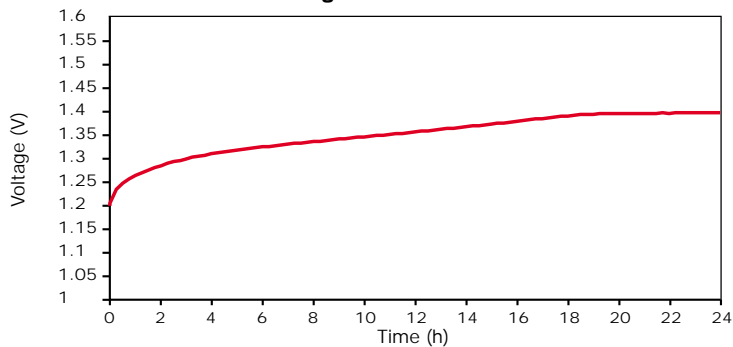
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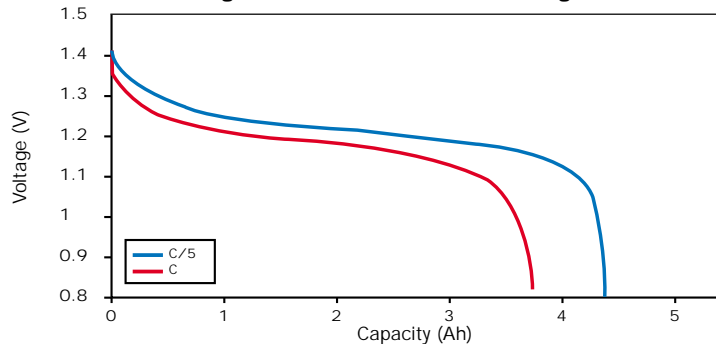
**Charge at C/10**



**Charge at C/20 at 40°C**



**Discharge at C/5 and C, after charge at C/10**



**Charge efficiency after different charge rates, discharge at C/2**

