

# High Temperature Series

## Nickel-Cadmium

### VT D 70



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 + 55°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)*	4500
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)	128

Dimensions are given for bare cells.

#### Charge conditions

Rate	Time (h)	Temp. (°C)	Charge current (mA)
Standard	16	+ 15 to + 55	400
Permanent		+ 15 to + 55	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

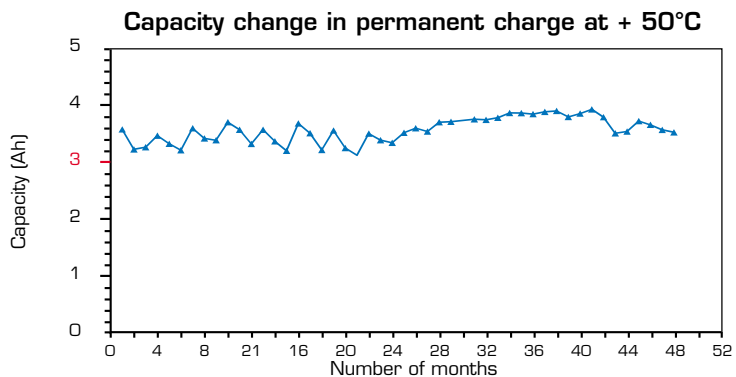
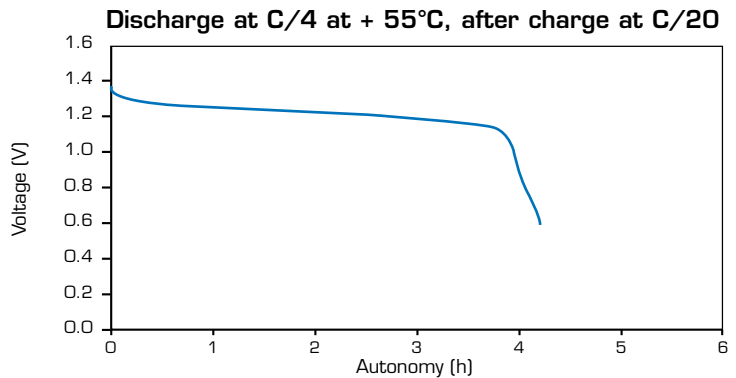
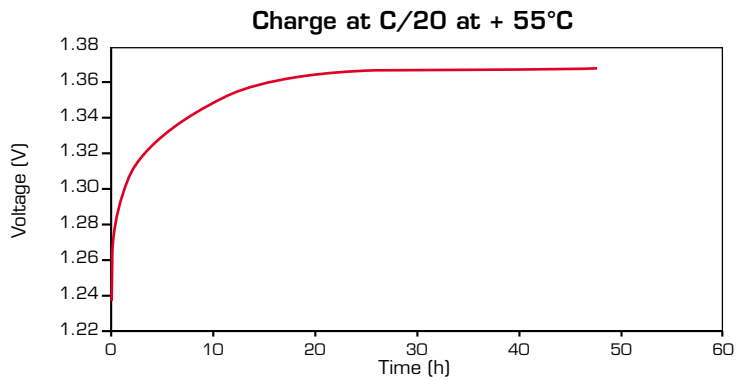
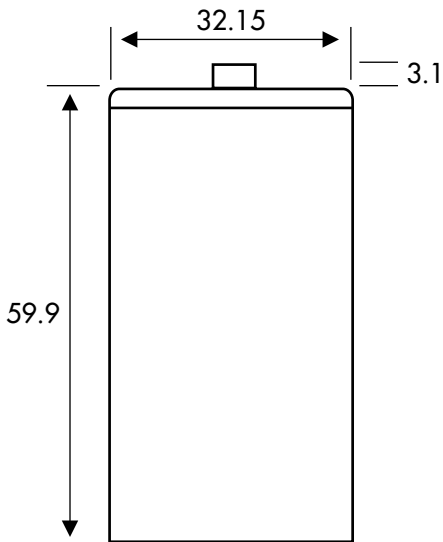
\* Peak duration: 0.3 second - final discharge voltage 0.65 volt/cell.



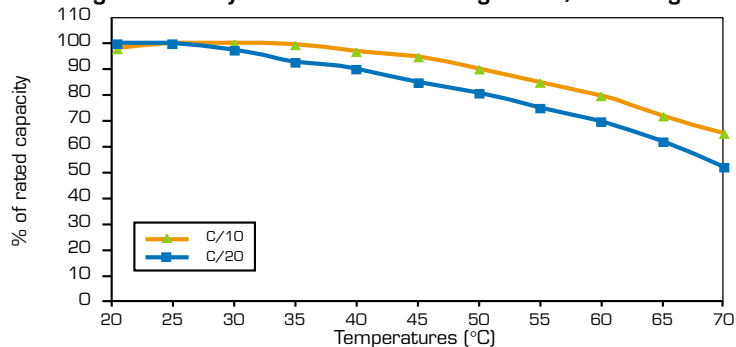
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**Typical performances**

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



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



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**

12, rue Sadi Carnot  
93170 Bagnolet - France  
Tel.: +33 1 49 93 19 18  
Fax: +33 1 49 93 19 68  
Email: rbs.info@saftbatteries.com

[www.saftbatteries.com](http://www.saftbatteries.com)

