

HIGH TEMPERATURE SERIES

Nickel-Cadmium

VT F, VT F 70

The VT F and VT F 70 cells are 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

	VT F	VT F 70
Nominal voltage (V)	1.2	1.2
IEC typical capacity (mAh) at C/5	7500	7700
IEC minimum capacity (mAh) at C/5	7000	7000
IEC designation	35/92	-
Impedance at 1000 Hz (mΩ)	5	5

Dimensions

Diameter (mm)	32.2 +/- 0.2	32.2 +/- 0.2
Height (mm)	91.1	89.5
Top projection (mm)	0.8 +/- 0.2	0.8 +/- 0.2
Top flat area diameter (mm)	7.0	7.0
Weight (g)	210	210

Dimensions are given for bare cells

Charge conditions

Rate	Time (h)	Temp. (°C)	Charge current (mA)
Permanent		+15 to +55	<350
Standard	16	+15 to +65	700
Trickle *		-5 to +65	75

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	35
Peak (A) at +20°C*	130

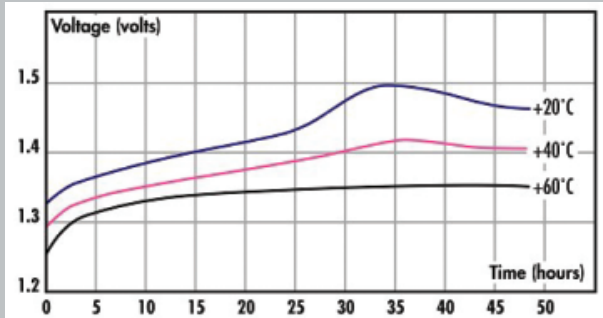
* Peak duration: 0.3 second - final discharge voltage 0.65 volt/cell



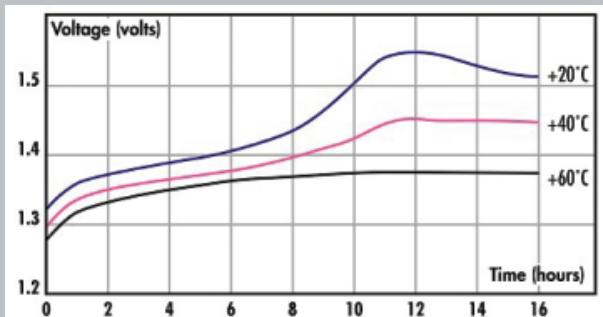
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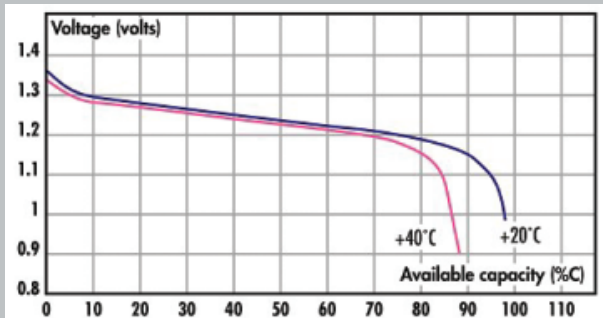
Voltage in charge at 0.05 C rate



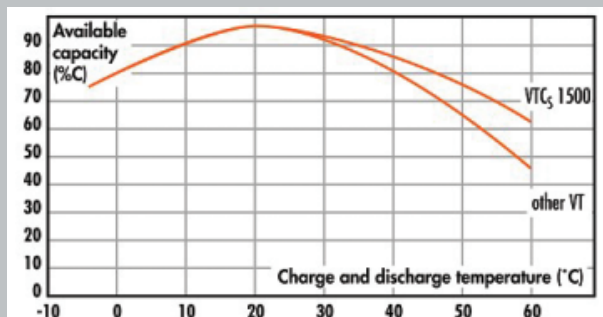
Voltage in normal charge (current 0.1 C)



Voltage in discharge at 0.5 C rate (after charge 0.05 C x 48 hours)

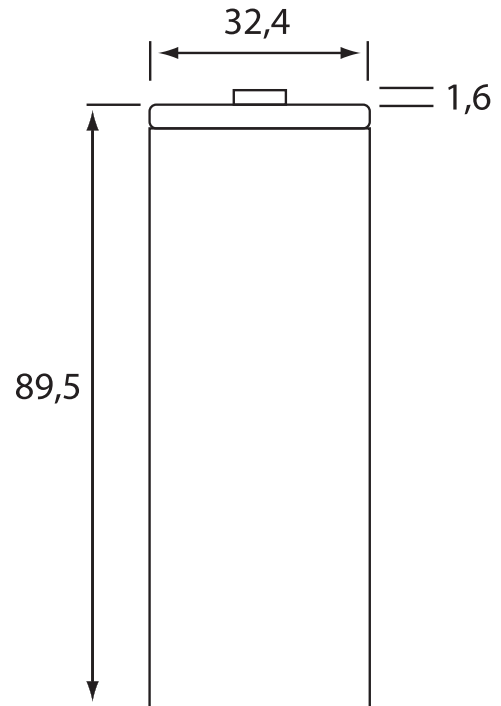


Available capacity (discharge at 0.05 C x 48 hours)



Typical performances

For graphs shown, C is the IEC₅ capacity.
 Dimensions are in mm.



SAFT Rechargeable Battery systems

12, rue Sadi Carnot
 93170 Bagnolet - France
 Phone: +33 (0)1 49 93 19 18
 Fax: +33 (0)1 49 93 19 68
 Email: rbs.info@saft.alcatel.fr
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www.saftbatteries.com

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