

STANDARD SERIES

Nickel-Cadmium

VRE Cs 1300, VRE Cs 1500, VRE Cs 1800

To expand its Ni-Cd offer, Saft has launched new High Energy Ni-Cd Cs cells, the VRE Cs 1300, 1500 and 1800.

Developed to fit Professional electronics and home appliances, these cells are also perfectly designed for all equipment where an extended cycle life and a longer operating time are required, such as radio control toys, etc.

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

- Power tools (drills, screw drivers, etc)
- Radio controls and toys
- Lawn and gardening equipment
- Home appliances (vacuum cleaners, etc)
- Payment terminals

Main advantages

- Cycling application
- Permanent, quick and fast charge
- Extended cycle life
- Good charge 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

	VRE Cs 1300	VRE Cs 1500	VRE Cs 1800
Nominal voltage (V)	1.2	1.2	1.2
IEC typical capacity (mAh) at C/5	1450	1500	1800
IEC minimum capacity (mAh) at C/5	1300	1400	1700
IEC designation	23/43	23/43	23/43
Impedance at 1000 Hz (mΩ)	6	6	5

Dimensions

Diameter (mm)	22.0 ± 0.2	22.0 ± 0.2	22.0 ± 0.2
Height (mm)	41.9 ± 0.3	41.9 ± 0.3	41.9 ± 0.3
Top projection (mm)	0.8 ± 0.2	0.8 ± 0.2	0.8 ± 0.2
Top flat area diameter (mm)	10.5	10.5	10.5
Weight (g)	46	46	50

Dimensions are given for bare cells

Charge conditions

Rate	Time (h)	Temp. (°C)	Charge current (mA)
Fast	~1	0 to +45	1300
Quick	3 to 4	+10 to +45	430
Standard	16	0 to +50	70
Trickle *		-5 to +50	50

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	13	15	18
Peak (A) at +20°C*	30	30	40

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

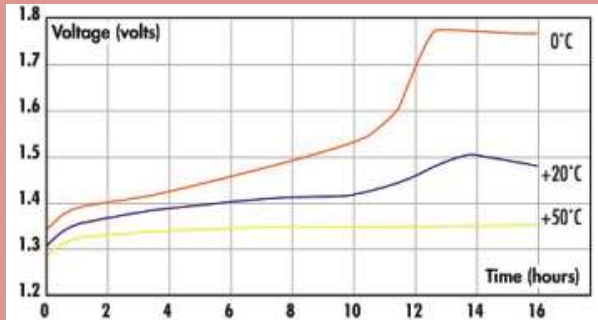


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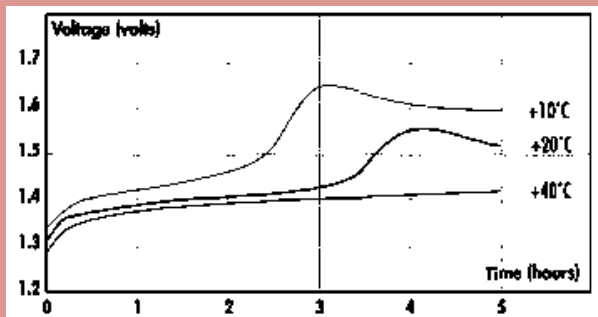
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Voltage in normal charge (current 0.1 C)

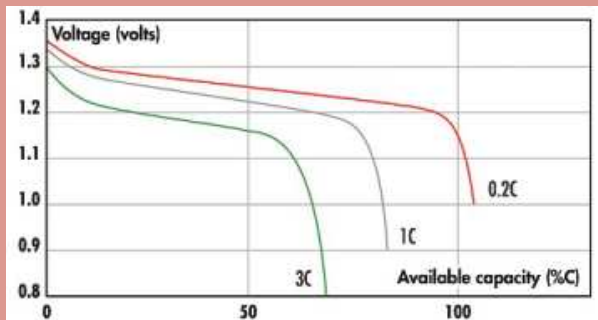


Voltage in fast charge (current 0.3 C)

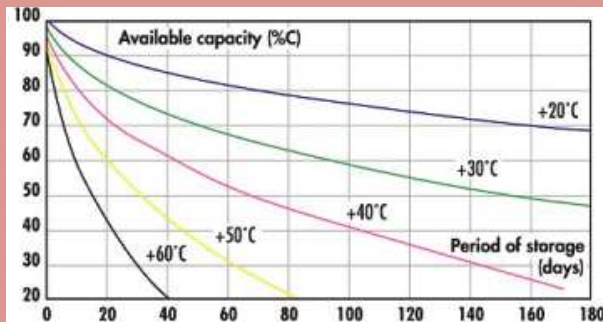


Voltage in discharge at +20°C

(after charge 0.1 C x 16 hours at +20°C)

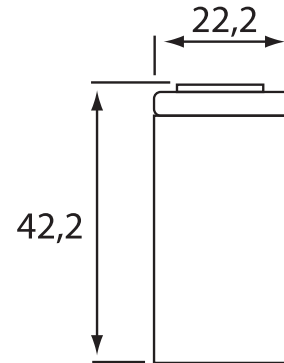


Charge retention (between +20°C and +60°C)



Typical performances

For graphs shown, C is the IEC₅ capacity



SAFT

Rechargeable Battery systems

12, rue Sadi Carnot

93170 Bagnole - 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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