

STANDARD SERIES

Nickel-Cadmium

VR 4 D

Engineered for cycling applications, Saft's VR 4 D cell ideally suits for a wide range of applications.

In addition, the VR 4 D is well-adapted for applications requiring a permanent charge at temperatures of up to +35°C. Moreover, it offers a high level of reliability and an excellent cost/performance ratio.

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

- Professional electronics
- Gardening and tooling
- Memory back-up systems
- Portable military equipment (portable radio communication...)

Main advantages

- Cycling application
- Quick and fast charge

Technology

- Sintered positive electrode
- Sintered negative electrode

Temperature range in discharge

-40°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	4500
IEC minimum capacity (mAh) at C/5	4000
IEC designation	35/62
Impedance at 1000 Hz (mΩ)	3.1

Dimensions

Diameter (mm)	32.2 ± 0.2
Height (mm)	60.3
Top projection (mm)	3.2 ± 0.3
Top flat area diameter (mm)	5.6
Weight (g)	145

Dimensions are given for bare cells

Charge conditions

Rate	Time (h)	Temp. (°C)	Charge current (mA)
Fast	~1	+10 to +40	4000
Quick	3 to 4	+5 to +50	800
Standard	16	0 to +50	400
Trickle *		-20 to +50	100

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	28
Peak (A) at +20°C*	130

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

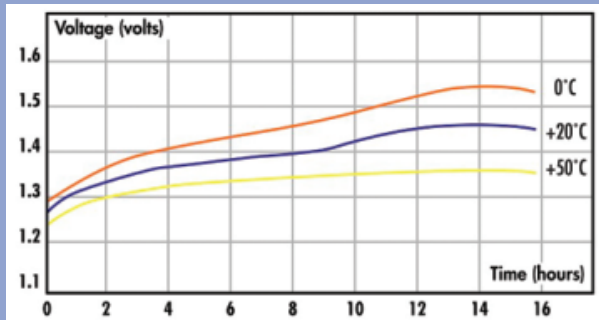


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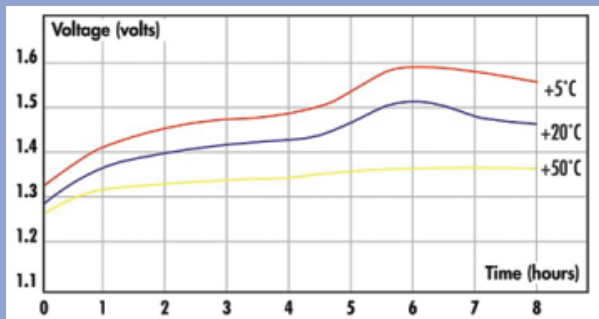
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Voltage in normal charge (current 0.1 C)

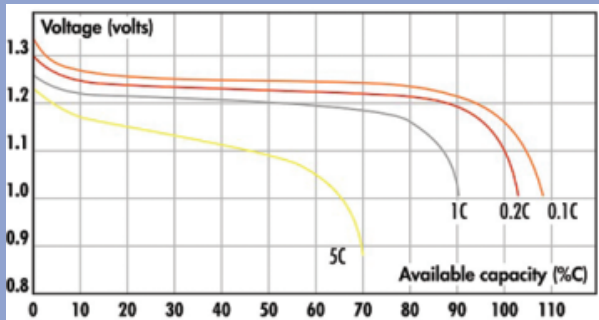


Voltage in fast charge (current 0.2 C)

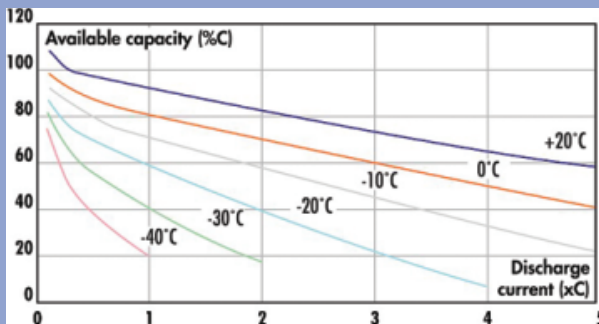


Voltage in discharge at +20°C

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



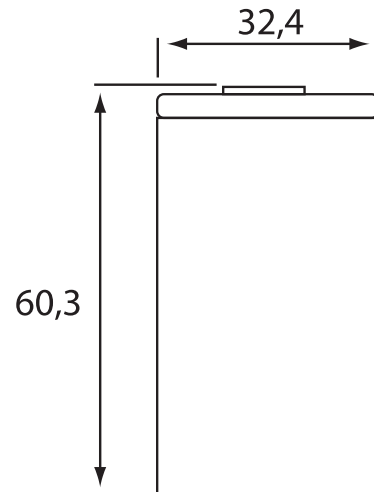
Available capacity (after charge 0.1 C x 16 hours at +20°C)



Typical performances

For graphs shown, C is the IEC₅ capacity

capacity



SAFT

Rechargeable Battery systems

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