

# STANDARD SERIES

Nickel-Cadmium

## VRE AA 600, VRE AA 700

Saft has extended its Ni-Cd offer with the high energy VRE AA 600 and VRE AA 700 cells.

Designed to fit cycling applications such as home appliances, these cells ideally suit for cordless equipment (vacuum cleaners, phones, shavers, etc) and advanced technology equipment (professional electronics, 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

- Home appliances:
  - Cordless phones and vacuum cleaners
  - Shavers and toothbrushes...
- Personal care:
  - Radio control toys
  - Remote control

### Main advantages

- High energy series giving a higher operating time
- Good storage retention
- Quick and fast charge
- Cycling application

### 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 AA 600	VRE AA 700
Nominal voltage (V)	1.2	1.2
IEC typical capacity (mAh) at C/5	700	780
IEC minimum capacity (mAh) at C/5	600	700
IEC designation	15/51	15/51
Impedance at 1000 Hz (mΩ)	16	14

### Dimensions

Diameter (mm)	13.9 ± 0.1	13.9 ± 0.1
Height (mm)	48.9 ± 0.3	48.9 ± 0.3
Top projection (mm)	0.7 ± 0.2	0.7 ± 0.2
Top flat area diameter (mm)	5.6	5.6
Weight (g)	20	21

Dimensions are given for bare cells

### Charge conditions

Rate	Time (h)	Temp. (°C)	Charge current (mA)
Fast	~1	0 to +45	consult us
Quick	3 to 4	+10 to +45	70
Standard	16	0 to +50	22
Trickle *		-5 to +50	6

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

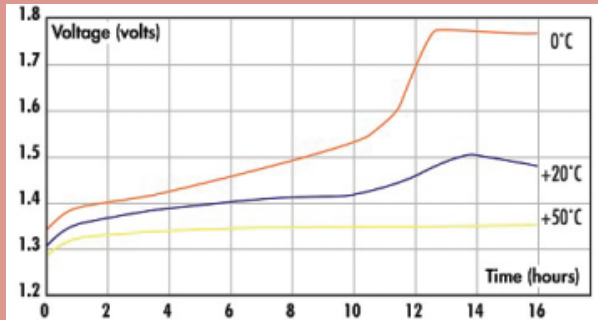
Continuous (A) at + 20°C	1.8	3.5
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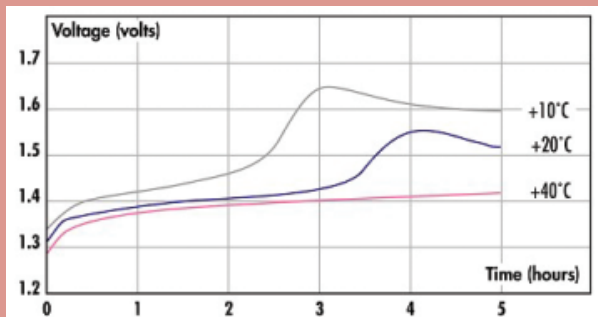
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## Voltage in normal charge (current 0.1 C)

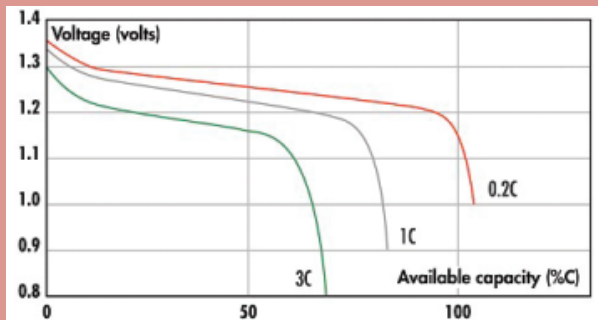


## Voltage in fast charge (current 0.3 C)

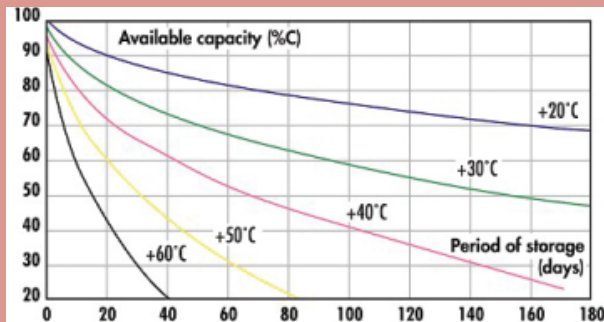


## Voltage in discharge at +20°C

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

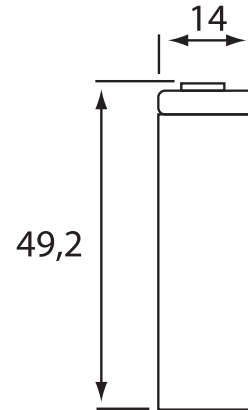


## Charge retention (between +20°C and +60°C)



## Typical performances

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



## SAFT

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