

# STANDARD SERIES

Nickel-Cadmium

## VRE 1/3 AA

Engineered for cycling applications  
Saft's VRE 1/3 AA cell ideally suits for a wide range of applications.

In addition, the VRE 1/3 AA is well-adapted for applications requiring a permanent charge (C/20) 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
- Cordless communication systems
- Home appliances
- Radio controls and toys

### 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

Nominal voltage (V)	1.2
IEC typical capacity (mAh) at C/5	145
IEC minimum capacity (mAh) at C/5	130
IEC designation	15/18
Impedance at 1000 Hz (mΩ)	48

### Dimensions

Diameter (mm)	13.6
Height (mm)	16.8
Top projection (mm)	0.91
Top flat area diameter (mm)	6.2
Weight (g)	7

Dimensions are given for bare cells

### Charge conditions

Rate	Time (h)	Temp. (°C)	Charge current (mA)
Fast	~1	+10 to +45	130
Quick	3 to 4	+5 to +40	40
Standard	16	0 to +50	13
Trickle *		-20 to +50	5.2

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

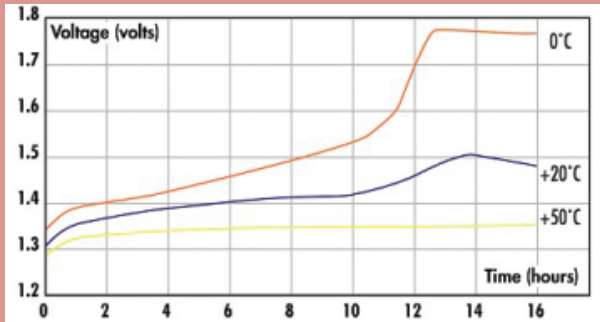
### Maximum discharge current

Continuous (A) at + 20°C	0.36
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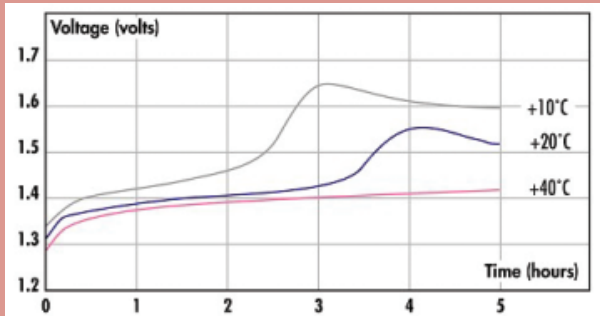
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## Voltage in normal charge (current 0.1 C)

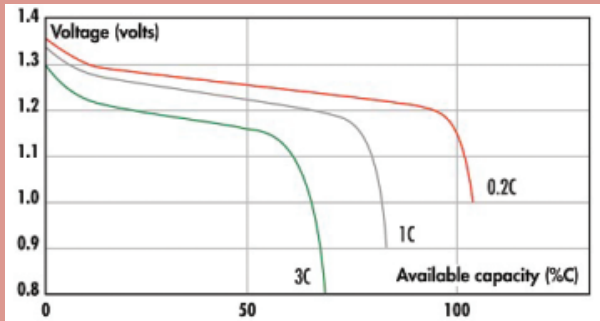


## Voltage in fast charge (current 0.3 C)

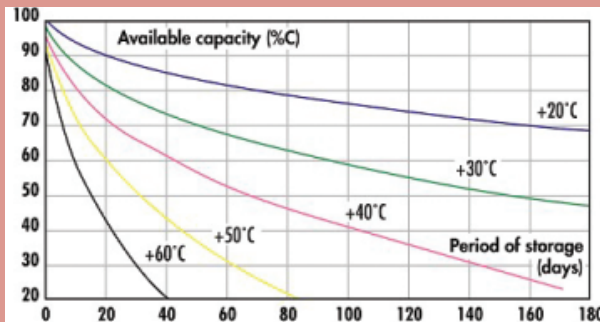


## Voltage in discharge at +20°C

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

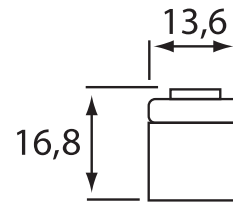


## Charge retention (between +20°C and +60°C)



## Typical performances

For graphs shown, C is the IEC<sub>5</sub> capacity.  
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](http://www.saftbatteries.com)

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