

# HIGH ENERGY SERIES

Nickel-Cadmium

## VE Cs

With the VE series, Saft upgrades its standard technology : it boosts capacity by 10 to 15% without increasing volume, while at the same time maintaining performance levels.

The VE Cs cell offers significant capacity Gains for the same volume, high energy for applications requiring a higher operating time and good storage retention.

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
- Medical equipment
- Lighting equipment

### Main advantages

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

### Technology

- Sintered positive electrode
- Sintered 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	1560
IEC minimum capacity (mAh) at C/5	1400
IEC designation	KRH 23/43
Impedance at 1000 Hz (mΩ)	5

### Dimensions

Diameter (mm)	22.2 +/- 0.2
Height (mm)	42.2 +/- 0.2
Top projection (mm)	0.8 +/- 0.2
Top flat area diameter (mm)	10.5
Weight (g)	48

Dimensions are given for bare cells

### Charge conditions

Rate	Time (h)	Temp. (°C)	Charge current (mA)
Fast	~1	+10 to +40	1680
Quick	3 to 4	+5 to +50	420
Standard	16	0 to +50	140
Permanent		0 to +50	<140
Trickle *		-20 to +50	40

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	14.0
Peak (A) at +20°C*	80

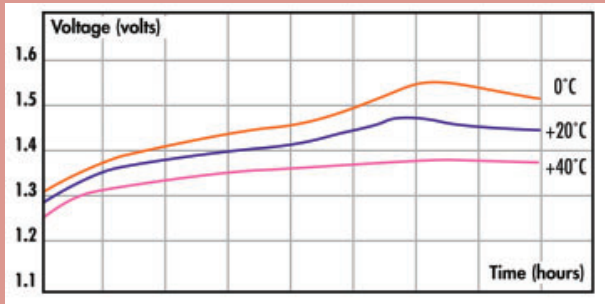
\* Peak duration: 0.3 second - final discharge voltage 0.65 volt/cell



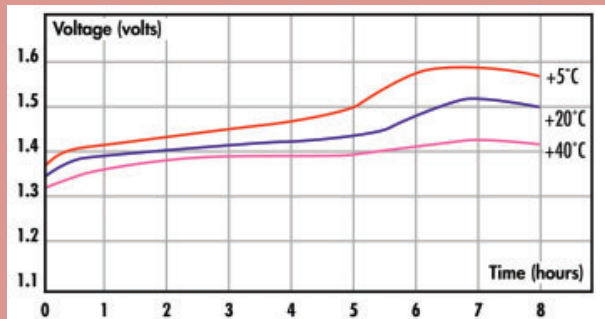
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VE Cs

## Voltage in normal charge (current 0.1 C)

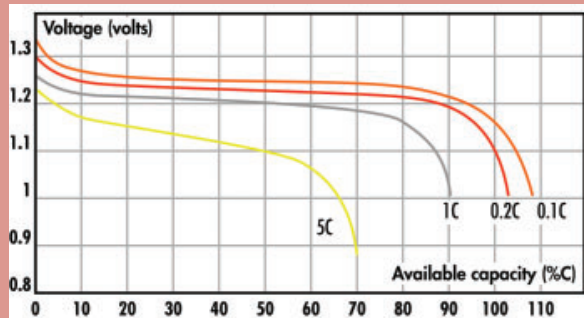


## Voltage in quick charge (current 0.2 C)

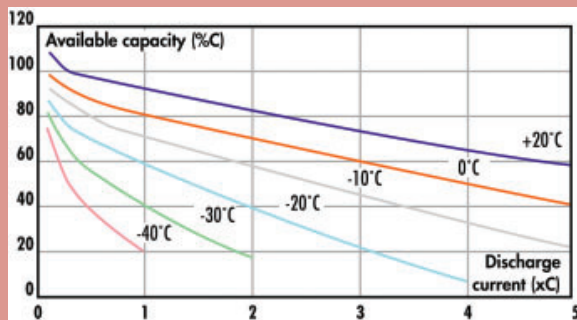


## Voltage in discharge at +20°C

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



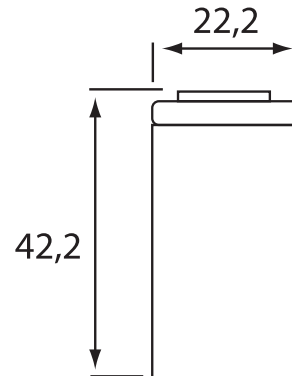
## Available capacity (after charge 0.1 C x 16 hours at +20°C)



## Typical performances

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

Dimensions are in mm.



### SAFT

#### Rechargeable Battery systems

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DOC. N° 11072-2-0602  
Published by the Communication Department

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