

# HIGH TEMPERATURE SERIES

## Nickel-Cadmium

### VT Cs, VT Cs 1500, VT Cs HC

The VT Cs series is designed to accept a permanent charge in high temperature environments such as security lighting installations.

The VT Cs series offers capacities from 1.35 Ah to 1.75 Ah to fit the needs for energy, required by security and lighting devices.

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

- Emergency lighting
- Professional lighting
- Memory back-up systems
- Security devices

#### Main advantages

- Good charge efficiency at high temperatures
- Permanent charge
- Good storage 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

	VT Cs	VT Cs 1500	VT Cs HC
Nominal voltage (V)	1.2	1.2	1.2
IEC typical capacity (mAh) at C/5	1350	1700	1750
IEC minimum capacity (mAh) at C/5	1200	1500	1600
IEC designation	23/43	23/43	23/43
Impedance at 1000 Hz (mΩ)	12	8	7

#### 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)	45	48	49

Dimensions are given for bare cells

#### Charge conditions

Rate	Time (h)	Temp. (°C)	Charge current (mA)
Fast	~1	consult us	consult us
Quick	3 to 4	consult us	consult us
Standard	16	+10 to +65	150
Trickle *		-5 to +65	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

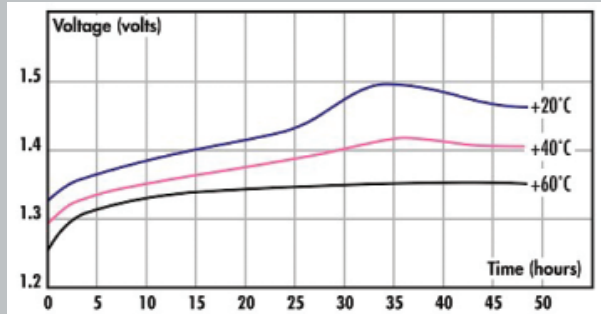
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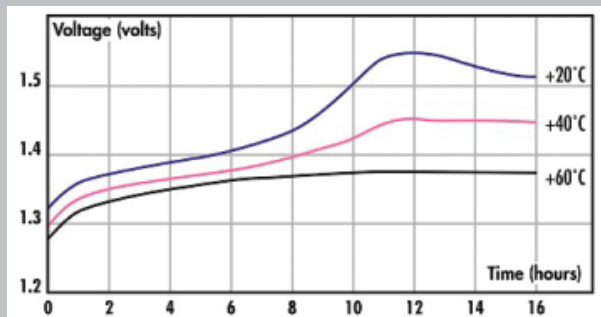
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## Voltage in charge at 0.05 C rate

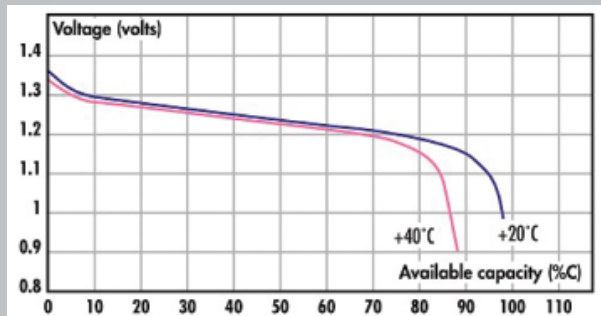


## Voltage in normal charge (current 0.1 C)

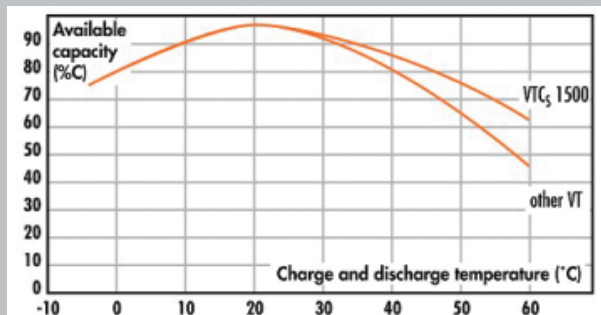


## Voltage in discharge at 0.5 C rate

(after charge 0.05 C x 48 hours)

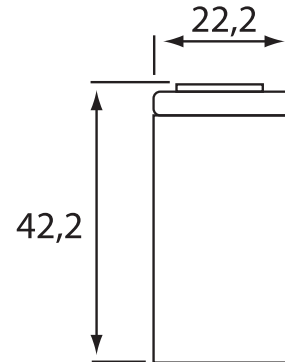


## Available capacity (discharge at 0.05 C x 48 hours)



## Typical performances

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



### SAFT

#### Rechargeable Battery systems

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 Published by the Communication Department

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