# **High Temperature Series**

# Nickel-Cadmium VT Cs

The VT Cs 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 + 70°C

#### Storage

Recommended:  $+ 5^{\circ}\text{C}$  to  $+ 25^{\circ}\text{C}$  Relative humidity:  $65 \pm 5 \%$ 



Electrical characteristics	
Nominal voltage (V)	1.2
IEC typical capacity (mAh) at C/5	1350
IEC minimum capacity (mAh) at C/5	1200
IEC designation	KRMT 23/43
Impedance at 1000 Hz (mΩ)	12

Dimensions	
Diameter (mm)	22.0 + 0.15/- 0.05
Height (mm)	41.9 ± 0.3
Top projection (mm)	0.8 ± 0.2
Top flat area diameter (mm)	10 ± 0.2
Weight (g)	45

Dimensions are given for bare cells.

Charge conditions			
Rate	Time (h)	Temp. (°C)	Charge current (mA)
Standard	16	+ 10 to + 65	120
Permanent		+ 15 to + 40	60
Trickle*		-5 to +65	30-40

End of charge cut-off is requested: - dV or dT°C/dt.

 <sup>\*</sup> Trickle charge follows full charge.

Maximum discharge current	
Continuous (A) at + 20°C	4.2
Peak (A) at + 20°C*	30

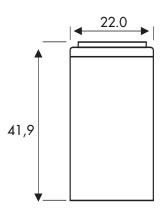
 $<sup>^{\</sup>star}$  Peak duration: 0.3 second - final discharge voltage 0.65 volt/cell.



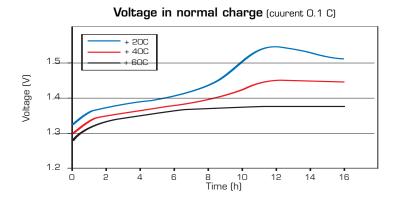
#### Typical performances

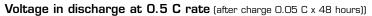
For graphs shown, C is the  $IEC_5$  capacity.

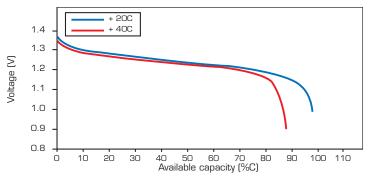
Dimensions are in mm.



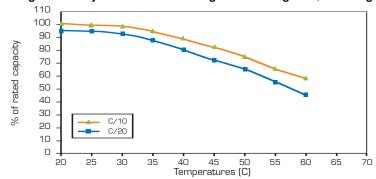
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#### Charge efficiency after different charge rate during 24h, discharge at C/2



Data are given for single cells. Please consult Saft for utilization of cell outside this datasheet.

Data in this document are subject to change without notice and become contractual only after written confirmation by Saft.

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