

HIGH TEMPERATURE SERIES

Nickel-Cadmium

VT C

The VT C cell is designed to accept a permanent charge (C/20) for a minimum of 4 years in high temperature environments (up to +40°C) such as security lighting installations.

To meet customers requirements, Saft will provide 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

| | |
|-----------------------------------|-----------|
| Nominal voltage (V) | 1.2 |
| IEC typical capacity (mAh) at C/5 | 2500 |
| IEC minimum capacity (mAh) at C/5 | 2200 |
| IEC designation | KRH 27/50 |
| Impedance at 1000 Hz (mΩ) | 14 |

Dimensions

| | |
|-----------------------------|---------------|
| Diameter (mm) | 25.2 +/- 0.15 |
| Height (mm) | 49.1 +/- 0.4 |
| Top projection (mm) | 0.8 +/- 0.2 |
| Top flat area diameter (mm) | 12.2 |
| Weight (g) | 75 |

Dimensions are given for bare cells

Charge conditions

| Rate | Time (h) | Temp. (°C) | Charge current (mA) |
|-----------|----------|------------|---------------------|
| Standard | 16 | +10 to +65 | 220 |
| Permanent | | +15 to +45 | 110 |
| Trickle * | | -5 to +65 | 80 |

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 | 10 |
| Peak (A) at +20°C* | 40 |

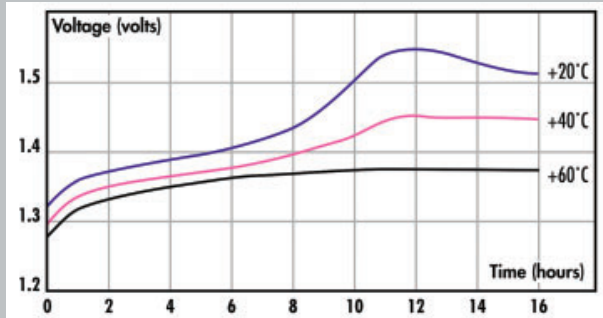
* Peak duration: 0.3 second - final discharge voltage 0.65 volt/cell



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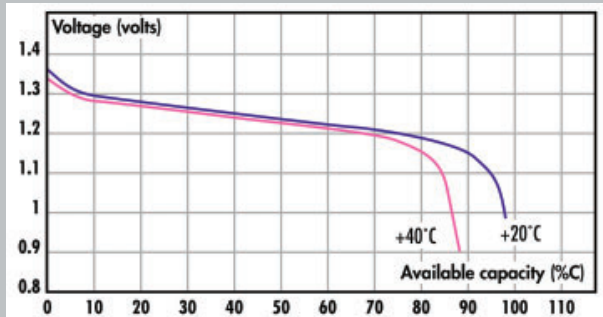
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Voltage in normal charge (current 0.1 C)

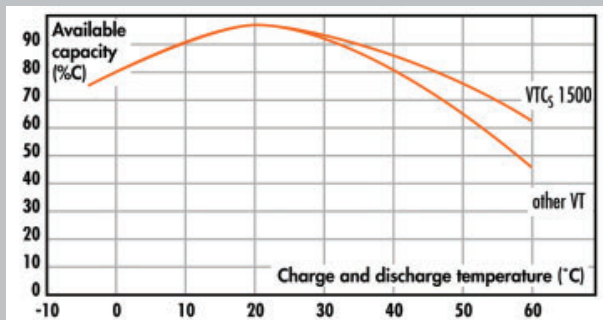


Voltage in discharge at 0.5 C rate

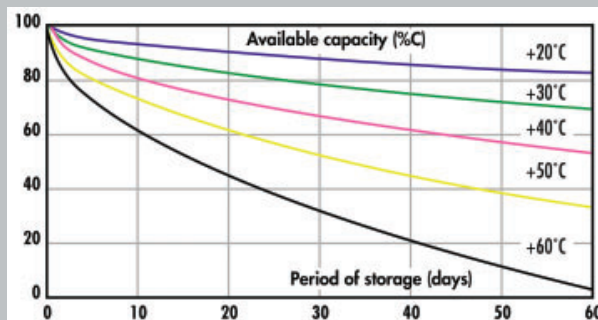
(after charge 0.05 C x 48 hours)



Available capacity (discharge at 0.05 C x 48 hours)



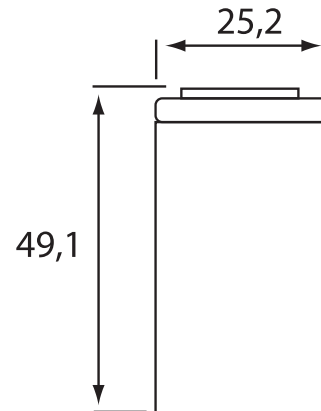
Charge retention (between +20°C and +60°C)



Typical performances

For graphs shown, C is the IEC₅ capacity.

Dimensions are in mm.



SAFT Rechargeable Battery systems

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