

High Temperature Series

Nickel-Cadmium

VNT C U

The new VNT U series benefits from the latest innovation on Saft's PNE (plastic bonded nickel electrode) technology. The VNT U series operates until + 55°C but also brings an improvement at low temperature, suiting perfectly with severe outdoor applications.

VNT C U is specially designed to accept a permanent charge in high temperature environments such as emergency lighting equipment. VNT C U offers at least 4 years of life duration at an average temperature up to + 50°C in accordance to the IEC 61951-1 standard (U type cells).

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
- Memory back-up systems
- Security devices

Main advantages

- Good charge efficiency at high temperature
- Good autonomy at low temperature
- Permanent charge
- Good storage retention
- Long life duration at high temperature

Technology

- Plastic-bonded positive electrode
- Plastic-bonded negative electrode

Temperature range in discharge

- 20°C to + 70°C



Electrical characteristics

| | |
|-----------------------------|------------|
| Nominal voltage (V) | 1.2 |
| Typical capacity (mAh)* | 2650 |
| IEC minimum capacity (mAh)* | 2500 |
| IEC designation | KRMU 27/50 |
| Impedance at 1000 Hz (mΩ) | 8 |

* Charge 16 h at C/10, discharge at C/5.

Dimensions

| | |
|-----------------------------|--------------------|
| Diameter (mm) | 25.15 + 0.2/- 0.15 |
| Height (mm) | 49.1 ± 0.4 |
| Top projection (mm) | 0.8 ± 0.2 |
| Top flat area diameter (mm) | 12 ± 0.1 |
| Weight (g) | 75 |

Dimensions are given for bare cells.

Charge conditions

| Rate | Time (h) | Temp. (°C) | Charge current (mA) |
|------------|----------|--------------|---------------------|
| Standard * | 16 | + 15 to + 55 | 250 |
| Permanent | | + 15 to + 55 | 125 |
| Trickle ** | | | 62 to 125 |

* End of charge cut-off is requested: timer, coulomb meter.

** Trickle charge follows full charge.

Maximum discharge current

| | |
|--------------------------|-----|
| Continuous (A) at + 20°C | 8.5 |
| Peak (A) at + 20°C* | 100 |

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



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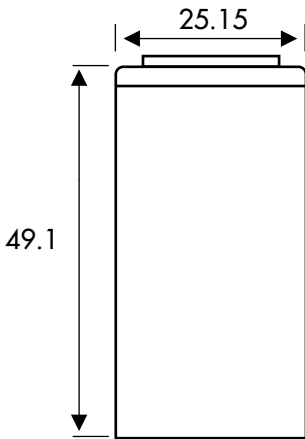
Storage

Recommended: + 5°C to + 25°C
 Relative humidity: 65 ± 5 %

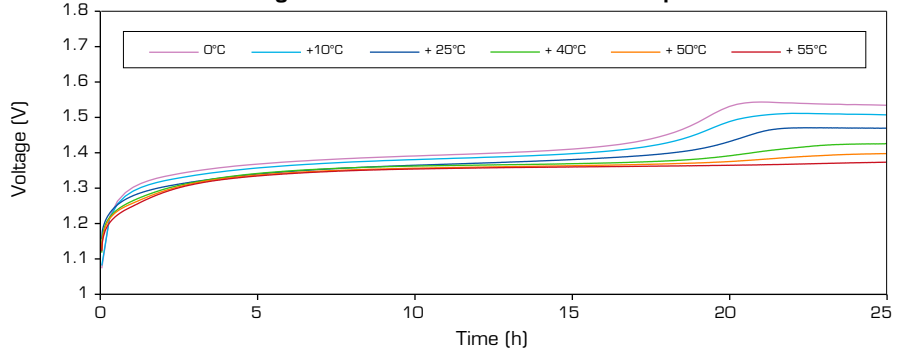
Typical performances

For graph shown, C is the IEC₅ capacity.

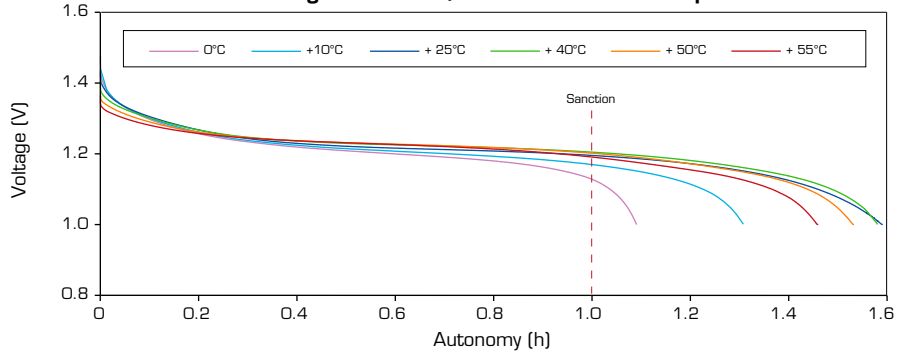
Dimensions in mm.



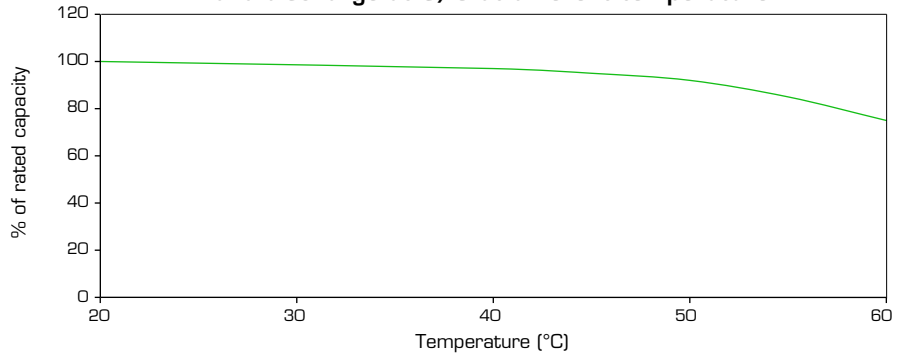
Charge 24h at C/20 at different temperature



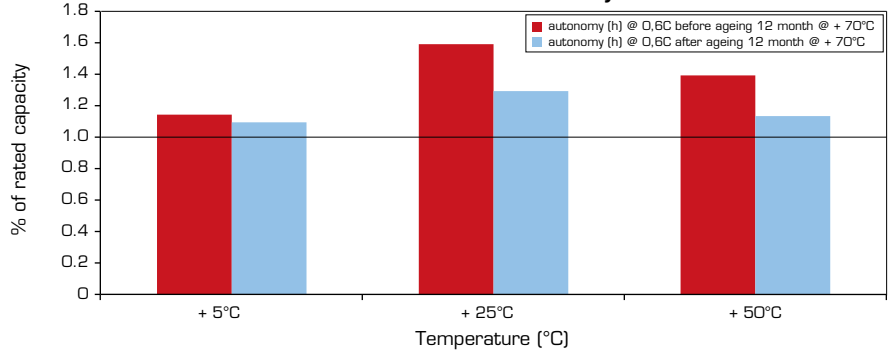
Discharge at 0.6C at different temperature after charge 24h at C/20 at different temperature



Charge efficiency after charge at C/20 and discharge at C/5 at different temperature



12 months at + 70°C simulates 4 years at + 50°C



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