

High Temperature Series

Nickel-Cadmium

VNT D



The new VNT series benefits from innovative PNE (plastic-bonded nickel electrode) technology, a new positive electrode offering improved energy density.

The VNT D is specially designed to accept a permanent charge in high temperature environment such as emergency lighting equipment (minimum of 4 years up to + 40°C as required by the IEC 61951-1 standard).

To meet customers' requirements, Saft provides custom-designed and standard 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
- Long life duration

Technology

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

Electrical characteristics

Nominal voltage (V)	1.2
Typical capacity (mAh)*	4250
IEC minimum capacity (mAh)*	4000
IEC designation	KRMT 33/62
Impedance at 1000 Hz (m Ω)	6

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

Dimensions

Diameter (mm)	32.15 ± 0.1
Height (mm)	59.9 ± 0.4
Top projection (mm)	3.1 ± 0.4
Top flat area diameter (mm)	5.6
Weight (g)	115

Dimensions are given for bare cells.

Charge conditions

Rate	Time (h)	Temp. (°C)	Charge current (mA)
Standard*	16	+ 15 to + 40	400
Permanent		+ 15 to + 40	200
Trickle**		+ 15 to + 40	100 to 130

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

** Trickle charge follows full charge

Maximum discharge current

Continuous (A) at + 20°C	14
Peak (A) at + 20°C*	150

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



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Temperature range in discharge

- 20°C to + 70°C

Storage

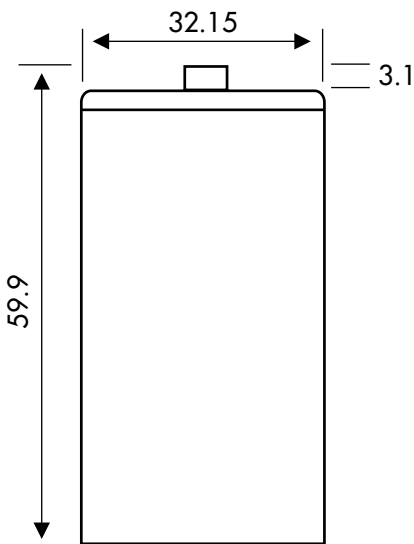
Recommended: + 5°C to + 25°C

Relative humidity: 65 ± 5 %

Typical performances

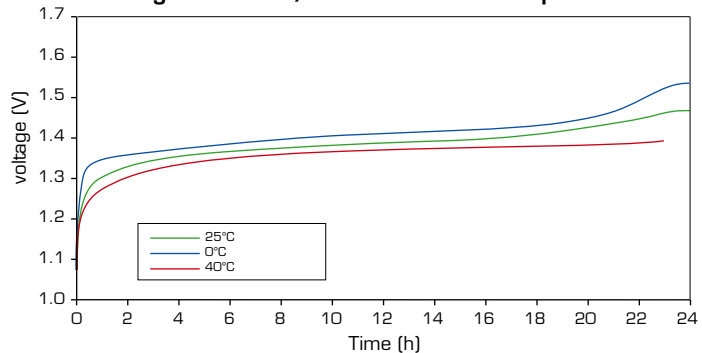
For graphs shown, C is the IEC₅ capacity.

Dimensions are in mm.

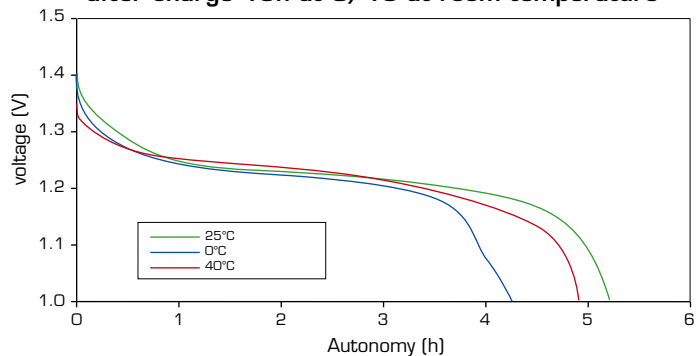


Data are given for single cells.
Please consult Saft for any use of
this cell in other conditions than
those given in this data sheet.

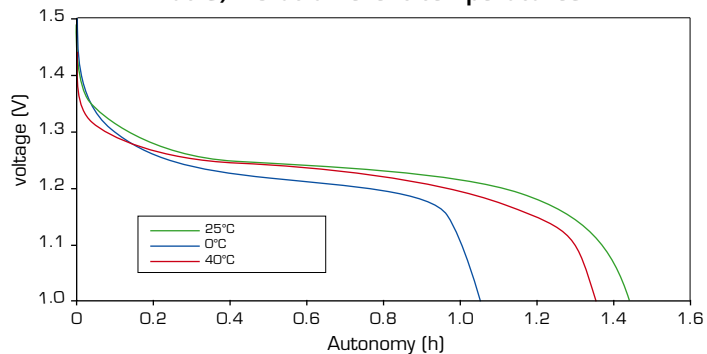
Charge 24h at C/20 at different temperatures



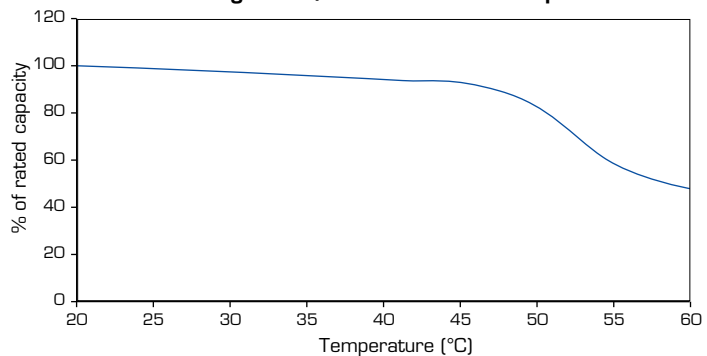
Discharge at C/5 at different temperatures after charge 16h at C/10 at room temperature



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



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



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