

VHT D

High Temperature Series

Saft's VHT High Temperature Ni-MH series has been designed for professional applications requiring a battery with an exceptional robustness.

The VHT D benefits from the latest technical improvements of Saft's Ni-MH technology, and is designed to operate in very demanding environments (from - 40°C to + 85°C).

The VHT D can be fast charged with a maximum current of C/3, and offers an exceptional life duration. The VHT D delivers a huge number of full or partial cycles: 2000 full cycles and even 5000 cycles with 50% DOD (Depth Of Discharge)

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

- Photovoltaic systems
- Renewable energy storage
- Tracking
- Underwater applications
- Robotics
- Professional electronics

Main advantages

- Very large temperature range (- 40°C to + 85°C)
- Excellent charge and discharge efficiency at very low and very high temperature
- Fast charge (3h)
- Very high cycle life
- Superior robustness

Technology

- Foam positive electrode
- Plastic bonded metal-hydride negative electrode



Electrical characteristics

Nominal voltage (V)	1.2
Typical capacity (mAh)*	6450
IEC minimum capacity (mAh)*	6000
IEC designation	HRMT 33/62
Impedance at 1000 Hz (mΩ)	4

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

Dimensions

Diameter (mm)	32.15 ± 0.1
Height (mm)	58.2 ± 0.4
Top projection (mm)	1.4 ± 0.4
Top flat area diameter (mm)	5.6
Weight (g)	135

Dimensions are given for bare cells.

Charge conditions	Rate	Time (h)	Temp. (°C)	Charge current (mA)
Fast*		3	-30 to + 60	2000
Permanent			-30 to + 60	60 to 300

* Charge termination required.

Maximum discharge current

Continuous (A) at + 20°C	18
Peak (A) at + 20°C*	130

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



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Temperature range in discharge

- 40°C to + 85°C (C/10 discharge current)
- 20°C to + 85°C (C/4 discharge current)

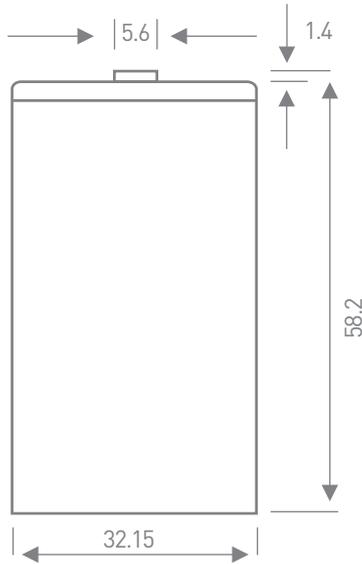
Storage

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

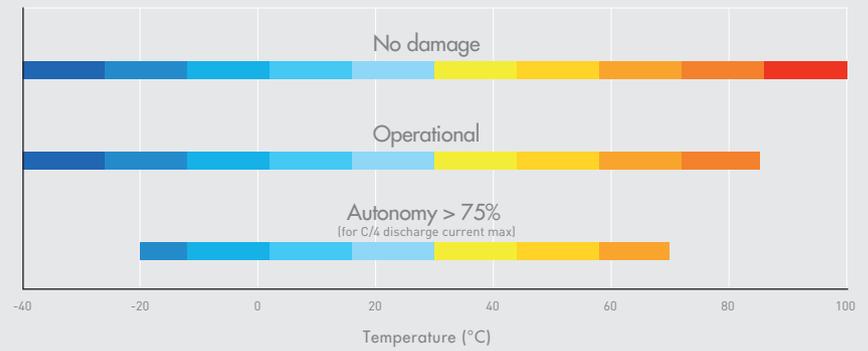
Typical performances

For graphs shown, C is the IEC₅ capacity.

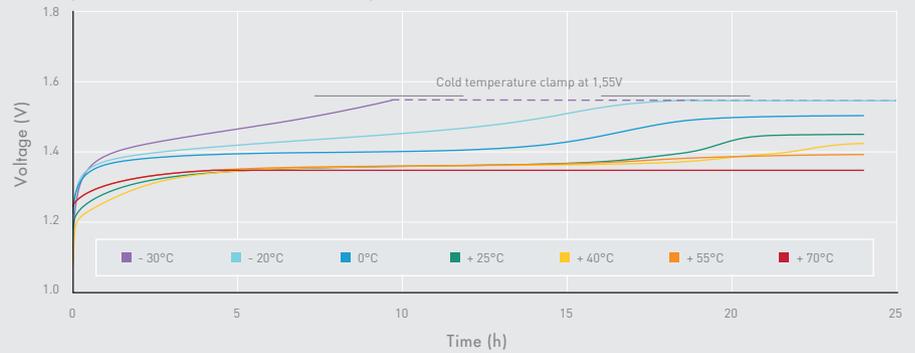
Dimensions are in mm.



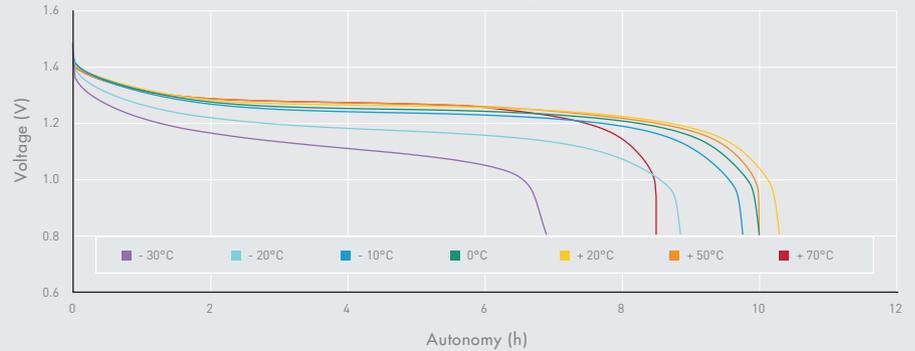
Electrical performances at different temperature



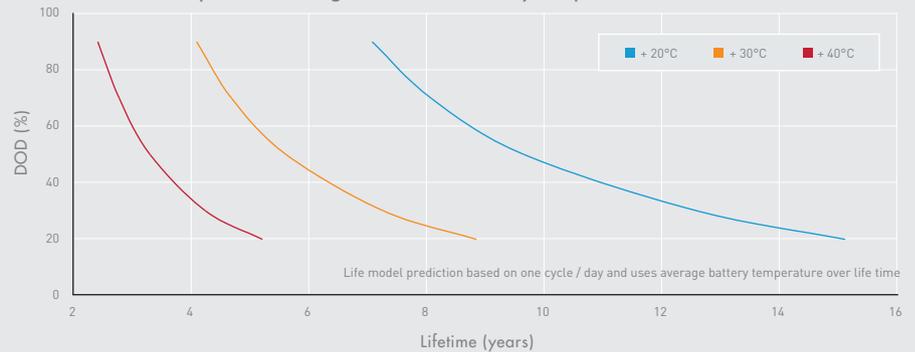
Charge 24h at C/20 at different temperature



Discharge at C/10 at different temperature after charge at C/10 at different temperature



Life duration vs. depth of discharge at different battery temperatures



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

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



Saft

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