Super High Energy Series
Nickel-Metal Hydride
VH F 15000

Saft continues the extension of the Super High Energy series with the Ni-MH VH F 15000 cell.

This cell is very well adapted for any application where power and long autonomy are required, such as personal electric vehicles, and professionnal lighting.

To meet customers' requirements, Saft provides custom-designed and standardized battery packs and electronic monitoring systems.

For your battery design and system needs, please contact Saft's engineers.

Applications
- Electric bicycles, scooters and wheelchairs
- Professional lighting
- Lawn and gardening tools
- Vacuum cleaners

Main advantages
- Super high capacity
- Quick and fast charge
- Good storage ability
- Excellent cycling performance

Technology
- Foam positive electrode
- Metal-hydride negative electrode

Temperature range in discharge
- 10°C to + 40°C

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

Electrical characteristics	
Nominal voltage (V)	1.2
Typical capacity (mAh)*	15000
IEC minimum capacity (mAh)*	14000
IEC designation	HRH 33/91
Impedance at 1000 Hz (m Ω)	4

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

Dimensions	
Diameter (mm)	32.15 ± 0.10
Height (mm)	88.8 ± 0.4
Top projection (mm)	1.4 ± 0.4
Top flat area diameter (mm)	5.6
Weight (g)	250

Dimensions are given for bare cells.

Charge conditions			
Rate	Time (h)	Temp. (°C)	Charge current (mA)
Fast	3-4	0 to + 35	up to 5000
Standard	16	0 to + 40	1400
Trickle*	(after a topping)		280 to 466
Topping	(after a main charge)		466 to1400

End of charge cut-off is requested: dT/dt recommended.
* Trickle charge follows fast charge.

Maximum discharge current	
Continuous (A) at + 20°C	50
Peak (A) at + 20°C*	180

* Peak duration: 0.3 second - final discharge voltage 0.6 volt/cell.

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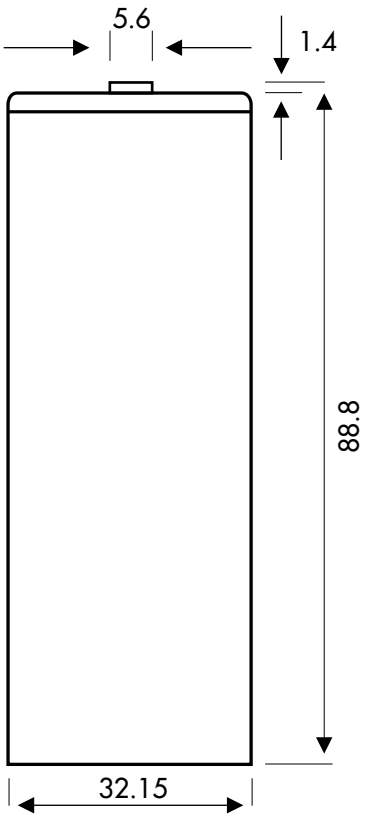
Typical performances

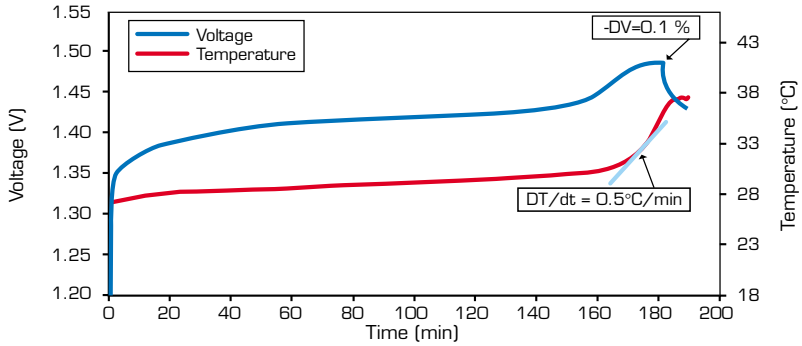
For graphs shown, C is the IEC_5 capacity.
Dimensions are in mm.



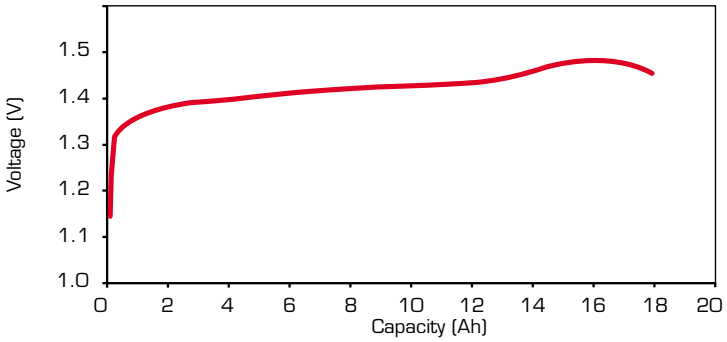
Data are given for single cells.
Please consult Saft for utilization of cell outside this datasheet.

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

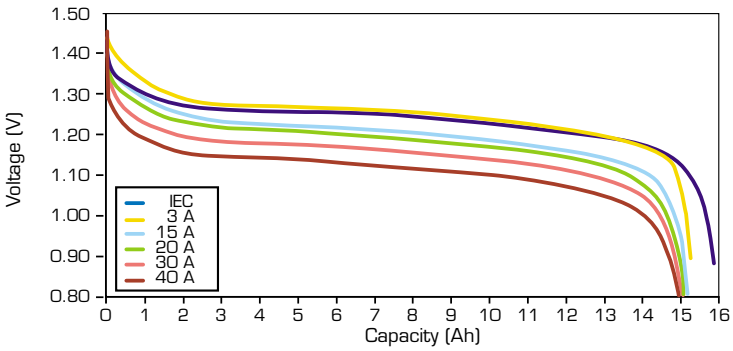
Voltage and temperature during charge at 5A



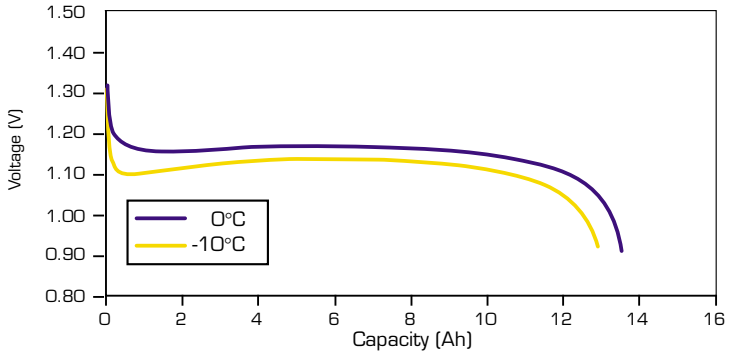
Voltage during fast charge at 4A



Discharge at different rates, after fast charge at 4A



Discharge at 12A at different temperatures, after fast charge at 4A



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