

Super High Energy Series

Nickel-Metal Hydride

VH F 16000

The VH F 16000 cell is especially designed to meet any application where power and long autonomy are required, such as personal electric vehicles, and professional appliances.

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
- Audio equipments
- Vacuum cleaners

Main advantages

- Super high capacity
- Fast charge ability
- 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)* | 16000 |
| IEC minimum capacity (mAh)* | 15000 |
| IEC designation | HRH 33/91 |
| Impedance at 1000 Hz (mΩ) | 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) | 265 |

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 | 1500 |
| Trickle* | (after a topping) | | 300 to 500 |
| Topping | (after a main charge) | | 500 to 1500 |

End of charge cut-off is requested: dT°C/dt recommended.

* Trickle charge follows fast charge.

Maximum discharge current

| | |
|--------------------------|-----|
| Continuous (A) at + 20°C | 50 |
| Peak (A) at + 20°C* | 180 |

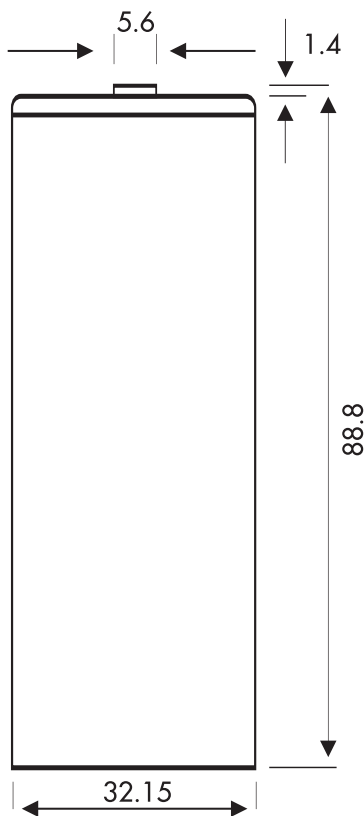
* Peak duration: 0.3 second - final discharge voltage 0.6 volt/cell.



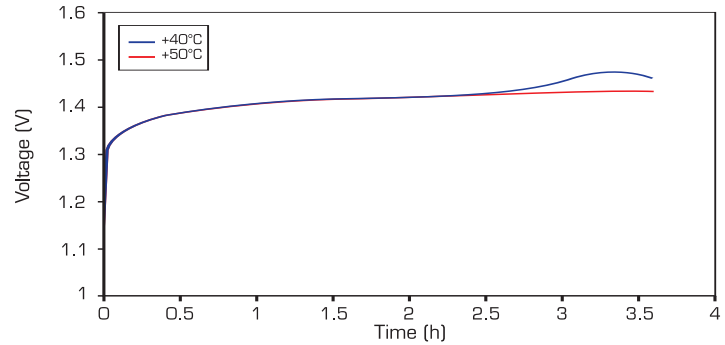
SAFT

Typical performances

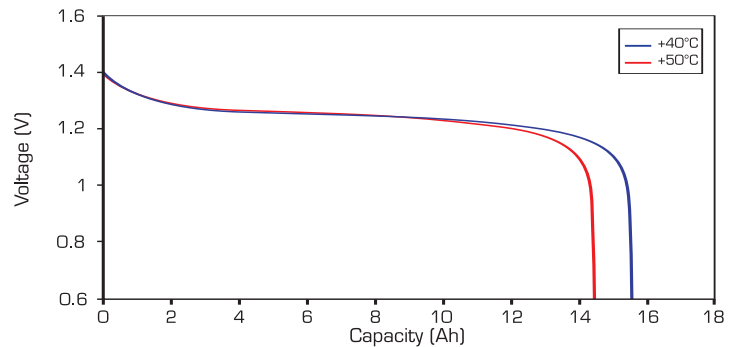
Dimensions in mm.



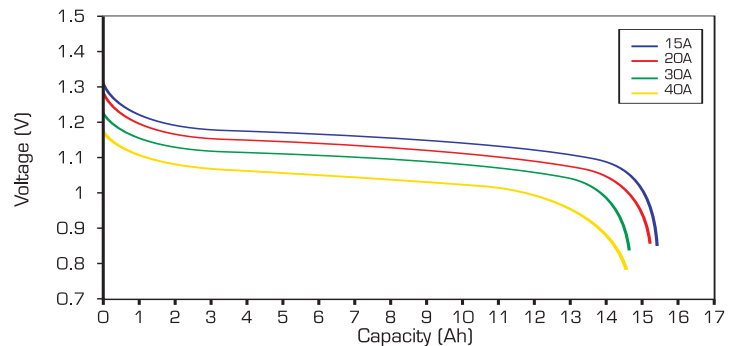
Fast charge (3h30mn) at 5A at + 40°C and + 50°C



Discharge at 10A after fast charge at + 40°C and + 50°C



Discharge at different rates at room temperature after fast charge



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.

Saft Rechargeable Battery Systems

12, rue Sadi Carnot
93170 Bagnole - France
Tel.: +33 (0)1 49 93 19 18
Fax: +33 (0)1 49 93 19 68
Email: rbs.info@saftbatteries.com

www.saftbatteries.com

DOC N°11111-2-1006

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

Photo credits: Saft

Published by the Communication Department

Saft S.A. Stock capital 31.944.000 €

RCS Bobigny B 383 703 873

Designed by H2O



SAFT