

Super High Power Series

Nickel-Metal Hydride

VH D

The Super High Power series has been extended with the Saft Ni-MH D cell, VH D.

This cell, designed to fit professional video equipment, is also very well adapted for any application where power and long autonomy are required, such as personal electric vehicles, lights, radio control models, etc.

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
- Military equipment

Main advantages

- Super high capacity
- Quick and fast charge
- Good storage ability

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)* | 8500 |
| Minimum capacity (mAh)* | 8000 |
| IEC designation | HRH 33/62 |
| Impedance at 1000 Hz (m Ω) | 4.0 |

* 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) | 160 |

Dimensions are given for bare cells.

Charge conditions

| Rate | Time (h) | Temp. (°C) | Charge current (mA) |
|----------|-----------------------|------------|---------------------|
| Fast | 2 to 3 | 0 to + 35 | up to 4000 |
| Standard | 15 | 0 to + 40 | 800 |
| Topping | (after a main charge) | | 200 to 800 |
| Trickle* | (after a topping) | | 160 to 200 |

End of charge cut-off is requested: $-dT^{\circ}C/dt$.

* Trickle charge follows fast charge.

Maximum discharge current

| | |
|--------------------------|-----|
| Continuous (A) at + 20°C | 40 |
| Peak (A) at + 20°C* | 120 |

* Peak duration: 0.2 s-cell voltage (0.7).

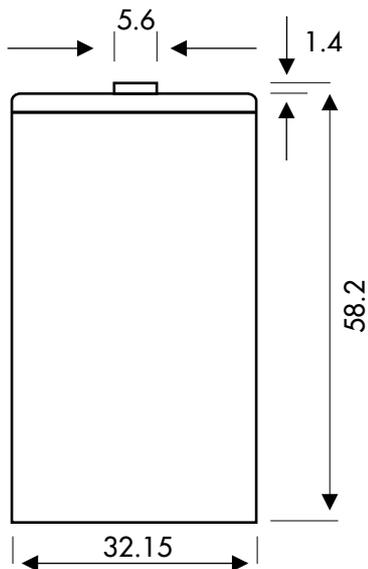


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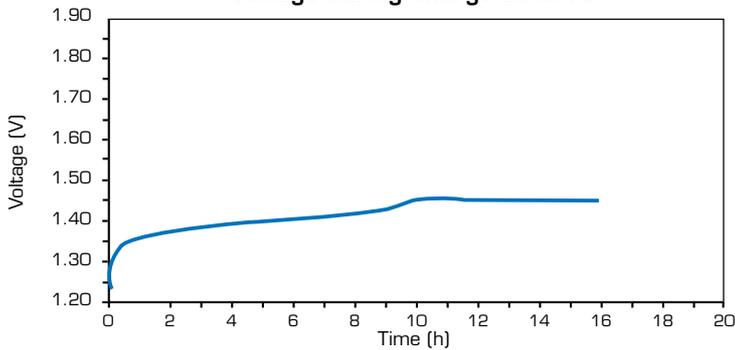
Typical performances

For graphs shown, C is the IEC₅ capacity.

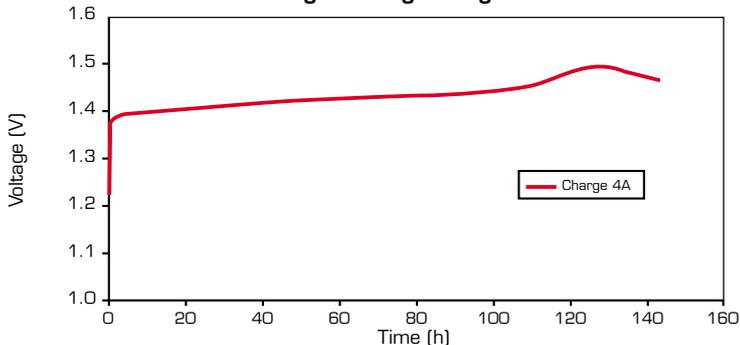
Dimensions are in mm.



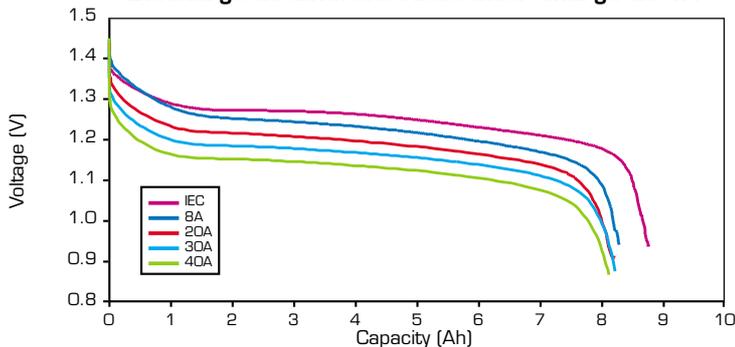
Voltage during charge at 0.1C



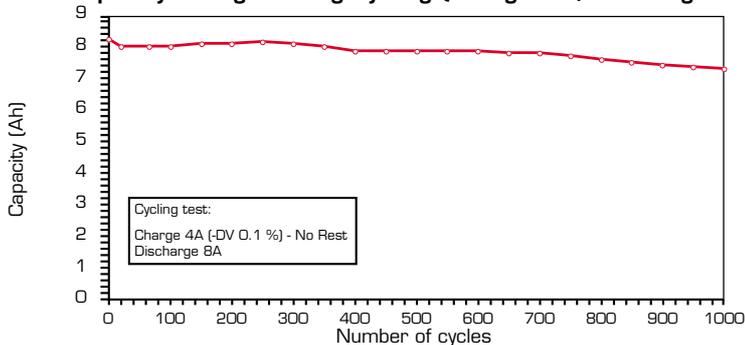
Voltage during charge at 4A



Discharge at different rates after charge at 4A



Capacity change during cycling (charge 4A, discharge 8A)



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.

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