

# High Temperature Series

## Nickel-Metal Hydride

### VHT AA

The Ni-MH VHT range has been specially designed to fit the emergency lighting and high temperature power back-up requirements. This range complements the Ni-Cd VT range.

The VHT AA cell is designed to accept a permanent charge in high temperature environments such as security lighting equipment. The VHT AA offers capacity of IEC 1.1 Ah.

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

- Emergency lighting
- Back-up systems

#### Main advantages

- Excellent charge efficiency at high temperatures
- Permanent charge
- Superior storage retention

#### Technology

- Foam positive electrode
- Metal-hydride negative electrode

#### Temperature range in discharge

- 10°C to + 55°C

#### Storage

Recommended: + 5°C to + 25°C

Relative humidity: 65 ± 5%



#### Electrical characteristics

|                            |            |
|----------------------------|------------|
| Nominal voltage (V)        | 1.2        |
| Typical capacity (mAh)*    | 1150       |
| IEC rated capacity (mAh)*  | 1100       |
| IEC designation            | HRMT 15/21 |
| Impedance at 1000 Hz (m Ω) | 18         |

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

#### Dimensions

|                             |             |
|-----------------------------|-------------|
| Diameter (mm)               | 13.9 ± 0.10 |
| Height (mm)                 | 48.9 ± 0.3  |
| Top projection (mm)         | 0.8 ± 0.2   |
| Top flat area diameter (mm) | 5.6         |
| Weight (g)                  | 24          |

Dimensions are given for bare cells.

#### Charge conditions

| Rate      | Time (h) | Temp. (°C)   | Charge current (mA) |
|-----------|----------|--------------|---------------------|
| Standard  | 16       | - 10 to + 55 | 110                 |
| Permanent | -        | -            | 30 to 55            |

#### Maximum discharge current

|                          |     |
|--------------------------|-----|
| Continuous (A) at + 20°C | 3.3 |
| Peak (A) at + 20°C*      | 36  |

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

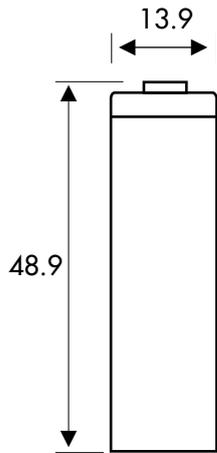


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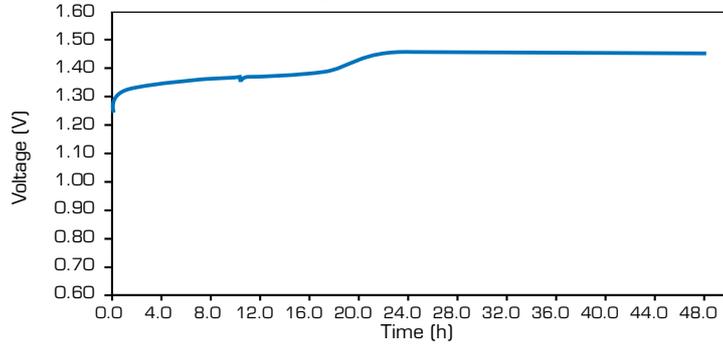
### Typical performances

For graphs shown, C is the IEC<sub>5</sub> capacity.

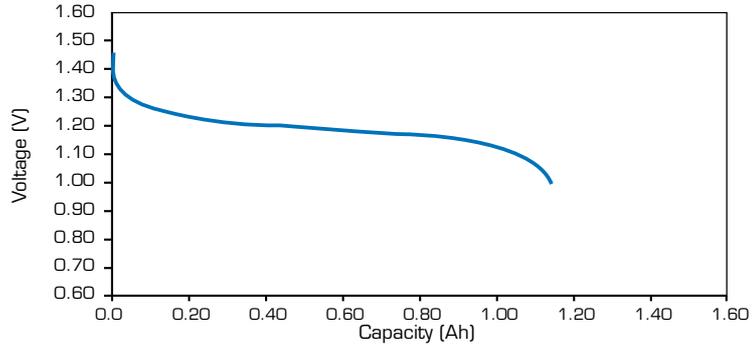
Dimensions are in mm.



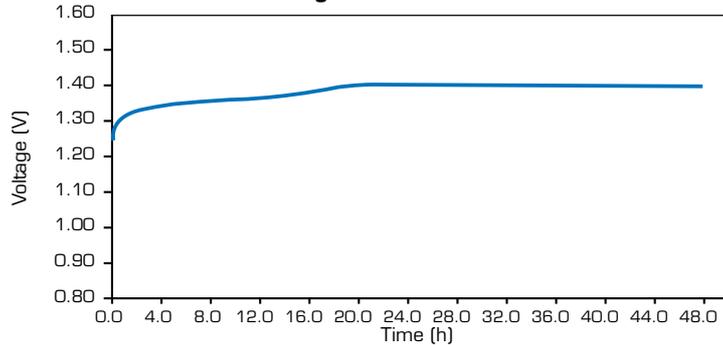
Charge at C/20 at + 40°C



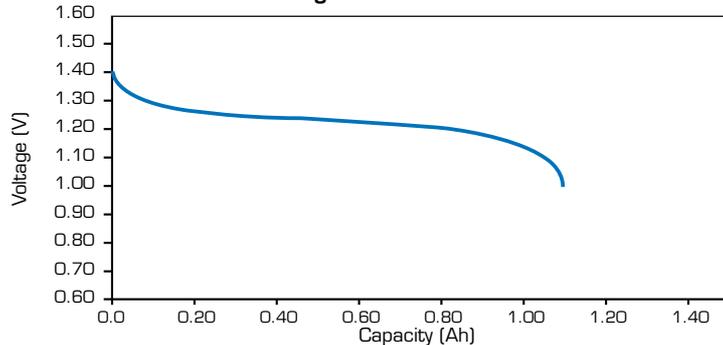
Discharge at C at + 40°C



Charge at C/16 at + 55°C



Discharge at 300 mA at + 55°C



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.

## Saft Rechargeable Battery Systems

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