

Ni-MH VHT FL 13000



ARTS Energy's VHT high temperature Ni-MH series are perfectly suited to professional applications requiring a battery with an exceptional robustness. It is designed to operate in very demanding environment.

To meet customers' requirements, ARTS Energy provides **custom-designed and standardised battery packs**.

For your battery design and system needs, please **contact ARTS Energy**.



ELECTRICAL CHARACTERISTICS

| | |
|-------------------------------|------------|
| • Nominal voltage (V) | 1.2 |
| • Typical capacity (mAh)* | 13600 |
| • IEC minimum capacity (mAh)* | 13000 |
| • IEC designation | HRMT 33/91 |
| • Impedance at 1000 Hz (mΩ) | 3 |

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

DIMENSIONS

| | |
|-------------------------------|-------------|
| • Diameter (mm) | 32.15 ± 0.1 |
| • Height (mm) | 88.8 ± 0.4 |
| • Top flat area diameter (mm) | 5.6 |
| • Weight (g) | 241 |

Dimensions are given for bare cells.

| CHARGE CONDITIONS | Temp. (°C) | Current |
|-------------------|------------|---------|
|-------------------|------------|---------|

| | | |
|------------------------|------------|---------|
| • Back up applications | -20 to +60 | C/2 max |
| • Solar applications | -40 to +60 | C/3 max |

| DISCHARGE CONDITIONS | Temp. (°C) | Current |
|----------------------|------------|---------|
|----------------------|------------|---------|

| | |
|------------|----------|
| +20 to +80 | 3C max |
| 0 to +80 | C/2 max |
| -20 to +80 | C/5 max |
| -30 to +80 | C/20 max |

| CYCLING CONDITIONS | Cycling | Life duration |
|--------------------|---------|---------------|
|--------------------|---------|---------------|

| | | |
|------------------------|---------------------|---------------|
| • Back up applications | 1 discharge/day max | 5 to 10 years |
| • Solar applications | 1 discharge/day max | 5 to 10 years |

APPLICATIONS

- Back-up systems
- Pack shaving applications (money saving)
- Professional electronics
- Solar

MAIN BENEFITS

- Very high cycle life
- Exceptional temperature range
- Superior robustness

TECHNOLOGY

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

The VHT F 13000 has been designed to offer a very long life duration in a wide range of temperatures.

In cycling applications (solar, peak shaving), the VHT F 13000 will offer 5 to 10 years in cold and moderate climates.

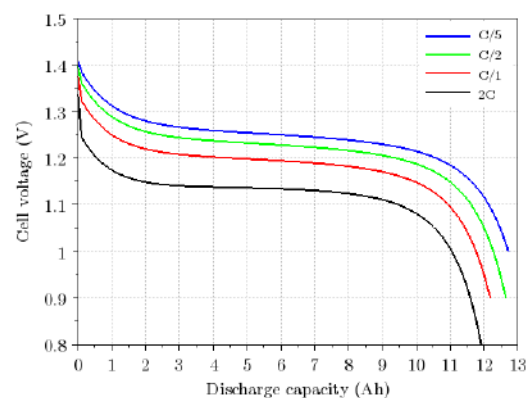
It delivers more than 2000 cycles at 80% DOD (charge 4A, discharge 6A).

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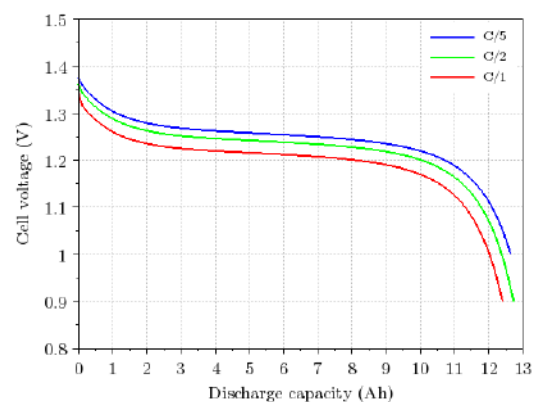
For applications below -20°C and above +60°C, please contact ARTS Energy to confirm the optimum battery design, and to agree on the usage profiles.



Performances +20°C



Performances +40°C

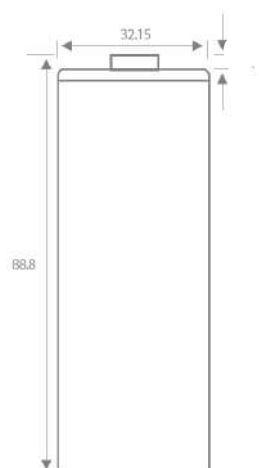


STORAGE

Recommended: + 5°C to + 25°C

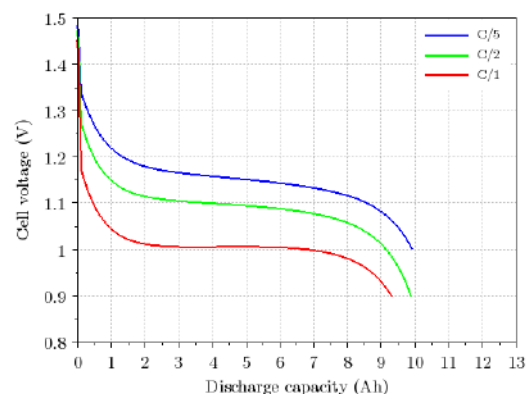
Relative humidity: 65 ± 5 %

TYPICAL DIMENSIONS

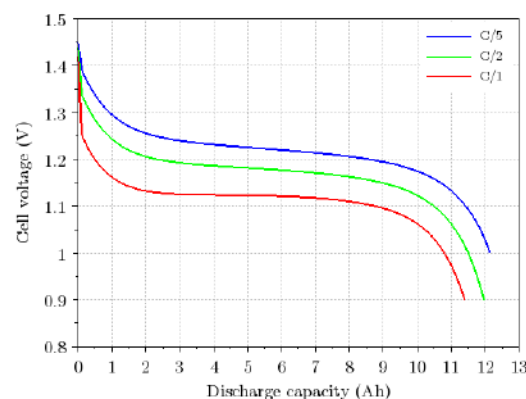


Typical dimensions (mm). Without tube.

Performances -20°C



Performances +0°C



The operation of the battery must strictly be in accordance with ARTS Energy technical recommendations, to obtain the performances stated by ARTS Energy.

Data is given for single cells. Please consult ARTS Energy for utilisation of cells outside specification.

Data in this document is subject to change without notice and become contractual only after written confirmation by ARTS Energy