

ARTS

ENERGY

ARTS Energy's VHT U high temperature Ni-MH series are perfectly suited to emergency lighting and power back-up requirements. With an intermittent charging regime, the design life is 4 years in high temperature environments (up + 50°C).

The VHT AA U 800 cell is designed to accept intermittent charge in a wide range of temperatures (0°C to + 50°C).

The VHT AA U 800 allows a significant reduction in the energy consumption of luminaires.

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

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

APPLICATIONS

- Emergency lighting (ELU)
- Back-up systems

MAIN BENEFITS

- 4 years life duration at 50°C
- Excellent charge efficiency at high temperatures
- Intermittent charge

TECHNOLOGY

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



ELECTRICAL CHARACTERISTICS

| | |
|-----------------------------|------------|
| Nominal voltage (V) | 1.2 |
| Typical capacity (mAh)* | 835 |
| IEC minimum capacity (mAh)* | 800 |
| IEC designation | HRMU 15/49 |
| Impedance at 1000 Hz (mΩ) | 20 |

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

DIMENSIONS

| | |
|-----------------------------|------------|
| Diameter (mm) | 13.9 ± 0.1 |
| Height (mm) | 48.9 ± 0.3 |
| Top projection (mm) | 0.8 ± 0.2 |
| Top flat area diameter (mm) | 5.6 |
| Weight (g) | 21 |

Dimensions are given for bare cells.

| CHARGE CONDITIONS RATE | Time (h) | Temp. (°C) | Current |
|------------------------|----------|------------|---------------------|
| Standard | 16 | 0 to + 50 | 80 mA |
| Intermittent | | 0 to + 50 | Consult ARTS Energy |

| DISCHARGE CONDITIONS | Temp. (°C) | Current |
|----------------------|------------|---------|
| Max Continuous | 0 to + 50 | 2.4 A |

CYCLING CONDITIONS

| | |
|----------------------|-------------------------|
| ELU applications | 1 discharge / month MAX |
| Back up applications | Consult ARTS Energy |

NI-MH

VHT AA U 800

High Temperature Series

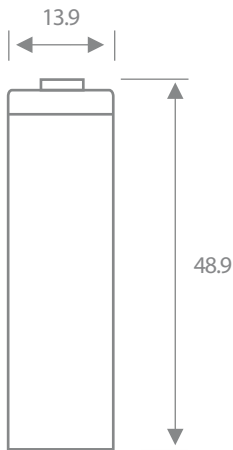
VHTAA U 800

High Temperature Series

STORAGE

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

TYPICAL DIMENSIONS



Typical dimensions (mm). Without tube.

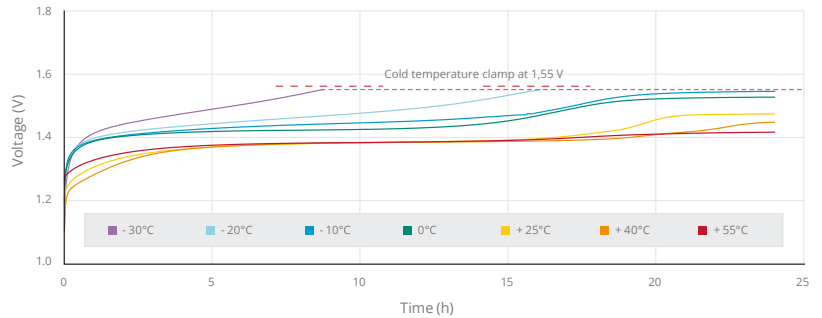
The operation of the battery must strictly be in accordance with ARTS Energy technical recommendations, to obtain the performances stated by ARTS Energy.

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

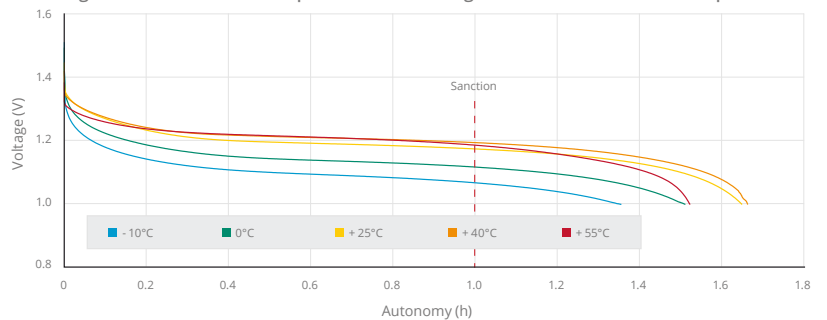
Data in this document is subject to change without notice and become contractual only after written confirmation by ARTS Energy.

For graphs shown, C is the IEC₅ capacity.

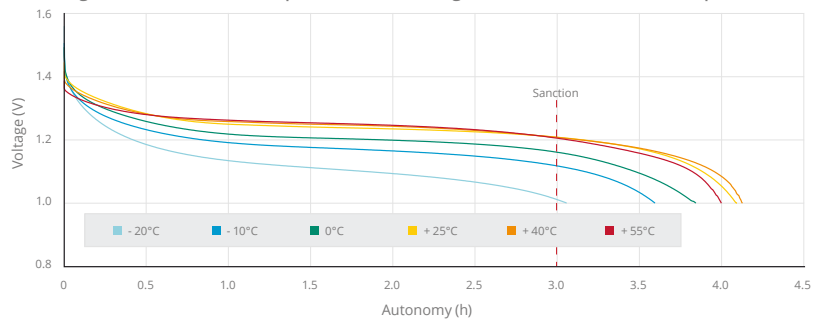
Charge 24h at C/20 at different temperatures



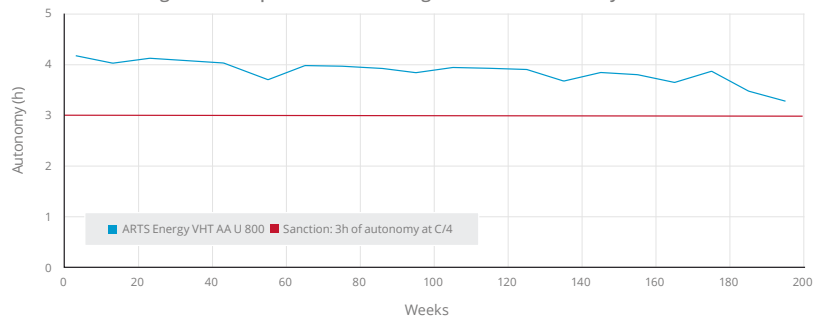
Discharge at 0.6 C at different temperatures after charge 24h at C/20 at different temperatures



Discharge at C/4 at different temperatures after charge 24h at C/20 at different temperatures



Intermittent charge at + 50°C permanent/discharge at C/4 at + 50°C every 10 weeks



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