# Ni-MH VHT AAL U 1100

**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).**

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)* | 1150 |
| IEC minimum capacity (mAh)* | 1100 |
| IEC designation | HRMT 15/49 |
| Impedance at 1000 Hz (mΩ) | 18 |

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

| DIMENSIONS | |
|---|---|
| Diameter (mm) | 13.9 ± 0.1 |
| Height (mm) | 48.2 ± 0.2 |
| Top flat area diameter (mm) | 8 |
| Weight (g) | 22 |

*Dimensions are given for bare cells.*

| CHARGE CONDITIONS | Temp. (°C) | Current |
|---|---|---|
| ELU applications | 0 to +50 | Intermittent C/20 |
| Back up applications | -20 to +85 | C/3 max |
| Solar applications | -40 to +85 | C/3 max |

*End of Fast charge cut-off is requested: -dV or dT°C/dt*

| DISCHARGE CONDITIONS | Temp. (°C) | Current |
|---|---|---|
| | +20 to +60 | 3C max |
| | 0 to +85 | C/2 max |
| | -20 to +85 | C/5 max |
| | -40 to +85 | C/20 max |

| LIFE DURATION | Cycling | Life duration |
|---|---|---|
| ELU applications | 1 discharge/month max | 4 years at 50°C |
| Back up applications | 1 discharge/day max | 5 to 10 years |
| Solar applications | 1 discharge/day max (50% DOD) | 5 to 10 years |

## APPLICATIONS

- Emergency lighting (ELU)
- 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

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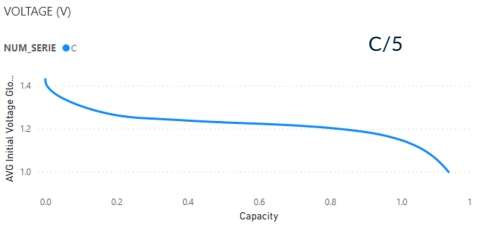
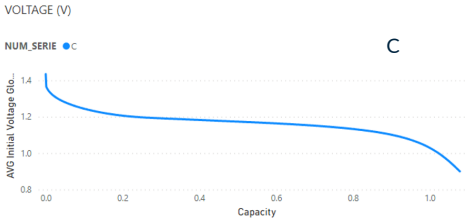
The VHT AA U cell is designed to accept intermittent charge in a wide range of temperatures (0°C to + 50°C).
The VHT AA U allows a significant reduction in the energy consumption of luminaires.
In back up applications, the VHT AA will offer 5 to 10 years life.
In cycling application (solar, peak shaving),
the VHT AA U will offer 5 to 10 years life in an environment from -40°C to +85°C.

It delivers for example, 5000 cycles at 50% DOD.

## Performances +20°C



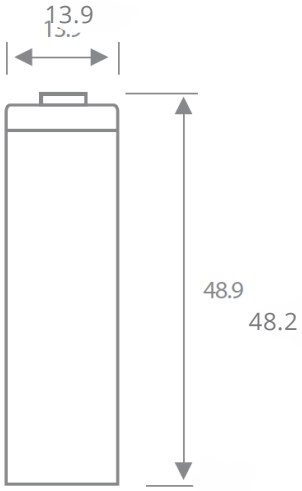




## STORAGE

Recommended: + 5°C to + 25°C

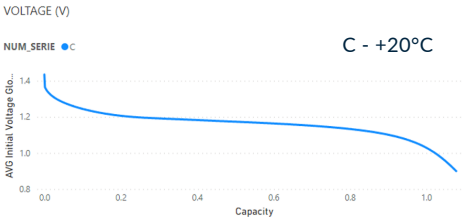
Relative humidity: 65 ± 5 %

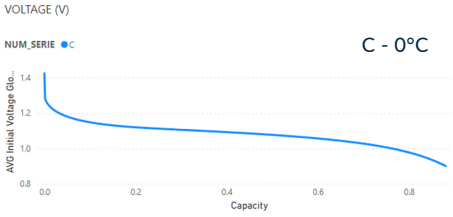
## TYPICAL DIMENSIONS

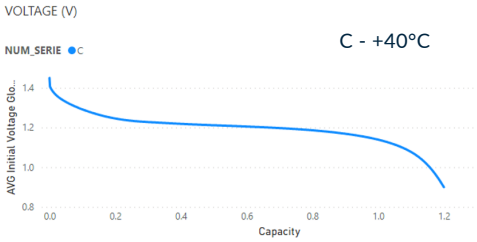


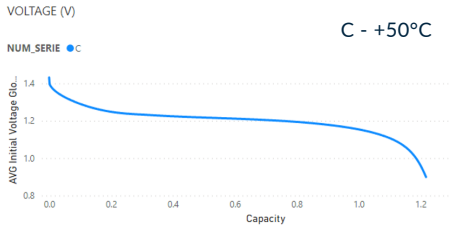

Typical dimensions (mm). Without tube.

## Temperature Current Performances




*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*

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