

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 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.

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)*	1150
IEC minimum capacity (mAh)*	1100
IEC designation	HRMU 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)	48.9 ± 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)	Current
Standard	16	0 to + 50	110 mA
Intermittent		0 to + 50	Consult ARTS Energy

DISCHARGE CONDITIONS	Temp. (°C)	Current
Max Continuous	0 to + 50	3.3 A

CYCLING CONDITIONS

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

NI-MH

VHT AA U

High Temperature Series

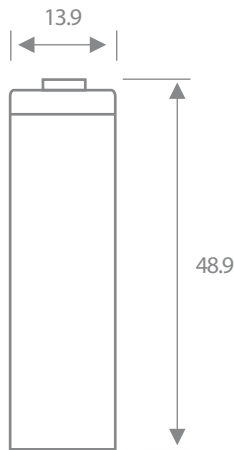
VHTAA U

High Temperature Series

STORAGE

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

TYPICAL DIMENSIONS



Typical dimensions (mm). Without tube.

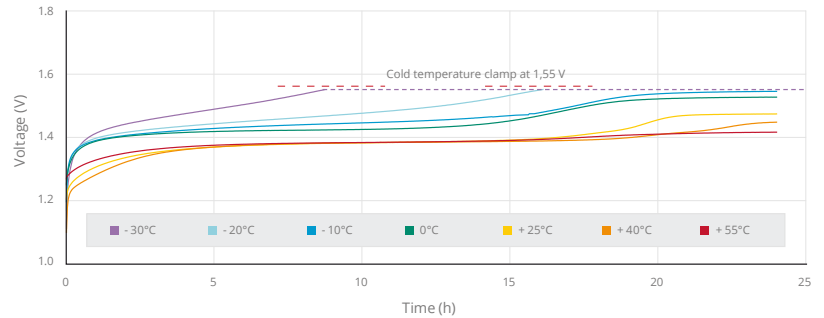
The operation of the battery must strictly be in accordance with ARTS Energy technical recommendations, to obtain the performances stated by ARTS Energy.

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

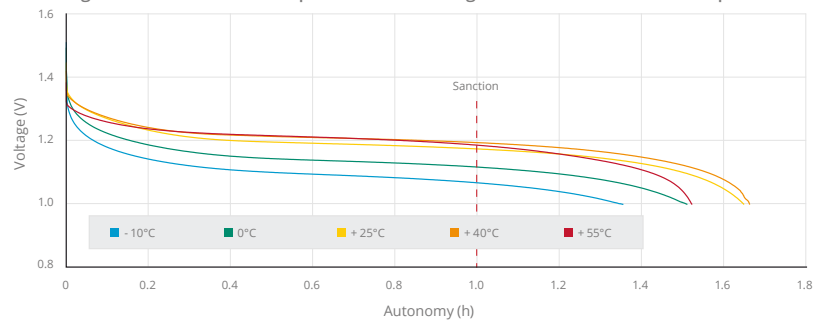
Data in this document is subject to change without notice and become contractual only after written confirmation by ARTS Energy.

For graphs shown, C is the IEC₅ capacity.

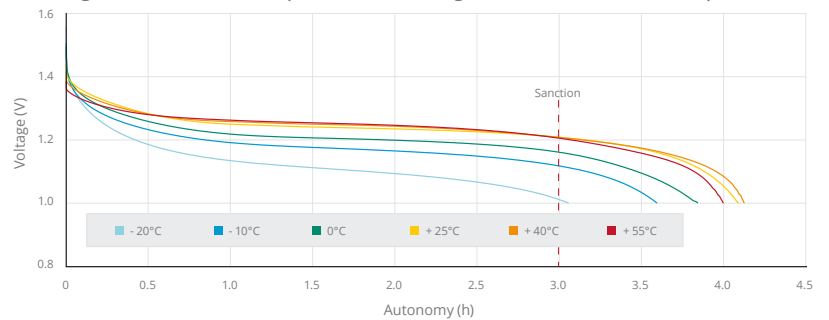
Charge 24h at C/20 at different temperatures



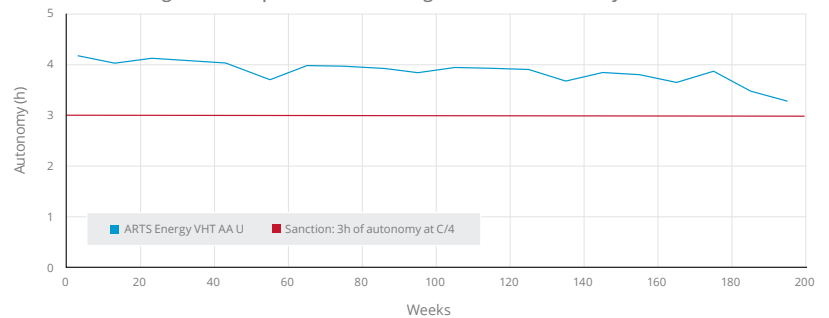
Discharge at 0.6 C at different temperatures after charge 24h at C/20 at different temperatures



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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