VHT AA U

High Temperature Series

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 + 55°C).

The VHT AA U cell is designed to accept intermittent charge in a large range of temperature (- 20°C to + 55°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 standardized battery packs.

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

Applications

- Emergency lighting
- Back-up systems

Main advantages

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

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)	Charge current (mA)
Standard	16	- 20 to + 55	110
Intermittent		- 20 to + 55	Consult ARTS Energy

Maximum discharge current	
Continuous (A) at + 20°C	3.3
Peak (A) at + 20°C*	36

* Peak duration: 0.3 second - final discharge voltage 0.65 volt/cell.
Below 0°C, a cut-off voltage in charge is required (Consult ARTS Energy)

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Advanced Rechargeable Technology and Solutions

Temperature range in discharge

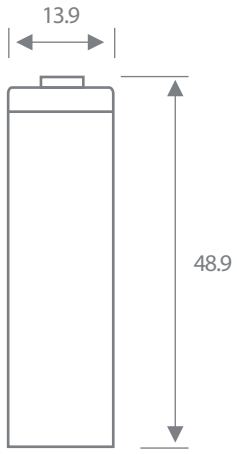
- 40°C to + 70°C

Storage

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

Typical performances

For graphs shown, C is the IEC_5 capacity.



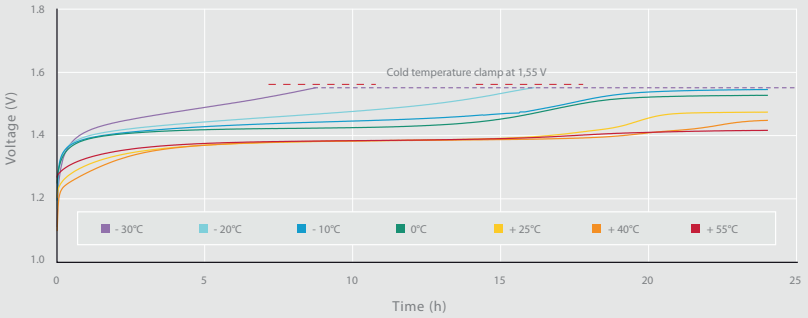
Dimensions are in mm.

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

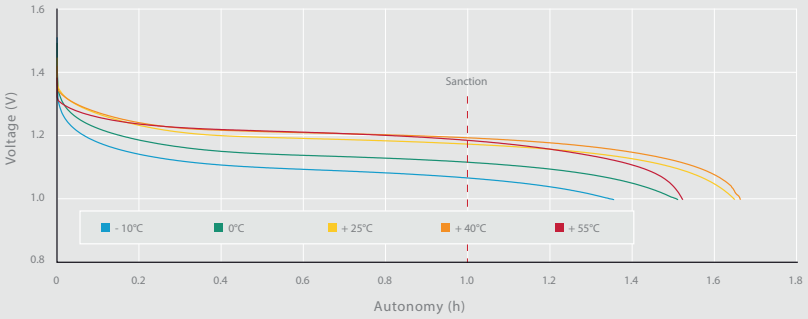
Data are given for single cells. Please consult ARTS Energy for utilization of cell outside this specification.

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

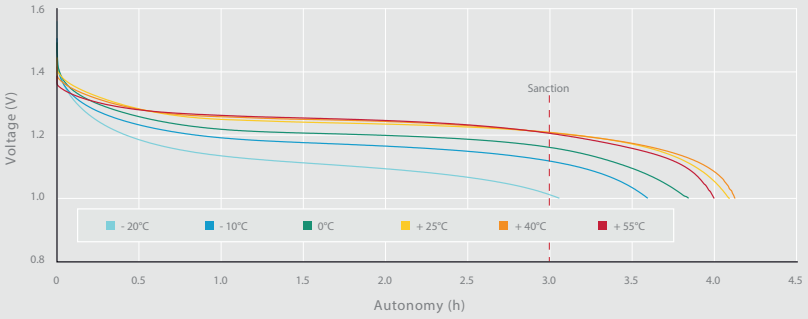
Charge 24h at C/20 at different temperatures



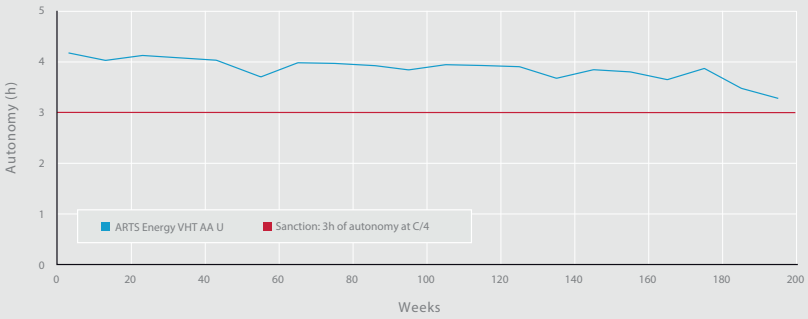
Discharge at 0.6 C at different temperatures after charge 24h at C/20 at different temperatures



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



10, rue Ampère
Zone Industrielle
16440 Nersac, France
Tél. +33(0)5 45 90 35 50
www.arts-energy.com

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RCS Angoulême 792 635 013
Conception in FR by Alain Bruneaud Création