

# VHT D 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 D U cell is designed to accept intermittent charge in a large range of temperature (- 20°C to + 55°C).

The VHT D 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)*	6400		
IEC minimum capacity (mAh)*	6000		
IEC designation	HRMU 33/62		
Impedance at 1000 Hz (mΩ)	4		
* Charge 16 h at C/10, discharge at C/5.			
Dimensions			
Diameter (mm)	32.15 ± 0.1		
Height (mm)	58.2 ± 0.4		
Top projection (mm)	1.4 ± 0.4		
Top flat area diameter (mm)	5.6 min		
Weight (g)	137		
Dimensions are given for bare cells.			
Charge conditions Rate	Time (h)	Temp. (°C)	Charge current (mA)
Standard	16	- 20 to + 55	600
Intermittent		- 20 to + 55	Consult ARTS Energy
Maximum discharge current			
Continuous (A) at + 20°C	18		
Peak (A) at + 20°C*	130		
* 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)			



## Temperature range in discharge

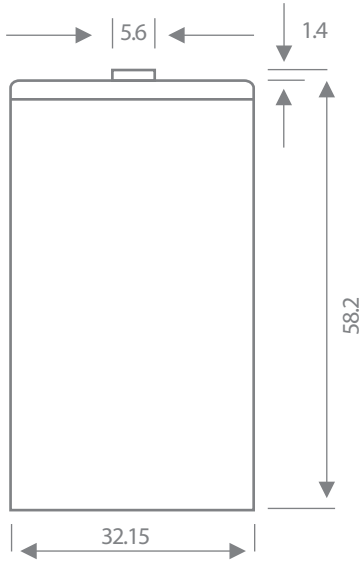
- 40°C to + 70°C

## Storage

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

## Typical performances

For graphs shown, C is the IEC<sub>5</sub> capacity.



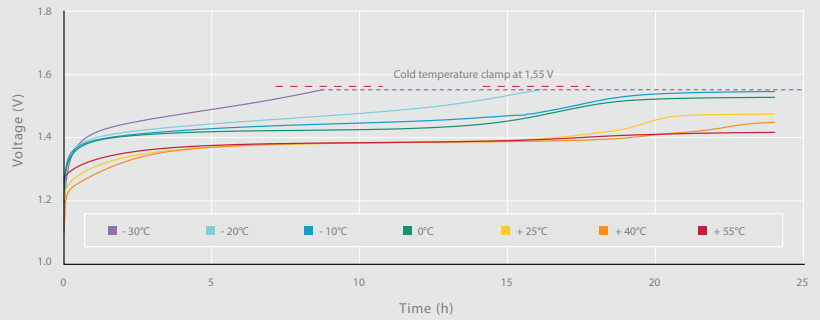
Dimensions are in mm.

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

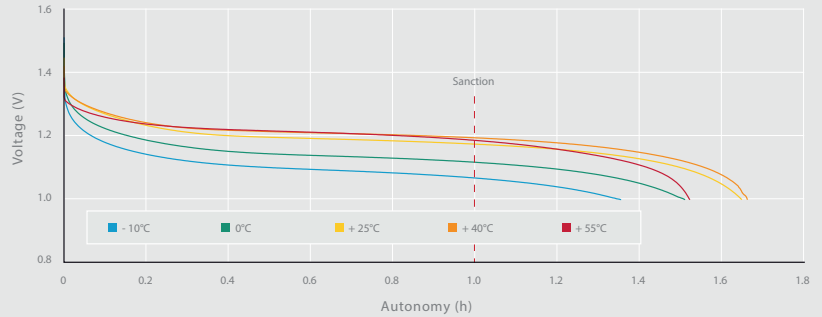
Data are given for single cells. Please consult ARTS Energy for utilization of cell outside this specification.

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

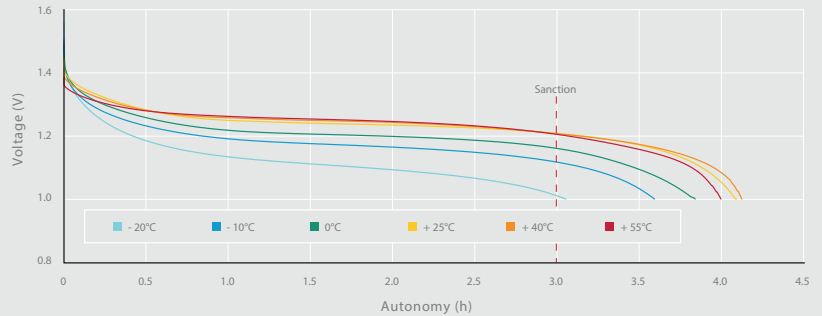
Charge 24h at C/20 at different temperatures



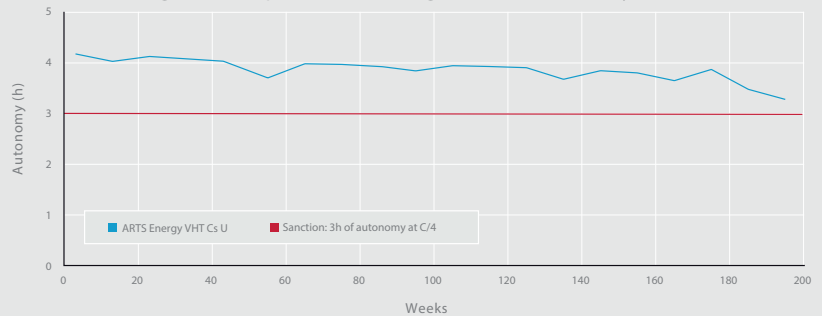
Discharge at 0.6 C at different temperatures after charge 24h at C/20 at different temperatures



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



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