

ARTS ENERGY

ARTS Energy's VHT high temperature Ni-MH series are perfectly suited to professional applications requiring a battery with an exceptional robustness. It is designed to operate in very demanding environment.

The VHT D has been designed to offer a very long life duration in a wide range of temperature.

In ELU the VHT D will offer more than 4 years life at 40°C permanent temperature (T type cell).

In back up applications, the VHT D will offer 5 to 10 years life.

In cycling application (solar, peak shaving), the VHT D 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.

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
- Peak 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-hydride negative electrode



ELECTRICAL CHARACTERISTICS		
Nominal voltage (V)	1.2	
Typical capacity (mAh)*	6450	
IEC minimum capacity (mAh)*	6000	
IEC designation	HRMT 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	
Weight (g)	135	
Dimensions are given for bare cells.		
CHARGE CONDITIONS	Temp. (°C)	Current
ELU applications	0 to +40	Intermittent
Back up applications	-20 to +85	Consult ARTS Energy
Solar applications	-40 to +85	C/3 max
DISCHARGE CONDITIONS	Temp. (°C)	Current
	0 to +85	C/2 max
	-20 to +85	C/5 max
	-40 to +85	C/20 max
CYCLING CONDITIONS	Cycling	Life duration
ELU applications	1 discharge/month max	4 years
Back up applications	1 discharge/day max	5 to 10 years
Solar applications	1 discharge/day max	5 to 10 years

NI-MH

VHT D

High Temperature Series

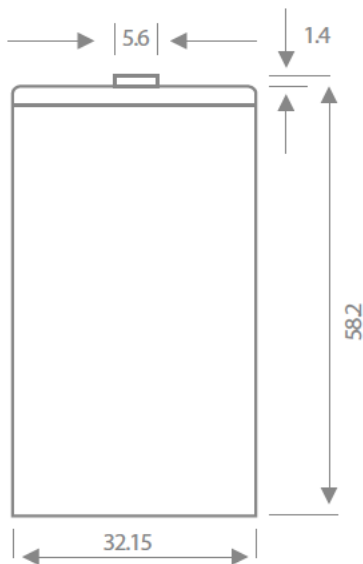
VHT D

High Temperature Series

STORAGE

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

TYPICAL DIMENSIONS



Typical dimensions (mm). Without tube.

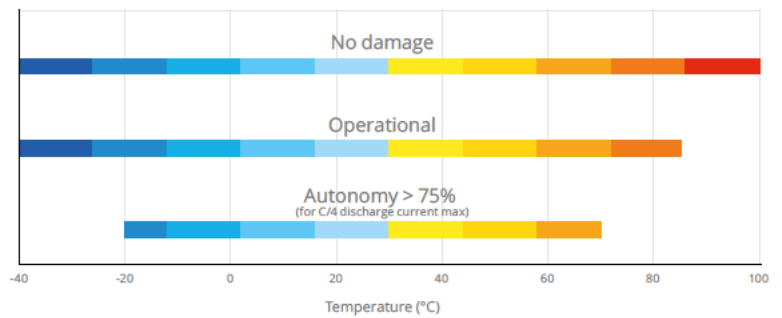
The operation of the battery must strictly be in accordance with ARTS Energy technical recommendations, to obtain the performances stated by ARTS Energy.

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

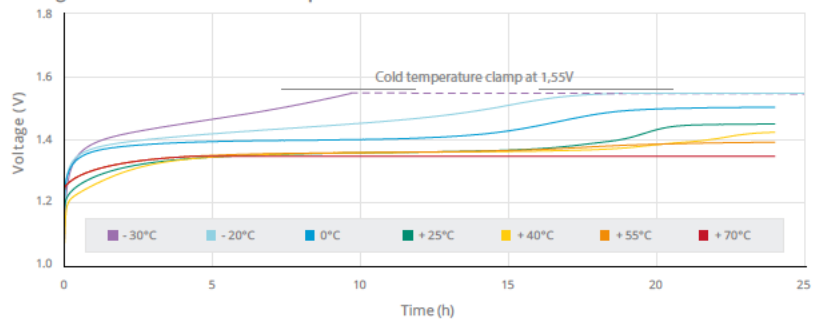
Data in this document is subject to change without notice and become contractual only after written confirmation by ARTS Energy.

For graphs shown, C is the IEC₅ capacity.

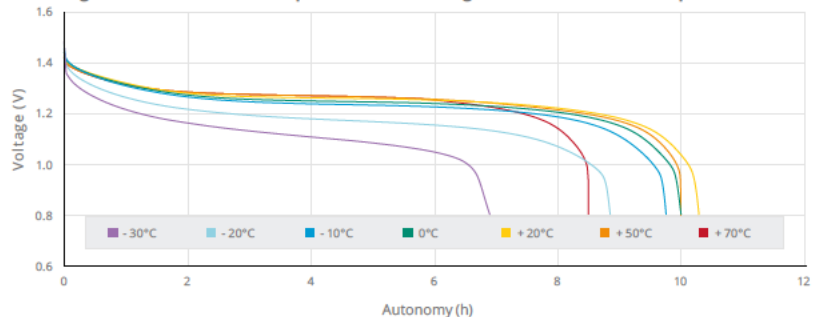
Electrical performances at different temperatures



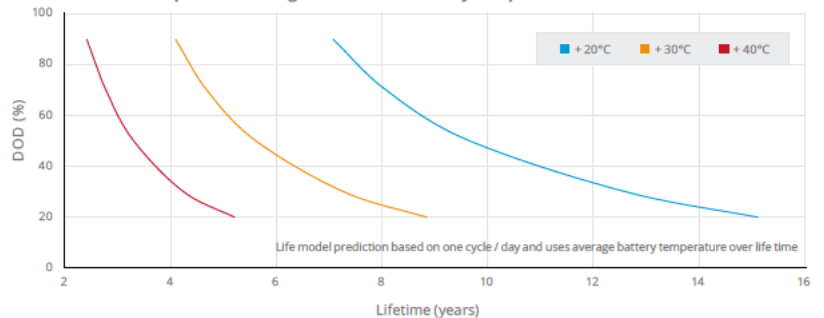
Charge 24h at C/20 at different temperatures



Discharge at C/10 at different temperatures after charge at C/10 at different temperatures



Life duration vs. depth of discharge at different battery temperatures



10, rue Ampère
Zone Industrielle - 16440 Nersac, France
Tél. +33(0)5 45 90 35 52 / 35 53
contact@arts-energy.com

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RCS Angoulême 792 635 013
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