ARTS Energy's ecolife™ MH high temperature Ni-MH series are perfectly suited to professional applications requiring a battery with an exceptional robustness. It is designed to operate more than 10 years in very demanding environment (many cycles, large temperature range).

The ecolife™ MH AA has been designed to offer a very long life duration in a wide range of temperature.

In ELU the ecolife™ MH AA will offer more than 10 years life at 40°C permanent temperature.

In back up applications, the ecolife™ MH AA will offer more than 10 years life.

In cycling application (solar, peak shaving), the ecolife™ MH AA will offer more than 10 years life in an environment from -40°C to +85°C. It delivers for example 10 000 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)*	845
IEC minimum capacity (mAh)*	800
IEC designation	HRMT 15/49
Impedance at 1000 Hz (mΩ)	19

* 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)	23

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
	+20 to +85	3C max
	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	> 10 years
Back up applications	1 discharge/day max	> 10 years
Solar applications	1 discharge/day max	> 10 years

NI-MH

ecolife™ MH AA

High Temperature Series

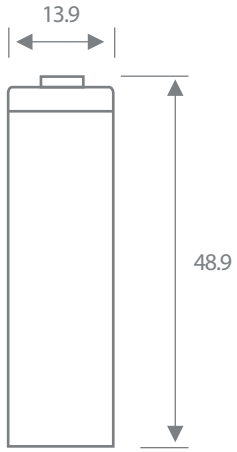
ecolife™ MH AA

High Temperature Series

STORAGE

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

TYPICAL DIMENSIONS



Typical dimensions (mm). Without tube.

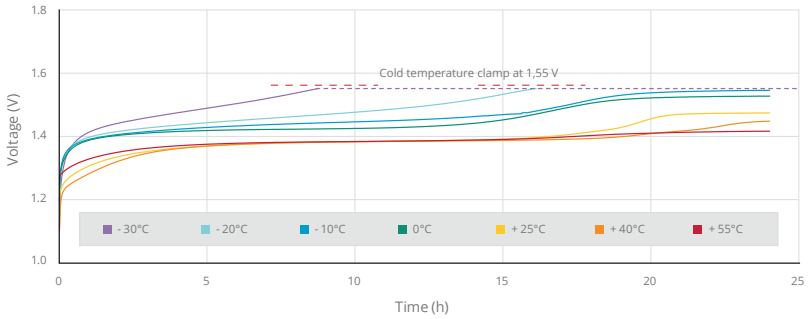
The operation of the battery must strictly be in accordance with ARTS Energy technical recommendations, to obtain the performances stated by ARTS Energy.

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

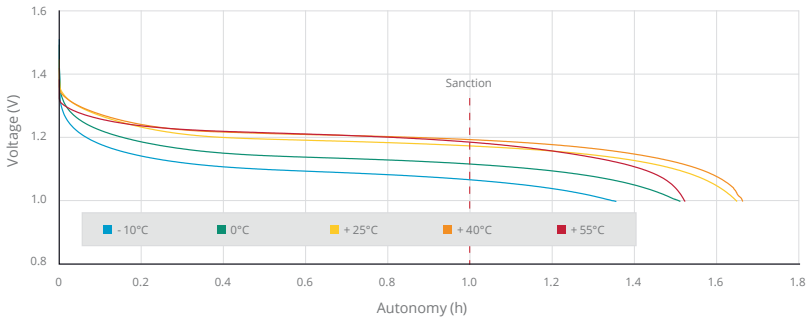
Data in this document is subject to change without notice and become contractual only after written confirmation by ARTS Energy.

For graphs shown, C is the IEC_5 capacity.

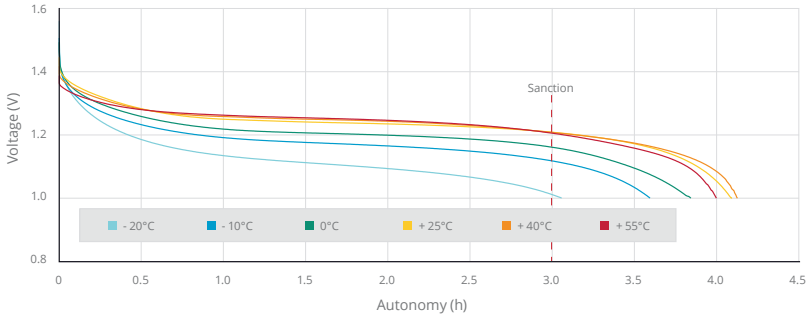
Charge 24h at C/20 at different temperatures



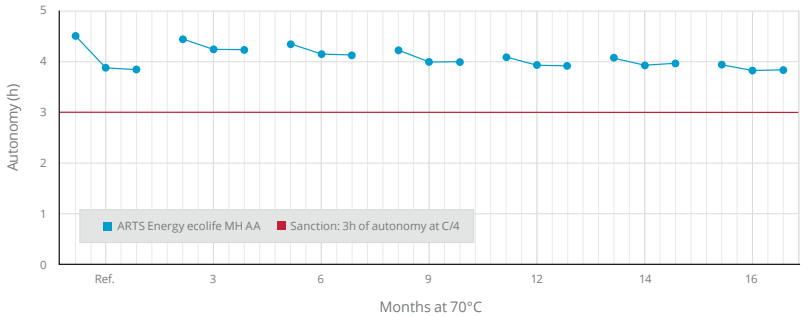
Discharge at 0.6 C at different temperatures after charge 24h at C/20 at different temperatures



Discharge at C/4 at different temperatures after charge 24h at C/20 at different temperatures



Accelerated ageing test at + 70°C, Capacity check (3 cycles @ 40°C) every 3 months



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