Ni-MH VH F XP

ARTS Energy's VH XP super high energy Ni-MH series are perfectly suited for applications requiring high power, high energy density and robustness. The "XP" stands for eXtended Power and illustrates the higher capability of the series.

To meet customers' requirements, ARTS Energy provides **custom-designed and standardised battery packs**.

For your battery design and system needs, please **contact ARTS Energy**.

ELECTRICAL CHARACTERISTICS	
• Nominal voltage (V)	1.2
• Typical capacity (mAh)*	15300
• IEC minimum capacity (mAh)*	14500
• IEC designation	HRH 33/91
• Impedance at 1000 Hz (mΩ)	2.5

** Charge 16 h at C/10, discharge at C/5.*

DIMENSIONS	
• Diameter (mm)	32.15 ± 0.1
• Height (mm)	88.8 ± 0.4
• Top projection (mm)	1.4 ± 0.4
• Top flat area diameter (mm)	5.6
• Weight (g)	252

Dimensions are given for bare cells.

CHARGE CONDITIONS	Temp. (°C)	Current
• Fast	0 to +40	5A max
• Topping (after fast charge)	0 to +40	Consult ARTS Energy
• Trickle (after topping)	0 to +40	Consult ARTS Energy
• Charge below 0°C	-40 to 0	Consult ARTS Energy

End of Fast charge cut-off is requested: -dV or dT°C/dt

DISCHARGE CONDITIONS	Temp. (°C)	Current
	10 to +40	70A max
	0 to +40	3C max
	-10 to +40	1C max
	-20 to +40	C/4 max
	-40 to +40	C/20 max

CYCLING CONDITIONS	
• Full cycle (100% DOD)	> 500 cycles

APPLICATIONS

- Robots / Unmanned Vehicles
- Medical
- Devices used or carried inside planes
- Professional electronics

MAIN BENEFITS

- High energy density
- High power
- Superior robustness
- Safe, no transportation constraints

TECHNOLOGY

- Foam positive electrode
- Plastic bonded metal-hybride negative electrode

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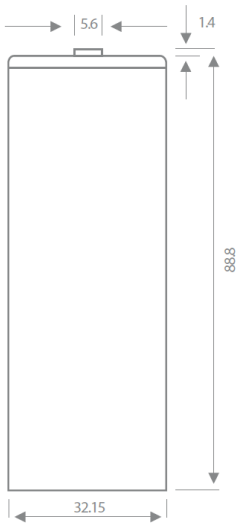
STORAGE

Recommended: + 5°C to + 25°C

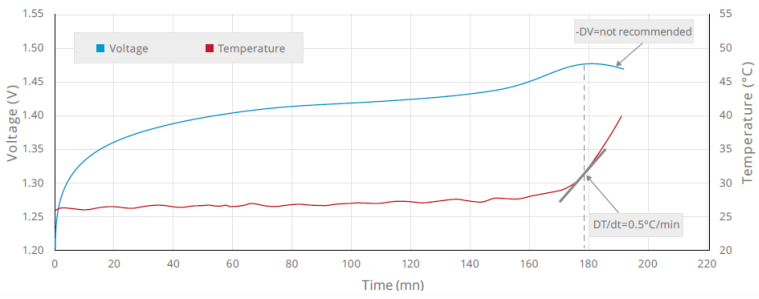
Relative humidity: 65 ± 5 %

TYPICAL DIMENSIONS

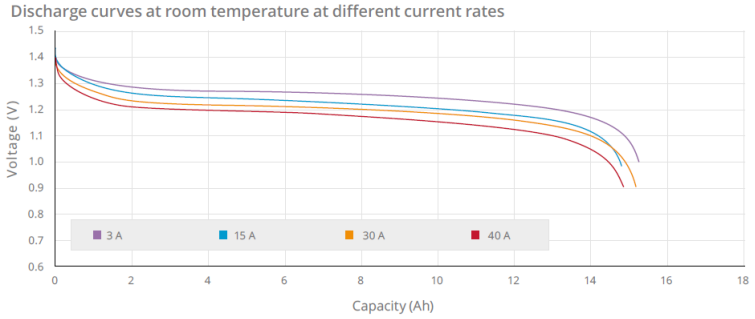


Typical dimensions (mm). Without tube.

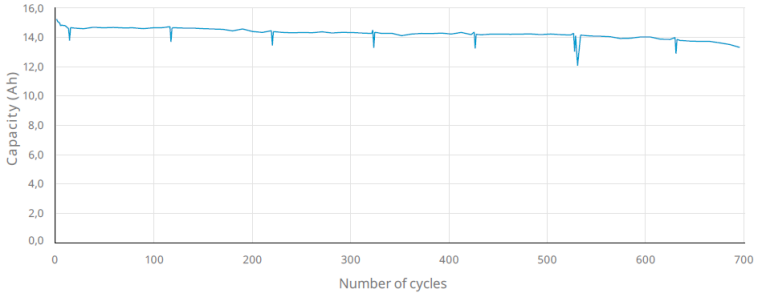
Voltage and temperature at 5 A charge



Discharge curves at room temperature at different current rates



Cycling at room temperature. Charge at 5 A, discharge at 12 A rest 24h every 100 cycles



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

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