

VH F XP

Super High Energy series

ARTS Energy's VH XP super high energy Ni-MH series are perfectly suited to power tool, mobility markets and other professional appliances. The "XP" stands for eXtended Power and illustrates the higher power capability of the series.

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

- Electric bicycles, scooters & wheelchairs
- Professional lighting
- Audio equipments
- Vacuum cleaners

Main advantages

- Super high capacity
- Fast charge ability
- Good storage ability
- Excellent cycling performance

Technology

- Foam positive electrode
- Metal-hydride negative electrode

Temperature range in discharge

- 10°C to + 40°C

Storage

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



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 Rate	Time (h)	Temp. (°C)	Charge current (mA)
Fast	3-4	0 to + 35	up to 5000
Standard	16	0 to + 40	1500
Topping	(after a main charge)		500 to 1500
Trickle	(after topping)		300 to 400
End of charge cut-off is requested: dT/dt recommended, -dV acceptable.			
Maximum discharge current			
Continuous (A) at + 20°C			50
Peak (A) at + 20°C*			180
* Peak duration: 0.3 second - final discharge Voltage 0.6 Volt/Cell.			

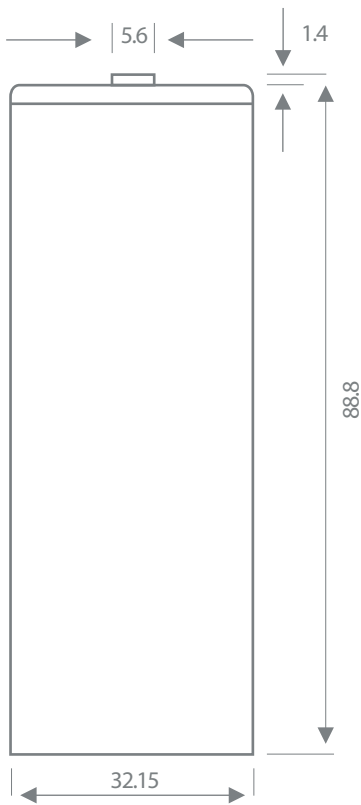


Advanced Rechargeable Technology and Solutions



Typical performances

For graphs shown, C is the IEC₅ capacity.

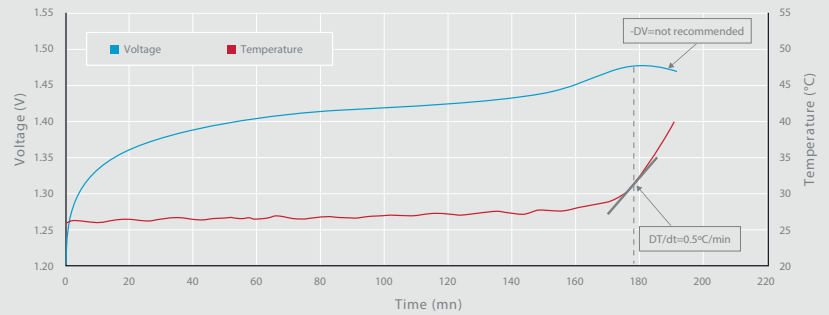


Dimensions are in mm.

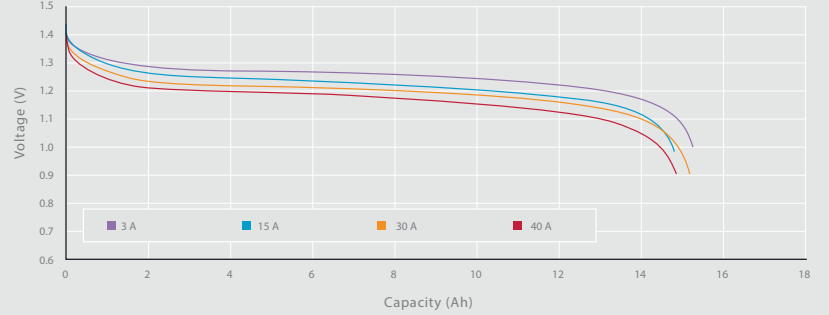
Data are given for single cells. Please consult ARTS Energy for utilization of cell outside this specification.

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

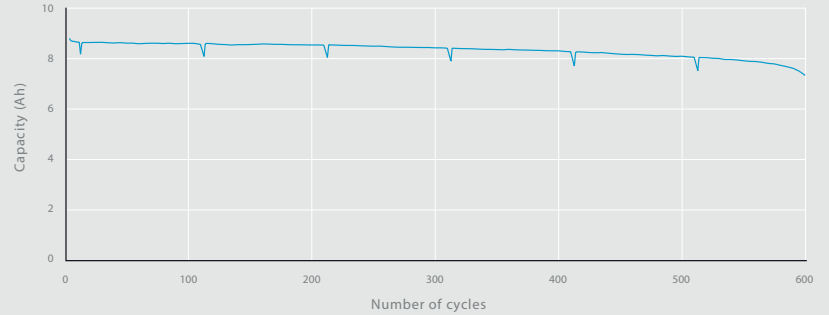
Voltage and temperature at 5 A charge



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



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