

VHT 7/5 Cs U

High Temperature Series

ARTS Energy's VHT U high temperature Ni-MH series are perfectly suited to emergency lighting and power back-up applications. With an intermittent charging regime, the design life is 4 years in high temperature environments (up + 55°C).

VHT 7/5 Cs U is the first Ni-MH cell to be registered ICEL 1010 E55 type (+ 55°C). The VHT 7/5 Cs U cell is designed to accept low current permanent charge (down to C/100) or preferably intermittent charge in a large range of temperatures (- 20°C to + 55°C). The VHT 7/5 Cs 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
- Permanent charge at low current (C/100)
- 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)*	4200
IEC minimum capacity (mAh)*	4000
IEC designation	HRMU 23/62
Impedance at 1000 Hz (mΩ)	20

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

Dimensions

Diameter (mm)	22.0 ± 0.05
Height (mm)	60.0 ± 0.3
Top projection (mm)	0.8 ± 0.2
Top flat area diameter (mm)	9.0 min
Weight (g)	74

Dimensions are given for bare cells.

Charge conditions Rate	Time (h)	Temp. (°C)	Charge current (mA)
Standard	16	- 20 to + 55	400
Permanent		- 20 to + 55	40 to 100
Intermittent		- 20 to + 55	Consult ARTS Energy

Maximum discharge current

Continuous (A) at + 20°C	15
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)



Advanced Rechargeable Technology and Solutions



Temperature range in discharge

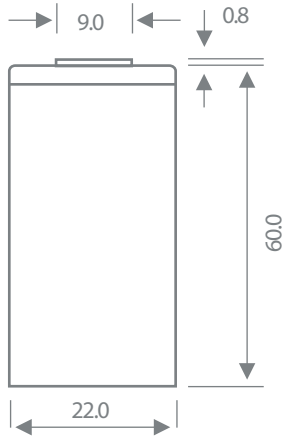
- 20°C to + 55°C

Storage

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

Typical performances

For graphs shown, C is the IEC₅ capacity.

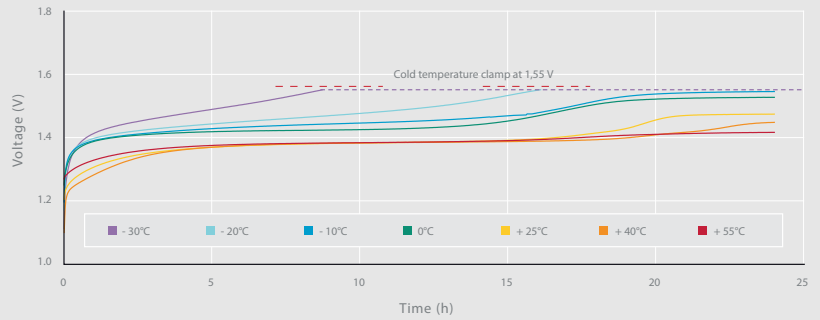


Dimensions are in mm.

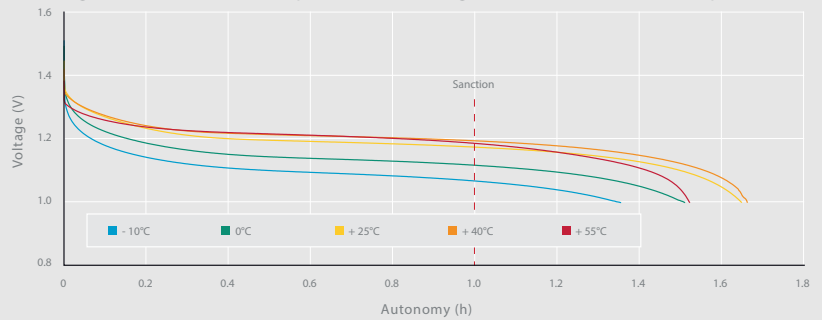
Data are given for single cells. Please consult ARTS Energy for utilization of cell outside this specification.

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

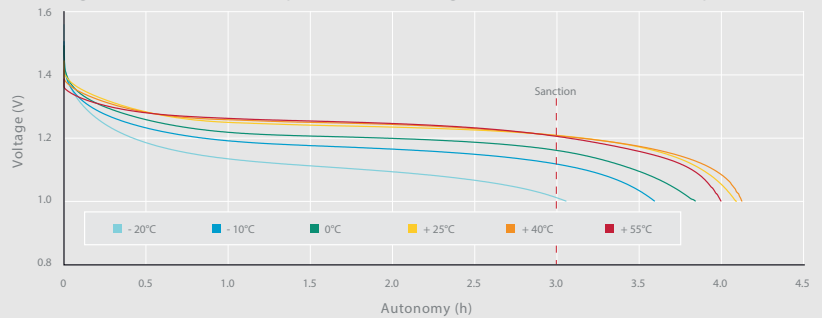
Charge 24h at C/20 at different temperatures



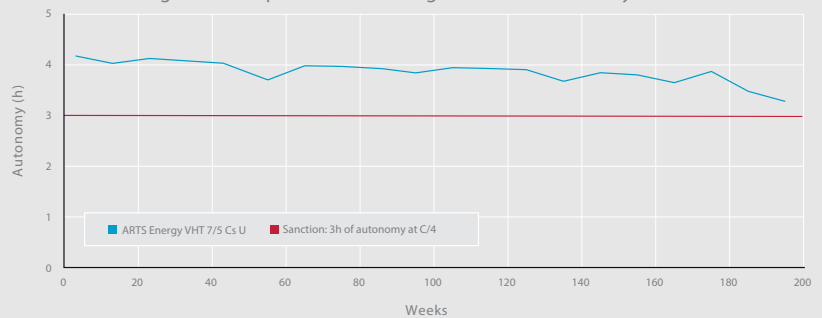
Discharge at 0.6 C at different temperatures after charge 24h at C/20 at different temperatures



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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