

ARTS ENERGY

The ARTS Energy ENDURANCE L1 range series are perfectly suited to professional applications requiring a battery with an exceptional robustness (electrical performance, but also the external battery casing). Endurance L1 range is designed to operate in very demanding environment (from -40°C to +85°C).

ENDURANCE L1 has been designed to be put under a solar panel, thanks to slim thickness (43mm), offering a compact solar system.

ENDURANCE L1 has been also designed to perfectly fit with 1U and 19 inches racks (telecom and back up applications).

ENDURANCE L1 is also an excellent choice for cycling applications (professional electronics, medical, peak shaving) as 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

- Back-up systems
- Peak shaving applications (money saving)
- Professional electronics, medical
- Solar

MAIN BENEFITS

- Very high cycle life
- Exceptional temperature range
- Superior robustness

TECHNOLOGY

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

SLIM



ELECTRICAL CHARACTERISTICS

Battery type	Voltage	IEC Cell Capacity *
ENDURANCE L1 12V - 6 Ah	12V	6 Ah
ENDURANCE L1 12V - 10 Ah	12V	10 Ah
ENDURANCE L1 12V - 20 Ah	12V	20 Ah
ENDURANCE L1 24V - 6 Ah	24V	6 Ah
ENDURANCE L1 24V - 10 Ah	24V	10 Ah
ENDURANCE L1 24V - 20 Ah	24V	20 Ah
ENDURANCE L1 36V - 10 Ah	36V	10 Ah
ENDURANCE L1 48V - 10 Ah	48V	10 Ah

* depending on battery configuration & conditions of use, capacity may be reduced

CHARGE CONDITIONS

	Temp. (°C)	Current
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	14A max
	0 to +85	C/2 max
	-20 to +85	C/5 max
	-40 to +85	C/20 max

CYCLING CONDITIONS

	Cycling	Life duration
Back up applications	1 discharge/day max	5 to 10 years
Solar applications	1 discharge/day max	5 to 10 years

NI-MH

ENDURANCE L1

High Robustness Series

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High Robustness Series

STORAGE

Recommended: + 5°C to + 25°C

Relative humidity: 65 ± 5 %



COMPONENTS

VHT F or VHT D cells

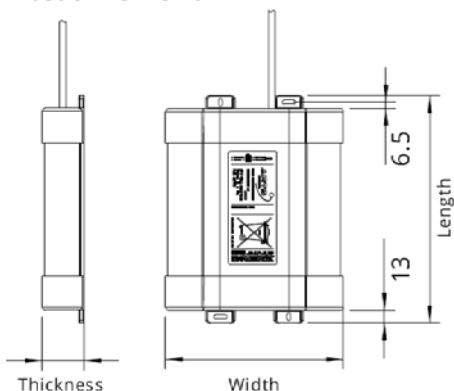
12V and 24V: connector MOLEX 39-03-9062

36V and 48V: connector MOLEX 39-01-4061

Wires AWG16, 50 cm

Thermofuse (non reversible) +93°C/+0°C/-5°C

Plastic ABS/PC V0



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.

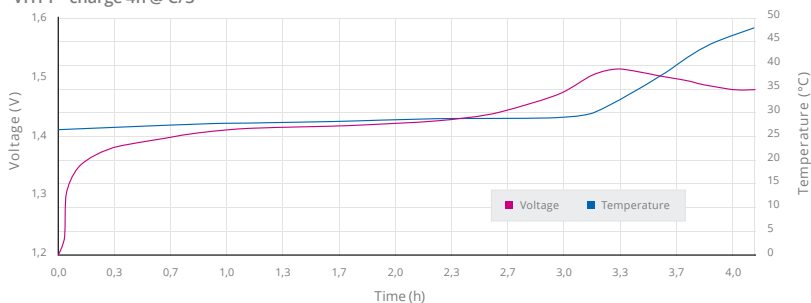
Data in this document is subject to change without notice and become contractual only after written confirmation by ARTS Energy.

MECHANICAL CHARACTERISTICS

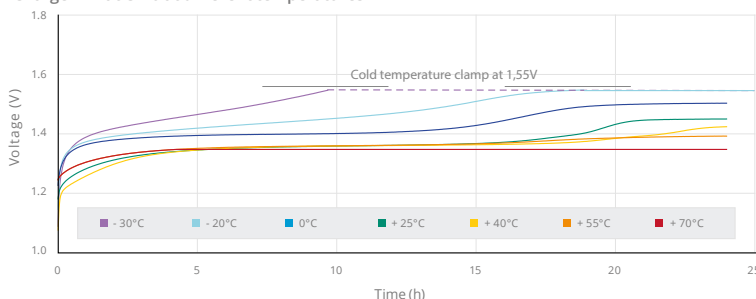
Battery type	Thickness (mm)	Width (mm)	Length (mm)	Weight (Kg)
ENDURANCE L1 12V - 6 Ah	43	181	170	1,9
ENDURANCE L1 12V - 10 Ah	43	181	231	2,6
ENDURANCE L1 12V - 20 Ah	43	181	410	4,9
ENDURANCE L1 24V - 6 Ah	43	181	288	3,2
ENDURANCE L1 24V - 10 Ah	43	181	410	4,8
ENDURANCE L1 24V - 20 Ah	43	181	765	9,4
ENDURANCE L1 36V - 10 Ah	43	181	587	7,1
ENDURANCE L1 48V - 10 Ah	43	181	765	9,4

For graphs shown, C is the IEC₅ capacity.

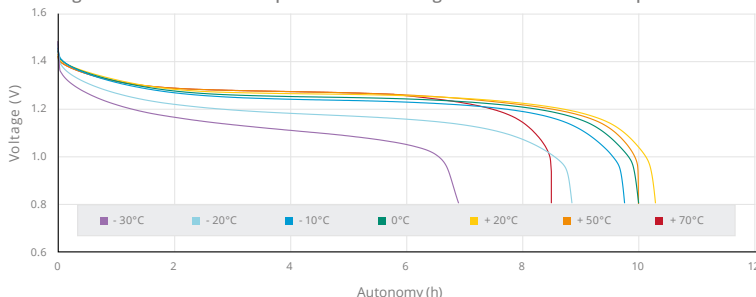
VHT F - charge 4h @ C/3



Charge 24h at C/20 at different temperatures



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



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