

ARTS

ENERGY

The ARTS Energy ENDURANCE L4 range series are perfectly suited to professional applications requiring a battery with an exceptional robustness (electrical performance, but also the external battery casing). Endurance L4 range is designed to operate in very demanding environment (from -40°C to +85°C).

ENDURANCE L4 has been designed for « large » solar systems (up to a 10 kWh battery).

ENDURANCE L4 has been also designed to perfectly fit with 4U and 19 inches racks (telecom and back up applications).

ENDURANCE L4 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.



ELECTRICAL CHARACTERISTICS		
Battery type	Voltage	IEC Cell Capacity *
ENDURANCE L4 12V – 20 Ah	12V	20 Ah
ENDURANCE L4 12V – 40 Ah	12V	40 Ah
ENDURANCE L4 24V – 6 Ah	24V	6 Ah
ENDURANCE L4 24V – 10 Ah	24V	10 Ah
ENDURANCE L4 24V – 20 Ah	24V	20 Ah
ENDURANCE L4 24V – 40 Ah	24V	40 Ah
ENDURANCE L4 36V – 20 Ah	36V	20 Ah
ENDURANCE L4 48V – 10 Ah	48V	10 Ah
ENDURANCE L4 48V – 20 Ah	48V	20 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

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

NI-MH

ENDURANCE L4

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

Connector for the charge and the discharge:
MOLEX 76825-0004

Connector for the NTC: MOLEX 43045-1601

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.

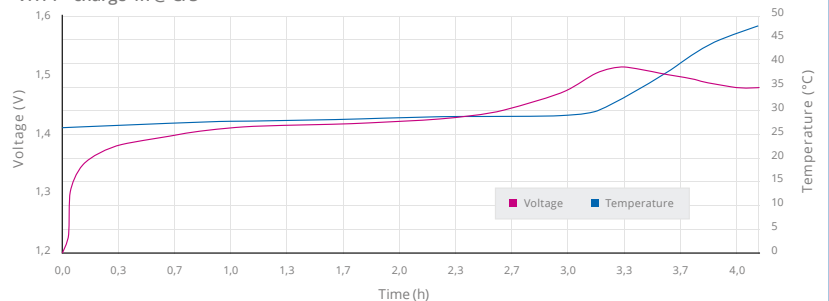
Data in this document is subject to change without notice and become contractual only after written confirmation by ARTS Energy.

MECHANICAL CHARACTERISTICS

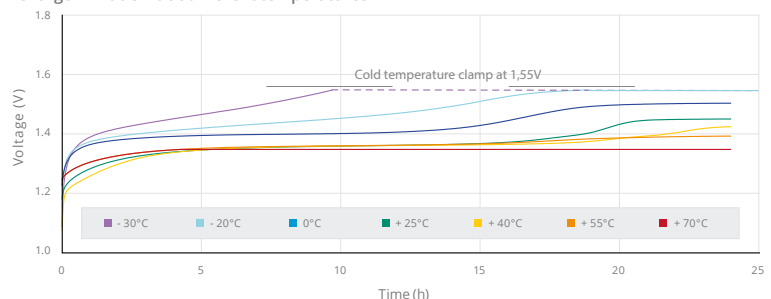
Battery type	Height (mm)	Width (mm)	Length (mm)	Weight (Kg)
ENDURANCE L4 12V - 20 Ah	136	183	162	5,5
ENDURANCE L4 12V - 40 Ah	225	183	162	10,2
ENDURANCE L4 24V - 6 Ah	106	183	162	3,2
ENDURANCE L4 24V - 10 Ah	136	183	162	5,5
ENDURANCE L4 24V - 20 Ah	225	183	162	10,1
ENDURANCE L4 24V - 40 Ah	405	183	162	19,4
ENDURANCE L4 36V - 20 Ah	315	183	162	14,6
ENDURANCE L4 48V - 10 Ah	225	183	162	10,1
ENDURANCE L4 48V - 20 Ah	405	183	162	19,1

For graphs shown, C is the IEC₅ capacity.

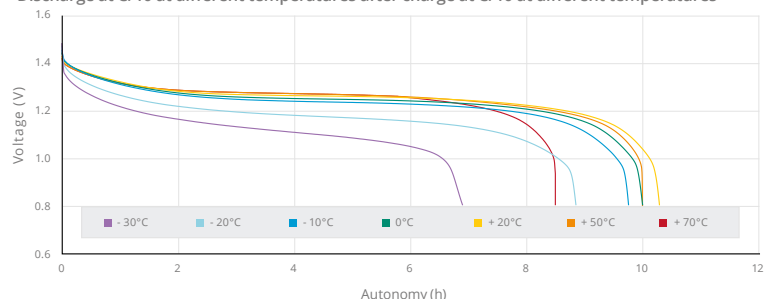
VHT F - charge 4h @ C/3



Charge 24h at C/20 at different temperatures



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



10, rue Ampère
Zone Industrielle - 16440 Nersac, France
Tél. +33(0)5 45 90 35 52 /35 53
contact@arts-energy.com

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