Архангельск (8182)63-90-72
Астана (7172)727-132
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Волгоград (844)278-03-48
Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89
Иваново (4932)77-34-06
Ижевск (3412)26-03-58
Иркутск (395)279-98-46
Казань (843)206-01-48
Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
Краснодар (861)203-40-90
Красноярск (391)204-63-61
Курск (4712)77-13-04
Липецк (4742)52-20-81
Киргизия (996)312-96-26-47
Магнитогорск (3519)55-03-13
Москва (495)268-04-70
Мурманск (8152)59-64-93
Набережные Челны (8552)20-53-41
Нижний Новгород (831)429-08-12
Новокузнецк (3843)20-46-81
Новосибирск (383)227-86-73
Омск (3812)21-46-40
Орел (4862)44-53-42
Оренбург (3532)37-68-04
Пенза (8412)22-31-16
Россия (495)268-04-70
Пермь (342)205-81-47
Ростов-на-Дону (863)308-18-15
Рязань (4912)46-61-64
Самара (846)206-03-16
Санкт-Петербург (812)309-46-40
Саратов (845)249-38-78
Севастополь (8692)22-31-93
Симферополь (3652)67-13-56
Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13
Казахстан (772)734-952-31
Сургут (3462)77-98-35
Тверь (4822)63-31-35
Томск (3822)98-41-53
Тула (4872)74-02-29
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
Челябинск (351)202-03-61
Череповец (8202)49-02-64
Ярославль (4852)69-52-93

www.sft.nt-rt.ru | | sfq@nt-rt.ru

Технические характеристики на первичные литий-тионилхлоридные, высокотемпературные батареи серии LS, LSH

Benefits

- High drain/high pulses capable
- Superior voltage response
- Ability to perform reliably in wide range temperature environments *(-60°C to +85°C)* with severe vibration/shock constraints
- High and stable operating voltage
- Superior drain capability
- Low self-discharge rate *(less than 3 % after 1 year of storage at +20°C)*

Key features

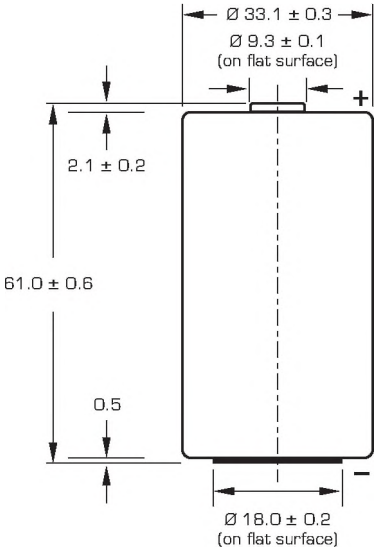
- Stainless steel container
- Hermetic glass-to-metal sealing
- Built-in safety vent
- Finish with 5 A fuse
- Non-flammable electrolyte
- Ability to withstand
  - axial vibration 20 GRMS 2-100 Hz
  - radial vibration 30 GRMS 2-100 Hz
  - sine 30 G peak 30 to 2000 Hz
  - random 20 GRMS 30 to 1000 Hz
- Restricted for transport *(Class 9)*

Main applications

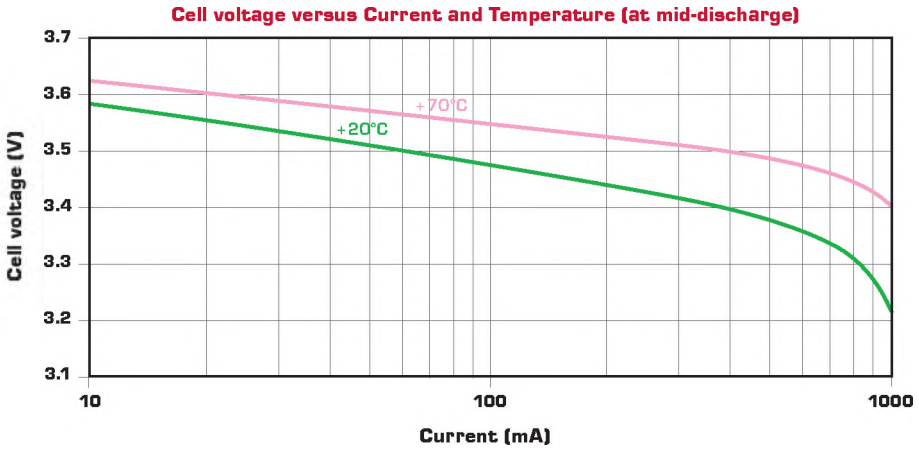
- Oil drilling and all downhole high temperature environments
- Measure While Drilling *(MWD)*
- Oil and gas well monitoring
- Military *(ejection seat beacons, ...)*
- Space vehicles
- Launchers

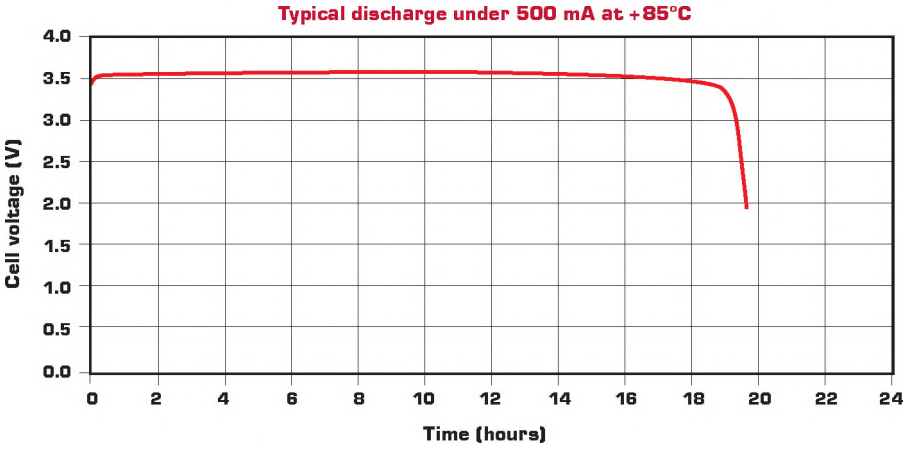
Cell size references	R20 – D
Electrical characteristics	
(typical values relative to cells stored for one year or less at + 30°C max.)	
Nominal capacity *(under 100 mA at +85°C 2.0 V cut-off. The capacity restored by the cell varies according to current drain, temperature and cut-off)*	11 Ah
Open circuit voltage (at + 20°C)	3.67 V
Nominal voltage *(under 3 mA at +85°C)*	3.6 V
Nominal energy *(at +85°C)*	39.6 Wh
Pulse capability : Typically up to 3000 mA. *(The voltage readings may vary according to the pulse characteristics, the temperature, and the cell's previous history. Fitting the cell with a capacitor may be recommended in severe conditions. Consult Saft)*	
Maximum recommended continuous current *(at +85°C, to maintain cell heating within safe limits. Battery packs may imply lower level of maximum current and may request specific thermal protection. Consult Saft)*	1000 mA
Storage (recommended) (for more severe conditions, consult Saft)	+ 30°C (+ 86°F) max
Operating temperature range *(Higher temperature possible. Battery packs may imply lower level of maximum current and may request specific thermal protection. Consult Saft)*	- 60°C/+85°C (-76°F/+185°F)
Physical characteristics	
Diameter (max)	33.4 mm (1.32 in)
Height (max)	61.6 mm (2.42 in)
Typical weight	100 g (3.5 oz)
Li metal content	approx. 4.0 g
Custom battery packs available on request.	

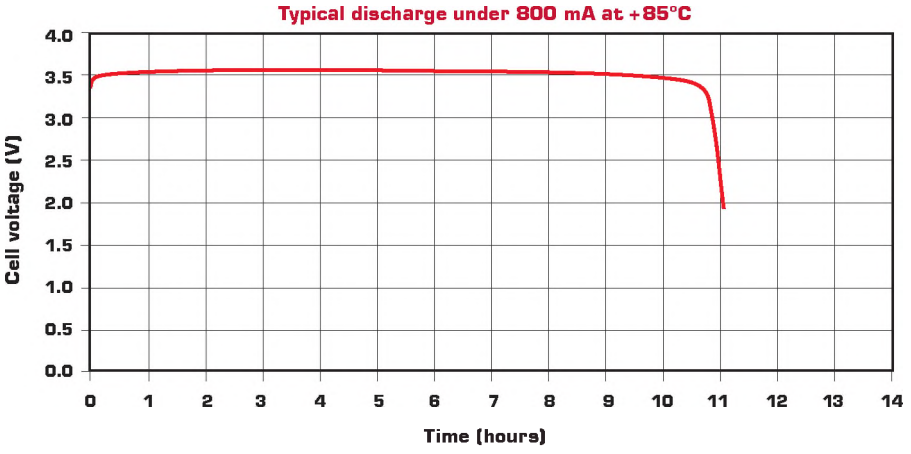
LSH 20 HTS



Overall dimensions in mm







Storage

- The storage area should be clean, cool *(preferably not exceeding + 30°C)*, dry and ventilated.

Warning

- Fire, explosion and burn hazard.
- Do not recharge, short circuit, crush, disassemble, heat above 125°C *(257°F)*, incinerate, or expose contents to water.
- Do not solder directly to the cell *(use tabbed cell versions instead)*.

Primary lithium battery
LSH 20

3.6 V Primary lithium-thionyl chloride (Li-$SOCl_2$)
High power
D-size spiral cell

Benefits

- High voltage response, stable during most of the lifetime of the application
- High drain/pulse capability
- Wide operating temperature range *(-60°C/+85°C)*
- Easy integration into compact systems
- Low self-discharge rate *(less than 3% after 1 year of storage at +20°C)*

Key features

- Stainless steel container
- Hermetic glass-to-metal sealing
- Built-in safety vent
- Finish with 5 A fuse
- Non-flammable electrolyte
- Underwriters Laboratories *(UL)* Component Recognition *(File Number MH 12609)*
- Restricted for transport *(Class 9)*

Main applications

- Radiocommunication and other military applications
- Alarms and security systems
- Beacons and emergency location transmitters
- GPS
- Metering systems
- Sonobuoys
- Tracking systems
- GSM communication

NATO stock number
6135 14 440 1213

Cell size references	UM1 – R20 – D

Electrical characteristics

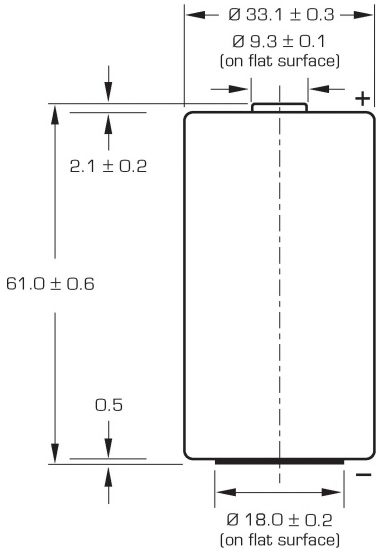
(typical values relative to cells stored for one year or less at + 30°C max.)

Nominal capacity *(at 15 mA + 20°C 2.0 V cut off. The capacity restored by the cell varies according to current drain, temperature and cut off)*		13.0 Ah
Open circuit voltage	(at + 20°C)	3.67 V
Nominal voltage	(at 2 mA + 20°C)	3.6 V
Pulse capability: Typically up to 4000 mA *(4000 mA/0.1 second pulses, drained every 2 mn at + 20°C from undischarged cells with 10 µA base current, yield voltage readings above 3.0 V. The readings may vary according to the pulse characteristics, the temperature, and the cell's previous history. Fitting the cell with a capacitor may be recommended in severe conditions. Consult Saft)*		
Maximum recommended continuous current *(to maintain cell heating within safe limits. Battery packs may imply lower level of maximum current and may request specific thermal protection. Consult Saft)*		1800 mA
Storage	*(recommended)* *(for more severe conditions, consult Saft)*	+ 30°C (+ 86°F) max
Operating temperature range *(Operation above ambient T may lead to reduced capacity and lower voltage readings at the beginning of pulses. Operation with current continuously above 1 A may restrict upper T range. Consult Saft)*		- 60°C/+ 85°C (- 76°F/+ 185°F)

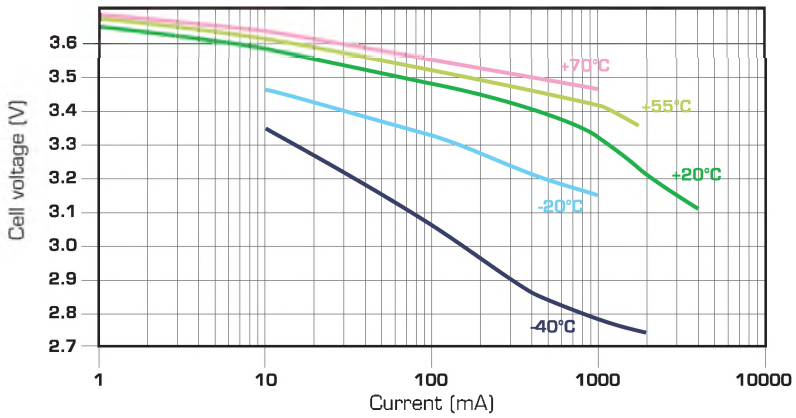
Physical characteristics

Diameter *(max)*		33.4 mm (1.32 in)
Height *(max)*		61.6 mm (2.42 in)
Typical weight		100 g (3.5 oz)
Li metal content		approx. 3.8 g
Available termination suffix		
	CN, CNR	radial tabs
	CNA (AX)	axial leads
	FL	flying leads ...etc.

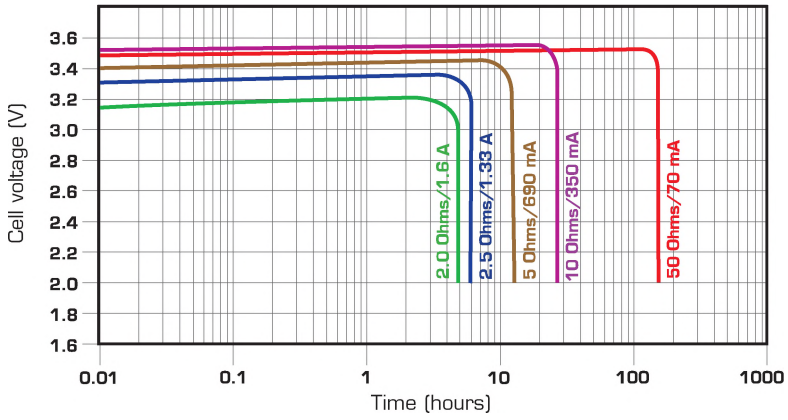
LSH 20



Dimensions in mm.



Voltage plateau versus Current and Temperature (at mid-discharge)



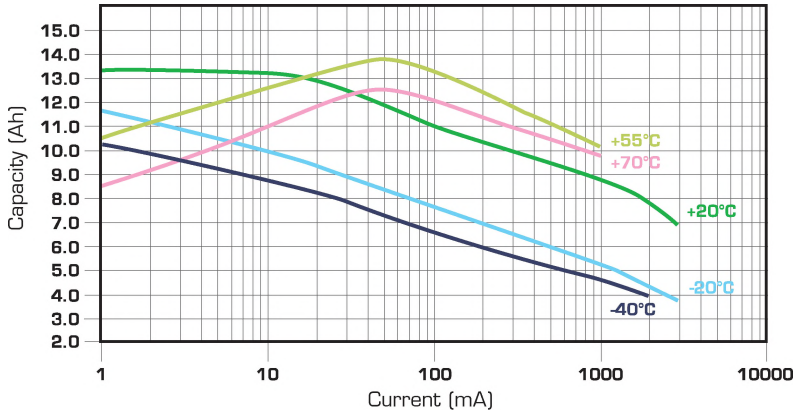
Typical discharge profiles at + 20°C

Storage

- The storage area should be clean, cool (preferably not exceeding + 30°C), dry and ventilated.

Warning

- Fire, explosion and burn hazard.
- Do not recharge, short circuit, crush, disassemble, heat above 100°C (212°F), incinerate, or expose contents to water.
- Do not solder directly to the cell (use tabbed cell versions instead).



Restored Capacity versus Current and Temperature (2.0 V cut off)

Primary lithium battery
LSH 14

3.6 V Primary lithium-thionyl chloride (Li-$SOCl_2$)
High power
C-size spiral cell

Benefits

- High voltage response, stable during most of the lifetime of the application
- High drain/pulse capability
- Wide operating temperature range *(-60°C/85°C)*
- Easy integration in compact system
- Low self-discharge rate *(less than 3 % after 1 year of storage at + 20°C)*

Key features

- Stainless steel container
- Hermetic glass-to-metal sealing
- Built-in safety vent
- Finish with 5 A fuse
- Non-flammable electrolyte
- Underwriters Laboratories *(UL)* Component Recognition *(File Number MH 12609)*
- Compliant with IEC 60086-4
- Restricted for transport *(Class 9)*

Main applications

- Radiocommunication and other military applications
- Alarms and security systems
- Beacons and emergency location transmitters
- GPS
- Metering systems
- Sonobuoys
- Automotive telematics
- Pipeline inspection

Cell size references	**UM2 – R14 – C**

Electrical characteristics

(typical values relative to cells stored for one year or less at + 30°C max.)

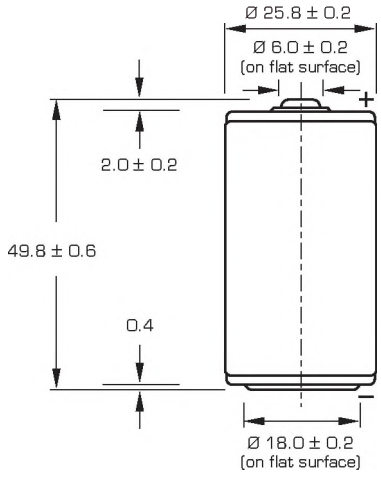
Nominal capacity *(at 15 mA + 20°C 2.0 V cut-off. The capacity restored by the cell varies according to current drain, temperature and cut-off)*		5.8 Ah
Open circuit voltage	(at + 20°C)	3.67 V
Nominal voltage	(at 1mA + 20°C)	3.6 V
Pulse capability: Typically up to 2000 mA *(2000 mA/0.1 second pulses, drained every 2 mn at + 20°C from undischarged cells with 10 µA base current, yield voltage readings above 3.0 V. The readings may vary according to the pulse characteristics, the temperature, and the cell's previous history. Fitting the cell with a capacitor may be recommended in severe conditions. Consult Saft)*		
Maximum recommended continuous current *(to maintain cell heating within safe limits. Battery packs may imply lower level of maximum current and may request specific thermal protection. Consult Saft)*		1300 mA
Storage	*(recommended)* *(for more severe conditions, consult Saft)*	+ 30°C (+ 86°F) max
Operating temperature range *(Operation at extreme T may lead to reduced capacity and lower voltage readings at the beginning of pulses. Consult Saft)*		- 60°C/+ 85°C (- 76°F/+ 185°F)

Physical characteristics

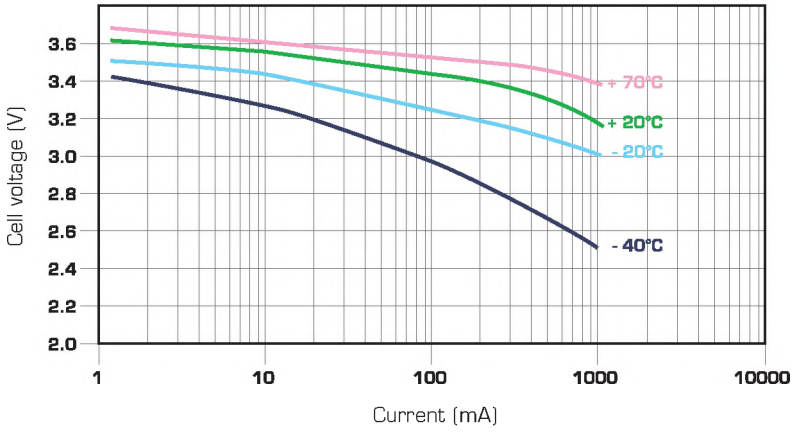
Diameter *(max)*		26.0 mm (1.02 in)
Height *(max)*		50.4 mm (1.98 in)
Typical weight		51 g (1.8 oz)
Li metal content		approx. 1.7 g
Available termination suffix		
	CN, CNR	radial tabs
	3PF, 3 PF RP	radial pins
	CNA (AX)	axial leads
	FL	flying leads ...etc.

NATO stock number
6135 12 306 4125

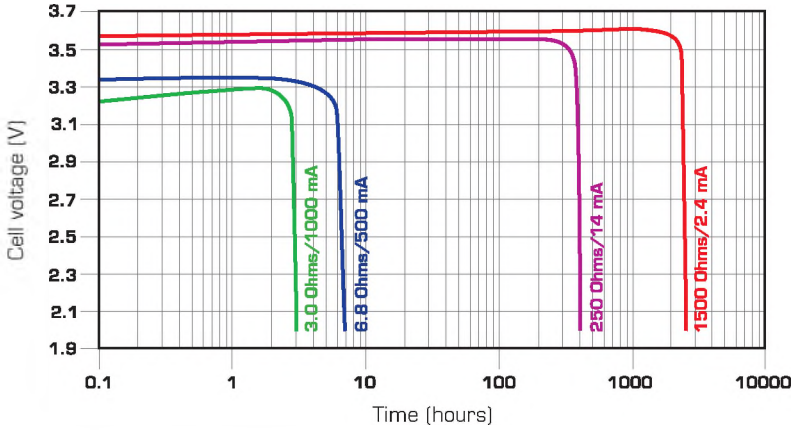
LSH 14



Dimensions in mm.



Voltage plateau versus Current and Temperature (at mid-discharge)



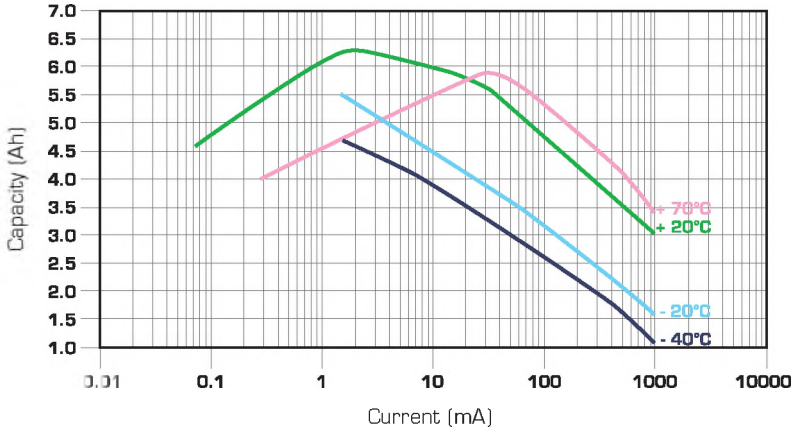
Typical discharge profiles at + 20°C

Storage

- The storage area should be clean, cool (preferably not exceeding + 30°C), dry and ventilated.

Warning

- Fire, explosion and burn hazard.
- Do not recharge, short circuit, crush, disassemble, heat above 100°C (212°F), incinerate, or expose contents to water.
- Do not solder directly to the cell (use tabbed cell versions instead).



Restored Capacity versus Current and Temperature (2.0 V cut-off)

Primary high temperature lithium battery
LSH 20-150

3.6 V Primary lithium-thionyl chloride (Li-$SOCl_2$) D-sized cell for operation up to 150°C in demanding environments

Saft always supplies LSH 20-150 cells as complete battery assemblies

Benefits

- High energy
- Ability to perform safely and reliably up to 150°C with severe vibration/shock constraints
- Good voltage startup after exposure to high T followed by storage at room T
- Long shelf life
- Easy integration within multi-cell tubular cylindrical packs
- High and stable operating voltage

Key features

- No swelling
- Sturdy and pressure resistant stainless steel envelope
- Hermetic and corrosion-proof glass-to-metal sealing
- Non-flammable electrolyte
- Ability to withstand at 150°C 750 G peak/0.5 msec shocks
- Ability to withstand at 150°C 20 G_{RMS} random vibrations
- Ability to withstand at 150°C linear sine sweep at 30 G peak
- Automated production
- Compliant with IEC 60079-11 intrinsic safety standard
- Restricted for transport *(Class 9)*

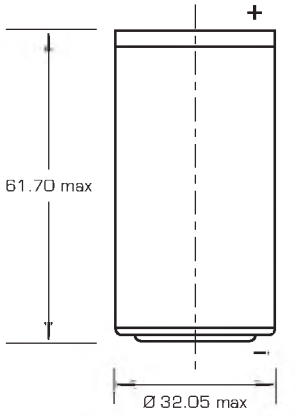
Main applications

- Oil drilling and all downhole high temperature environments
- Measure While Drilling *(MWD)*
- Oil and gas well monitoring
- Heat sterilizable applications
- Gas metering

Cell size references	R20 - D
Electrical characteristics	
(typical values relative to cells stored for one year at ambient T)	
Open circuit voltage (at + 20°C)	3.67 V
Nominal capacity	14.0 Ah
(under 300 mA at + 150°C 2.0 V cut-off. The capacity restored by the cell varies according to current drain, temperature and cut-off)	
(under 100 mA at + 80°C to + 150°C 2.0 V cut-off)	13.5 Ah
(under 100 mA at + 20°C 2.0 V cut-off)	10 Ah
Nominal voltage (under 100 mA at + 150°C)	3.6 V
Nominal energy	50 Wh
Pulse capability	
(- 20°C to + 20°C)	up to 2 A
(+ 80°C to + 150°C)	up to 500 mA
(The voltage reading may vary according to the pulse characteristics and the temperature. Consult Saft)	
Maximum recommended continuous current	300 mA
Storage prior to use (recommended)	+ 30°C max.
(possible)	+150°C
Operating temperature range	- 40/+150°C (- 40/302°F)
Physical characteristics (unsleeved cells)	
Diameter (max)	32.05 mm (1.262 in)
Height (max)	61.70 mm (2.429 in)
Typical weight	104.5 g (3.7 oz)
Li metal content	approx. 4.1 g

Consult Saft for specific single cell finishes

LSH 20-150



Dimensions in mm.

Shocks and vibrations

- Ability to withstand in the entire operating temperature range 750 G peak/0.5 msec repetitive shocks on axial and radial axes *(undischarged and partially discharged cells)*
- Ability to withstand in the entire operating temperature range 20 G_{RMS} random vibrations
  2 to 4 hours along X, Y and Z axis
  < 30 Hz @ ≥ 6 dB/octave
  30-80 Hz @ 3 dB/octave
  80-300 Hz @ 0 dB/octave
  300-1000 Hz @ -3 dB/octave
- Ability to withstand in the entire operating temperature range 1 hour of linear sine sweep at 30 G peak, from 30 to 2000 Hz along X, Y and Z axis

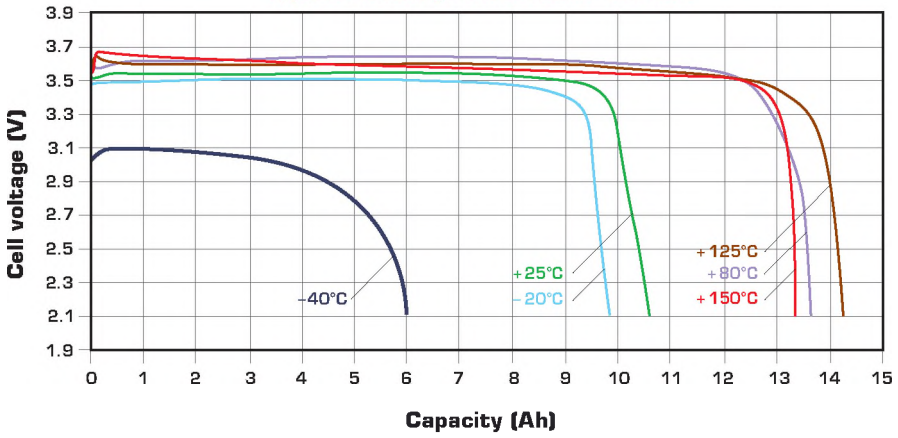
Storage

- It is recommended to maintain the storage area clean, ventilated and preferably not exceeding 30°C

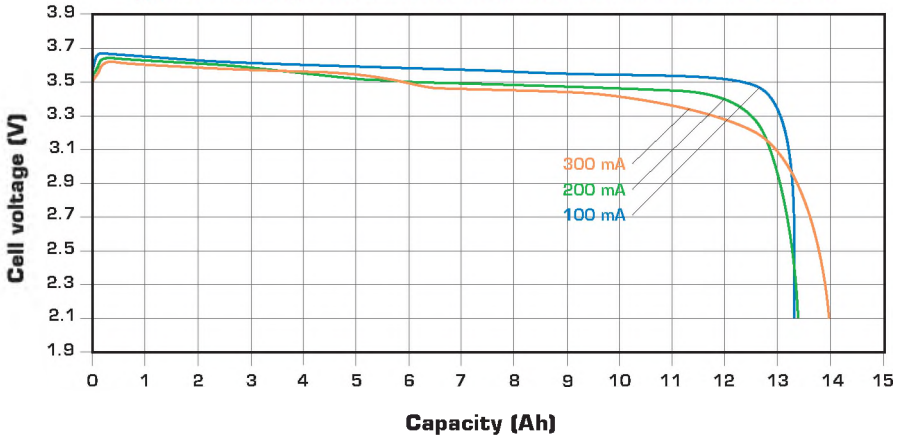
Warning

- Fire, explosion and burn hazard
- Do not recharge, short circuit, crush, disassemble, heat above 150°C (302°F), incinerate, or expose contents to water

Typical discharge curve under 100 mA



Typical discharge curve under 100, 200 and 300 mA at +150°C



LS 33600

Primary Li-$SOCl_2$ cell

High energy density 3.6 V D-size bobbin cell

Saft's LS 33600 cell is ideally suited for long-term applications (typically from 5 to 20+ years), featuring low base currents and periodic pulses.

Benefits

- High capacity and high energy (1185 Wh/l and 680 Wh/kg)
- High voltage response, stable during most of the lifetime of the application
- Wide operating temperature range (- 60°C / + 85°C)
- Low self-discharge rate, compatible with long operating life (less than 1% per year of storage, at + 20°C, after 1 year)
- Superior resistance to corrosion
- Low magnetic signature

Key features

- Bobbin construction
- Well controlled passivation
- Hermetic construction with glass-to-metal seal
- Stainless steel container
- Non-flammable electrolyte
- RoHS and REACH compliance
- Made in France

Designed to meet all major quality, safety and environment standards

- Safety: UL 1642, IEC 60086-4
- ATEX: IEC 60079-11 part 10.5 T4 rating at 40°C (Consult Saft)
- Transport: UN 3090 and UN 3091
- Quality: ISO 9001, Saft World Class continuous program

Typical applications

- Utility Metering
- Internet of Things
- Alarms and security
- Medical devices
- Tracking systems
- Professional electronics

Electrical characteristics	
(Typical values relative to cells stored up to one year at + 30°C max)	
Nominal capacity (at 5 mA, + 20°C, 2.0 V cut-off) [1]	17 Ah
Open circuit voltage (at + 20°C)	3.67 V
Nominal voltage (at 0.7 mA, + 20°C)	3.6 V
Nominal energy	61.2 Wh
Pulse capacity [2]	up to 400 mA
Maximum recommended continuous current	250 mA

Operating conditions		
Operating temperature range [3]		- 60°C / + 85°C (- 76°F / + 185°F)
Storage temperatures	Recommended [4]	+ 30°C (+ 86°F) max

Physical characteristics	
Diameter (max)	33.3 mm (1.31 in)
Height (max)	61.3 mm (2.41 in)
Typical weight	90 g (3.2 oz)
Li metal content	approx. 4.5 g

Termination		
Available termination suffix		
	CN, CNR	radial tabs
	2 PF, 3 PF, 3 PF RP, 4 PF	radial pins
	CNA	axial leads
	FL	flying leads
	Other configurations upon request	

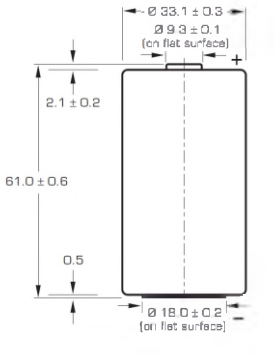
[1] Dependent upon current drain, temperature, cut-off and cell orientation.

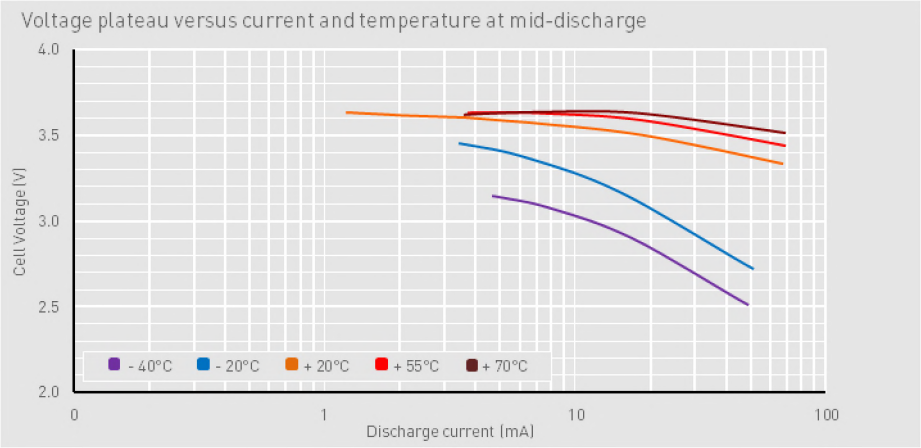
[2] Under 400 mA / 0.1 second pulses, drained every 2 minutes at + 20°C from undischarged cells during 24h, with 10 µA base current, yield voltage readings above 3.0V after initial stabilisation. The readings may vary according to the pulse characteristics, the temperature, and the cell's previous history. Fitting the cell with a capacitor may be recommended in severe conditions or for high pulse currents. Consult Saft.

[3] Operation above ambient temperature may lead to reduced capacity and lower voltage readings. Consult Saft.

[4] For more severe conditions, consult Saft.

LS 33600 dimensions



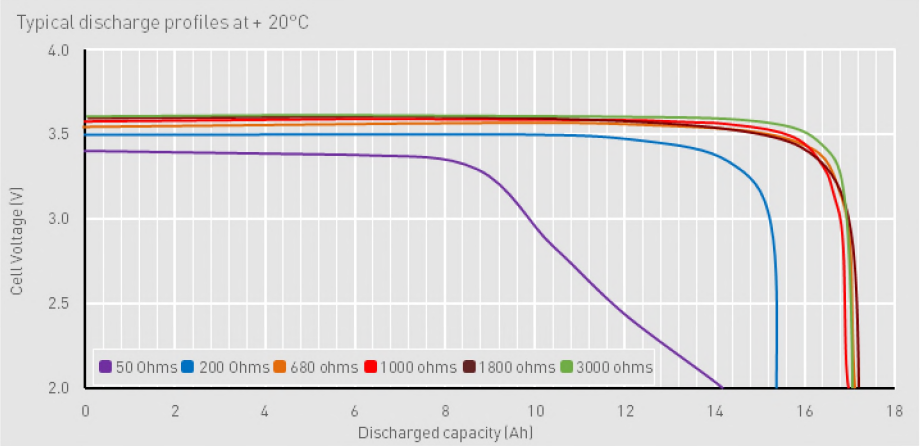


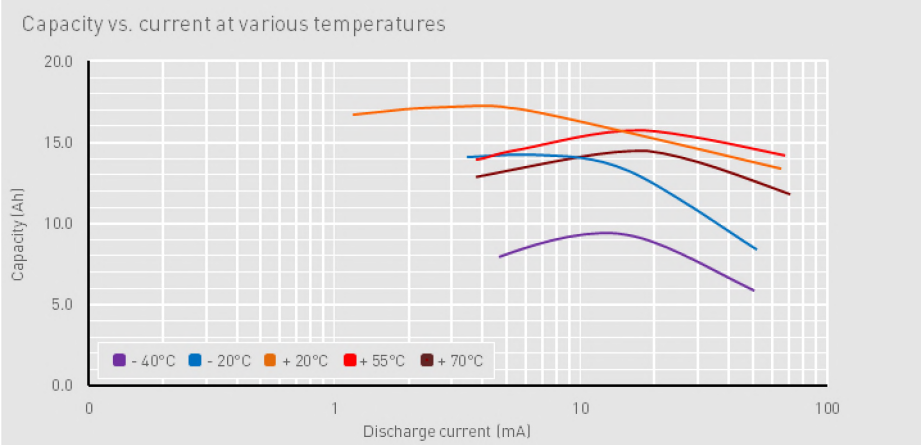
Storage

- The storage area should be clean, cool (preferably not exceeding + 30°C), dry and ventilated

Warning

- Fire, explosion and burn hazard
- Do not recharge, short circuit, crush, disassemble, heat above + 100°C (+ 212°F), incinerate, or expose contents to water
- Do not solder directly to the cell (use tabbed cell versions instead)





Primary lithium battery
LS 26500

3.6 V Primary lithium-thionyl chloride (Li-$SOCl_2$)
High energy density
C-size bobbin cell

Benefits

- High voltage response, stable during most of the lifetime of the application
- Wide operating temperature range *(-60°C/+85°C)*
- Low self-discharge rate *(less than 1 % after 1 year of storage at + 20°C)*
- Easy integration into compact systems
- Superior resistance to atmospheric corrosion

Key features

- Stainless steel container and end caps *(low magnetic signature)*
- Hermetic glass-to-metal sealing
- Non-flammable electrolyte
- Underwriters Laboratories *(UL)* Component Recognition
- Compliant with IEC 60086-4 safety standard and IEC 60079-11 intrinsic safety standard
- Restricted for transport (Class 9)

Main applications

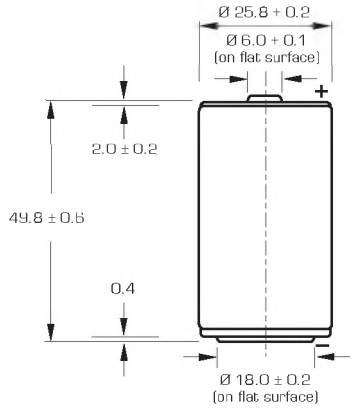
- Utility metering
- Automatic meter readers
- Buoys
- Measuring equipment
- Industrial applications
- Professional electronics

Optional upon request

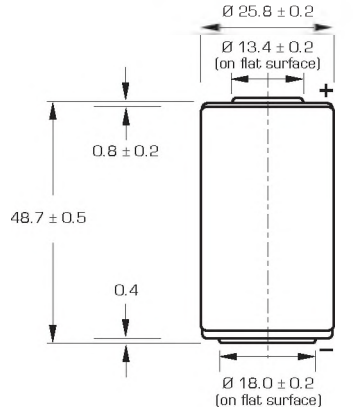
- Low magnetic version

Cell size references		C
Electrical characteristics		
(typical values relative to cells stored for one year or less at + 30°C max.)		
Nominal capacity *(at 4 mA +20°C 2.0 V cut-off. The capacity restored by the cell varies according to current drain, temperature and cut-off)*		7.7 Ah
Open circuit voltage	(at + 20°C)	3.67 V
Nominal voltage	(at 0.5 mA + 20°C)	3.6 V
Nominal energy		27.72 Wh
Pulse capability: Typically up to 300 mA *(300 mA/0.1 second pulses, drained every 2 mn at +20°C from undischarged cells with 10 µA base current, yield voltage readings above 3.0 V. The readings may vary according to the pulse characteristics, the temperature, and the cell's previous history. Fitting the cell with a capacitor may be recommended in severe conditions. Consult Saft)*		
Maximum recommended continuous current *(Higher currents possible, consult Saft)*		150 mA
Storage	*(recommended)* *(for more severe conditions, consult Saft)*	+30°C (+86°F) max
Operating temperature range *(Operation above ambient T may lead to reduced capacity and lower voltage readings at the beginning of pulses. Consult Saft)*		- 60°C/+ 85°C (-76°F/+ 185°F)
Physical characteristics		
Diameter (max)		26.0 mm (1.02 in)
Height (max)		49.1 mm or 50.4 mm (1.93 in or 1.98 in) depending on finish type
Typical weight		48 g (1.7 oz)
Li metal content		approx. 2.0 g
Available termination suffix		
	CNR	radial tabs
	3 PF, 3 PF RP	radial pins
	CNA (AX)	axial leads
	FL	flying leads... *etc.*

LS 26500



Finished version with protruding positive end cap



Finished version with flat positive end cap

Dimensions in mm.

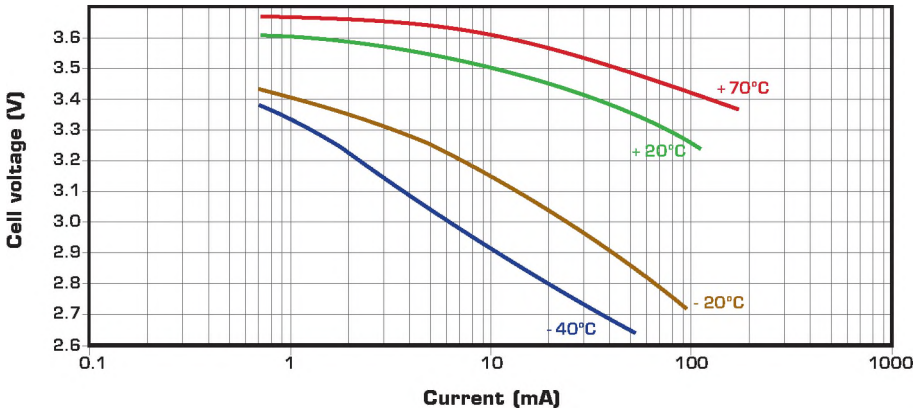
Storage

- The storage area should be clean, cool *(preferably not exceeding +30°C)*, dry and ventilated.

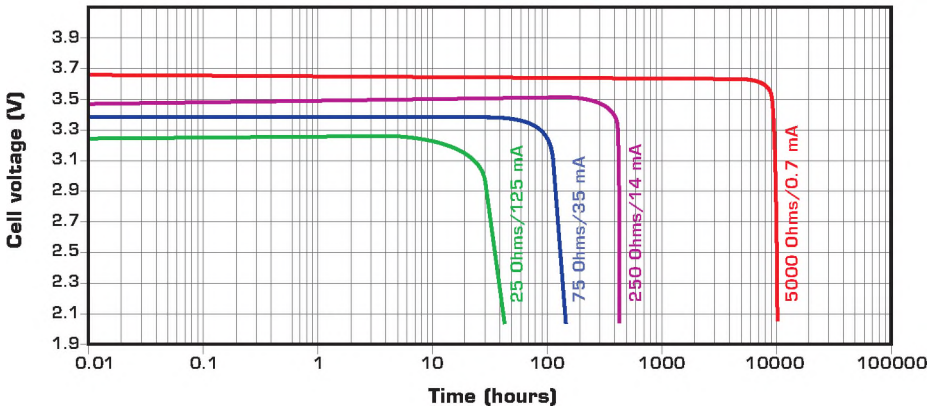
Warning

- Fire, explosion and severe burn hazard.
- Do not recharge, short circuit, crush, disassemble, heat above 100°C *(212°F)*, incinerate, or expose contents to water.
- Do not solder directly to the cell *(use tabbed cell versions instead)*.

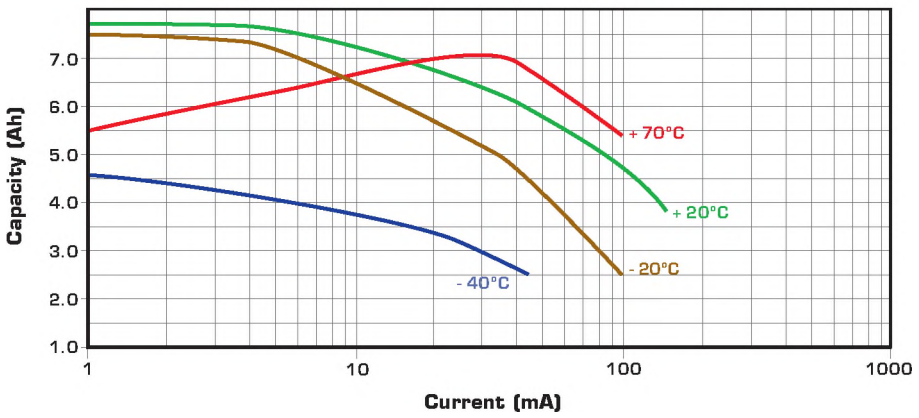
Voltage plateau versus Current and Temperature (at mid-discharge)



Typical discharge profiles at + 20°C



Restored Capacity versus Current and Temperature (2.0 V cut-off)



LS 9 V

Primary lithium battery

Primary lithium-thionyl chloride (Li-$SOCl_2$) high energy density battery pack.

A prismatic battery pack for a wide range of applications requesting low base currents combined with superimposed pulses. The LS 9 V version yields good voltage readings in a wide T range (-60°C to +85°C).

Main applications

- Memory back-up
- Alarm and security devices
- Smoke detectors
- Alarm equipment
- Industrial electronics
- Medical equipment

Key features

- Pack assembled from three ½ AA-sized (and UL-recognized) cells connected in series
- Component cells with stainless steel container and hermetic glass-to-metal sealing
- Plastic sleeve for battery housing
- Miniature snap-on terminals
- Non-flammable electrolyte
- Non-restricted for transport

Benefits

- High voltage, stable during most of the application's lifetime
- Wide operating temperature range
- Low self-discharge rate (less than 1% per year of storage at +20°C)
- Easy integration into compact systems

Storage

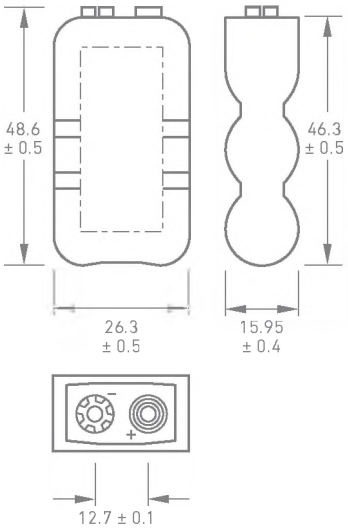
- The storage area should be clean, cool (preferably not exceeding +30°C), dry and ventilated.

Warning

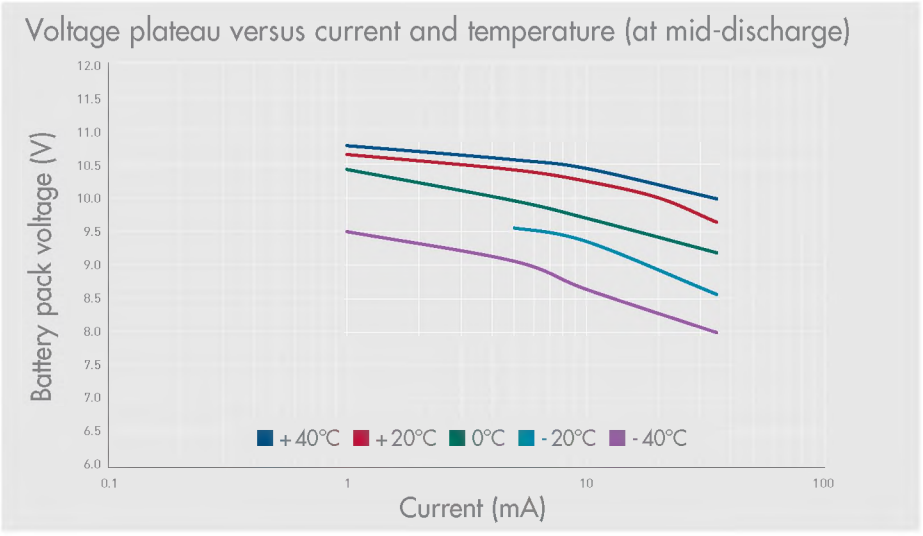
- Fire, explosion and burn hazard.
- Do not recharge, short circuit, crush, disassemble, heat above 100°C (212°F), incinerate, or expose contents to water.
- Do not solder directly to the battery pack.

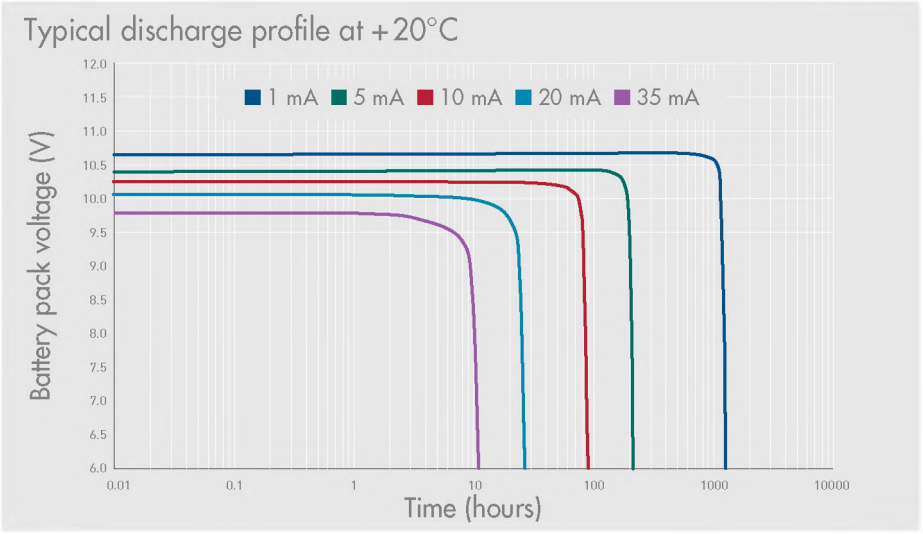
Pack construction	3 LS 14250 in series
Pack designation	LS 9 V
Part number	0095-567-019
Electrical characteristics*	
Nominal capacity (at 1 mA, +20°C, 6.0 V cut-off. The capacity restored by the battery pack varies according to current drain, temperature and cut-off)	1.2 Ah (1.0 mA)
Open circuit voltage (at +20°C)	11.0 V
Nominal voltage (at +20°C and 0.1 mA)	10.8 V
Pulse capability: typically up to (0.1 second pulses, drained every 2 mn at +20°C from undischarged cells with 10 µA base current, yield voltage readings above 9.0 V. The readings may vary according to the pulse characteristics, the temperature, and the cell's previous history. Fitting the cell with a capacitor may be recommended in severe conditions. Consult Saft)	100 mA
Maximum recommended continuous current (Higher currents possible, consult Saft)	35 mA
Storage (recommended) (For more severe conditions, consult Saft)	+30°C (+86°F) max
Operating temperature range (Operation above ambient T may lead to reduced capacity and lower voltage readings at the beginning of pulses. Consult Saft)	-60°C/+85°C (-76°F/+185°F)
Typical weight	29 g (1 oz)
Lithium metal content	approx. 0.9 g

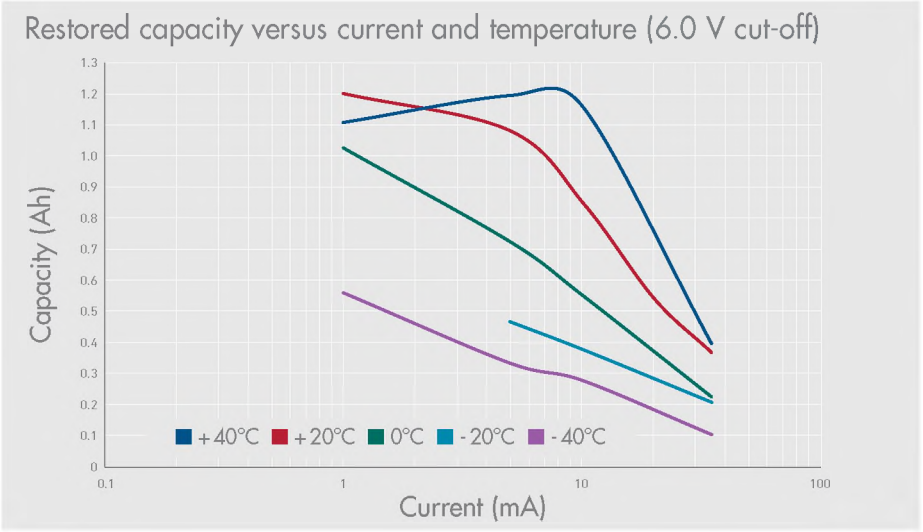
** Typical values relative to cells stored for one year or less at +30°C max.*



Dimensions in mm.







LS 26500*plus*
Primary Li-$SOCl_2$ cell

3.6 V C size bobbin cell **high energy density**

LS 26500*plus* cell is ideally suited for long-term applications (typically from 5 to 20+ years), featuring low base currents and periodic pulses.

Benefits
- High capacity and high energy (1175 Wh/l and 637 Wh/kg).
- High voltage response, stable during most of the lifetime of the application.
- Wide operating temperature range (-60°C / +85°C).
- Low self-discharge, compatible with a long operating life (less than 1% per year of storage, at +20 °C, after 1 year).
- Superior resistance to corrosion.
- Low magnetic signature.

Key features
- Bobbin construction.
- Well controlled passivation.
- Hermetic construction with glass-to-metal seal.
- Stainless steel container.
- Non-flammable electrolyte.
- RoHS and REACH compliance.
- **Manufactured in France.**

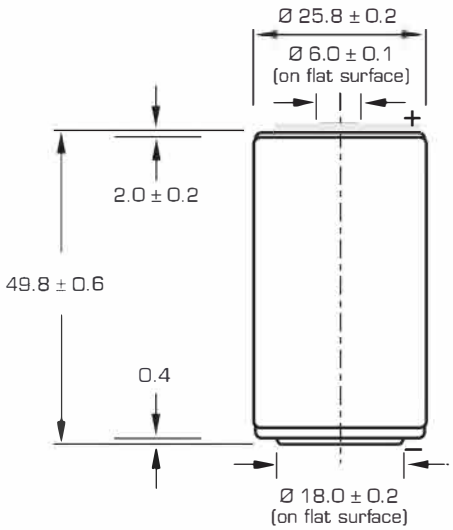
Designed to meet all major quality, safety and environmental standards.
- Safety: UL 1642, IEC 60086-4.
- IEC 60079-11 part 10.5, (T4 temperature rating at +40 °C).
- Transport: UN 3090 and UN 3091.
- Quality: ISO 9001, Saft World Class continuous evaluation program.

Typical applications
- Utility Metering.
- Internet of Things.
- Tracking systems.
- Alarms and security.
- Connected sensors.
- Medical devices.

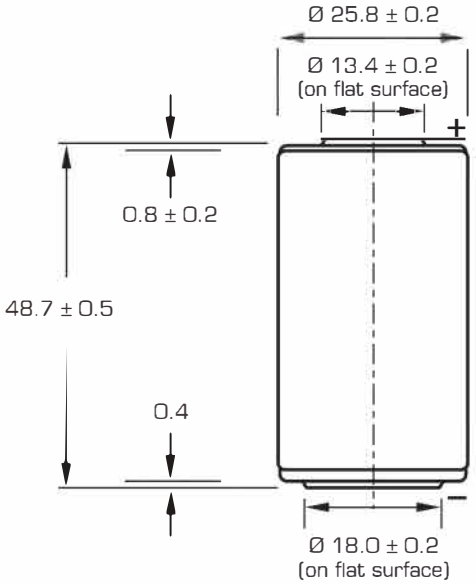
Electrical characteristics [i]	
Nominal capacity (under 4 mA, +20 °C, 2.0 V cut-off) [iii]	8.5 Ah
Open circuit voltage (at +20 °C)	3.67 V
Nominal voltage (under 0.1 mA, +20 °C)	3.6 V
Nominal energy	30.6 Wh
Pulse capability [iv]	Up to 300 mA
Maximum recommended continuous current	150 mA
Operating conditions	
Operating temperature range [v]	-60 °C / +85 °C (-76 °F / +185 °F)
Storage temperatures (max recommended) [vi]	+30 °C (+86 °F)
Physical characteristics [ii]	
Diameter (max)	26.0 mm (1.02 in)
Height (max)	49.8 mm (1.96 in)
Typical weight	48 g (1.7 oz)
Li metal content	approx. 2.2 g
Termination suffix	
CN, CNR	Radial tabs
2 PF, 2 PF, 3PF RP, 4 PF	Radial pins
CNA	Axial leads
FL	Flying leads
Other configurations upon request	

[i] Typical values relative to cells stored up to one year at + 30 °C max.
[ii] Sleeved cell.
[iii] Dependent upon current drain, temperature, cut-off and cell orientation.
[iv] Under 300 mA / 0.1 second pulses, drained every 2 minutes at + 20 °C from undischarged cells during 24 h, with 10 µA base current, yield voltage readings above 3.0 V after initial stabilisation. The readings may vary according to the pulse characteristics, the temperature, and the cell's previous history. Fitting the cell with a capacitor may be recommended in severe conditions or for high pulse currents. Consult Saft.
[v] Operation above ambient temperature may lead to reduced capacity and lower voltage readings. Consult Saft.
[vi] For more severe conditions, consult Saft.

LS 26500*plus*



Finished version with
protruding positive end cap



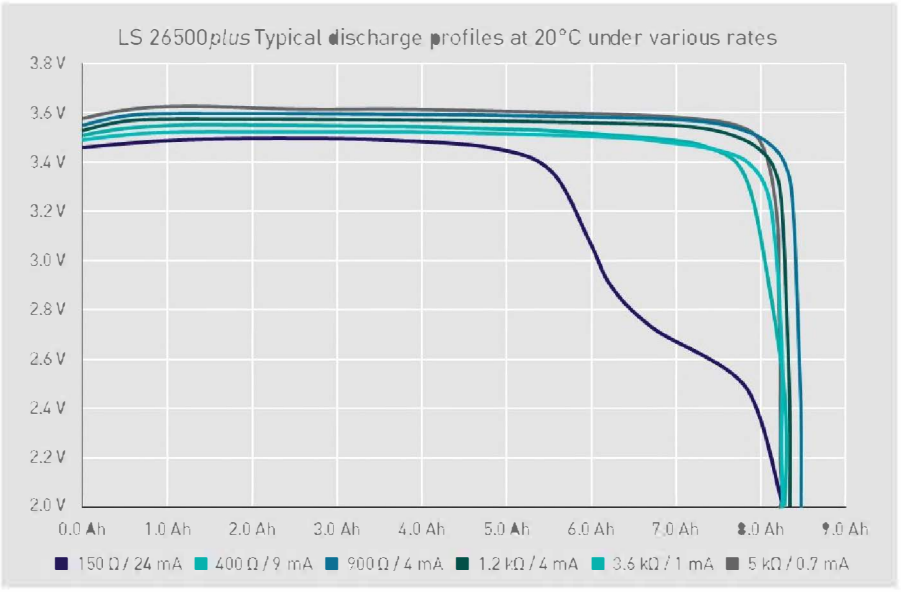
Finished version with flat positive end cap. All dimensions in mm.

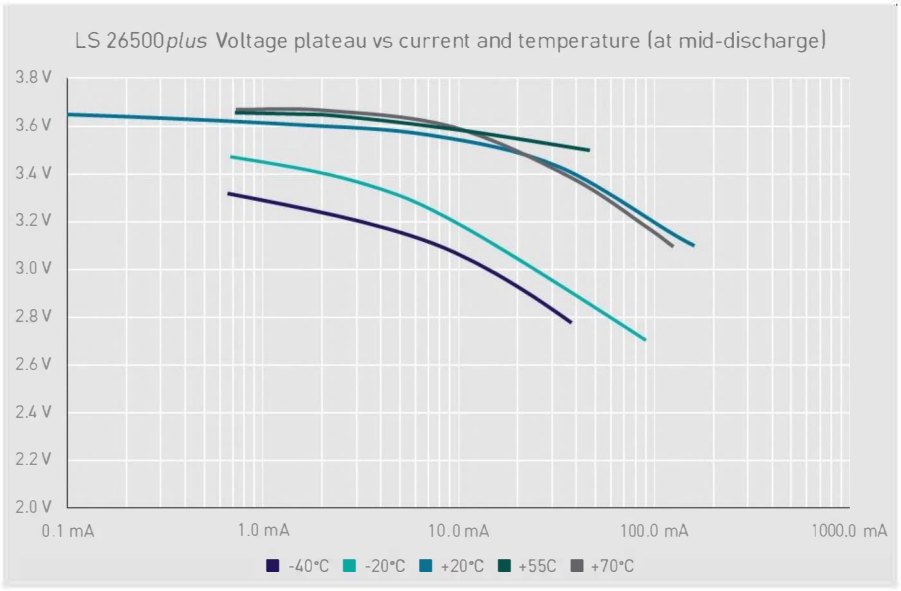
Storage

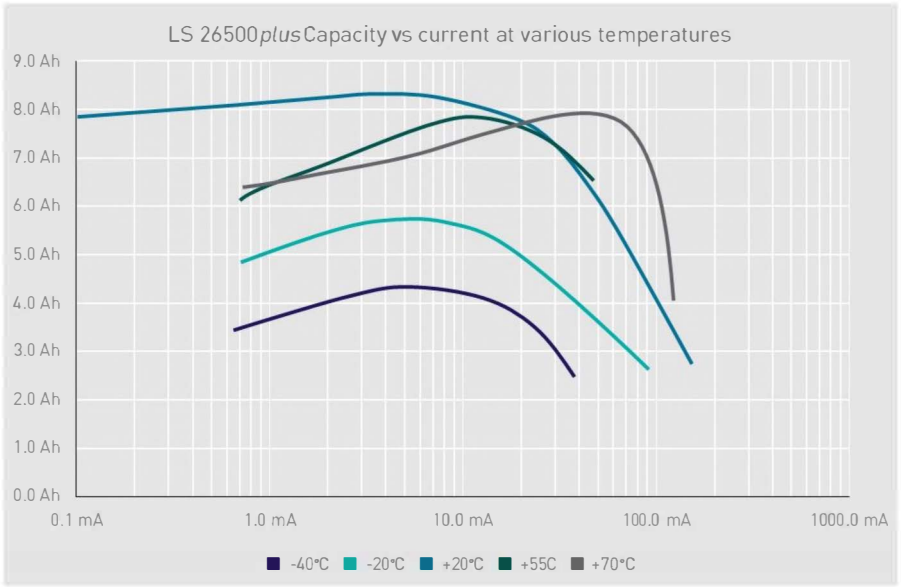
- The storage area should be clean, cool (preferably not exceeding +30 °C), dry and ventilated.

Warning

- Fire, explosion and burn hazard.
- Do not recharge, short circuit, crush, disassemble, heat above 100 °C (212°F), incinerate, or expose contents to water.
- Do not solder directly to the cell (use tabbed cell versions instead).







LS 17500

Primary Li-$SOCl_2$ cell

3.6 V A size bobbin cell **high energy density**

Saft's LS 17500 cell is ideally suited for long-term applications (typically from 5 to 20+ years), featuring low base currents and periodic pulses.

Benefits

- High capacity and high energy (1139 Wh/l and 589 Wh/kg).
- High voltage response, stable during most of the lifetime of the application.
- Wide operating temperature range (-60°C / +85°C).
- Low self-discharge, compatible with a long operating life (less than 1% per year of storage, at +20 °C, after 1 year).
- Superior resistance to corrosion.
- Low magnetic signature.

Key features

- Bobbin construction.
- Well controlled passivation.
- Hermetic construction with glass-to-metal seal.
- Stainless steel container.
- Non-flammable electrolyte.
- RoHS and REACH compliance.
- **Manufactured in France, China, UK.**

Designed to meet all major quality, safety and environmental standards.

- Safety: UL 1642, IEC 60086-4.
- IEC 60079-11 part 10.5, (T4 temperature rating at +60 °C).
- Transport: UN 3090 and UN 3091.
- Quality: ISO 9001, Saft World Class continuous evaluation program.

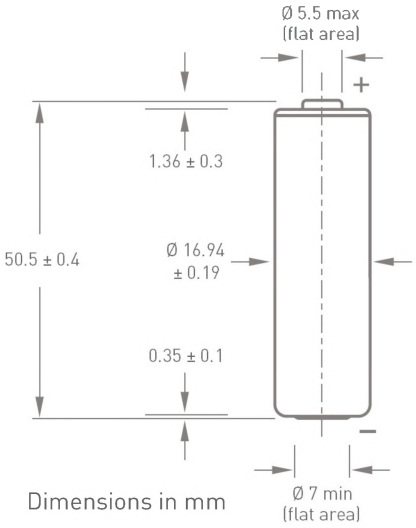
Typical applications

- Utility Metering.
- Internet of Things.
- Tracking systems.
- Alarms and security.
- Connected sensors.
- Medical devices.

Electrical characteristics [i]	
Nominal capacity (under 3 mA, +20 °C, 2.0 V cut-off) [iii]	3.6 Ah
Open circuit voltage (at +20 °C)	3.67 V
Nominal voltage (under 0.1 mA, +20 °C)	3.6 V
Nominal energy	12.96 Wh
Pulse capability [iv]	Up to 250 mA
Maximum recommended continuous current	100 mA
Operating conditions	
Operating temperature range [v]	-60 °C / +85 °C (-76 °F / +185 °F)
Storage temperatures (max recommended) [vi]	+30 °C (+86 °F)
Physical characteristics [ii]	
Diameter (max)	17.16 mm (0.67 in)
Height (max)	50.77 mm (0.99 in)
Typical weight	23 g (0.81 oz)
Li metal content	approx. 0.9 g
Termination suffix	
CN, CNR	Radial tabs
2 PF, 2 PF, 3PF RP, 4 PF	Radial pins
CNA	Axial leads
FL	Flying leads
Other configurations upon request	

[i] Typical values relative to cells stored up to one year at + 30 °C max.
[ii] Sleeved cell.
[iii] Dependent upon current drain, temperature, cut-off and cell orientation.
[iv] Under 250 mA / 0.1 second pulses, drained every 2 minutes at + 20 °C from undischarged cells during 24 h, with 10 µA base current, yield voltage readings above 3.0 V after initial stabilisation. The readings may vary according to the pulse characteristics, the temperature, and the cell's previous history. Fitting the cell with a capacitor may be recommended in severe conditions or for high pulse currents. Consult Saft.
[v] Operation above ambient temperature may lead to reduced capacity and lower voltage readings. Consult Saft.
[vi] For more severe conditions, consult Saft.

LS 17500



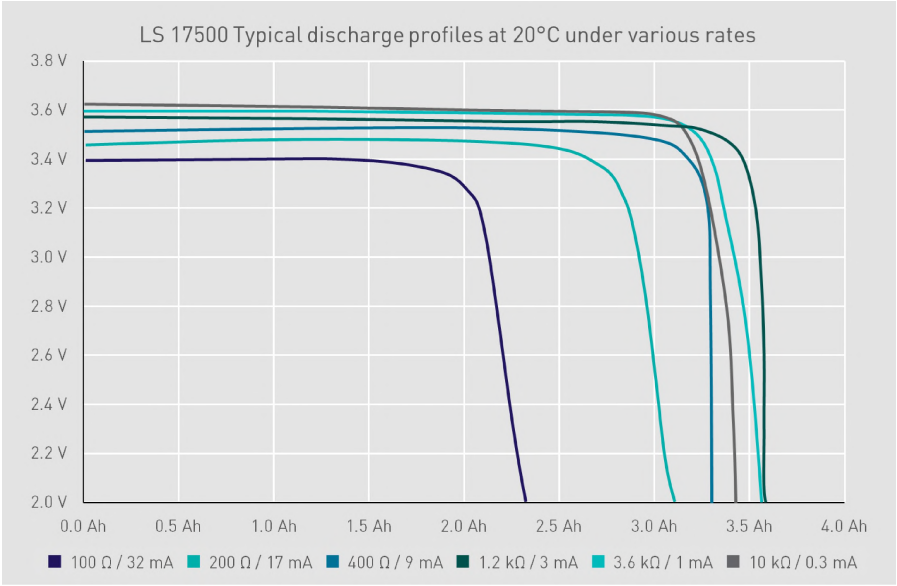
Dimensions in mm

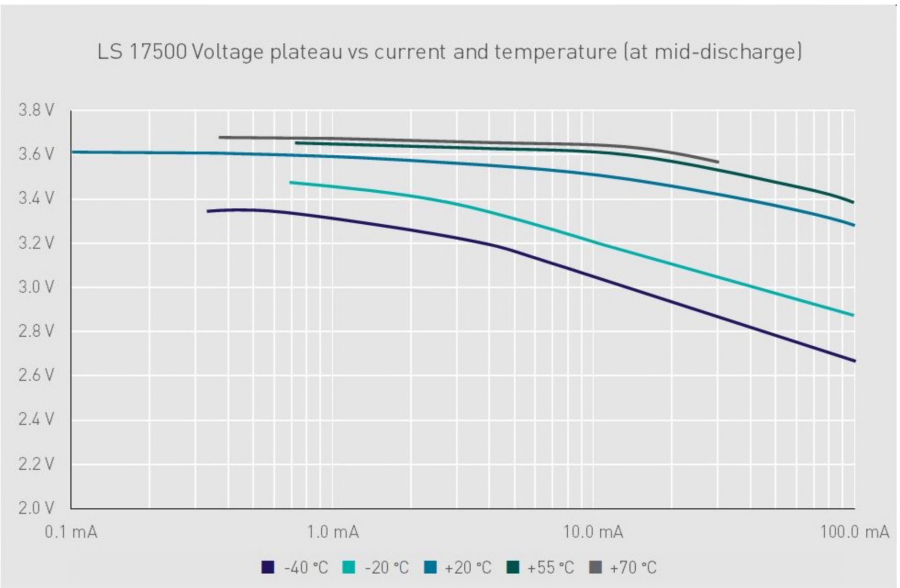
Storage

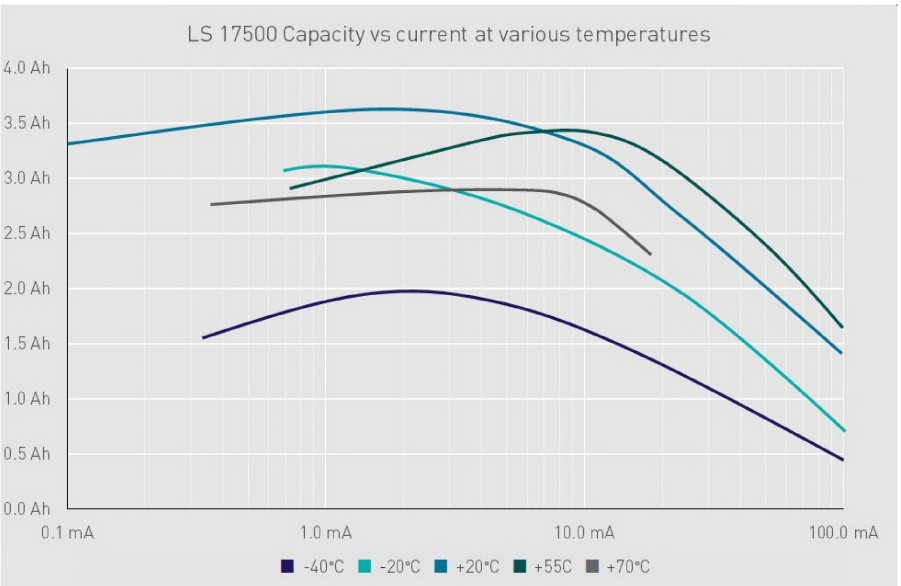
- The storage area should be clean, cool (preferably not exceeding +30 °C), dry and ventilated.

Warning

- Fire, explosion and burn hazard.
- Do not recharge, short circuit, crush, disassemble, heat above 100 °C (212°F), incinerate, or expose contents to water.
- Do not solder directly to the cell (use tabbed cell versions instead).







LS 14500

Primary Li-$SOCl_2$ cell

3.6 V AA size bobbin cell **high energy density**

Saft's LS 14500 cell is ideally suited for long-term applications (typically from 5 to 20+ years), featuring low base currents and periodic pulses.

Benefits

- High capacity and high energy (1122 Wh/l and 520 Wh/kg).
- High voltage response, stable during most of the lifetime of the application.
- Wide operating temperature range (-60°C / +85°C).
- Low self-discharge, compatible with a long operating life (less than 1% per year of storage, at +20 °C, after 1 year).
- Superior resistance to corrosion.
- Low magnetic signature.

Key features

- Bobbin construction.
- Well controlled passivation.
- Hermetic construction with glass-to-metal seal.
- Stainless steel container.
- Non-flammable electrolyte.
- RoHS and REACH compliance.
- **Manufactured in France, China, UK.**

Designed to meet all major quality, safety and environmental standards.

- Safety: UL 1642, IEC 60086-4.
- IEC 60079-11 part 10.5, (T4 temperature rating at +60 °C).
- Transport: UN 3090 and UN 3091.
- Quality: ISO 9001, Saft World Class continuous evaluation program.

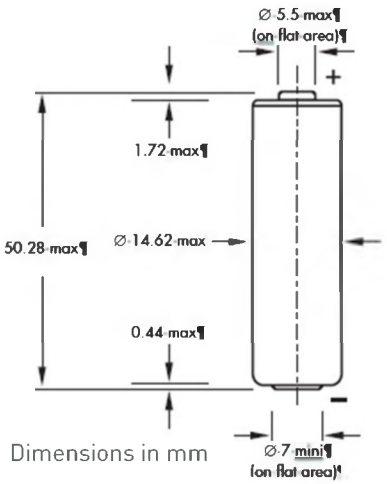
Typical applications

- Utility Metering.
- Internet of Things.
- Tracking systems.
- Alarms and security.
- Connected sensors.
- Medical devices.

Electrical characteristics [i]	
Nominal capacity (under 2 mA, +20 °C, 2.0 V cut-off) [iii]	2.6 Ah
Open circuit voltage (at + 20 °C)	3.67 V
Nominal voltage (under 0.2 mA, + 20 °C)	3.6 V
Nominal energy	9.36 Wh
Pulse capability [iv]	Up to 250 mA
Maximum recommended continuous current	50 mA
Operating conditions	
Operating temperature range [v]	-60 °C / +85 °C (-76 °F / +185 °F)
Storage temperatures (recommended) [vi]	+30 °C (+86 °F) max
Physical characteristics [ii]	
Diameter (max)	14.62 mm (0.575 in)
Height (max)	50.28 mm (1.98 in)
Typical weight	17 g (0.6 oz)
Li metal content	approx. 0.7 g
Termination suffix	
CN, CNR	Radial tabs
2 PF, 2 PF, 3PF RP, 4 PF	Radial pins
CNA	Axial leads
FL	Flying leads
Other configurations upon request	

[i] Typical values relative to cells stored up to one year at + 30 °C max.
[ii] Sleeved cell.
[iii] Dependent upon current drain, temperature, cut-off and cell orientation.
[iv] Under 250 mA / 0.1 second pulses, drained every 2 minutes at + 20 °C from undischarged cells during 24 h, with 10 µA base current, yield voltage readings above 3.0 V after initial stabilisation. The readings may vary according to the pulse characteristics, the temperature, and the cell's previous history. Fitting the cell with a capacitor may be recommended in severe conditions or for high pulse currents. Consult Saft.
[v] Operation above ambient temperature may lead to reduced capacity and lower voltage readings. Consult Saft.
[vi] For more severe conditions, consult Saft.

LS 14500



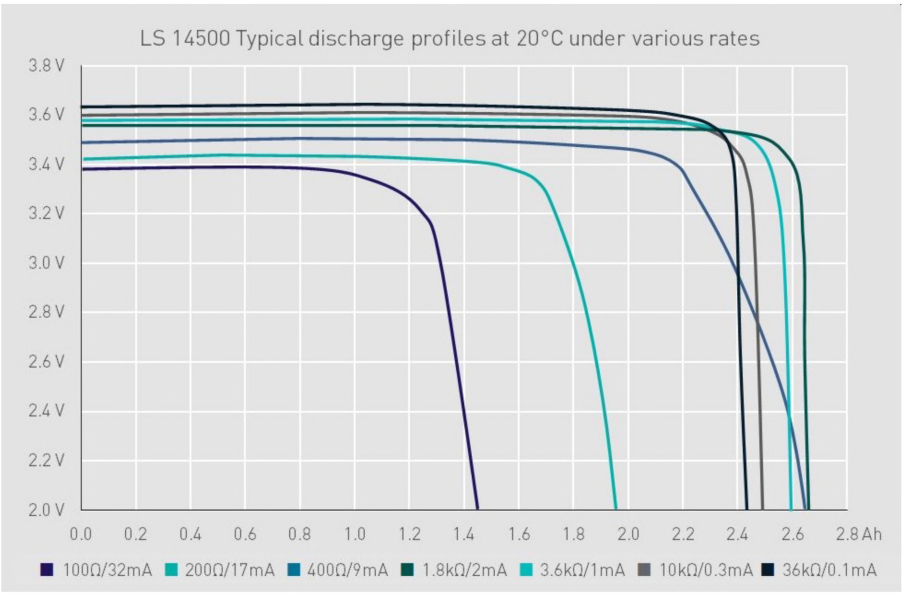
Dimensions in mm

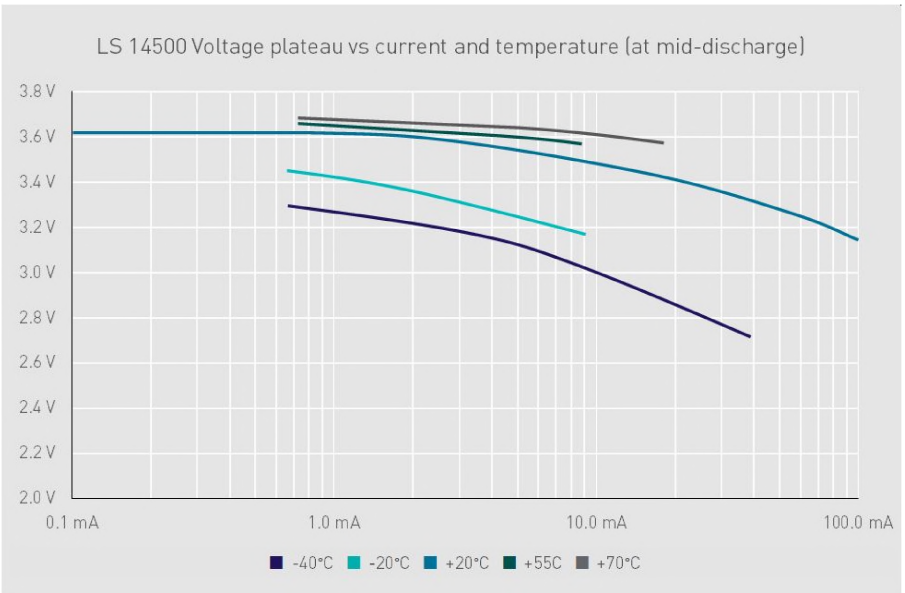
Storage

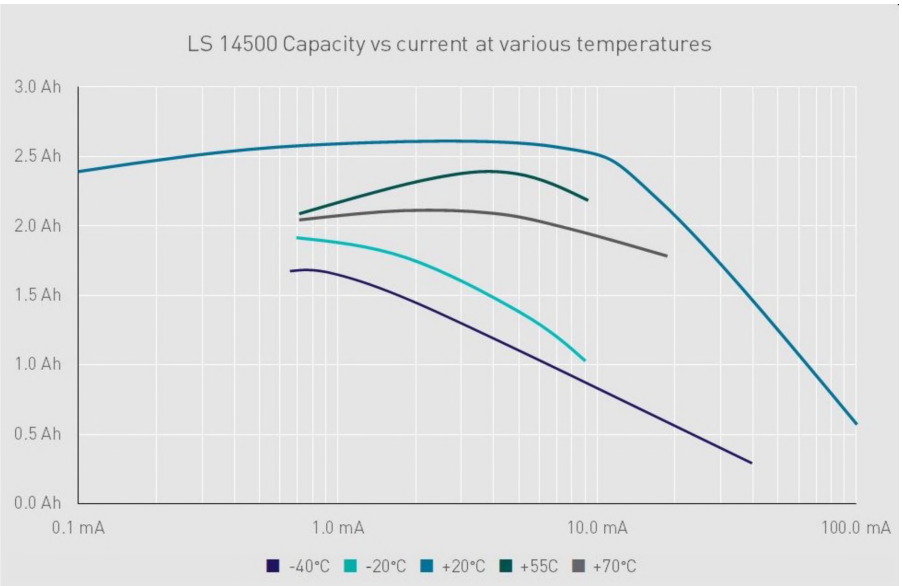
- The storage area should be clean, cool (preferably not exceeding +30 °C), dry and ventilated.

Warning

- Fire, explosion and burn hazard.
- Do not recharge, short circuit, crush, disassemble, heat above 100 °C (212°F), incinerate, or expose contents to water.
- Do not solder directly to the cell (use tabbed cell versions instead).







LS 14250
Primary Li-$SOCl_2$ cell

3.6 V ½ AA size bobbin cell **high energy density**

Saft's LS 14250 cell is ideally suited for long-term applications (typically from 5 to 20+ years), featuring low base currents and periodic pulses.

Benefits
- High capacity and high energy (1024 Wh/l and 480 Wh/kg).
- High voltage response, stable during most of the lifetime of the application.
- Wide operating temperature range (-60°C / +85°C).
- Low self-discharge, compatible with a long operating life (less than 1% per year of storage, at +20 °C, after 1 year).
- Superior resistance to corrosion.
- Low magnetic signature

Key features
- Bobbin construction.
- Well controlled passivation.
- Hermetic construction with glass-to-metal seal.
- Stainless steel container.
- Non-flammable electrolyte.
- RoHS and REACH compliance.
- **Manufactured in France, China, UK.**

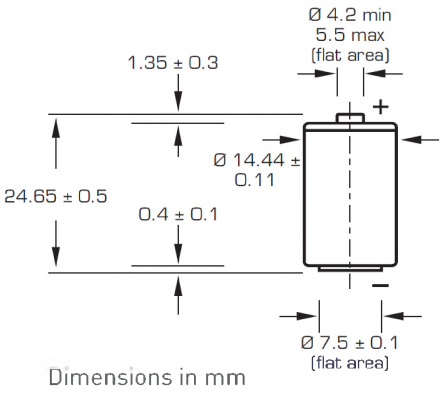
Designed to meet all major quality, safety and environmental standards.
- Safety: UL 1642, IEC 60086-4.
- IEC 60079-11 part 10.5 (T4 temperature rating at +60 °C).
- Transport: UN 3090 and UN 3091.
- Quality: ISO 9001, Saft World Class continuous evaluation program.

Typical applications
- Utility Metering.
- Internet of Things.
- Tracking systems.
- Alarms and security.
- Connected sensors.
- Medical devices.

Electrical characteristics [i]	
Nominal capacity (under 1 mA, +20 °C, 2.0 V cut-off) [iii]	1.2 Ah
Open circuit voltage (at +20 °C)	3.67 V
Nominal voltage (under 0.1 mA, +20 °C)	3.6 V
Nominal energy	4.32 Wh
Pulse capability [iv]	Up to 100 mA
Maximum recommended continuous current	30 mA
Operating conditions	
Operating temperature range [v]	-60 °C / +85 °C (-76 °F / +185 °F)
Storage temperatures (max recommended) [vi]	+30 °C (+86 °F)
Physical characteristics [ii]	
Diameter (max)	14.62 mm (0.57 in)
Height (max)	25.13 mm (0.99 in)
Typical weight	9 g (0.31 oz)
Li metal content	approx. 0.3 g
Termination suffix	
CN, CNR	Radial tabs
2 PF, 2 PF, 3PF RP, 4 PF	Radial pins
CNA	Axial leads
FL	Flying leads
Other configurations upon request	

[i] Typical values relative to cells stored up to one year at + 30 °C max.
[ii] Sleeved cell.
[iii] Dependent upon current drain, temperature, cut-off and cell orientation.
[iv] Under 100 mA / 0.1 second pulses, drained every 2 minutes at + 20 °C from undischarged cells during 24 hours, with 10 µA base current, yield voltage readings above 3.0 V after initial stabilisation. The readings may vary according to the pulse characteristics, the temperature, and the cell's previous history. Fitting the cell with a capacitor may be recommended in severe conditions or for high pulse currents. Consult Saft.
[v] Operation above ambient temperature may lead to reduced capacity and lower voltage readings. Consult Saft.
[vi] For more severe conditions, consult Saft.

LS 14250



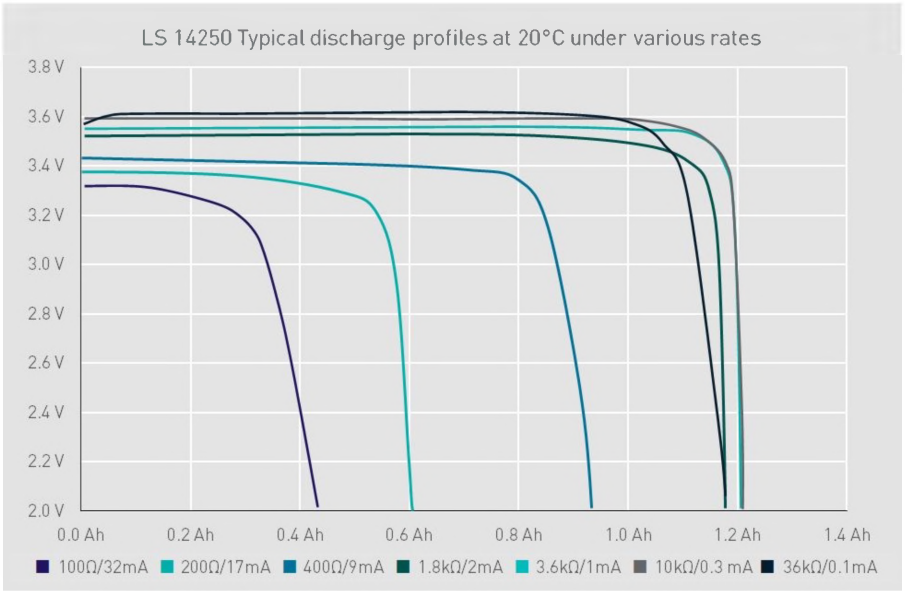
Dimensions in mm

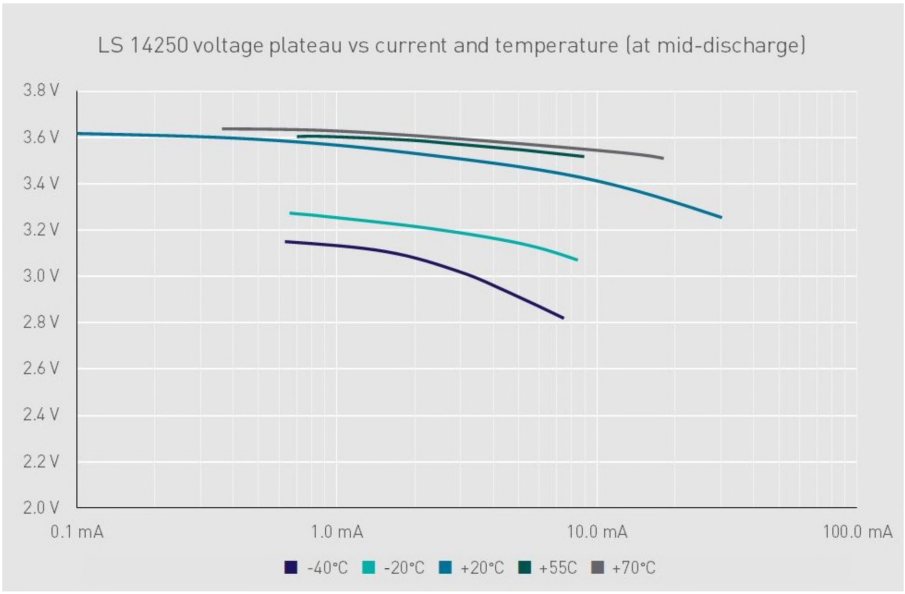
Storage

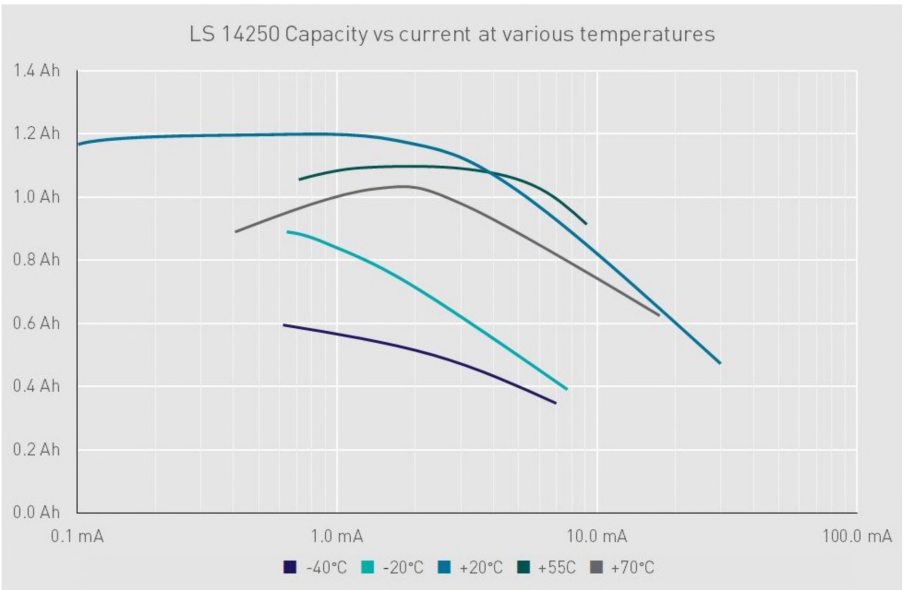
- The storage area should be clean, cool (preferably not exceeding +30 °C), dry and ventilated.

Warning

- Fire, explosion and burn hazard.
- Do not recharge, short circuit, crush, disassemble, heat above 100 °C (212°F), incinerate, or expose contents to water.
- Do not solder directly to the cell (use tabbed cell versions instead).







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