LSH 20

Primary Li-SOCl$_2$ cell

High power density 3.6 V D-size spiral cell

Saft's LSH 20 cell is ideally suited for long-term applications (typically from 5 to 20+ years), featuring high drain / high pulses currents.



Benefits

- High power / high energy densities (65 W/kg and 468 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 3% per year of storage, at + 20°C, after 1 year)
- Superior resistance to corrosion
- Low magnetic signature

Key features

- Spiral construction
- Built-in safety vent
- Finishing top with 5 A fuse
- Hermetic construction with glass-to-metal seal
- Stainless steel can
- 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
- Transport: UN 3090 and UN 3091
- Quality: ISO 9001, Saft Excellence System, continuous program
- CE: P/N: 03577R

Typical applications

- Utility Metering
- Tracking systems
- Dataloggers
- Alarms and security
- Wireless sensors
- Military radios

NATO Stock Number
6135 14 440 1213

Electrical characteristics[1]	
Nominal capacity (under 14 mA, +20°C, 2.0 V cut-off)[3]	13 Ah
Open circuit voltage (at +20°C)	3.67 V
Nominal voltage (at 2 mA, + 20°C)	3.6 V
Nominal energy	47 Wh
Pulse capability[4]	Up to 4 A
Maximum recommended continuous current[7]	1.8 A
For battery sizing, consult Saft	
Operating conditions	
Operating temperature range[5]	-60°C / +85°C (-76°F / +185°F)
Storage temperatures (max recommended)[6]	+30°C (+86°F)
Physical characteristics[2]	
Diameter (max)	33.4 mm (1.32 in)
Height (max)	61.31 mm (2.41 in)
Typical weight	100 g (3.5 oz)
Li metal content	approx. 3.8 g
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]Typical values relative to cells stored up to one year at + 30°C max.
[2]Sleeved cell.
[3]Dependent upon current drain, temperature, cut-off and cell orientation.
[4]Under 4 A / 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.
[5]Operation above ambient temperature may lead to reduced capacity and lower voltage readings. Consult Saft.
[6]For more severe conditions, consult Saft.
[7]If above this value, please consult Saft.

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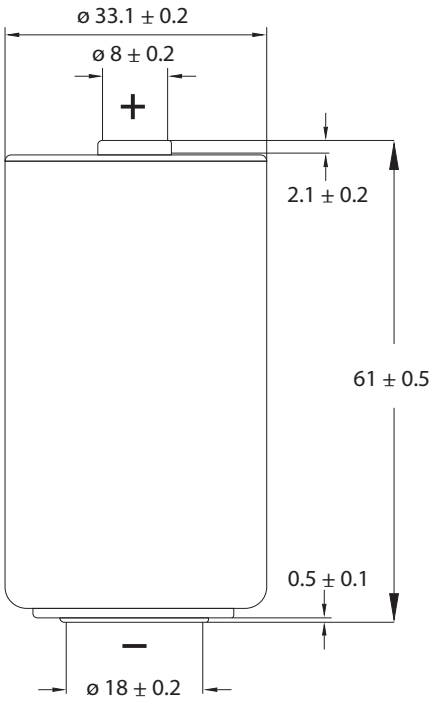
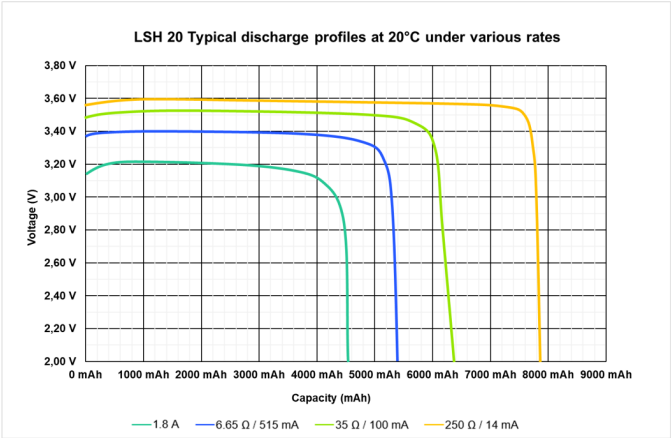
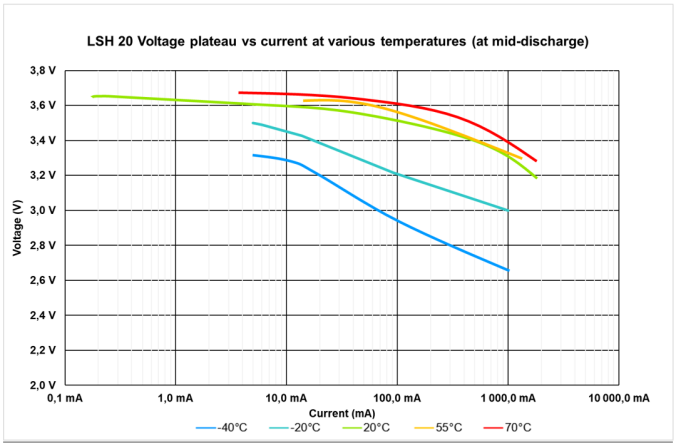
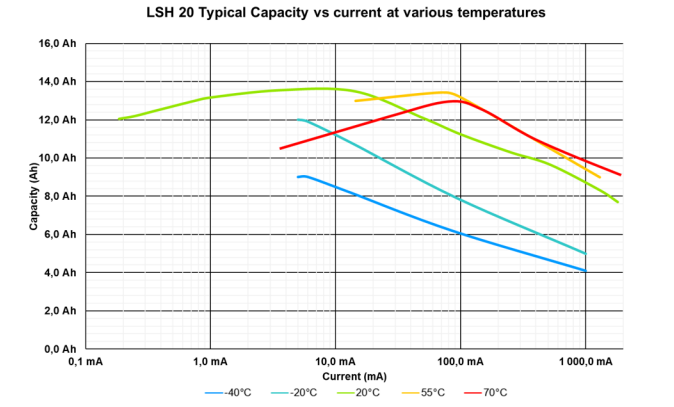


Dimensions in mm







The curves presented are based on experimental averages and do not necessarily reflect the minimum values that may be observed, particularly when the discharge regime exceeds the nominal conditions specific to each temperature.

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).
- Do not remove the cells from their original packing before use.
- Do not store the cells in bulk to avoid accidental short circuiting.
- Do not mix new and used cells or cells from different origins.
- Mind the polarities of the cell.

26, quai Charles Pasqua
92300 Levallois-Perret - France
www.saft.com

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R.C.S. Nanterre 481 480 465

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