Lithium-thionyl chloride (Li-$SOCl_2$) - LSH cell range

Non rechargeable battery

Technical characteristics

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The Saft LSH cylindrical primary lithium cells are based on Lithium-Thionyl chloride (Li-$SOCl_2$) chemistry and feature high surface area spiral electrodes for maximum current capability.

They are designed for applications requiring continuous currents in the 0.1-1.8 A range, with superimposed pulses as high as 4 A.

Construction features

spiral electrodes
stainless steel container
hermetic and sturdy glass-to-metal sealing
built-in safety vents
individual cells with 5.5 A non-resettable fuse
available as individual batteries (size 1/3 C to D; with or without tabs) or multi-cell battery packs

Main applications

utility metering
automated meter reading
alarms and security wireless devices
mobile asset tracking
GPS
emergency location transmitters beacons (ELTs, EPIRBs)
professional electronics
military radiocommunication
sonobuoys
oil exploration
automotive telematics
telemetry

Benefits

High operating voltage, stable during most of the application lifetime
Good pulse capability
Wide operating temperature range (-60°C to +70°C), +120°C for some cell versions
Good resistance to passivation
Non-flammable (and non-pressurized at ambient temperature), inorganic (but corrosive) electrolyte
Less than 3% capacity loss per year, during storage at ambient temperature before use
Performance independent from cell orientation
Up to 25 years of mass production experience
Compliant with the European directive RoHS
Good safety records

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Data sheet

LSH 14	EN
LSH 14 "light"	EN
LSH 20	EN
LSH 20-150	EN
LSH 26180	EN

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3.67 V open circuit voltage
Operating voltage (depending on conditions) typically above 3 V
Underwriters Laboratories (UL) Component Recognition (File number MH 12609)
Compliance with IEC 60086-4

	LSH 26180	LSH 14	LSH 14 "light"	LSH 20	LSH 20-150
Cell type constuction	1/3 C	C	C	D	D
Open Circuit Voltage	3.67 V	3.67 V	3.67 V	3.67 V	3.67 V
Nominal Voltage	3.6 V	3.6 V	3.6 V	3.6 V	3.6 V
Nominal capacity (drain)	1.2 Ah (10 mA)	5.8 Ah (15 mA)	3.6 Ah (15 mA)	13.0 Ah (15 mA)	14.0 Ah (300 mA)
Max. recom. Cont. Current	0.4 A	1.3 A	1.3 A	1.8 A	Consult Saft
Operating temp. range	-60/+85°C *	-60/+85°C *	-60/+85°C *	-60/+85°C *	-40/+150°C
Outside diameter max	26.2 mm	26.0 mm	26.0 mm	33.4 mm	32.05 mm
Length max	18.6 mm	50.4 mm	50.4 mm	61.6 mm	61.7 mm
Weight	24 g	51 g	51 g	100 g	104.5 g
Transport	Non-restricted	Restricted (Class 9)	Non-restricted	Restricted (Class 9)	Restricted (Class 9)

Individual cells fitted with non-resettable 5 Amp fuse protection
** cells leakproof up to 120°C.*