

Primary lithium batteries

Selector guide

www.infrarossi.it



Saft lithium batteries

meeting your needs...

*For more than 32 years,
Saft has pioneered the
development and production
of primary lithium cells and
battery packs in Europe,
North America and
Asia/Pacific.
Autonomy, power, voltage,
shape, weight, service life,
price... Saft knows how to
tailor battery solutions you
can count on.*

Saft is a world specialist in the design and manufacture of high-tech batteries for professional, industrial, space and military uses. With approximately 3,800 employees worldwide, Saft is present in 18 countries and operates two R&D centers. Six manufacturing sites and an extensive sales network enable the Saft Lithium Battery Division to serve its customers worldwide with a product range that covers the three main primary lithium chemistries of today.

Among recognized characteristics of the Saft spirit worldwide are quality, performance, reliability, openness and an ability to meet the most demanding challenges. Take advantage of them for your applications!

Lithium power at your service

Lithium is a light metal which exhibits an exceptional specific capacity (3.86 Ah/gram) and unique electrochemical characteristics.

Combining lithium with manganese dioxide (MnO_2) powder or low-freezing point liquid cathode materials such as thionyl chloride ($SOCl_2$) or sulfur dioxide (SO_2), results in batteries with high energy, low weight, reduced self-discharge rate, and ability to operate under extreme conditions.

Saft's lithium products

Three lithium chemistries are currently available:

- Lithium-thionyl chloride ($Li-SOCl_2$) in *LS/LST/LSX/LSH* 3.6 V cells,
- Lithium-sulfur dioxide ($Li-SO_2$) in *G/LO* 3.0 V cells,
- Lithium-manganese dioxide ($Li-MnO_2$) in *LM* 3.0 V cells.



...exceeding your expectations

The LS and LST cells are *cylindrical* and based on the high-energy concentric "bobbin" electrode configuration. They are available in *standard*, "C" and "W" versions according to the temperature characteristics of the envisioned applications.

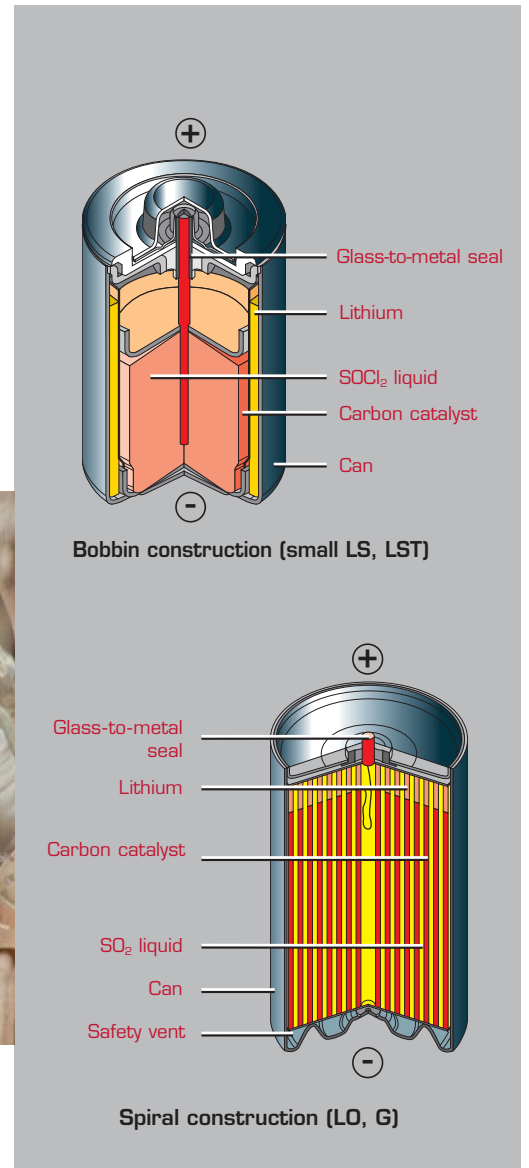
The LSX, LSH, G, LO and LM cells are also *cylindrical* but use the power-optimized "coiled" and "spiral" electrode constructions. The Li-SO₂ cells are available in several versions: "SX" and "G" series, "SHX" high pulse capability series and "SXC" high capacity series.

The spiral LM cell series is completed with 3 button cells aimed at memory back-up.

Corrosion-proof containers, hermetic sealing based on rugged glass-to-metal seals and TIG or laser welds, built-in safety vents and individual protection fuses are design features common to most of Saft's lithium cells.

The LS/LST/LSX/LSH/G/LO/LM cells are available as single units (with different optional finishes) or assembled within battery packs.

Whatever your application, you will probably find a Saft lithium battery able to meet your particular requirements. If not, custom-made solutions can be developed within your time-to-market constraints.



Saft primary lithium batteries: applications

	Memory back-up	Real-time clocks	Utility metering AMR	Security Alarms	Electronic toll collection	Automotive electronics	Radio communication	Emergency location Buoys	Lighting Night vision	Medical defibrillators	Downhole logging	Meteorology Space	Professional electronics	GPS/GSM tracking
LM buttons	●	●		○									●	
LM spirals			○	●		●	●	●	●	●		●	●	●
LS, LST small bobbins (½ AA, AA, ¾ A, A)	●	●	●	●	●	●		●	●		●		●	●
LS large bobbins (C, D)	●		●	●		○		●				●	●	
LSH spirals			○	●		○	●	●	●		●	●	●	●
LSX small coils (AA)			●	●	●	●			●				●	
G/LO spirals			○	●		●	●	●	●	●		●	●	●

● recommended

○ possible

Key features

Primary cells and batteries are not rechargeable.

- **High and stable operating voltage**
 - Above 3 V for LS/LST/LSX/LSH cells.
 - Above 2 V for LO/G/LM cells.
- **Wide current capability range**

From a few microamperes base current for the LM buttons and small LS/LST cells to more than 10 A pulses for some LO, G, and LM cells.
- **Wide operating temperature range**

From –60°C up to +85°C depending on cell type, current drain and environment conditions.
- **Long shelf life**

Capacity loss in storage at +20°C below 1% (LS, LST, bobbins), 2% (LSX) and 3% (LSH, G, LO, LM spirals) per year.
- **Extended operating life**

Typically above 5 years, and up to 20 years for some applications.
- **High energy densities**

3-10 times greater than the non-lithium systems.
- **Disposal**

According to local regulations.
- **Adequate safety**

Most of Saft's lithium cells are UL (Underwriters Laboratories) recognized, and non-restricted for transport. Most battery packs comply with European and US Army standards. Several LS cell models comply with the EN 50020 "Intrinsic Safety" specification for ATEX applications.
- **Storage**

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

Saft primary lithium chemistries: specific qualities

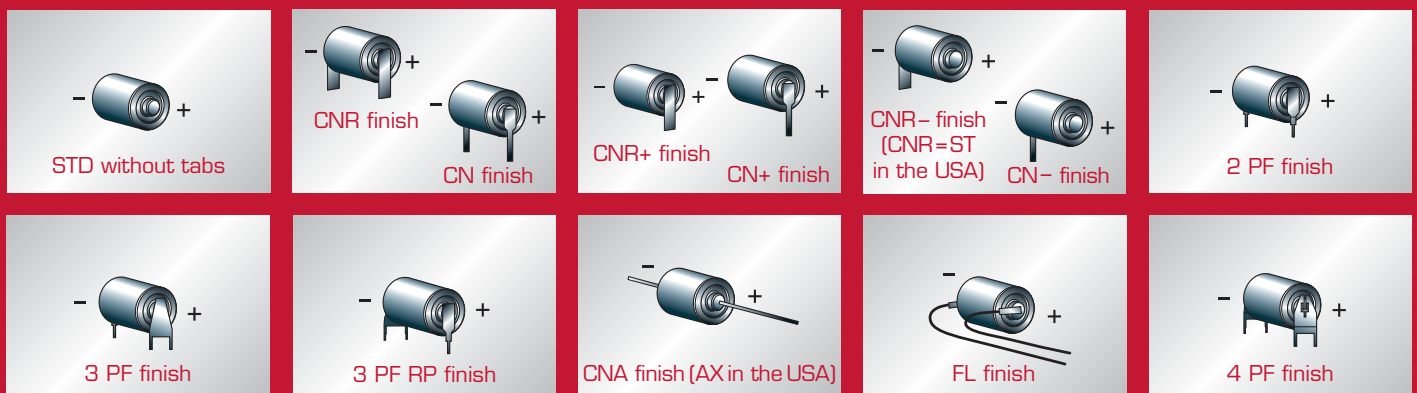
- **Li-SOCl₂**
(LS, LST, LSX, LSH cell series)
 - Bobbin, coil or spiral construction
 - Operating voltage > 3 V
 - Ability to operate from –60 to +85°C
 - Non-flammable electrolyte
 - Cells non-pressurized at room temperature
 - Hermeticity guaranteed up to +110°C
 - Unrivaled nominal capacities (LS, LST)
 - **Li-SO₂**
(G, LO cell series)
 - Spiral construction
 - Non-flammable electrolyte
 - Superior pulse capability
 - Excellent capacity above 1 A
 - Superior power at –40°C
 - Hermeticity guaranteed up to +95°C
 - Wide military acceptance
 - **Li-MnO₂**
(LM cell series)
 - Spiral and button construction
 - Non-corrosive electrolyte
 - Cells non-pressurized at room temperature
 - Spiral cells with good pulse capability
 - Minimal voltage delay
 - Competitive capacity at high current and low temperature (–40°C)
- ▶ The LS "C" cell versions are recommended for use in Cool environments, typical of indoor applications. They yield higher voltage during pulsing at temperature not exceeding repeatedly +70°C.
 - ▶ The LS "W" cell versions are recommended for use in applications with Widely fluctuating temperature (up to +95°C), such as electronic toll collection.
 - ▶ The LO "SHX" cell versions offer superior pulse capability for discharges not exceeding the declared voltage cut-off.

Saft lithium cell series: performance data

Enclosed data relates to batteries aged up to 12 months and properly stored. Consult Saft regarding specific pulse conditions or usage following prolonged storage and/or exposure to extreme temperatures.

- Nominal capacity at +20°C and 2 V discharge cut-off (continuous current).
- Maximum recommended continuous current:
 - LS/LST/LSX bobbin and coiled cells: the current providing 50% of the nominal capacity at +20°C and 2 V cut-off.
 - LSH/G/LO/LM spirals: the above definition or the current that keeps the cells self-heating within safe limits, whichever is smaller.
- Maximum recommended pulse current: varies according to pulse characteristics (duration, frequency), temperature conditions, cell storage conditions prior to usage and the application's acceptable minimum voltage. The use of parallel capacitor to enhance the voltage at the beginning of pulses might be recommended. Consult Saft.
- Transport status: according to UN model Regulations Ref. ST/SG/AC.10/1 Revision 13 (2003) and Manual of Tests and Criteria Ref. ST/SG/AC.10/11 Revision 4, 2003.

Examples of standard individual cell tabbing arrangements



Other cell finishes are available upon request. Check availability and dimensions of tabbing arrangement for considered cell.

Examples of standard battery packs configurations



Primary lithium batteries

Li-SOCl₂ range



Li-SOCl₂ cells

Production site	Size	Open circuit voltage	Nominal voltage	Nominal capacity (drain) (2.0 V cut off)	Maximum recommended continuous current	Operating temperature range	Outside diameter max.	Height max.	Typical weight	UL recognition	Transport status
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Small LS/LST/LSX cells

LS 14250	F	1/2 AA	3.67 V	3.6 V	1.1 Ah (1 mA)	40 mA	-60/+85°C*	14.65 mm	24.8 mm	8.9 g	yes	Non-restricted
LST 14250	UK	1/2 AA	3.67 V	3.6 V	1.1 Ah (1 mA)	35 mA	-60/+85°C*	14.4 mm	25.1 mm	9.4 g	yes	Non-restricted
LS 14250C	F	1/2 AA	3.67 V	3.6 V	1.2 Ah (1 mA)	15 mA	-60/+70°C*	14.65 mm	24.8 mm	8.9 g	yes	Non-restricted
LS 14500	F	AA	3.67 V	3.6 V	2.45 Ah (1 mA)	130 mA	-60/+85°C*	14.65 mm	50.3 mm	16.2 g	yes	Non-restricted
LST 14500	UK	AA	3.67 V	3.6 V	2.45 Ah (1 mA)	45 mA	-60/+85°C*	14.4 mm	49.8 mm	17.4 g	yes	Non-restricted
LS 14500C	F	AA	3.67 V	3.6 V	2.7 Ah (1 mA)	25 mA	-60/+70°C*	14.65 mm	50.3 mm	16.2 g	yes	Non-restricted
LS 14500W	F	AA	3.67 V	3.6 V	2.2 Ah (1 mA)	60 mA	-60/+95°C*	14.65 mm	50.3 mm	16.2 g	yes	Non-restricted
LSX 14500	F	AA	3.67 V	3.6 V	2.1 Ah (1 mA)	150 mA	-60/+85°C*	14.65 mm	50.3 mm	17.5 g	yes	Non-restricted
LST 17330	UK	2/3 A	3.67 V	3.6 V	2.1 Ah (2 mA)	25 mA	-60/+85°C*	16.5 mm	33.4 mm	14.4 g	yes	Non-restricted
LS 17500	F	A	3.67 V	3.6 V	3.6 Ah (3 mA)	130 mA	-60/+85°C*	17.0 mm	50.9 mm	21.9 g	yes	Non-restricted

*Cells leakproof up to +120°C

Large LS cells

LS 26500	F	C	3.67 V	3.6 V	7.7 Ah (4 mA)	150 mA	-60/+85°C*	26.0 mm	49.1 to 50.4 mm***	48 g	yes	Class 9
LS 33600	F	D	3.67 V	3.6 V	17.0 Ah (5 mA)	250 mA	-60/+85°C*	33.4 mm	60.2 to 61.6 mm***	90 g	yes	Class 9
LS 33600C**	F	D	3.67 V	3.6 V	18.5 Ah (1 mA)	80 mA	-60/+70°C*	33.4 mm	60.2 to 61.6 mm***	90 g	yes	Class 9

*Cells leakproof up to +110°C

** (Low Magnetic LS 33600 cell version available)

*** Depending on cell finish

LSH spiral cells

LSH 26180	F	1/3 C	3.67 V	3.6 V	1.2 Ah (10 mA)	0.4 A	-60/+85°C*	26.2 mm	18.6 mm	24 g	—	Non-restricted
LSH 14	F	C	3.67 V	3.6 V	5.5 Ah (15 mA)	1.3 A	-60/+85°C*	26.0 mm	50.4 mm	51 g	yes	Class 9
LSH 14 "light"	F	C	3.67 V	3.6 V	3.6 Ah (15 mA)	1.3 A	-60/+85°C	26.0 mm	50.4 mm	51 g	—	Non-restricted
LSH 20**	F	D	3.67 V	3.6 V	13.0 Ah (15 mA)	1.8 A	-60/+85°C*	33.4 mm	61.6 mm	100 g	yes	Class 9

* Cells leakproof up to +110°C

** High Temperature (120°C max) LSH 20 HTS cell version available

All LSH cells are fitted with individual 5 Amp fuse protection

Primary cells and batteries are not rechargeable.

Their internal impedance may rise versus time, especially in case of exposure at elevated temperature.



SAFT

Li-SOCl₂ Military battery packs

	Cell type construction*	Open circuit voltage	Nominal voltage	Voltage cut-off	Rated capacity	Maximum dimensions	Typical weight	Safety features	NATO Stock Number (NSN)	Typical applications
PS 31 A	1s1p LSH 26180	3.67 V	3.6 V	2.0 V	1.2 Ah	26.2 x 18.9 mm	25 g	5 A fuse	6135-14-376-4875	Night vision
PS 38 A	5s1p LSH 26180	18.3 V	17.5 V	10.0 V	1.2 Ah	110.7 x 37 mm	155 g	5 A fuse	6135-14-389-9050	Laser telemetry
PS 40 A	4s1p LSH 14	14.7 V	14.0 V	10.0 V	4.6 Ah	108 x 65 x 49 mm	285 g	PTC 1.1 A**	6135-14-420-1760	Radiocommunication (TRPP 11/13)
PS 42 A	2s1p LSH 20	7.3 V	7.0 V	5.0 V	9.0 Ah	69.9 x 67.2 x 34 mm	230 g	PTC 3.5 A**	6135-14-434-0766	Radiocommunication (TRPP 39)
PS 48 B	5s2p LSH 20	18.3 V	17.5 V	12.6 V	18.0 Ah	212.4 x 72.7 x 68.5 mm	1150 g	PTC 1.85 A**	6135-14-451-7198	Radiocommunication (TRC 350)
PS 52 A	2s1p LSH 20	7.3 V	7.2 V	5.0 V	12.5 Ah	77.5 x 63.5 x 34.6 mm	225 g	PTC 2.0 A**	6135-14-459-9265	Radiocommunication (Portable PR4G)
PS 53 B	6s1p LSH 20	22.0 V	21.0 V	15.0 V	12.5 Ah	210.5 x 68.5 x 37.5 mm	720 g	PTC 2.5 A**	6135-14-459-9266	Radiocommunication (Portable PR4G)

* Xs Yp = Y parallel branches of X cells in series per branch

** Maximum hold current

+ a great variety of packs for diversified applications, among which

	Cell type construction*	Open circuit voltage	Nominal voltage	Rated capacity	Maximum dimensions	Typical weight	Typical applications
LS 9V	3S1P LS 14250	11.0 V	9.0 V	1.1 Ah	49.1 x 46.8 x 26.8 mm	29 g	Memory back-up Metering
LSC 9V	3S1P LS 14250C	11.0 V	9.0 V	1.2 Ah	49.1 x 46.8 x 26.8 mm	29 g	Smoke detectors Professional electronics
Lithopack	2S1P LS 14500	7.3 V	7.2 V	2.45 Ah	56.6 x 31.6 x 17.3 mm	34 g	Memory back-up
Lithopack C	2S1P LS 14500C	7.3 V	7.2 V	2.7 Ah	56.6 x 31.6 x 17.3 mm	34 g	Metering Professional electronics

Primary cells and batteries are not rechargeable.

This data sheet is an insert part of the **Primary lithium batteries Selector guide (ref 31048-2)**, where complementary information and data on features, safety and storage can be found.

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Société anonyme au capital de 31 944 000 €
 RCS Bobigny B 383 703 873

Produced by Arthur Associates Limited.



Primary lithium batteries

Li-SO₂ range



Li-SO₂ cells

Production site	Size	Open circuit voltage	Nominal voltage	Nominal capacity (drain) (2.0 V cut off)	Maximum recommended continuous current	Operating temperature range	Outside diameter max.	Height max.	Weight	UL recognition	Transport status
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G/LO spiral cells

G 04/3	UK	1/2 AA	3.0 V	2.8 V	0.45 Ah (50 mA)	0.25 A	-60/+70°C*	14.2 mm	27.9 mm	8 g	—	Non-restricted
G 06/2	UK	AA	3.0 V	2.8 V	0.95 Ah (80 mA)	0.5 A	-60/+70°C*	14.2 mm	50.3 mm	15 g	—	Non-restricted
G 32/3	UK	2/3 A	3.0 V	2.8 V	0.8 Ah (80 mA)	0.75 A	-60/+70°C*	16.3 mm	34.5 mm	12 g	—	Non-restricted
G 36/2	UK	"long" A	3.0 V	2.8 V	1.7 Ah (80 mA)	1.5 A	-60/+70°C*	16.3 mm	57.7 mm	18 g	—	Non-restricted
LO 34 SX	USA	1/3 C	3.0 V	2.8 V	0.86 Ah (80 mA)	1.0 A	-60/+70°C*	25.9 mm	20.3 mm	18 g	yes	Non-restricted
LO 35 SX	USA	2/3 C	3.0 V	2.8 V	2.0 Ah (120 mA)	2.0 A	-60/+70°C*	25.9 mm	35.9 mm	30 g	yes	Class 9
G 52/3	UK	C	3.0 V	2.8 V	3.2 Ah (1.0 A)	2.5 A	-60/+70°C*	25.6 mm	49.5 mm	47 g	—	Class 9
LO 29 SHX	USA	C	3.0 V	2.8 V	3.75 Ah (0.25 A)	2.5 A	-60/+70°C*	25.6 mm	50.4 mm	40 g	yes	Class 9
G 54/3	UK	5/4 C	3.0 V	2.8 V	5.0 Ah (0.2 A)	2.5 A	-60/+70°C*	25.6 mm	60.2 mm	58 g	—	Class 9
LO 43 SHX	USA	5/4 C	3.0 V	2.8 V	5.0 Ah (0.2 A)	2.5 A	-60/+70°C*	25.9 mm	59.3 mm	53 g	yes	Class 9
LO 40 SHX	USA	2/3 "Thin" D	3.0 V	2.8 V	3.5 Ah (0.12 A)	2.0 A	-60/+70°C*	29.1mm	41.6 mm	40 g	yes	Class 9
LO 30 SHX	USA	"Thin" D	3.0 V	2.8 V	5.75 Ah (0.2 A)	3.0 A	-60/+70°C*	29.1 mm	59.9 mm	63 g	yes	Class 9
G 26	UK	D	3.0 V	2.8 V	7.75 Ah (0.25 A)	2.5 A	-60/+70°C*	34.5 mm	59.8 mm	85 g	—	Class 9
LO 26 SX	USA	D	3.0 V	2.8 V	7.75 Ah (0.25 A)	2.5 A	-60/+70°C*	34.2 mm	59.3 mm	85 g	yes	Class 9
LO 26 SXC	USA	D	3.0 V	2.8 V	9.2 Ah (0.25 A)	2.5 A	-60/+70°C*	34.2 mm	59.3 mm	85 g	—	Class 9
LO 26 SHX	USA	D	3.0 V	2.8 V	7.5 Ah (1.0 A)	4.0 A	-60/+70°C*	34.2 mm	59.3 mm	85 g	yes	Class 9
LO 25 SX	USA	"Fat" D	3.0 V	2.8 V	8.0 Ah (0.27 A)	2.5 A	-60/+70°C*	39.5 mm	50.3 mm	96 g	yes	Class 9
LO 39 SHX	USA	F	3.0 V	2.8 V	11.0 Ah (0.3 A)	3.0 A	-60/+70°C*	30.7 mm	99.4 mm	125 g	yes	Class 9
G 22/6	UK	DD	3.0 V	2.8 V	16.5 Ah (0.5 A)	3.0 A	-60/+70°C*	33.3 mm	120.6 mm	175 g	—	Class 9
G 62/1	UK	"Long Fat DD"	3.0 V	2.8 V	34.0 Ah (1.0 A)	3.0 A	-60/+70°C*	41.7 mm	141.0 mm	300 g	—	Class 9

* Cells leakproof up to +95°C

Primary cells and batteries are not rechargeable.

Their internal impedance may increase versus time, especially in case of exposure at elevated temperature.



Li-SO₂ Military battery packs

Cell type construction*	Open circuit voltage	Nominal voltage	Voltage cut-off	Rated capacity	Maximum dimensions	Typical weight	NATO Stock Number (NSN)	Typical applications	
BA 5112A/U	4s1p LO 35 SX	12.0 V	11.2 V	8.0 V	2.3 Ah	77.8 x 57.2 x 39.1 mm	180 g	6135-01-235-4168	Radiocommunication (PRC 112)
BA 5557A/U	5s2p LO 35 SX	15.0 V/ 30.0 V	14.0 V/ 28.0 V	10.0 V/ 20.0 V	4.4 Ah/2.2 Ah	100.1 x 106.3 x 37.3 mm	500 g	6135-01-088-2707	Radiocommunication
BA 5567A/U	1s1p LO 34 SX	3.0 V	2.8 V	2.0 V	1.0 Ah	25.9 x 19.9 mm	16 g	6135-01-090-5363	Night vision
BA 5588A/U	5s1p LO 40 SX	15.0 V	14.0 V	10.0 V	3.5 Ah	96 x 90 x 31 mm	295 g	6135-00-088-2708	Radiocommunication (AN/PRC 128)
BA 5590B/U (2 sets of terminals)	5s2p LO 26 SX	15.0 V 30.0 V	13.5 V 27.0 V	10.0 V 20.0 V	7.5 Ah 15.0 Ah	127 x 111.8 x 62.2 mm	1020 g	6135-01-036-3495	Radiocommunication (AN/PRC 104/119)
BA 5590HC	5s2p LO 26 SXC	13.5 V 30.0 V	13.5 V 27.0 V	10.0 V 20.0 V	18.2 Ah 9.1 Ah	127 X 111.8 X 62 mm	1000 g	TBD	Radiocommunication (AN/PRC 104/113/117/119)
BA 5598A/U	5s1p LO 25 SX	15.0 V	14.0 V	14.0 V	8.0 Ah	120.7 x 92 x 54 mm	680 g	6135-01-034-2239	Radiocommunication (PRC 25/74/77)
BA 5599A/U	3s1p LO 26 SX	9.0 V	8.1 V	6.0 V	7.5 Ah	152 x 38 x 64 mm	450 g	6135-01-069-8575	Radio tester
BA 5600A/U	3s1p LO 26 SX	9.0 V	8.1 V	4.0 V	7.5 Ah	185.9 x 39.4 mm	360 g	6135-01-168-2944	Communication terminal AN/PSC 2/cap
BT 5790	5s1p LO 26 SX	15.0 V	14.0 V	10.0 V	7.5 Ah	186.5 x 35.7 x 66.7 mm	630 g	N/A	Radiocommunication
BT 5791	5s2p LO 26 SX	15.0 V	14.0 V	10.0 V	15.0 Ah	186.5 x 70.0 x 65.3 mm	1.2 kg	N/A	Radiocommunication
BA 5800A/U	2s1p LO 26 SX	6.0 V	5.3 V	4.0 V	7.5 Ah	128.5 x 35.5 mm	220 g	6135-99-798-9851	Compact Air Supply Unit (CASU), GPS
BA 5847B/U	2s1p LO 26 SX	6.0 V	5.3 V	4.0 V	7.5 Ah	95 x 64.8 x 38 mm	240 g	6135-01-090-5364	Radiocommunication Mine detector
BT 5313	9s1p LO 26 SHX	27.0 V	25.2 V	18.0 V	7.2 Ah	Special	1.1 kg	N/A	Missile launcher
Li/3	3s1p LO 26 SX	9.0 V	8.4 V	6.0 V	7.5 Ah	110 x 42 x 26.2 mm	450 g	6135-14-383-9768	Missile launcher
G6-104 (/C,D,E,F,G,H)	2s1p G20	6.0 V	5.6 V	4.0 V	7.5 Ah	128.5 x 35.5 mm	200 g	-	CAM
G6-105	2s1p G52	6.0 V	5.6 V	4.0 V	3.2 Ah	55 x 28.1 x 56 mm	110 g	6135-99-658-9085	Aircraft probe
G9-124	3s1p G20	9.0 V	8.4 V	6.0 V	7.5 Ah	110 x 42 x 83 mm	370 g	6135-14-383-9768	Missile
G15-114	5s2p G06	15.0 V	14.0 V	9.6 V	1.9 Ah	90.6 x 40.3 x 71 mm	270 g	6135-99-795-4351	Radiocommunication
G15-127	2 x 5s1p G62	2x15.0 V	2x14.0 V	2x10.0 V	34 or 68 Ah	216 x 152 x 92 mm	3.5 kg	6135-99-794-2896	-
G18-115	6s1p G20	18.0 V	16.8 V	12.0 V	7.5 Ah	131.6 x 66.8 x 128 mm	0.85 kg	6135-99-795-4350	Radiocommunication
G30-101	10s1p G20	30.0 V	28.0 V	20.0 V	7.5 Ah	184.5 x 73.5 x 80 mm	1.5 kg	6135-99-747-4430	Radiocommunication
G30-102/B	10s1p G22	30.0 V	28.0 V	20.0 V	16.0 Ah	184 x 72.5 x 133 mm	2.5 kg	6135-99-840-0109	Radiocommunication
XSG 1493/1	5s1p G32	15.0 V	14.0 V	10.0 V	0.85 Ah	78.5 x 37.2 x 40 mm	170 g	-	Personal locator beacon

* Xs Yp = Y parallel branches of X cells in series per branch

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Single cells mentioned in this document may have their own specific data sheet with complementary data. Please check website.

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Société anonyme au capital de 31 944 000 €

RCS Bobigny B 383 703 873

Produced by Arthur Associates Limited.



SAFT

Primary lithium batteries

Li-MnO₂ range



Li-MnO₂ cells

Size	Open circuit voltage	Nominal voltage	Nominal capacity (drain) (2.0 V cut off)	Maximum recommended continuous current	Operating temperature range	Outside diameter max.	Height max.	Weight	UL recognition	Transport status
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LM button cells

LM 2032	20x3.2mm	3.3 V	2.9 V	0.235 Ah (0.4 mA)	3 mA	-30/+70°C	20.0 mm	3.2 mm	2.8 g	yes	Non-restricted
LM 2430	24.5x3mm	3.3 V	2.9 V	0.285 Ah (0.5 mA)	4 mA	-30/+70°C*	24.5 mm	3.0 mm	4.1 g	yes	Non-restricted
LM 2450	24.5x5mm	3.3 V	2.9 V	0.540 Ah (0.8 mA)	3 mA	-30/+70°C	24.5 mm	5.0 mm	5.9 g	yes	Non-restricted

* Resin-encapsulated Memoguard 40 LH or LF 220 versions available

LM spiral cells

LM 17130	1/3 A	3.3 V	2.9 V	0.5 Ah (4.5 mA)	0.3 A	-40/+70°C*	16.7 mm	16.6 mm	8.0 g	-	Non-restricted
LM 22150	1/3 sub-C	3.3 V	2.9 V	0.9 Ah (40 mA)	0.4 A	-40/+70°C*	22.8 mm	17.3 mm	15.0 g	-	Non-restricted
LM 26500	C	3.3 V	2.9 V	4.5 Ah (0.5 A)	1.0 A	-40/+70°C*	25.6 mm	51.0 mm	60 g	-	Class 9
LM 26600	5/4 C	3.3 V	2.9 V	5.5 Ah (0.5 A)	1.2 A	-40/+70°C*	25.6 mm	61.5 mm	72 g	-	Class 9
LM 33570	"short" D	3.3 V	2.9 V	9.0 Ah (1.0 A)	3.0 A	-40/+70°C*	34.0 mm	57 mm	107 g	-	Class 9
LM 33600	D	3.3 V	2.9 V	10.5 Ah (1.0 A)	3.0 A	-40/+70°C*	34.0 mm	61.3 mm	116 g	-	Class 9

* Cells leakproof up to +80°C

Li-MnO₂ Military battery packs

	Cell type construction*	Open circuit voltage	Nominal voltage	Voltage cut-off	Nominal capacity	Maximum dimensions	Weight	NATO Stock Number (NSN)	Typical applications
BA 5368/U	4s1p LM 22150	13.2 V	12.0 V	9.0 V	0.9 Ah	76.2 x 26.9 mm	145 g	6135-01-455-7947	Radiocommunication (PRC-90-103-106-195)
BA 5372/U	2s1p LM 17130	6.6 V	6.0 V	4.0 V	0.5 Ah	16.5 x 33.0 mm	20 g	6135-01-214-6441	Radiocommunication (SINGARS)

* Xs Yp = Y parallel branches of X cells in series per branch

Primary cells and batteries are not rechargeable.

This data sheet is an insert part of the Primary lithium batteries Selector guide (ref 31048-2), where complementary information and data on features, safety and storage can be found.

July 2006

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