Primary lithium battery system
BA 5590 B/U

12 V/24 V Primary lithium sulfur dioxide ($LiSO_2$) battery

The battery consists of 10 LO 26 SX cells connected in 2 groups of 5 cells in series providing 2 nominal 12 V sections at connector. These sections can be connected in series (for 24 V) in parallel (for 12 V), or used as two separate 12 V units.

Key Features

- A non-replaceable fuse is incorporated in the negative leg of each series group of cells
- A normally closed high temperature switch or thermal fuse is incorporated into each series group of cells to protect against overheating
- A diode is incorporated into the positive leg of each series group of cells to prevent charging or flow of current into the battery
- For safe end of life recycling, there is an identified pull-tab to fully discharge the battery

Typical applications

- AN/PRC-104 Radio
- AN/PRC-113 Radio
- AN/PRC-117 Radio
- AN/PRC-119 Sincgards Radio
- AN/PRC 150
- KY-57, KY-65 Encryption set
- REMBASS Remotely monitored battlefield surveillance system
- PLRS position locator and reporting system
- RT-991 buoy radio
- RT-1175 buoy radio
- AN/TAS-4A TOW night sight

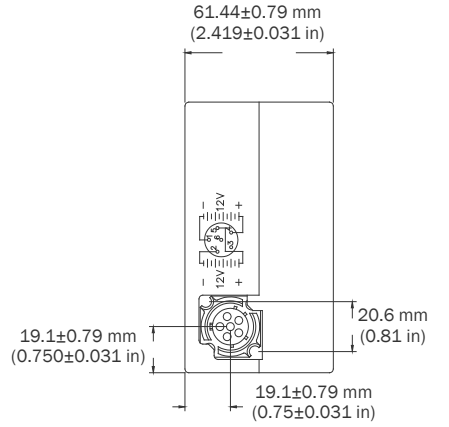
Electrical characteristics	12 V mode	24 V mode
Maximum OCV	15 V	30 V
Nominal voltage (at 500 mA)	13.5 V	27 V
Cut-off	10 V	20 V
Typical capcity +21°C / +70°F	15 Ah at 12 V	
(at 2 A discharge current)	7.5 Ah at 24 V	
Operating temperature	-40°C to +71°C / -40°F to +160°F	
Storage (Recommended max)	+35°C / +95°F	
(Possilbe)	-40°C to +71°C / -40°F to +160°F	

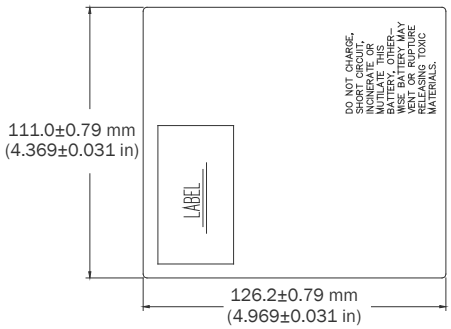
Physical characteristics	Metric	Imperial
Typical weight	1,000 g	35.3 oz
Weight of Li metal content	24.0 g	0.85 oz
Width	62.2 mm	2.45 in
Height	111.8 mm	4.40 in
Depth	127.0 mm	5.00 in
Battery case	Plastic	

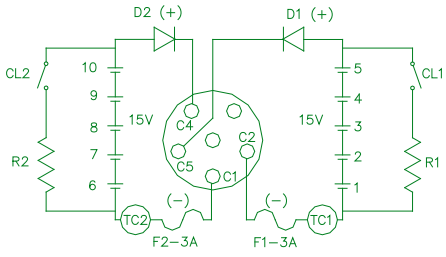
References	
Mating connector	IT Cannon CA 110821-6
Reference specifications	MIL PRF 49471B or Saft standard specification
Nato Stock Number (BA 5590/U)	6135-01-438-9450
	6135-01-036-3495
CAGE code	7X634

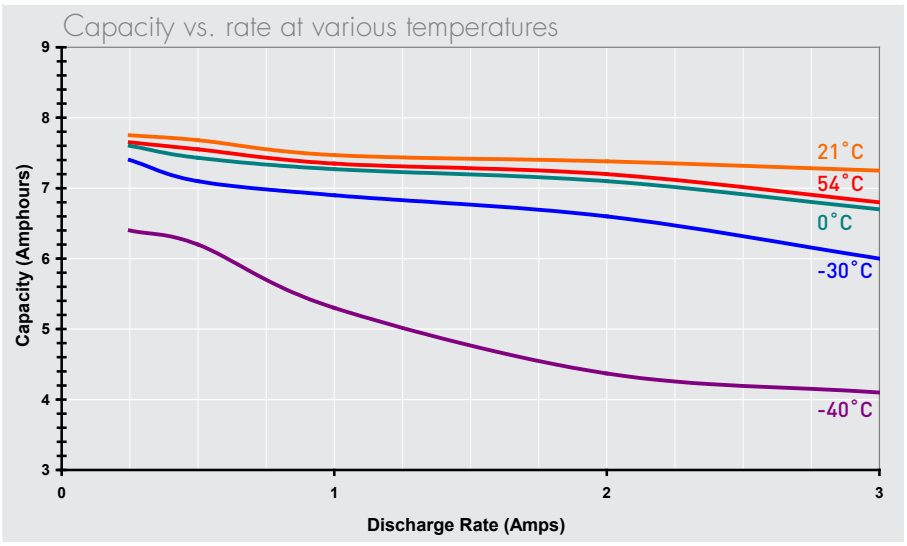
saft

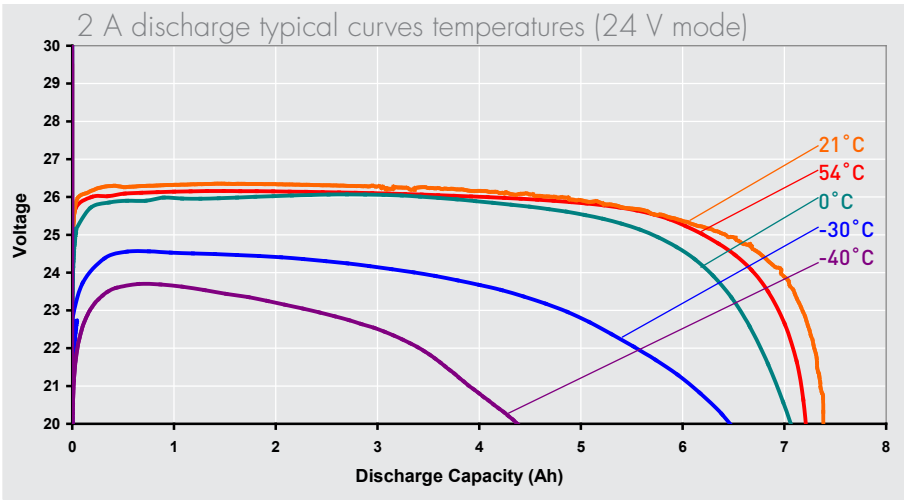
BA 5590 B/U

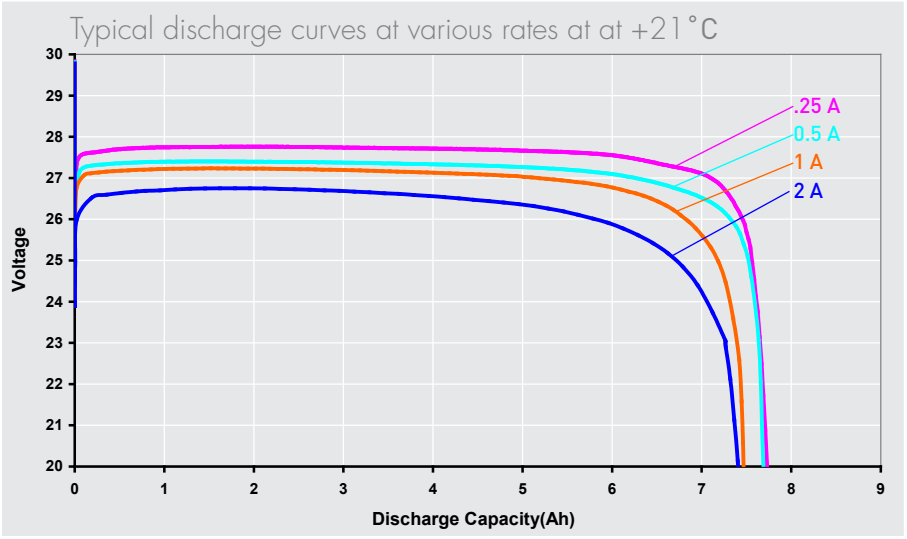

61.44±0.79 mm
(2.419±0.031 in)
12V
20.6 mm
(0.81 in)
19.1±0.79 mm
(0.750±0.031 in)
19.1±0.79 mm
(0.75±0.031 in)


DO NOT CHARGE, SHORT CIRCUIT, INCINERATE OR MUTILATE THIS BATTERY. OTHERWISE BATTERY MAY VENT OR RUPTURE RELEASING TOXIC MATERIALS.
LABEL
111.0±0.79 mm
(4.369±0.031 in)
126.2±0.79 mm
(4.969±0.031 in)


D2 (+)
D1 (+)
CL2
CL1
10
9
8
7
6
5
4
3
2
1
15V
15V
C4
C2
C5
C1
R2
R1
(–)
(–)
TC2
TC1
F2–3A
F1–3A


Capacity vs. rate at various temperatures
Capacity (Amphours)
Discharge Rate (Amps)
21˚C
54˚C
0˚C
-30˚C
-40˚C


2 A discharge typical curves temperatures (24 V mode)
Voltage
Discharge Capacity (Ah)
21˚C
54˚C
0˚C
-30˚C
-40˚C


Typical discharge curves at various rates at at +21˚C
Voltage
Discharge Capacity(Ah)
.25 A
0.5 A
1 A
2 A