

Product Information Sheet

Rockwell Automation 1201 South Second Street Milwaukee, WI 53204 Telephone: 414.382.2000 Internet: www.rockwellautomation.com Date of preparation: February 13, 2015	Product: Lithium Battery Type: Portable Coin Cell Battery Rockwell Automation Catalog No: 1756-BA1 Cell Manufacturer: Sanyo Cell Manufacturer P/N: CR17335SE Lithium Content: 0.49 g
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Product Identification

Rockwell Automation has assigned catalog number 1756-BA1 to a Battery Assembly which contains Fedco Lithium Battery Cell, part number CR17335SE. Fedco's Safety Data Sheet (SDS) for this Lithium Battery Cell follows.

Product Classification

The Rockwell Automation Lithium Battery Assembly, catalog no. 1756-BA1, is exempted from dangerous goods regulations as the following requirements are met:

- US DOT 49CFR, 173.185
- Dangerous Goods Regulation, per IATA, Packing Instructions 968, Section II
- Special Provisions ADR 188, IMDG 188

Additional Information

Rockwell Automation is committed to demonstrating the highest standard of global environmental management. We embrace this as a core value and an integral part of all operations and seek continual improvement of our environmental management system and performance.

You can find additional information regarding Rockwell Automation Product Environmental Compliance programs at:

<http://www.rockwellautomation.com/rockwellautomation/about-us/sustainability-ethics/product-environmental-compliance.page>

Please send any additional inquiries regarding Product Environmental Compliance to:

ProductStewardship@ra.rockwell.com

Product Safety Data Sheet (SDS) follows

1. Product and Company Identification: (I)

Product Identification:

ENERGY+[®] Brand Lithium Primary (Metal) Batteries

See Appendix "A" for compliant product listing.

Company Identification:

Fedco Electronics, Inc.
1363 Capital Drive
Fond du Lac, WI 54937

Tel: 1-920-922-6490
Fax: 1-920-922-6750
www.fedcoelectronics.com

Emergency Contact Information:

INFOTRAC
In the United States call 1-800-535-5053
Outside the United States call collect 1-352-323-3500

The batteries referenced herein are defined as exempt "articles" and are not subject to the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard 29 CFR Subpart 1910.1200(g). This information is provided as a service to our customers.

2. Composition / Identification of Ingredients (II)

ENERGY+[®] brand Lithium Primary (Metal) battery packs contain only cells that have been proven to meet the requirements of each test in the UN Manual of Tests and Criteria, Part III, sub-section 38.3 (Rev 5). There are five (5) different types of chemistries of lithium primary cells that are used in **ENERGY+[®]** batteries. The chemistry types are listed below and the cell matrix below identifies the cell model numbers used by manufacturer, type and lithium metal content.

(Type A) Lithium Carbon Monofluoride		Li-CF_x	
Common Chemical Name	Chemical Formula	CAS Number	Content - % Weight
Lithium	Li	7439-92-2	<5%
Carbon Monofluoride	CF _n	54311-17-2	N/A
Butyrolactone	C ₄ H ₆ O ₂	85306-26-9	N/A
Lithium Tetrafluoroborate	LiBF ₄	14293-07-9	N/A

(Type B) Lithium Manganese Dioxide		Li-MnO₂	
Common Chemical Name	Chemical Formula	CAS Number	Content - % Weight
Lithium	Li	7439-92-2	<4%
Manganese Dioxide	MnO ₂	1313-13-9	<40%
Lithium Perchlorate	LiClO ₄	7791-103-9	<2%
Propylene Carbonate	C ₄ H ₆ O ₃	108-32-7	<3

(Type C) Lithium-Sulfur Dioxide		Li-SO₂	
Common Chemical Name	Chemical Formula	CAS Number	Content - % Weight
Lithium	Li	7439-92-2	<3%
Sulfur Dioxide	SO ₂	7446-09-5	<30%
Lithium Bromide	LiBr	7550-35-8	<3%
Carbon	C _n	1333-86-4	<7%
Acetonitrile	CH ₃ CN	75-05-8	<9%

(Type D) Lithium-Thionyl Chloride		Li-SOCl₂	
Common Chemical Name	Chemical Formula	CAS Number	Content - % Weight
Lithium	Li	7439-92-2	<5%
Thionyl Chloride	SOCl ₂	7719-09-7	<46%
Carbon	C _n	1333-86-4	<4%
Aluminum Chloride (Anhydrous)	AlCl ₃	7746-70-0	<5%

(Type E) Lithium Iron Disulfide		Li-FeS₂	
Common Chemical Name	Chemical Formula	CAS Number	Content - % Weight
Lithium	Li	7439-92-2	<7%
Carbon Black	C _n	1333-86-4	<2%
Graphite	C	7782-42-5	<4%
Iron Disulfide	FeS ₂	1309-36-0	<35%
1,2 Diemethoxyethane	C ₄ H ₁₀ O ₂	110-71-4	<4%
1,3 Dioxolane	C ₃ H ₈ O ₂	646-06-0	<9%

Lithium Metal Cell Model No.	Manufacturer and Mfg. I.D. Number :	Chemistry Type :	Lithium Content:	U.L. File Number :	Class 9 Air/Gnd
LTC-3PN	EA1 – Eagle-Picher	D	0.16g	MH28985	N
L91	EN1 – Energizer	E	0.98g	MH29980	N
ER3	MA1 – Maxell	D	0.30g	MH12568	N
ER6C	MA2 – Maxell	D	0.50g	MH12568	N
ER17/33	MA3 – Maxell	D	0.50g	MH12568	N
ER17/50	MA4 – Maxell	D	0.80g	MH12568	N
ER18/50	MA5 – Maxell	D	0.90g	MH12568	N
BR-2/3ASSP	PA1 - Panasonic	A	0.40g	MH98765	N
BR-2/3AG	PA2 – Panasonic	A	0.50g	MH98765	N
BR-A	PA3 – Panasonic	A	0.60g	MH98765	N
BR-C	PA4 - Panasonic	A	1.70g	MH98765	A
BR2330	PA5 - Panasonic	A	0.08g	MH98765	N
VL1220	PA6 – Panasonic	A	0.01g	MH98765	N
VL2020	PA7 – Panasonic	A	0.02g	MH98765	N
VL2330	PA8 – Panasonic	A	0.03g	MH98765	N
VL3032	PA9 – Panasonic	A	0.30g	MH98765	N
BR1225	PA10 – Panasonic	A	0.02g	MH98765	N
CR2032	PA11 – Panasonic	B	0.06g	MH98765	N
CR2025	RE1 - Renata	B	0.05g	MH14002	N
CR2430	RE2 – Renata	B	0.06g	MH14002	N
CR2477N	RE3 – Renata	B	0.20g	MH14002	N
CR2016	RE4 - Renata	B	0.03g	MH14002	N
G06	SF1 - Saft	C	0.37g	MH12802	N
G22	SF2 – Saft	C	5.31g	MH12802	A & G
G32	SF3 – Saft	C	0.26g	MH12802	N
G36	SF4 – Saft	C	0.53g	MH12802	N
LM22150	SF5 – Saft	B	0.35g	MH15076	N
LO26SHX	SF6 - Saft	C	2.30g	MH15076	A
LO26SX	SF7 – Saft	C	2.40g	MH15076	A
LO26SXC	SF8 - Saft	C	2.79g	MH15076	A
LO29	SF9 – Saft	C	1.20g	MH15076	A
LO34	SF10 – Saft	C	0.35g	MH15076	N
LO35	SF11 – Saft	C	0.80g	MH15076	N
LO43	SF12 – Saft	C	1.39g	MH15076	A
LS14250	SF13 – Saft	D	0.30g	MH12609	N
LS14500	SF14 – Saft	D	0.70g	MH12609	N
LS17500	SF15 – Saft	D	0.90g	MH12609	N
LS26500	SF16 – Saft	D	2.00g	MH12609	A
LS33600	SF17 – Saft	D	4.50g	MH12609	A
LS33600C	SF18 – Saft	D	4.90g	MH12609	A
LSH14	SF19 – Saft	D	1.70g	MH12609	A
LSH14L	SF20 – Saft	D	0.99g	MH12609	N
LSH20-150	SF21 – Saft	D	4.10g	MH12609	A
LSH20	SF22 – Saft	D	4.00g	MH12609	A
LST17330	SF23 – Saft	D	0.60g	MH12802	N
LST14250	SF24 - Saft	D	0.30g	MH12802	N
LST14500	SF25 - Saft	D	0.70g	MH12802	N
CR12600SE	SA1 - Sanyo/FDK	B	0.48g	MH12383	N
CR14250SE	SA2 - Sanyo/FDK	B	0.26g	MH12383	N
CR17335SE	SA3 - Sanyo/FDK	B	0.49g	MH12383	N
CR17450SE	SA4 - Sanyo/FDK	B	0.72g	MH12383	N
CR1/3N	SA5 - Sanyo/FDK	B	0.06g	MH12383	N
CR23500SE	SA6 - Sanyo/FDK	B	1.52g	MH12383	A
CR1632	SA7 - Sanyo/FDK	B	0.04g	MH12383	N
CR2430	SA7 - Sanyo/FDK	B	0.06g	MH12383	N
ML2016	SA8 - Sanyo/FDK	B	0.03g	MH12383	N
ML2430	SA9 - Sanyo/FDK	B	0.05g	MH12383	N
TL-5186	TA1 – Tadiran	D	0.13g	MH12103	N
TL-5920	TA2 – Tadiran	D	2.50g	MH12103	A
TL-5955	TA3 – Tadiran	D	0.50g	MH12103	N
CR1/2AA	VA1 - Varta	B	0.20g	MH28845	N
U10013	UL1 – Ultralife	B	3.33g	MH14240	A
U10014	UL2 – Ultralife	B	3.33g	MH14240	A
U10017	UL3 – Ultralife	B	1.44g	MH14240	A
U10018	UL4 – Ultralife	B	1.44g	MH14240	A

3. Hazard Identification (II)

Under normal condition of use a Lithium metal battery, which is sealed, presents no risk of exposure. Risk of exposure occurs only if the battery pack is physically abused.

Skin contact: No effect under routine handling and use.

Skin absorption: No effect under routine handling and use.

Eye contact: No effect under routine handling and use.

Inhalation: No effect under routine handling and use.

Ingestion: No effect under routine handling and use.

Perchlorate Material: - Special handling may apply in California for "D" type cells. See www.dtsc.ca.gov/hazardouswaste.

4. First Aid Measures (VI)

Inhalation: Not anticipated. If battery is leaking, contents may be irritating to respiratory passages. Remove to fresh air and seek medical attention if necessary.

Skin contact: Not anticipated. If battery is leaking, wash exposed skin with copious quantities of water for 15 minutes. If irritation or pain persists, seek medical attention.

Eye contact: Not anticipated. Do not rub one's eyes. Immediately flush eyes with copious amounts of water for at least 15 minutes. Seek medical attention immediately.

Ingestion: Not anticipated. Seek medical attention if necessary.

5. Fire Fighting Measures (IV)

Extinguishing media: Lithium metal batteries are in sealed steel cans and are only flammable if punctured or crushed. A Lith-X (Class D Extinguisher) is the most effective way to put out a lithium metal battery fire. However, copious amounts of cold water or water-based foam can be used to cool down burning Lithium metal batteries. Halon type extinguishers are not effective.

Firefighting equipment: For large-scale fires, use NIOSH/MSHA approved full-face self-contained breathing apparatus (SCBA) with full protective gear.

Hazardous combustion products: Fire or heat may produce hazardous decomposition products. Damaged batteries can result in rapid heating or the release of flammable vapors.

6. Accidental Release Measures

Place damaged batteries that have cooled into suitable container or sealed plastic bags.

7. Handling and Storage (VII)

Handling:

Do not crush, pierce or expose the battery to excessive physical shock or vibration. Do not short circuit the (+) and (-) terminals with conductive materials such as metal coins, jewelry, metal tables or other cells and batteries. Accidental short-circuiting for a few seconds may reduce the service life of the battery; and batteries with internal fuses will no longer be functional. Prolonged short circuits will cause the battery to rapidly lose energy, could generate enough heat to burn skin or explode. To minimize risk of short-circuiting, use the packaging with the battery or cover the terminals with tape when transporting or storing the battery. Do not disassemble the battery. Lithium metal batteries are not designed to be recharged.

Storage:

Store Lithium metal cells and batteries in a dry, well-ventilated place between temperatures of -20°C and +85°C and at a relative humidity of 45% to 85%. Storing at temperature above +70°C can result in reduced service life.

8. Exposure Controls and Personal Protection (VIII)

Respirator: Not required during normal operations. SCBA required in the event of a fire.

Eye/Face Protection: Not required beyond safety practices of employer.

Gloves: Not required for handling of battery.

Foot Protection: Steel toed shoes recommended for handling large pallets.

9. Physical and Chemical Properties (III)

This section is not applicable. Batteries are contained in sealed solid metal cases.

10. Stability and Reactivity (V)

Stability: Product is stable under the conditions described in Section 7.

Conditions to avoid: None during normal operation. Avoid exposure to heat above +85° C, open flame, crushing, piercing, deforming, mutilating, short circuit and exposure to long periods of high humidity.

11. Toxicological Information

This product does not emit toxicological properties during routine handling and use. If battery ruptures, overexposure to internal contents and corrosive fumes may irritate eyes, mucous membranes, skin and lungs. See Section 4.

12. Ecological Information

Lithium metal battery packs pose no risks to persons, plants or animals.

13. Disposal Considerations

The United States EPA has determined that lithium metal cells and batteries pose no threat to the environment and may be disposed of in a sanitary landfill. However, discharged lithium cells and batteries may still contain a significant amount of unused electrical energy and must be packed for disposal by electrically isolating in plastic bags or other type of insulation. Do not compact for disposal and do not dispose of in fire. Contact Fedco for instructions if disposing large numbers. Do not incinerate or subject battery cells to temperatures above +85°C.

14: Transportation Information:

Lithium metal batteries are classified in the International Air Transportation Association (IATA) 52nd Edition of the Dangerous Goods Regulations as UN3090. Lithium metal batteries shipped with equipment or contained in equipment are classified as UN3091. The lithium metal batteries described in this MSDS are of a type proven to meet the requirements of the tests in the UN Manual of Tests and Criteria, Part III, sub-section 38.3. (Rev 5.), Tests T1 – T6 & T8 and may be shipped aboard cargo aircraft and meet the requirements as stated in the International Air Transportation Association (IATA) 51st Edition of the Dangerous Goods Regulations, Packing Instructions 968, including packaging, special marking and personnel training requirements⁽¹⁾. Small cells and batteries may be shipped by ground as provided under Section II of the Packing Instructions and Special Provision 188⁽²⁾ described in the United States Code of Federal Regulations, 49CFR Part 172(c)(1). Medium cells and batteries, in the United States, may be shipped by ground as provided under Special Provision 189⁽²⁾. The chart below describes the weight limitations, regulations, documentation and markings for shipping this battery.

Lithium Metal batteries: UN3090

Chemistry Type UN Designation & Packing Instructions	Size and Content ⁽⁴⁾		Passenger Air		Cargo Air		Ground	
	Size	Lithium or Wh Content	Regulation & Gross Weight	Carton Markings	Regulation & Gross Weight	Carton Markings	Regulation & Gross Weight	Carton Markings
Lithium Metal - Batteries UN3090 Packing Instructions 968	"Small"	≤ 2g	Forbidden	N/A	Un-Reg - 2.5Kg 2.5kg (5.5lb)	Document 7.4.1	Un- Regulated 30kg (66lb)	Document
	"Medium"	> 2g & ≤ 25g	Forbidden	N/A	CLASS 9 35kg (77lb)	CLASS 9 LABEL KIT	Un- Regulated 30kg (66lb)	Document SP189
	"Large"	> 25g	Forbidden	N/A	CLASS 9 35kg (77lb)	CLASS 9 LABEL KIT	CLASS 9 35kg (77lb)	CLASS 9 LABEL KIT

Note:

1. The Packing Instructions are described in detail in the 52nd Edition of the IATA Dangerous Goods Regulations.
2. The Special Provisions are described in the United States Code of Federal Regulations, 49CFR Part 172(c)(1).

Markings:

- **CLASS 9 KIT:** Kit includes the Black & White Class 9 "Diamond" label; the Orange "Cargo Aircraft Only" label and a marking that the package contains are "UN3090 Lithium Metal Batteries".
- **DOCUMENT:** This is av statement that that the contents contain batteries that are proven to meet the test requirements, that they are packaged in accordance with the Packing Instructions, that the a flammability hazard may exist if the package is damaged, that if damaged it must by put quarantined and an emergency phone number.
- **7.4.1:** 120mm x 110mm Lithium or Lithium-ion Red bordered CAUTION label complaint to IATA DGR 7.4.1.
- **SP189:** "Lithium Batteries Forbidden for Transport aboard Aircraft and Vessel" label for ground shipments only.

Batteries shipped with equipment or contained in equipment are regulated under IATA Special Provisions 969 and 970 respectively.

15. Regulatory Information

Non-hazardous and containing no Cd, Hg or Pb.

OSHA Hazard communication standard 29 CFR 1910.1200 (g)

16. Other Information.

The information contained in this Safety data sheet is based on the present state of knowledge and current legislation. This safety data sheet provides guidance on health, safety, environmental and transportation aspects of the product and should not be construed as any guarantee or warranty, either expressed or implied, of technical performance or suitability for particular applications.

The format of this Material Safety Data Sheet (MSDS) is in compliance with the American National Standard Institute (ANSI) standard Z400.1-1993, which is intended to help develop consistent, understandable MSDSs that will provide useful information to a cross-section of educational levels, from the average person to the chemist. The roman numerals after the section titles refer to the sections in the U.S. Department of Labor Occupational Safety and Health MSDS for OMB No. 1218-0072. For more information about ANSI, or to obtain a copy of this standard, please contact:

American National Standards Institute
11 West 42nd Street
New York, NY 10036

Fedco Electronics, Inc. - MSDS ENERGY+® Lithium Metal Batteries

APPENDIX "A"

Item No.	Description	Mfr's I.D. No.	Configuration ⁽¹⁾	Grams ⁽²⁾	Class g ⁽³⁾
1/LS14500-M5	3.6V 2.45 AH LITHIUM 1-CELL BATTERY	SF14	1S1P	0.70g	N
1/LS14500XRC	3.6V 2.45AH LITHIUM 1-CELL BATTERY	SF14	1S1P	0.70g	N
10/LO26SHX	29.0V 7.5AHR LITH. BATTERY W/LEADS	SF6	10S1P	24.00g	A
173028-01	15.0V 2.0AHR SO2 LITH BATTERY PACK	SF11	3S1P	2.40g	A
173349-01	3.67V 2.7AHR LITHIUM BATTERY W/CONN	SF14	1S1P	0.70g	N
2/G20	6.0V 7.75AH LITHIUM W/ 3A FUSE	SF7	2S1P	4.80g	Y
2/LO26SHX	5.8V 7.5AHR LITHIUM BATTERY W/LEADS	SF6	2S1P	4.80g	A
2/LS14500-1	3.6V 4.9AH LITHIUM 2-CELL BATTERY	SF14	1S2P	1.40g	N
2/LS14500-4	3.6V 4.9AH LITHIUM 2-CELL BATTERY	SF14	1S2P	1.40g	N
2CR12600SEAT	SANYO 6.0V 1.4AHR LITH BATT	SA1	2S1P	0.96g	N
2LS17500-TOY	DUAL 3.6V 3.3AH LITHIUM ASSEMBLY	SF15	(2) 1S1P	1.80g	N
3/BR-2/3A-WC	9.0V 1.2AHR LITHIUM COOPER RECLOSER	PA1	3S1P	1.20g	N
3/LS14500-1	3.6V 7.35AH LITHIUM 3-CELL BATTERY	SF14	1S3P	2.10g	A
3/LS14500-4	3.6V 7.35AH LITHIUM 3-CELL BATTERY	SF14	1S3P	2.10g	A
3/T20/4WR	10.8V 16.5AH LITHIUM ASSEMBLY	SF17	3S1P	13.50g	A
4/CR17450-A	4 X CR17450E-R 3.0V 2.4AH LITH.W/CONN.	SA4	(4) 1S2P	4 x 0.82g	N
4/LS14500	(4) 3.6V 2450MAH LITH BATTs W/CONN	SF14	(4) 1S1P	2.80g	A
479348-1	3.6V 2.45AH LITH BATT W/5-PIN CONN.	SF14	1S1P	0.70g	N
479348-2	3.6V 2.45AH LITHIUM BATTERY W/LEADS	SF14	1S1P	0.70g	N
64468-001	MAXELL 3.6V 2750MAH LITH "A" W/CONN	MA4	1S1P	0.80g	N
B-119106	7.2V 2.25AHR LITHIUM BATTERY W/CON	SF14	2S1P	1.40g	N
B9500T	ENERGY+ 3.6V 16.5AH LITHIUM	SF17	1S1P	4.50g	A
B9503UR	ENERGY+ 3.0V 1.2AH LITHIUM BATTERY	PA1	1S1P	0.40g	N
B9508	ENERGY+ 3.0V 1.2AH LITHIUM BATT.	PA1	1S1P	0.40g	N
B9516T	ENERGY+ 3.6V 2.25AH LITH BATT	SF14	1S1P	0.70g	N
B9531	ENERGY+ 5.8V 900MAHR LITHIUM	SF5	2S1P	0.35g	N
B9550T	ENERGY+ 2 X 3.6V 2.2AH LITHIUM	SF14	(2) 1S1P	1.40g	N
B9572	ENERGY+ 7.2V 2.25AH LITHIUM	SF14	1S1P	0.70g	N
B9574TM	ENERGY+ 3.6V 0.79AH LITHIUM BATTERY	SF13	1S1P	0.30g	N
B9591T	ETERNACELL 7.2V 2.25AH LITH BATTERY	SF14	2S1P	1.40g	N
B9591TA	ENERGY+ 7.2V 2.25AH LITHIUM BATT	SF14	2S1P	1.40g	N
B9591T-BP	ETERNACELL 7.2V 2.25AH LITH BATTERY	SF14	2S1P	1.40g	N
B9592T	ENERGY+ 3.6V 2.25AH LITHIUM BATTERY	SF14	1S1P	0.70g	N
B9593B	ENERGY+ 3.6V 2.45AH LITHIUM BATTERY	SF14	1S1P	0.70g	N
B9593D	ENERGY+ 3.6V 2.45AH LITHIUM BATTERY	SF14	1S1P	0.70g	N
B9593T	ENERGY+ 3.6V 2.45AH LITHIUM BATTERY	SF14	1S1P	0.70g	N
B9593T-BP	ENERGY+ 3.6V 2.25AH LITHIUM BATTERY	SF14	1S1P	0.70g	N
B9593TC	ENERGY+ 3.6V 2.25AH LITHIUM BATTERY	SF14	1S1P	0.70g	N
B9593ZC1	ENERGY+ 3.6V 2.25AH LITHIUM BATTERY	SF14	1S1P	0.70g	N
B9625T	ENERGY+ 3.0V 1.2AH LITHIUM BATTERY	PA1	1S1P	0.40g	N
B9627	ENERGY + 3.0 VOLT 3.75 AH LITHIUM	SF8	1S1P	1.20g	N
B9629T	ENERGY+ 3.6V 2.25AH LITHIUM BATTERY	SF14	1S1P	0.70g	N
B9630T	ETERNACELL 6.0V 1.8AH LITHIUM BATT	SA3	2S1P	1.80g	N
B9631T	ENERGY+ 3.0V 1.2AH LITHIUM BATTERY	PA1	1S1P	0.40g	N
B9632T	ENERGY+ 3.6V 2.25AH LITH BAT W/LEAD	SF14	1S1P	0.70g	N
B9633T	ENERGY+ 3.6V 2.25AH LITHIUM BATTERY	SF14	1S1P	0.70g	N
B9639T	ENERGY+ 3.6V 1.0AH LITHIUM BATTERY	SF13	1S1P	0.30g	N
B9650B	ENERGY+ 3.6V 1.0AH LITHIUM BATTERY	SF13	1S1P	0.30g	N
B9650NEC	ENERGY+ 3.6V 1.0AH LITHIUM BATTERY	SF13	1S1P	0.30g	N
B9650T	ENERGY+ 3.0V 1.0AH LITHIUM BATTERY	SF13	1S1P	0.30g	N
B9650TI	ENERGY+ 3.6V 1.0AH LITHIUM BATTERY	SF13	1S1P	0.30g	N

B9651T	ENERGY+ 3.0V 2.1AH LITHIUM BATTERY	SF23	1S1P	0.60g	N
B9655T	ENERGY+ 3.6V 2.25AH LITHIUM BATTERY	SF14	1S1P	0.70g	N
B9663T	ENERGY+ 6.0V 1.8AH LITHIUM BATTERY	SA3	2S1P	0.49g	N
B9670AB	3.0V 1.8AH LITH FOR ALLEN BRADLEY	SA3	1S1P	0.49g	N
B9670B	ENERGY+ 3.6V 2.1AH LITHIUM BATTERY	SF23	1S1P	0.60g	N
B9670BSM	ENERGY+ 3.0V 1.7AH LITHIUM BATTERY	SA3	1S1P	0.49g	N
B9670E	ENERGY+ 3.6V 2.1AH LITHIUM BATTERY	SF23	1S1P	0.60g	N
B9670FS5	ENERGY+ 3.6V 2.1AH GE FANUC LITHIUM	SF23	1S1P	0.60g	N
B9670MC	ENERGY+ 3.6V 2.1AH LITHIUM BATTERY	SF23	1S1P	0.60g	N
B9670T	ENERGY+ 3.6V 2.1AH LITHIUM BATTERY	SF23	1S1P	0.60g	N
B9670TGC	ENERGY+ 3.6V 2.1AH LITHIUM BATTERY	SF23	1S1P	0.60g	N
B9670TSX	ENERGY+ 3.6V 1.7AH ZENITH LITHIUM	SF23	1S1P	0.60g	N
B9696T	ENERGY+ 3.6V 1.0AH LITHIUM BATTERY	SF13	1S1P	0.30g	N
B9708T	ENERGY+ 3.6V 2.25AH LITHIUM BATTERY	SF14	1S1P	0.70g	N
B9712T	ENERGY+ 3.0V 1.2AH LITHIUM BATTERY	PA1	1S1P	0.40g	N
B9758CH	ENERGY+ 3.6V 2.25AH LITHIUM BATTERY	SF14	1S1P	0.70g	N
B9781T	ENERGY+ 3.0V 1.8AH LITHIUM BATTERY	SA3	1S1P	0.49g	N
B9811T	ENERGY+ 3.0V 1.5AH LITHIUM BATTERY	SF23	1S1P	0.60g	N
B9817T	ENERGY+ 3.6V 2.1AH 2/3 "A" LITHIUM	SF23	1S1P	0.60g	N
B9869T	ENERGY+ 3.6V 6.6AH LITHIUM BATT.	SF15	1S2P	1.80g	N
B9870T	ENERGY+ 3.6V 3.3AH LITHIUM BATT.	SF15	1S1P	0.90g	N
BATL-1	3.6V 17.0AHR LITH W/3" WIRE & CONN	SF17	1S1P	5.70g	A
BATL-3GE	3.6V 25.5AHR LITH BATTERY PACK	TA2	1S3P	7.50g	A
BATPKHPSLI	4.5V 2.9AHR MEMOLUB LITHIUM PACK	EN1	(3) 1S1P	2.94g	A
BATPKORIGLI	4.5V 2.9AHR MEMOLUBE LITHIUM PACK	EN1	3S1P	2.94g	A
BR1632-CA	3 VOLT LITHIUM CMOS/CLOCK BATTERY	SA7	1S1P	0.04g	N
BR1632-WC	3 VOLT LITHIUM CMOS/CLOCK BATTERY	SA7	1S1P	0.04g	N
BR-2/3A4F	6.0V 2.9AHR LITH CONTROLLER BATTERY	PA2	2S2P	2.00g	N
BR2/3A-AB	3V 1.2AH LITH CONTROLLOGIX SERIES B	PA1	1S1P	0.40g	N
BR-2/3AGCT4A	6.0V 2.9AHR LITH CONTROLLER BATTERY	PA2	2S2P	2.00g	N
BR-2/3ASM	3.0V 1.2AHR LITHIUM 2/3A W/ TABS	PA1	1S1P	0.40g	N
BR-2/3ASNC	3.0V 1.2AHR LITHIUM 2/3A W/ CONN.	PA1	1S1P	0.40g	N
BR2020-WR	3V 100MAH LITH W/LEAD & CONN	RE4	1S1P	0.03g	N
BR-ACF2P	6.0V 1.8AHR LITH CH CONTROLLER	PA3	2S1P	1.20g	N
BR-AFRW	3.0V 1.8AHR LITHIUM FANUC ROBOT BAT	PA3	1S1P	0.60g	N
BR-AGCF2W	6.0V 1.8AHR LITH W/LOCKING CONN.	PA2	2S1P	1.00g	N
BR-CCF1TH	3.0V 5.0AH GE FANUC/CH LITH BATTERY	PA4	1S1P	1.70g	A
BR-CCF2TH	6.0V 5.0AHR CH LITHIUM CONTROLLER	PA4	2S1P	3.40g	A
BR-CCH8B	6.0V 20.0AHR LITHIUM BATT W/CONNECT	PA4	2S4P	3.40g	A
CL2020-PS1	3V 20MAH RECHARGEABLE LITH BATT	PA7	1S1P	0.02g	N
CR1/2AA-WSC	3.0V 950MAH LITHIUM BATTERY	VA1	1S1P	0.20g	N
CR1/3N-2WR	3.0V 320MAH NEC LITH BATTERY	SA5	S12P	0.12g	N
CR1/3N-P1	3V 160MAH LITH W/PC LEADS	SA5	1S1P	0.06g	N
CR1/3N-PC3	3V 160MAH LITH W/ 3 PC LEADS	SA5	1S1P	0.06g	N
CR1/3N-WR	3.0V 160MAH - AT&T / NEC LITH BATT	SA5	1S1P	0.06g	N
CR12600SE-10	SANYO 3V 1.4AH LITH W/10MM (+) PIN	SA1	1S1P	0.48g	N
CR12600SE-GE	SANYO 3V 1.5AH LITH BATTERY ASSY	SA1	1S1P	0.48g	N
CR12600SE-WL	3.0V 1.4AHR LITHIUM W/WIRE LEADS	SA1	1S1P	0.48g	N
CR12600SE-WR	SANYO 3.0V 1.5AHR LITH BATTERY	SA1	1S1P	0.48g	N
CR12600SE-WS	SANYO 3V 1.5AH LITH BATTERY	SA1	1S1P	0.48g	N
CR14250SE-IC	3.0V 950MAHR LITH BAT W/CONNECTOR	SA4	1S1P	0.72g	N
CR17335SE-FA	3.0V 1.8AH LITHIUM BATTERY W/CONN.	SA3	1S1P	0.46g	N
CR17335SE-MC	3.0V 1.8AHR LITHIUM BATT W/CONN	SA3	1S1P	0.49g	N
CR17335SE-WR	3.0V 1.8AHR LITHIUM BATT W/CONN	SA3	1S1P	0.49g	N
CR17450-2MR	3.0V 4.8AHR LITHIUM W/CONNECTOR	SA4	1S2P	1.54g	N

CR17450E-RL	3.0V 2.2AH LITHIUM W/LEAD & CONN.	SA4	1S1P	0.72g	N
CR2016-BP	3.0V 75MAH LITH COIN BLISTER CARD	RE4	1S1P	0.03g	N
CR2016-WR	3.0V 75MAH COMPAQ ARMADA M700 LITH	RE4	1S1P	0.03g	N
CR2025-WR	3.0V 148MAH THINKPAD 600 RTC LITH	RE1	1S1P	0.05g	N
CR2032-BP	3.0V 220MAH LITH COIN BLISTER PACK	PA11	1S1P	0.06g	N
CR2032-INTEL	3V 225MAH W/LEADS & CONN. LITHIUM	PA11	1S1P	0.06g	N
CR2032-N51S	3V 180MAH W/LEADS & CONN LITH	PA11	1S1P	0.06g	N
CR2032-TP700	3V 180MAH W/LEADS & CONN. LITH	PA11	1S1P	0.06g	N
CR2032-V30	3.0V 225MAH LITH COIN CELL HP CMOS	PA11	1S1P	0.06g	N
CR2032-WR	3V 225MAH W/LEADS & CONN. LITHIUM	PA11	1S1P	0.06g	N
CR2330-TPXD	3.0V 260MAH THINKPAD LITH BATTERY	PA5	1S1P	0.08g	N
CR2430-WR	3.0V 280MAH - LITH W/LEAD & CONN	RE2	1S1P	0.09g	N
CR2450-WW	3.0V 540MAH LITHIUM COIN W/LEADS	RE2	1S1P	0.09g	N
CR2477N-WR	3V 950MAH LITH W/LEADS & CONNECTOR	RE3	1S1P	0.20g	N
CR2477-T5	3.0V 950MAH LITHIUM CELL W/TABS	RE3	1S1P	0.20g	N
ER17/50-BM	MAXELL 3.6V 2750MAH LITH "A" W/CONN	MA4	1S1P	0.80g	N
ER6C-EMON	3.6V 1900MA AA LITHIUM EMON	MA2	1S1P	0.60g	N
ER6CT-2WK	MAXELL 3.6V 3.8AHR LITH ASSEMBLY	MA2	1S2P	1.00g	N
ER6CTAN	MAXELL 3.6V 1900MA AA W/CONN LITH	MA2	1S1P	0.50g	N
ER6C-TOY	ENERGY+ 3.6V 1900MA AA W/3PC LITH	MA2	1S1P	0.50g	N
ER6CWK12	MAXELL 3.6V 1900MAH AA W/CONN LITH.	MA2	1S2P	0.50g	N
G06/2.2	SAFT 2.9V 950MAH "AA" SO2 LITHIUM	SF1	1S1P	0.37g	N
G22-WL	SAFT 2.9V 16.5AH DD LITH W/WL & RES	SF2	1S1P	15.93g	A
G32/3.1	SAFT 3.0V 800MAH "2/3A" LITHIUM	SF3	1S1P	0.26g	N
K21141G3.6V	3.6V 1.90AHR "AA" LITH W/ CONN.	SF3	1S1P	0.52g	N
LO26SX-16GE	11.8 VOLTS 30 AHR LITHIUM BATTERY	SF7	4S4P	38.40g	A-G
LO26SX-4NAT	12.0V 7.75AHR LITH BATTERY W/ CONN.	SF7	4S1P	9.60g	A
LO26SX-20CN	60.0V 7.6AH LITHIUM ASSY W/CONN	SF7	20S1P	48.00G	A-G
LO26SXC-10GE	14.5V 18.4AH LITHIUM BATTERY PACK	SF8	5S2P	27.90g	A-G
LO26SXC-10PY	30.0V 9.2AHR LITHIUM BATTERY W/CONN	SF8	10S1P	27.90g	A-G
LO43SHX-4AT1	11.6V 5.0AH LITHIM ASSY W/CONN'S	SF12	4S1P	5.56g	A
LO43SHX-4AT2	11.6V 5.0AH LITHIUM ASSY W/CONN'S	SF12	4S1P	5.56g	A
LO43SHX-4SAI	11.6V 5.0AH LITHIUM ASSY W/CONN'S	SF12	4S1P	5.56g	A
LO43SHX-BA	2.9V 5/4C 5.0AH LITH W/BUTTON	SF12	1S1P	1.39g	A
LS14250-3PF	SAFT 3.6V 1.1AH "1/2AA" LITHIUM	SF13	1S1P	0.30g	N
LS14250-BP	ENERGY+ 3.6V 1.1AH "1/2AA" LITHIUM	SF13	1S1P	0.30g	N
LS14250-MR	3.6V 1.1AH LITH MITSUBISHI ROBOT	SF13	1S1P	0.30g	N
LS14250-RR	3.6V 1.1AH LITH REXROTH BATTERY	SF13	1S1P	0.30g	N
LS14250-SL	ENERGY+ 3.6V 1.0AH LITHIUM BATTERY	SF13	1S1P	0.30g	N
LS14250-TOY	3.6V 1.0AH LITHIUM BATTERY W/LEADS	SF13	1S1P	0.30g	N
LS14250-YAE	3.6V 1.1AH LITH W/ LEAD & CONN.	SF13	1S1P	0.30g	N
LS14250-YMP	3.6V 1200MAH LITH W/ LEAD & CONN	SF13	1S1P	0.30g	N
LS14500-2AM	2 X 3.6V 2250MAH LITHIUM BAT W/CONN	SF14	(2) 1S1P	0.70g	N
LS14500-BP	3.6V 2.45AH "AA" LITH BUTTON TOP	SF14	1S1P	0.70g	N
LS14500-K	3.6V 2250MAH LITHIUM W/CONNECTOR	SF14	1S1P	0.70g	N
LS14500-LL	3.6V 2600MAH LITH BATT W/CONN	SF14	1S1P	0.70g	N
LS14500-MDS	3.6V 2450MAH LITH BAT W/CONNECTOR	SF14	1S1P	0.70g	N
LS14500-MER	3.6V 2.35AHR "AA" LITH W/ CONN.	SF14	1S1P	0.70g	N
LS14500-MF	3.6V 2.25AH LITH - MITSUBISHI FX	SF14	1S1P	0.70g	N
LS14500-MR	3.6V 2.45AHR LITHIUM MOTOMAN BATT	SF14	1S1P	0.70g	N
LS14500-MZ	3.6V 2.45AHR LITHIUM MAZAK	SF14	1S1P	0.70g	N
LS14500-NR	3.6V 2.45AHR LITHIUM NACHI ROBOT	SF14	1S1P	0.70g	N
LS14500-PR	3.6V 2.45AHR LITHIUM PANASONIC PLC	SF14	1S1P	0.70g	N
LS14500-RR	3.6V 2.45AHR LITHIUM REXROTH PLC	SF14	1S1P	0.70g	N
LS14500-SP	3.6V 2.25AHR LITHIUM CELL W/PADS	SF14	1S1P	0.70g	N

LS14500-YA	3.6V 1200MAH LITH W/ LEAD & CONN	SF14	1S1P	0.70g	N
LS17500-DSR	3.6V 3.4AH LITHIUM W/LEAD & CONN	SF15	1S1P	0.90g	N
LS17500-DST	3.6V 3.4AHR LITHIUM W/LEAD & CONN	SF15	1S1P	0.90g	N
LS17500-ST5	SAFT 3.6V 3.6AH "A" LITH W/TABS	SF14	1S1P	0.70g	N
LS26500-2B	7.2V 7.7AHR BADGER METER LITH ASSY.	SF16	2S1P	4.00g	A
LS33600-1A	3.6V 17.0AH LITH "D" W/CONNECTOR	SF17	1S1P	4.50g	A
LS33600-1B	3.6V 17.0AH LITH "D" BADGER METER	SF17	1S1P	4.50g	A
LS33600-2AB	SAFT 3.6V 17.0AH (DUAL) AB LITHIUM	SF17	(2) 1S1P	9.00g	A
LS33600-2AS	7.2V 17.0AHR LITHIUM BATT. W/LEADS	SF17	2S1P	9.00g	A
LS-CCF1TH	3.6V 7.7AH (BR-CCF1TH) LITHIUM	SF16	1S1P	2.00g	A
LSH14-WW	SAFT 3.6V 5.5AHR LITH "C" W/ LEADS	SF19	1S1P	1.70g	A
LSH20-3WD	10.8V 13.0AHR LITHIUM BATTERY	SF22	3S1P	12.00G	A
LSH20-AC	3.6V 13.0AH THIONYL LITH WWIRES	SF22	1S1P	4.00G	A
LSH20-WC	3.6V 13.0AH THIONYL LITH D ASSEMBLY	SF22	1S1P	4.00g	A
LTC-3PN-S2WC	3.5V 350MAH - LITHIUM BAT. W/PINS	EA1	1S1P	0.16g	N
ML2430-2-HI1	DUAL 3V 90MAH RECH LITH W/3-PINS	SA9	(2) 1S1P	0.05g	N
ML2430-HHP	3.0V 90MAMH INTERMEC 5020 LITH CMOS	SA9	1S1P	0.05g	N
ML2430-WR	3V 90MAH TOSHIBA T4500 LITH BATT.	SA9	1S1P	0.05g	N
SB9758T	ENERGY+ 3.0V 1.8AH LITHIUM BATTERY	PA3	1S1P	0.60g	N
SER6CT-2WK	MAXELL-3.6V 3.8AHR LITH ASSEMBLY	MA2	1S2P	1.00g	N
T06/52LX	ENERGY+ 3.6V 2.25AH LITHIUM BATTERY	SF14	1S1P	0.70g	N
T32/53	SAFT 3.6V 1.7AH 2/3A LITHIUM CELL	SF23	1S1P	0.60g	N
T32/57	ENERGY+ 3.6V 2.1AHR "2/3A" LITHIUM	SF23	1S1P	0.60g	N
TL-5186WR	3.6V 370MAHR SAMSUNG CMOS LITH	TA1	1S1P	0.13g	N
TL5955-SS5	ENERGY+ 3.6V 1.65AH LITH BAT W/CONN	TA3	1S1P	0.50g	N
U10019	ULTRALIFE 3.0V 4.8AHR LITH W/TABS	UL4	1S1P	1.44g	N
VL1220-1TM4	3.0V 7MAH TRAVELMATE 4000 LITH CMOS	PA6	1S1P	0.01g	N
VL2020-WR	3V 20MAH LITH. W/LEADS & CONN	PA7	1S1P	0.02g	N
VL2330-4AG3	6.0V 100MAH APPLE G3 LITH BATTERY	PA8	1S1P	0.03g	N
VL2330-WR	3.0V 50MAH IBM THINKPAD 755C LITH.	PA8	1S1P	0.03g	N
VL3032-WR	3V 100MAH EPSON EHT-30 CMOS LITHIUM	PA9	1S1P	0.30g	N

- Notes :**
- (1) Configuration: 1S2P = 1 cell in series and 2 cells in parallel
 - (2) Grams: Content of lithium metal in grams
 - (3) Class 9: N= Not applicable, A=Air & Vessel only, A & G = All modes including Ground