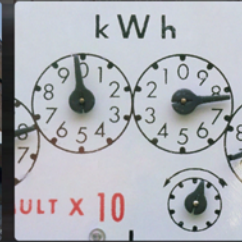




ULTRALIFE®
BATTERIES



- Pin: 1: Positive (+)
- Pin: 2: Data
- Pin: 3: Clock
- Pin: 4: Ground (-)
- Pin: 5: Charge



PRODUCT SUMMARY

GUIDE

We. Are. Power.®



Ultralife Batteries
2000 Technology Parkway
Newark, NY 14513
Toll Free: 800-332-5000 (US & Canada)
Tel: 315-332-7100

For more information about Ultralife and complete product technical datasheets, visit us at www.ultralifebatteries.com
For more information on transportation regulations, refer to the [Lithium Battery Transportation Regulations](#) on the Ultralife website.

Ultralife Thin Cell, Ultralife HiRate and We. Are. Power. are registered trademarks of Ultralife Corporation
The information contained herein is for reference only and does not constitute a warranty of performance.



Lithium-Manganese Dioxide

9 Volt

- Consumer replaceable
- High energy density
- Flat discharge profile
- 10-year shelf life for aluminum-jacketed U9VL-J
- Patented safety mechanism
- Lasts up to 5 times longer than alkaline
- Lasts up to 10 times longer than carbon-zinc
- Wide operating temperature range
- UL-recognized
- Environmentally friendly

Ultralife Part No.	NSN	Dimensions (mm) Thickness x Width x Length	Average Voltage (V)	Nominal Capacity (Ah) See Note 1	Maximum Discharge (mA-continuous)	Weight (g)	Pulse Capability (mA) See Note 2	Exterior/Housing See Note 3
U9VL-J		17.5 x 26.5 x 49.2	9.0	1.2	120	36.4	Up to 400	Aluminum, Mylar Label
U9VL	6135-01-369-9792	16.9 x 26.0 x 48.8	9.0	1.2	120	33.8	Up to 400	Plastic, Foil Label
U9VL-BP		17.5 x 26.5 x 49.2	9.0	1.2	120	36.4	Up to 400	Aluminum, Mylar Label
U9VL-X		17.5 x 26.5 x 49.2	9.0	1.2	120	36.4	Up to 400	Aluminum, Mylar Label

- Operating Temperature: -20° C to 60° C
- Storage Temperature: -40° C to 60° C
- Terminals: Ni-plated Miniature Snap

Note (1): Nominal capacity @ 9 mA to 5.4 V @23° C

Note (2): Varies according to pulse characteristics, temperature, cell history and the application. Contact Ultralife.

Note (3): U9VL sold as U9VL-FP (Foil Pack) only. U9VL-J available in blister cards (U9VL-BP and U9VL-X). Other packaging options available. Contact Ultralife.

For complete Technical Datasheets go to: www.ultralifebatteries.com



Thin Cells

- Wafer-thin
- Long life
- Wide operating temperature range

- High-energy density
- Light Weight

Ultralife Part No.	Dimensions (mm) Thickness x Width x Length	Average Voltage (V)	Nominal Capacity See Note 1	Maximum Discharge (mA-continuous)	Weight (g)	Pulse Capability (mA) See Note 2	Exterior/Housing
U10004	5.00 x 44.45 x 54.61	3.0	1.5 Ah	250	15.0	Up to 500	Laminated Foil
U10007	2.16 x 32.16 x 40.36	3.0	400 mAh	25	3.5	Up to 130	Laminated Foil

• Operating Temperature: 0° C to 71° C

• Storage Temperature: -40° C to 71° C

• Terminals: Nickel Tabs

Note (1): U10004 nominal capacity @ 10 mA to 1.5 V @ 23° C. U10007 nominal capacity @ 6 mA to 1.5 V @ 23° C.

Note (2): Varies according to pulse characteristics, temperature, cell history and the application. Contact Ultralife.

For complete Technical Datasheets go to: www.ultralifebatteries.com



HiRate® Cylindrical

- Ultra-high rates of discharge in extreme temperatures
- Environmentally friendly
- 10-year shelf life
- Safer than comparable hi-rate systems
- No voltage delay even after long periods of storage

Ultralife Product No.	Ultralife Part. No	NSN	Dimensions (mm)	Size	Nominal Capacity (Ah) See Note 1	Maximum Discharge (A-continuous)	Pulse Capability (A) See Note 2	Weight (g)	PTC (resettable fuse)	Exterior/Housing
D Size	U10013, U10014	6135-01-554-3803 (U10014 only)	34.0 x 60.5	D	11.1	3.3	Up to 7.0	115	U10014 - yes	Hermetic Ni-plated steel can w/ Mylar sleeve
	U10015, U10016		34.0 x 60.7	D	11.1	3.3	Up to 7.0	115	U10016 - yes	Hermetic Ni-plated steel can w/ Mylar sleeve
5/4 C Size	U10021, U10023		25.8 x 60.5	5/4 C	6.1	2.5	Up to 5.3	71	no	Hermetic Ni-plated steel can. End caps, tabs & insulated sleeve.
	U10022, U10024		25.8 x 62.2	5/4 C	6.1	2.5	Up to 5.3	71	yes	Hermetic Ni-plated steel can. End caps, tabs & insulated sleeve.
C Size	U10017, U10019		25.8 x 50.0	C	4.8	2.0	Up to 4.2	61	yes	Hermetic Ni-plated steel can. End caps, tabs & insulated sleeve.
	U10018, U10020		25.8 x 52.2	C	4.8	2.0	Up to 4.2	61	no	Hermetic Ni-plated steel can. End caps, tabs & insulated sleeve.
U10025 MIDS	U10025	6135-01-545-6582	26.0 x 52.7	C	4.8	2.0	Up to 2.6	61	no	Hermetic Ni-plated steel can. End caps, tabs & insulated sleeve.
U2550HCE-CF-UFA	U2550H		25.9 x 50.3	C	4.3	1.2	Up to 2.6	60	no	Stainless steel w/ laser welded hermetic seal & Mylar sleeve, polyester label
U1965	U10009, U10010		19.2 x 68.5	-	3.2	1.5	Up to 2.0	42	U10009 - yes	Hermetic Ni-plated steel can w/ Mylar sleeve
	U10011, U10012		19.2 x 68.5	-	3.2	1.5	Up to 2.0	42	U10011 - yes	Hermetic Ni-plated steel can w/ Mylar sleeve

- Operating Temperature: -40° C to 72° C
- Average Voltage: 3.0 V
- Storage Temperature: -40° C to 95° C
- Terminals: See Note 3

Note (1): • D Cells nominal capacity @ 250 mA to 2.0 V @ 23° C • C cells nominal capacity @ 150 mA to 2.0 V @ 23° C • U2550HCE-CF-UFA nominal capacity @ 100 mA to 2.0 V @ 23° C
 • 5/4 C cells nominal capacity @ 150 mA to 2.0 V @ 23° C • U1965 nominal capacity @ 100 mA to 2.0 V @ 23° C

Note (2): Varies according to pulse characteristics, temperature, cell history and the application. Contact Ultralife.

Note (3): U10010, U10011, U10013, U10014, U10017, U10018, U10021, U10022: Flat Ni-plated +/- End Caps
 U10009, U10012, U10015, U10016, U10019, U10020, U10023, U10024: Flat Ni-plated +/- End Caps with Nickel Tabs
 U2550HCE-CF-UFA: Stainless Steel

For complete Technical Datasheets go to: www.ultralifebatteries.com



Li-ION Rechargeable

- Lightweight
- High energy chemistry
- No memory effect

- State-of-the-art technology
- Wide operating temperature range

Ultralife Product No.	Ultralife Part. No	NSN	Dimensions (mm) Thickness x Width x Length	Average Voltage (V)	Nominal Capacity (@ C/5 Rate)	Energy (Wh)	Energy Density (Wh/kg)	Weight (g)
UBI-2590	UBBL02	6140-01-553-3527	62.2 x 111.8 x 127.0	14.4 or 28.8	6.0 or 12.0 Ah	173	120	1440
UBBL04 (See Note 1)	UBBL04		38.1 x 64.8 x 95.3	7.2	7.0 Ah	47	134	370
UBBL07	UBBL07		20.0 x 60.0 x 70.0	3.7	6.1 Ah	22.6	141	160
UBBP01 (See Note 1)	UBBP01		5.8 x 51.5 x 71	3.7	1.8 Ah	6.8	148	46
UBP103450/PCM	UBP001		11 x 36 x 54	3.7	1.7 Ah	6.5	176	41
UBP053450/PCM	UBP002		6.2 x 36 x 54	3.7	900 mAh	3.4	170	24
UBP053048/PCM	UBP005		5.8 x 31 x 52	3.7	740 mAh	2.8	165	17

- Operating Temperature: -20° C to 60° C
- Storage Temperature: -20° C to 60° C
- Memory Effect: None
- Housing: Aluminum Can (Only UBBP01, UBPPXX)

- Cycle Life: 500 cycles @ C/5 to 80% initial capacity
- Self Discharge: <10% per month
- Maximum Discharge: See individual datasheets

- Terminals: Black and red wired (+) (-)
- Charging: See Note 2

Note (1): UBBL04: Battery pack with hard plastic case.
UBBP01: Battery pack with wire leads and JST connector

Note (2): Maximum charge rate at C/2 to 4.2 Volts in a temperature range of 0° to 45° C. Hold at 4.2 Volts until current declines to C/10.

For complete Technical Datasheets go to: www.ultralifebatteries.com



Li-ION Rechargeable

- Lightweight
- Off the shelf convenience
- No memory effect
- Full circuit protection

- Wire or connector terminals
- Wide operating temperature range
- Meets all UN transportation testing

2.4 Ah

Ultralife Product No.	Ultralife Part. No	Dimensions (mm) Thickness x Width x Length	Voltage Range	Nominal Voltage	Nominal Capacity (@ C/5 Rate)	Max. Discharge	Weight (g)
UBBL19	UBBL19	21.0 x 23.0 x 68.0	3.0 to 4.2 V	3.6 V	2.4 Ah	2250 mA	60g
UBBL20	UBBL20	23.0 x 39.0 x 68.0	6.0 to 8.4 V	7.2 V	2.4 Ah	2500 mA	110g
UBBL21	UBBL21	23.0 x 58.0 x 69.0	9.0 to 12.6 V	10.8 V	2.4 Ah	2500 mA	155g
UBBL22	UBBL22	23.0 x 77.0 x 69.0	12.0 to 16.8 V	14.4 V	2.4 Ah	2500 mA	200g

4.8 Ah

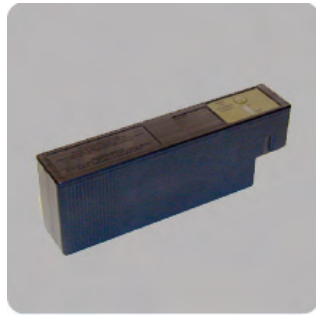
Ultralife Product No.	Ultralife Part. No	Dimensions (mm) Thickness x Width x Length	Voltage Range	Nominal Voltage	Nominal Capacity (@ C/5 Rate)	Max. Discharge	Weight (g)
UBBL23	UBBL23	21.0 x 23.0 x 68.0	3.0 to 4.2 V	3.6 V	4.8 Ah	2250 mA	110g
UBBL24	UBBL24	23.0 x 39.0 x 68.0	6.0 to 8.4 V	7.2 V	4.8 Ah	3000 mA	200g
UBBL25	UBBL25	23.0 x 58.0 x 69.0	9.0 to 12.6 V	10.8 V	4.8 Ah	3500 mA	290g
UBBL26	UBBL26	23.0 x 77.0 x 69.0	12.0 to 16.8 V	14.4 V	4.8 Ah	3500 mA	380g

- Operating Temperature: Charge 0° C to 45° C
Discharge -20° C to 60° C
UBBL07 Operating: -20° C to 60° C
- Storage Temperature: -20° C to 50° C
UBBL07 Storage: -20° C to 60° C

- Termination (UBBL19-26):
UBBLXX-FL: 22AWG
UBBLXX-C1: Connector Molex Part No. 51004-0200

- Cycle Life: 300 cycles @ C/5 to 80% initial capacity
- Self Discharge: <10% per month
- Exterior: PVC Shrink

For complete Technical Datasheets go to: www.ultralifebatteries.com



Li-ION Rechargeable

- Lightweight Battery
- High energy chemistry
- No memory effect

- State-of-the-art technology
- Wide operating temperature range

Ultralife Product No.	Ultralife Part. No	NSN	Dimensions (mm) Thickness x Width x Length	Average Voltage (V)	Nominal Capacity (Ah)	Maximum Discharge (A-continuous)	Energy (Wh)	Energy Density (Wh/kg)	Weight (g)	Exterior/Housing	State of Charge Indicator
LI-145	UBBL06	6140-01-542-4386	42 x 74 x 210	15.2	9.4	5.0	143	140	1021	GE Noryl	Yes
UBBL09	UBBL09		62 x 112 x 127	11.1 or 22.8	9.2 or 18.4	6.0 or 12.0	204	142	1440	Hard Plastic	Yes
LWC-L	UBBL01		44 x 112 x 131	15.2	8.0	6.5	121	131	925	Hard Plastic	No
UBBL12	UBBL12		42 x 112 x 137	15.2	7.0	5.0	109	128	850	Hard Plastic	Yes
UBI-2590 SMBus	UBBL10	6410-01-554-2347	63 x 113 x 127	14.4 or 28.8	6.8 or 13.6	6.0 or 12.0	206	143	1440	Hard Plastic	Yes
UBBL04	UBBL04		38 x 65 x 95	7.2	7.0	3.5	47	134	370	Hard Plastic	No
UBI-2590	UBBL02	6140-01-553-3527	62 x 112 x 127	14.4 or 28.8	6.0 or 12.0	6.0 or 12.0	173	120	1440	Hard Plastic	Yes
LI-7	UBBL03		42 x 112 x 137	15.2	7.5	3	114	120	944	Hard Plastic	Yes

- Operating Temperature: See Individual Datasheets
- Storage Temperature: See Individual Datasheets
- Memory Effect: None

- Cycle Life: Greater than 300 cycles @C/5 to 80% of initial capacity
- Self Discharge: <5% per month

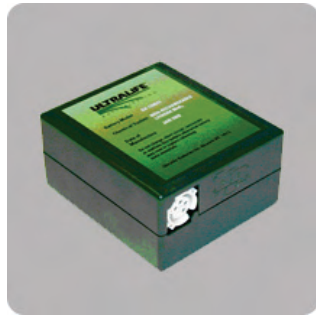
- Terminals: See Note 1
- Charging: See Note 2

Note (1): Terminals: LWC-L: Lemo Connector EEG 0B 305 CLL
 UBI-2590: SC-C-179495

UBBL03: Flat Contacts (302 Stainless plated with Sulfamate Nickel per ASTM B689, Type 1 Cable) (Connector: Lemo HEN.1F.305.XLNP)

Note (2): See individual datasheets for specific charging instructions

For complete Technical Datasheets go to: www.ultralifebatteries.com



Li-MnO₂ Primary

- Advanced technology
- Higher volumetric energy density than lithium sulfur dioxide - in some cases two times more energy

- Non-pressurized
- Non-toxic
- Environmentally friendly

Ultralife Product No.	Ultralife Part. No	NSN	Dimensions (mm) Thickness x Width x Length	Average Voltage (V)	Nominal Capacity (See Note 1)	Maximum Discharge (continuous)	Pulse Capability (See Note 2)	Weight (g)	Exterior/Housing
BA-5390A/U	UB0021	6135-01-517-6060	62.2 x 11.8 x 127.0	13.5 or 27.0	11.1 Ah (30 V) 22.2 Ah (15 V)	2.0 A (30 V) 4.0 A (15 V)	Up to 2.5 A (30 V) Up to 5.0 A (15 V)	1300	Hard Plastic Case with State of Charge Indicator
BA-5390/U	UB0001	6135-01-501-0833	62.2 x 111.8 x 127.0	13.5 or 27.0	11.1 Ah (30 V) 22.2 Ah (15 V)	2.0 A (30 V) 4.0 A (15 V)	Up to 2.5 A (30 V) Up to 5.0 A (15 V)	1300	Hard Plastic Case
BA-5347/U	UB0016	6135-01-455-7946	38.1 x 64.8 x 95.3	6.0	11.1 Ah	3.0 A	Up to 3.5 A	380	Hard Plastic Case
Type 5380	UB2777, UB0009		35.51 x 128.5	6.0	11.1 Ah	2.5 A	Up to 2.5 A	390	Mylar Sleeve
Sophie	U2560E-5-27	US:6135-01-539-0013 UK: 6135-99-834-4219	50.9 x 63.6 x 145.5	13.3	5.8 Ah	1.5 A	N/A	470	Noryl 190 Case
U10025 MIDS	U10025	6135-01-545-6582	26 dia. x 52.7	3.0	4.8 Ah	2.0 A	Up to 2.6 A	61	Hermetic Ni-plated steel can. End caps, tabs and insulating sleeve
BA-5367/U	UB0006	6135-01-507-1135	25.4 dia. x 20.8	3.0	1.3 Ah	380 mA	Up to 800 mA	22	Hermetically sealed Ni-plated steel can, plastic sleeve
BA-5368/U	UB2776	6135-01-455-7947	27.7 dia. x 77.5	12.0	1.0 Ah	320 mA	Up to 600 mA	76	Hermetically sealed Ni-plated steel can, plastic sleeve
BA-5372/U	UB1733	6135-01-214-6441	16.8 dia. x 33.5	6.0	500 mAh	160 mA	Up to 300 mA	20	Hermetically sealed Ni-plated steel can, Mylar sleeve
½ AA	UB1426	6135-01-340-7883	14.7 dia. x 26.0	3.0	500 mAh	160 mA	Up to 300 mA	10	Hermetically sealed Ni-plated steel can, Mylar sleeve

• Operating Temperature: -40° C to 72° C

• Storage Temperature: -40° C to 95° C

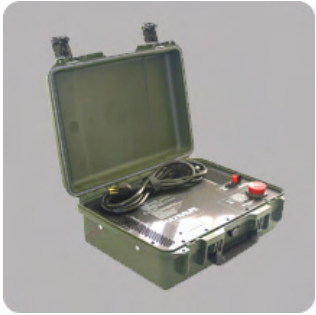
• Terminals: See Note 3

- Note (1):
- BA-5390/U and BA-5390A/U lower nominal capacity @ 250 mA to 20 V @ 23° C; higher nominal capacity @ 250 mA to 10 V @ 23° C
 - BA-5367/U nominal capacity @ 50 mA to 2.0 V @ 23° C
 - BA-5368/U nominal capacity @ 1.0 mA to 8.0 V @ 23° C
 - Type 5380 nominal capacity @ 250 mA to 4.0 V @ 23° C
 - U10025 nominal capacity @ 150 mA to 2.0 V @ 23° C
 - BA-5372/U nominal capacity @ 4.5 mA to 4.0 V @ 23° C
 - BA-5347/U rated @ 250 mA to 4 V
 - Sophie nominal capacity @ 1000 mA to 8.5 V @ 23° C
 - ½ AA nominal capacity @ 41 mA to 2.0 V @ 23° C

Note (2): Varies according to pulse characteristics, temperature, cell history and the application. Contact Ultralife.

- Note (3):
- BA-5367/U, BA-5368/U, BA-5372/U, ½ AA: Ni-plated Contacts
 - BA-5347/U: Polarized socket/ Flat ribbon
 - BA-5390/U, BA-5490A/U: 5 pin polarized socket

For complete Technical Datasheets go to: www.ultralifebatteries.com



Chargers

- Custom charging solutions to meet the needs of a particular application
- Technology & Power Systems group develops complete power systems for unique applications and challenges

Ultralife Part No.	NSN	Charges	Dimensions (mm) Thickness x Width x Length	Charge Termination Voltage (V)	Max. Charge Rate (A)	Weight (g)
CH0001		LWC-L	92 x 58 x 52	16.8	3.0	170
CH0002		UBI-2590	174 x 123.7 x 53.6	16.8	1.0	432
CH0003	6130-01-499-7305	UBI-2590	61 x 51 x 22 cm	16.4	1.1	11 Kg
CH0004	6130-01-499-0352	UBI-2590	36 x 31 x 16 cm	16.4	1.1	5 Kg
CH0005		UBBL04	92 x 58 x 52	8.4	2.0	170
CH0006		UBBL06	31.62 x 14.02 x 28.50 cm	16.8	8.0	6.35 Kg
CH0007		UBBL03	35.1 x 31.3 x 71.8 cm	16.8	2.0	16.7 Kg
CH0008	6130-01-545-1983	UBBL06	42 x 73 x 168	16.8	2.0	1.7 Kg
CH0012	6130-01-545-1981	UBBL06	61.24 x 21.46 x 28.96 cm	16.8	4.0	17.24 Kg
CH0014		UBBL09	124 x 175 x 50	12.6	2.0	269
CH0015	6130-01-542-5108	UBBL06	92 x 58 x 52	16.8	3.0	171

Power Supplies

Ultralife Part No.	NSN	Charges	Dimensions (mm) Thickness x Width x Length	Output Voltage (V)	Max. Output Power (W)	Weight (g)
CH0018	6130-01-545-1984	CH0012 CH0017	7.0 x 14.0 x 19.0	28 DC	1500	12

For complete Technical Datasheets go to: www.ultralifebatteries.com



Cables

- Custom cable solutions to meet the needs of a particular application

Ultralife Part No.	Battery Type	Length (cm)	Type	Connector	Voltage (V)
CA0001	LWC-L	61	2 Conductor; 22 AWG	Straight	-
CA0002	UBI-2590, UBBL09, UBI-2590 SMBus	61	4 Conductor; 18 AWG	Straight	12/24
CA0003	UBI-2590	61	Vehicle Adapter	Straight	-
CA0005	UBBL03	61	5 Conductor; 20 AWG	Straight	12
CA0006	BA-5390/U, UBI-2590, UBBL09, BA-5390A/U, UBI-2590 SMBus	61	2 Conductor; 18 AWG	Right Angle	24
CA0007	BA-5390/U, UBI-2590, UBBL09, BA-5390A/U, UBI-2590 SMBus	61	2 Conductor; 18 AWG	Right Angle	12
CA0008	BA-5390/U, UBI-2590, UBBL09, BA-5390A/U, UBI-2590 SMBus	61	4 Conductor; 18 AWG	Right Angle	12/24
CA0009	UBBL06, UBBL08	61	6 Conductor; 22 AWG (Non-shielded)	Straight	-
CA0022	UBBL06, UBBL08	61	6 Conductor; 22 AWG (Shielded)	Straight	-

For complete Technical Datasheets go to: www.ultralifebatteries.com

We. Are. Power.®

PRODUCT SUMMARY

