



# PRIMARY CELL GUIDE

*Superior Power Solutions  
For Your Critical Applications*



Electrochem is unique in that we not only produce battery packs, but we also build our own lithium primary cells using proprietary designs and electrolytes. This gives us the flexibility to design power solutions to meet your specific needs. With a diverse portfolio of cells in various sizes, temperature ranges and rate capabilities, we can design a custom battery pack that meets the unique criteria of your application, differentiating your product in the increasingly competitive global market.



## QUICK REFERENCE

### High Rate Lithium Cells

| SERIES | MAX. CONT. CURRENT (mA)* | AVAILABLE CELL SIZES            | TEMPERATURE RANGE                  | KEY FEATURES                                |
|--------|--------------------------|---------------------------------|------------------------------------|---|
| BCX    | 50 to 3000               | AA, 1/2 C, C, D, DD, SD, TSD    | -55°C to +65°C<br>-55°C to +85°C   | High Power, Low Temp, Superior Restart      |
| QTC    | 2000                     | DD                              | -40°C to +85°C                     | High Current, High Capacity                 |
| CSC    | 150 to 4000              | AA, 2/5 C, 1/2 C, C, D, DD, TSD | -20°C to +93°C                     | High Power, High Capacity                   |
| MWD    | 2000                     | DD                              | 0°C to +150°C                      | High Current, Harsh Conditions              |
| PMX    | 150 to 2000              | 1/2 AA, AA, C, CC, DD           | -20°C to +150°C<br>-20°C to +165°C | High Power, High Temp                       |
| VHT    | 150 to 250               | AA, C                           | +70°C to +200°C                    | High Current, Extreme Temp                  |
| HR     | 2000                     | TSD                             | -40°C to +150°C                    | High Power, High Capacity, Harsh Conditions |

### Moderate Rate Lithium Cells

| SERIES | MAX. CONT. CURRENT (mA)* | AVAILABLE CELL SIZES             | TEMPERATURE RANGE  | KEY FEATURES                |
|--------|--------------------------|----------------------------------|--|-----------------------------|
| MR     | 75 to 550                | C, 3/2 C, SUB CC, CC, D, DD, TSD | -40°C to +150°C<br>-40°C to +165°C<br>+50°C to +180°C<br>+70°C to +200°C | High Temp, Harsh Conditions |

### Low Rate Lithium Cells

| SERIES | MAX. CONT. CURRENT (mA)* | AVAILABLE CELL SIZES                      | TEMPERATURE RANGE   | KEY FEATURES                     |
|--------|--------------------------|---|---|----------------------------------|
| LR     | .5 to 150                | Sub AAA, 1/2 AA, AA, C, 3/2 C, Sub CC, CC | -40°C to +100°C<br>-40°C to +150°C<br>-40°C to +165°C<br>+50°C to +180°C<br>+70°C to +200°C | High Capacity, Low Current       |
| BCX    | 10                       | Coin                                      | -55°C to +85°C  | High Capacity, Small Form Factor |
| QTC    | 1 to 3                   | Coin                                      | -40°C to +85°C  |                                  |
| CSC    | 10                       | Coin                                      | -20°C to +93°C  |                                  |

## Why Choose Electrochem?



**STABILITY:** Well known, prominent company with strong financial stability and extensive end-to-end capabilities via Integer.



**BEST-IN-CLASS:** State-of-the-art manufacturing facility with best-in-class production processes in place.



**CUSTOMIZATION:** Unusually broad range of cell types, sizes, and electrolytes with strong capability for custom cell and pack designs.



**REPUTATION:** Distinctly acclaimed for quality and reliability with decades of experience within the industries we serve.



**CONTROL:** In-house cell production allows control over the complete solution (cells as well as pack).



**REACH:** A global battery supplier with the experience and expertise needed to support customers worldwide.

# Electrochem Primary Power Solutions

## High Rate

### BCX Series

Open Circuit Voltage: 3.9V

Chemistry: Bromine Chloride °C  85°

| PART NUMBER | CELL SIZE | DIAMETER (mm) | LENGTH (mm) | CELL WEIGHT (g) | LITHIUM CONTENT (g) | CAPACITY (Ah) | MAX. CONT. CURRENT (mA) |
|-------------|-----------|---------------|-------------|-----------------|---------------------|---------------|-------------------------|
| 3B0027      | AA        | 13.7          | 49.2        | 15.0            | 0.5                 | 1.6           | 50                      |
| 3B0064      | AA        | 13.7          | 49.3        | 17.0            | 0.5                 | 1.9           | 100                     |
| 3B0068      | 1/2 C     | 25.4          | 29.0        | 34.0            | 1.2                 | 3.5           | 300                     |
| 3B0070      | C         | 25.4          | 48.3        | 52.0            | 2.1                 | 7.1           | 500                     |
| 3B3800      | C         | 25.6          | 48.4        | 52.0            | 2.1                 | 6.5           | 750                     |
| 3B0075      | D         | 33.5          | 59.4        | 116.0           | 4.4                 | 14            | 1000                    |
| 3B4000      | D         | 33.5          | 59.3        | 111.2           | 4.6                 | 14            | 1000                    |
| 3B0076      | DD        | 33.5          | 111.5       | 213.0           | 9.9                 | 30            | 3000                    |
| 3B4700*     | SD        | 44.5          | 68.0        | 200.0           | 10.2                | 31            | 1000                    |
| 3B6100      | TSD       | 44.1          | 94.4        | 290.0           | 14.7                | 38            | 2000                    |

\*Upper temperature limit on 3B4700 cell is 65°C

### QTC85 Series

Open Circuit Voltage: 3.67V

Chemistry: Thionyl Chloride °C  85°

| PART NUMBER | CELL SIZE | DIAMETER (mm) | LENGTH (mm) | CELL WEIGHT (g) | LITHIUM CONTENT (g) | CAPACITY (Ah) | MAX. CONT. CURRENT (mA) |
|-------------|-----------|---------------|-------------|-----------------|---------------------|---------------|-------------------------|
| 3B2600      | DD        | 33.5          | 111.5       | 213.0           | 9.9                 | 31            | 2000                    |

### CSC93 Series

Open Circuit Voltage: 3.93V

Chemistry: Sulfuryl Chloride °C  95°

| PART NUMBER | CELL SIZE | DIAMETER (mm) | LENGTH (mm) | CELL WEIGHT (g) | LITHIUM CONTENT (g) | CAPACITY (Ah) | MAX. CONT. CURRENT (mA) |
|-------------|-----------|---------------|-------------|-----------------|---------------------|---------------|-------------------------|
| 3B0024      | AA        | 13.7          | 49.3        | 17.0            | 0.6                 | 1.8           | 150                     |
| 3B0665      | 2/5 C     | 25.4          | 23.4        | 26.0            | 0.9                 | 2.7           | 250                     |
| 3B0029      | 1/2 C     | 25.4          | 29.0        | 34.0            | 1.1                 | 3.1           | 350                     |
| 3B0030      | C         | 25.4          | 48.3        | 52.0            | 2.1                 | 6.4           | 1000                    |
| 3B0035      | D         | 33.5          | 59.4        | 116.0           | 4.4                 | 13            | 2000                    |
| 3B0036      | DD        | 33.5          | 111.5       | 213.0           | 9.9                 | 26            | 4000                    |
| 3B6200      | TSD       | 44.2          | 94.5        | 300.0           | 14.7                | 37            | 2000                    |

### MWD150 Series

Open Circuit Voltage: 3.67V

Chemistry: Thionyl Chloride °C  150°

| PART NUMBER | CELL SIZE | DIAMETER (mm) | LENGTH (mm) | CELL WEIGHT (g) | LITHIUM CONTENT (g) | CAPACITY (Ah) | MAX. CONT. CURRENT (mA) |
|-------------|-----------|---------------|-------------|-----------------|---------------------|---------------|-------------------------|
| 3B3900      | DD        | 32.8          | 127.0       | 210.0           | 7.7                 | 22            | 2000                    |

### PMX150 Series

Open Circuit Voltage: 3.93V

Chemistry: Sulfuryl Chloride °C  150°

| PART NUMBER | CELL SIZE | DIAMETER (mm) | LENGTH (mm) | CELL WEIGHT (g) | LITHIUM CONTENT (g) | CAPACITY (Ah) | MAX. CONT. CURRENT (mA) |
|-------------|-----------|---------------|-------------|-----------------|---------------------|---------------|-------------------------|
| 3B5700      | 1/2 AA    | 13.7          | 30.0        | 8.3             | 0.3                 | 0.90          | 150                     |
| 3B1065      | AA        | 13.7          | 53.1        | 17.0            | 0.3                 | 1.7           | 150                     |
| 3B3700      | C         | 24.9          | 52.3        | 52.0            | 1.8                 | 6.3           | 500                     |
| 3B3000      | CC        | 24.9          | 103.1       | 101.0           | 4.1                 | 14            | 500                     |
| 3B2800      | DD        | 33.0          | 127.5       | 215.0           | 8.0                 | 29            | 2000                    |

### PMX165 Series

Open Circuit Voltage: 3.93V

Chemistry: Sulfuryl Chloride °C  165°

| PART NUMBER | CELL SIZE | DIAMETER (mm) | LENGTH (mm) | CELL WEIGHT (g) | LITHIUM CONTENT (g) | CAPACITY (Ah) | MAX. CONT. CURRENT (mA) |
|-------------|-----------|---------------|-------------|-----------------|---------------------|---------------|-------------------------|
| 3B5100      | C         | 24.9          | 52.3        | 52.0            | 1.8                 | 6.2           | 500                     |
| 3B5200      | CC        | 24.9          | 103.1       | 101.0           | 4.1                 | 14            | 500                     |

### 150HR Series


Open Circuit Voltage: 3.67

Chemistry: Thionyl Chloride °C  150°

| PART NUMBER | CELL SIZE | DIAMETER (mm) | LENGTH (mm) | CELL WEIGHT (g) | LITHIUM CONTENT (g) | CAPACITY (Ah) | MAX. CONT. CURRENT (mA) |
|-------------|-----------|---------------|-------------|-----------------|---------------------|---------------|-------------------------|
| 4440        | TSD       | 48.0          | 84.0        | 320.0           | 12.0                | 38            | 2000                    |

### VHT200 Series

Open Circuit Voltage: 3.67

Chemistry: Thionyl Chloride °C  200°

| PART NUMBER | CELL SIZE | DIAMETER (mm) | LENGTH (mm) | CELL WEIGHT (g) | LITHIUM CONTENT (g) | CAPACITY (Ah) | MAX. CONT. CURRENT (mA) |
|-------------|-----------|---------------|-------------|-----------------|---------------------|---------------|-------------------------|
| 3B5400      | AA        | 13.7          | 53.2        | 15.0            | 0.5                 | 1.1           | 150                     |
| 3B4800      | C         | 24.9          | 52.3        | 52.0            | 2.2                 | 4.4           | 250                     |

Electrochem specializes in providing superior power solutions that enable the success and advancement of our customers' critical applications. We are keenly focused on ensuring quality throughout the entire design and manufacturing process to make certain our products live up to our reputation for industry leading quality, reliability, and safety. With a portfolio of cells in various chemistries, sizes and temperature ranges, we're confident we can provide a solution that meets your needs.

# Find The Solution You're Looking For

Below is a complete list of the cells Electrochem currently offers, grouped by rate capability and series. The chart to the right can help you narrow your search by using the temperature and rate requirements of your application to identify the cell series that best meets your needs.

## Moderate Rate

### 150MR Series

Open Circuit Voltage: 3.67V

Chemistry: Thionyl Chloride °C  -40° 150°

| PART NUMBER | CELL SIZE | DIAMETER (mm) | LENGTH (mm) | CELL WEIGHT (g) | LITHIUM CONTENT (g) | CAPACITY (Ah) | MAX. CONT. CURRENT (mA) |
|-------------|-----------|---------------|-------------|-----------------|---------------------|---------------|-------------------------|
| 4264        | C         | 25.0          | 49.1        | 50.0            | 1.9                 | 5.1           | 100                     |
| 4302        | C         | 25.9          | 50.0        | 52.0            | 1.9                 | 5.7           | 100                     |
| 4322        | 3/2 C     | 26.4          | 76.8        | 85.0            | 3.2                 | 11            | 150                     |
| 4242        | Sub CC    | 20.7          | 101.6       | 75.0            | 3.3                 | 9.0           | 200                     |
| 4248        | Sub CC    | 20.6          | 102.9       | 69.2            | 4.0                 | 10            | 200                     |
| 4325        | CC        | 26.0          | 90.0        | 85.0            | 3.8                 | 11.0          | 200                     |
| 4287        | CC        | 24.9          | 102.9       | 96.0            | 4.6                 | 13            | 190                     |
| 4339        | CC        | 25.4          | 100.3       | 102.0           | 4.7                 | 14            | 200                     |
| 4342        | CC        | 24.9          | 102.9       | 102.6           | 4.7                 | 15            | 200                     |
| 4362        | D         | 33.0          | 59.5        | 105.0           | 3.7                 | 11            | 170                     |
| 4422        | DD        | 31.8          | 127.0       | 212.0           | 8.2                 | 26            | 550                     |
| 4435        | TSD       | 48.6          | 80.0        | 310.0           | 11.6                | 36            | 500                     |

### 165MR Series

Open Circuit Voltage: 3.67V

Chemistry: Thionyl Chloride °C  -40° 165°

| PART NUMBER | CELL SIZE | DIAMETER (mm) | LENGTH (mm) | CELL WEIGHT (g) | LITHIUM CONTENT (g) | CAPACITY (Ah) | MAX. CONT. CURRENT (mA) |
|-------------|-----------|---------------|-------------|-----------------|---------------------|---------------|-------------------------|
| 4249        | Sub CC    | 20.6          | 102.9       | 69.2            | 3.3                 | 9.9           | 200                     |
| 4330        | CC        | 25.4          | 101.6       | 105.0           | 4.5                 | 14            | 200                     |
| 4285        | CC        | 24.6          | 101.6       | 95.0            | 4.6                 | 14            | 225                     |
| 4338        | CC        | 24.9          | 102.9       | 102.6           | 4.7                 | 15            | 200                     |
| 4363        | D         | 33.0          | 59.5        | 105.0           | 3.5                 | 11            | 200                     |
| 4408        | DD        | 32.8          | 127.0       | 223.3           | 7.7                 | 25            | 500                     |
| 4427        | DD        | 31.8          | 127.0       | 212.0           | 8.2                 | 26            | 500                     |

### 180MR Series


Open Circuit Voltage: 3.67V

Chemistry: Thionyl Chloride °C  50° 180°

| PART NUMBER | CELL SIZE | DIAMETER (mm) | LENGTH (mm) | CELL WEIGHT (g) | LITHIUM CONTENT (g) | CAPACITY (Ah) | MAX. CONT. CURRENT (mA) |
|-------------|-----------|---------------|-------------|-----------------|---------------------|---------------|-------------------------|
| 4266        | C         | 24.6          | 48.5        | 50.0            | 2.0                 | 5.6           | 100                     |
| 4323        | 3/2 C     | 26.4          | 76.8        | 90.2            | 3.3                 | 9.0           | 200                     |
| 4243        | Sub CC    | 21.5          | 101.6       | 73.0            | 3.8                 | 7.6           | 200                     |
| 4252        | Sub CC    | 20.7          | 103.2       | 73.0            | 3.2                 | 8.5           | 200                     |
| 4288        | CC        | 24.6          | 101.6       | 95.0            | 4.7                 | 11            | 170                     |
| 4286        | CC        | 24.6          | 101.6       | 100.0           | 4.7                 | 11            | 200                     |
| 4343        | CC        | 25.4          | 102.9       | 110.0           | 5.0                 | 12            | 200                     |
| 4425        | DD        | 32.3          | 126.5       | 220.0           | 8.8                 | 24            | 320                     |
| 4409        | DD        | 32.8          | 127.0       | 220.0           | 8.3                 | 24            | 320                     |

### 200MR Series

Open Circuit Voltage: 3.67V

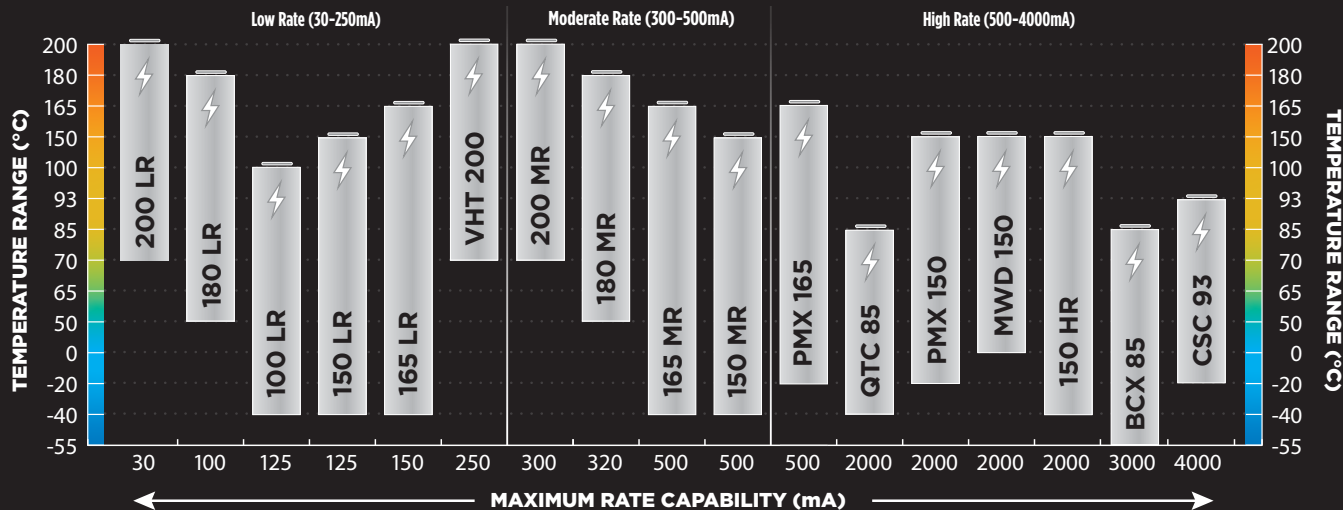
Chemistry: Thionyl Chloride °C  70° 200°

| PART NUMBER | CELL SIZE | DIAMETER (mm) | LENGTH (mm) | CELL WEIGHT (g) | LITHIUM CONTENT (g) | CAPACITY (Ah) | MAX. CONT. CURRENT (mA) |
|-------------|-----------|---------------|-------------|-----------------|---------------------|---------------|-------------------------|
| 4267        | C         | 25.3          | 50.7        | 50.0            | 2.3                 | 4.2           | 75                      |
| 4245        | Sub CC    | 20.6          | 101.6       | 80.0            | 4.2                 | 5.9           | 100                     |
| 4346        | CC        | 25.4          | 102.4       | 110.0           | 5.0                 | 9.0           | 100                     |
| 4289        | CC        | 24.6          | 101.6       | 95.0            | 5.4                 | 9.0           | 150                     |
| 4283        | CC        | 24.6          | 101.6       | 100.0           | 5.4                 | 9.3           | 100                     |
| 4410        | DD        | 32.8          | 127.0       | 220.0           | 7.2                 | 20            | 300                     |

**LOW MAGNETIC SIGNATURE (LMS)** versions of our cells are available for applications that are sensitive to magnetic interference.



# SERIES SELECTOR



## Low Rate

### BCX85 Series

Open Circuit Voltage: 3.9V

Chemistry: Bromine Chloride °C -55° 85°

| PART NUMBER | CELL SIZE | DIAMETER (mm) | LENGTH (mm) | CELL WEIGHT (g) | LITHIUM CONTENT (g) | CAPACITY (Ah) | MAX. CONT. CURRENT (mA) |
|-------------|-----------|---------------|-------------|-----------------|---------------------|---------------|-------------------------|
| 3B6050      | Coin      | 25.4          | 7.6         | 10.0            | 0.3                 | 0.95          | 10                      |

### QTC85 Series

Open Circuit Voltage: 3.67V

Chemistry: Thionyl Chloride °C -40° 85°

| PART NUMBER | CELL SIZE | DIAMETER (mm) | LENGTH (mm) | CELL WEIGHT (g) | LITHIUM CONTENT (g) | CAPACITY (Ah) | MAX. CONT. CURRENT (mA) |
|-------------|-----------|---------------|-------------|-----------------|---------------------|---------------|-------------------------|
| 3B6880      | Coin      | 25.4          | 7.6         | 10.0            | 0.3                 | 1.0           | 3                       |
| 3B6890      | Coin      | 25.5          | 7.5         | 10.0            | 0.4                 | 1.0           | 1                       |

### CSC93 Series

Open Circuit Voltage: 3.93V

Chemistry: Sulfuryl Chloride °C -20° 93°

| PART NUMBER | CELL SIZE | DIAMETER (mm) | LENGTH (mm) | CELL WEIGHT (g) | LITHIUM CONTENT (g) | CAPACITY (Ah) | MAX. CONT. CURRENT (mA) |
|-------------|-----------|---------------|-------------|-----------------|---------------------|---------------|-------------------------|
| 3B6045      | Coin      | 25.4          | 7.6         | 10.0            | 0.3                 | 1.0           | 10                      |

### 100LR Series

Open Circuit Voltage: 3.67V

Chemistry: Sulfuryl Chloride °C -40° 100°

| PART NUMBER | CELL SIZE | DIAMETER (mm) | LENGTH (mm) | CELL WEIGHT (g) | LITHIUM CONTENT (g) | CAPACITY (Ah) | MAX. CONT. CURRENT (mA) |
|-------------|-----------|---------------|-------------|-----------------|---------------------|---------------|-------------------------|
| 4006        | Sub AAA   | 7.0           | 8.4         | 1.2             | 0.02                | 0.05          | 0.5                     |
| 4019        | Sub AAA   | 9.5           | 12.0        | 3.0             | 0.1                 | 0.18          | 5                       |
| 4021        | Sub AAA   | 9.5           | 18.0        | 3.9             | 0.1                 | 0.35          | 8                       |
| 4030        | Sub AAA   | 10.2          | 25.4        | 5.0             | 0.2                 | 0.51          | 10                      |
| 4040        | Sub AAA   | 9.9           | 35.3        | 4.3             | 0.2                 | 0.70          | 10                      |
| 4347        | CC        | 26.7          | 106.7       | 100.0           | 4.6                 | 13            | 125                     |

### 150LR Series

Open Circuit Voltage: 3.67V

Chemistry: Thionyl Chloride °C -40° 150°

| PART NUMBER | CELL SIZE | DIAMETER (mm) | LENGTH (mm) | CELL WEIGHT (g) | LITHIUM CONTENT (g) | CAPACITY (Ah) | MAX. CONT. CURRENT (mA) |
|-------------|-----------|---------------|-------------|-----------------|---------------------|---------------|-------------------------|
| 4037        | Sub AAA   | 10.2          | 25.4        | 5.0             | 0.1                 | 0.48          | 10                      |
| 4161        | 1/2 AA    | 13.5          | 24.0        | 10.0            | 0.3                 | 0.80          | 10                      |
| 4204        | AA        | 13.5          | 48.3        | 19.0            | 0.5                 | 1.5           | 20                      |
| 4301        | C         | 26.3          | 49.6        | 52.0            | 1.8                 | 5.6           | 60                      |
| 4321        | 3/2 C     | 26.4          | 76.8        | 85.0            | 2.7                 | 8.7           | 90                      |
| 4282        | CC        | 24.9          | 102.1       | 95.0            | 3.8                 | 11            | 125                     |
| 4341        | CC        | 25.4          | 102.6       | 100.0           | 3.8                 | 12            | 90                      |

### 165LR Series

Open Circuit Voltage: 3.67V

Chemistry: Thionyl Chloride °C -40° 165°

| PART NUMBER | CELL SIZE | DIAMETER (mm) | LENGTH (mm) | CELL WEIGHT (g) | LITHIUM CONTENT (g) | CAPACITY (Ah) | MAX. CONT. CURRENT (mA) |
|-------------|-----------|---------------|-------------|-----------------|---------------------|---------------|-------------------------|
| 4205        | AA        | 13.5          | 50.3        | 17.0            | 0.5                 | 1.4           | 10                      |
| 4320        | 3/2 C     | 26.3          | 76.2        | 77.7            | 3.0                 | 8.5           | 150                     |

### 180LR Series

Open Circuit Voltage: 3.67V

Chemistry: Thionyl Chloride °C -50° 180°

| PART NUMBER | CELL SIZE | DIAMETER (mm) | LENGTH (mm) | CELL WEIGHT (g) | LITHIUM CONTENT (g) | CAPACITY (Ah) | MAX. CONT. CURRENT (mA) |
|-------------|-----------|---------------|-------------|-----------------|---------------------|---------------|-------------------------|
| 4166        | 1/2 AA    | 13.9          | 24.5        | 10.0            | 0.3                 | 0.77          | 10                      |
| 4225        | AA        | 13.5          | 50.0        | 16.8            | 0.5                 | 1.4           | 15                      |
| 4244        | Sub CC    | 21.0          | 101.6       | 69.5            | 3.1                 | 7.5           | 30                      |
| 4284        | CC        | 24.6          | 101.6       | 95.0            | 4.6                 | 10            | 100                     |

### 200LR Series

Open Circuit Voltage: 3.67V

Chemistry: Thionyl Chloride °C -70° 200°

| PART NUMBER | CELL SIZE | DIAMETER (mm) | LENGTH (mm) | CELL WEIGHT (g) | LITHIUM CONTENT (g) | CAPACITY (Ah) | MAX. CONT. CURRENT (mA) |
|-------------|-----------|---------------|-------------|-----------------|---------------------|---------------|-------------------------|
| 4230        | AA        | 13.5          | 50.3        | 16.8            | 0.7                 | 1.4           | 20                      |
| 4247        | Sub CC    | 21.0          | 101.6       | 69.2            | 2.4                 | 6.0           | 30                      |

*Superior Performance,  
Trusted Innovation*

