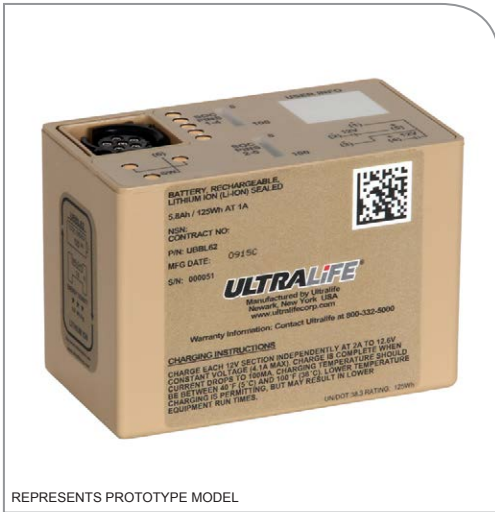


# UBI-2590SF / Short Format Dual Voltage

## Technical Datasheet



REPRESENTS PROTOTYPE MODEL



### Features

- Flexible dual mode output voltage
- SmartCircuit Technology - communication with host and charge equipment
- Accurate state-of-charge display for each side of the battery
- Rugged, military tough case construction can handle severe environments
- High energy density solution in the Ultralife

### Applications

- Rugged, portable electronics
- Robotics / AUVs / UUVs
- Military communication devices
- AN/PRC-117G, AN/PRC-117F, AN/PRC-119, AN/PSC-5D

### Optional Accessories

- CA0003: Vehicle Adapter
- CA0006: Series configuration, 2 conductor cable
- CA0007: Parallel configuration, 2 conductor cable
- CA0008: Independent configuration, 4 conductor cable
- CH0014: 12V Desktop Charger
- MRC-135A: Single Unit Solar Charger
- MRC-143A: 3-Unit Solar Charger
- UCA0039: Shielded Smart Cable
- UCA0114: Low Profile Smart Cable
- UCH0053: 6-bay Smart Charger
- UCH0054: 2-bay Smart Charger
- UCH0057: Smart Desktop Charger

### Technical Specifications

|   |  |                                     |
|---|--|-------------------------------------|
| <b>Part No.</b>                         | UBBL62   |                                     |
| <b>NSN</b>                              | TBD  |                                     |
| <b>Voltage Range</b>                    | 24V Mode:  | 15.0V to 25.2V                      |
|   | 12V Mode:  | 7.5V to 12.6V                       |
| <b>Nominal Voltage</b>                  | 24V Mode:  | 21.6V                               |
|   | 12V Mode:  | 10.8V                               |
| <b>Capacity<sup>1</sup></b>             | Typical Capacity:  | 24V Mode: 5.8Ah<br>12V Mode: 11.6Ah |
|   | Minimal:   | 24V Mode: 5.5Ah<br>12V Mode: 10.9Ah |
| <b>Max. Continuous Discharge</b>        | 24V Mode: 10.0A; 12V Mode: 20.0A   |                                     |
| <b>Max. Pulse Discharge<sup>2</sup></b> | 24V Mode: 18.0A; 12V Mode: 36.0A   |                                     |
| <b>Energy Rating</b>                    | 63Wh (2X)  |                                     |
| <b>Energy Density</b>                   | Gravimetric: 167Wh/kg; Volumetric: 228Wh/L   |                                     |
| <b>Weight</b>                           | 750g, 1.65lbs  |                                     |
| <b>Cycle Life<sup>3</sup></b>           | >300 cycles  |                                     |
| <b>Operating Temperature</b>            | -32°C to 60°C discharging; -20°C to 50°C charging  |                                     |
| <b>Storage Temperature</b>              | -20°C to 50°C  |                                     |
| <b>Self-Discharge</b>                   | < 5% per month   |                                     |
| <b>Exterior/Housing</b>                 | Hard plastic, black (Noryl N190X-701)  |                                     |
| <b>Terminals/Connector</b>              | Connector SC-C-179495  |                                     |
| <b>Communications</b>                   | Physical Layer:  | SMBus v1.1                          |
|   | Protocol:  | SBD v1.1 compliant                  |
| <b>State of Charge Indicator</b>        | 5-segment LCD display (both sections)  |                                     |
| <b>Certifications</b>                   | IEC 62133:2012 (CB ref. pending)<br>UN 38.3  |                                     |
| <b>Protection</b>                       | Over Voltage:  | 4.30V (per cell)                    |
|   | Under Voltage:   | 2.40V (per cell)                    |
|   | Transient Currents:  | 23.0A > 15ms; 30.0A > 305us         |
|   | Short Circuit  |                                     |
|   | Overcharge Protection:   | Up to 40V                           |
|   | Thermal Cutoff Device:   | Activates 70±5°C; Resets 50±5°C     |
|   | Thermal Fuse:  | Activates 93±5°C                    |
| <b>Charging</b>                         | Connect each side of the battery to a DC power source using correct polarity and apply a maximum voltage of 16.8V. Limit the current to the recommended rate of 3.0A and hold to 16.8V until the current declines to 300mA. Maximum charge rate is 4.8A. |                                     |
| <b>Safety</b>                           | Material Safety Datasheet - MSDS041<br>Safety Guide UBM-5112   |                                     |
| <b>Transportation<sup>4</sup></b>       | Excepted Dangerous Goods<br>UN3841: Packed with or contained in equipment<br>Air Shipment: Packing Instruction 966 and 967, Section II<br>Class 9 Dangerous Goods<br>UN3480: Bulk shipment<br>Air shipment: Packing Instruction 965, Section IB          |                                     |
| <b>Harmonized Tariff Schedule</b>       | 8507.60.0020   |                                     |

### Notes

1. Using a C/5 discharge rate at 25°C.
2. Load has a pulse width of 5 seconds with a total period of 30 seconds.
3. Number of consecutive C/5 rate discharges while in 24V mode and recommended charges of 25±5°C until the battery reaches 80% of initial capacity.
4. For bulk shipments by air that are no more than two batteries and one package, this cell is Excepted Dangerous Goods and can be shipped under Packing Instruction 965, Section II.

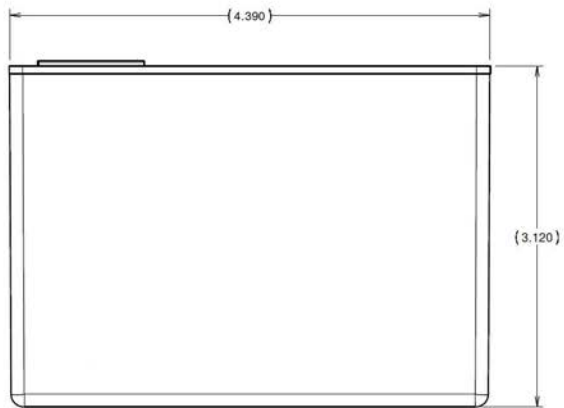
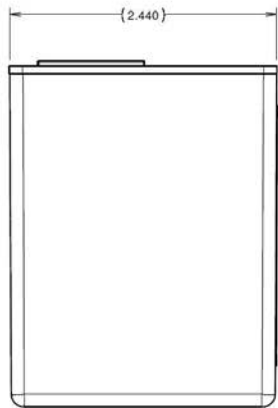
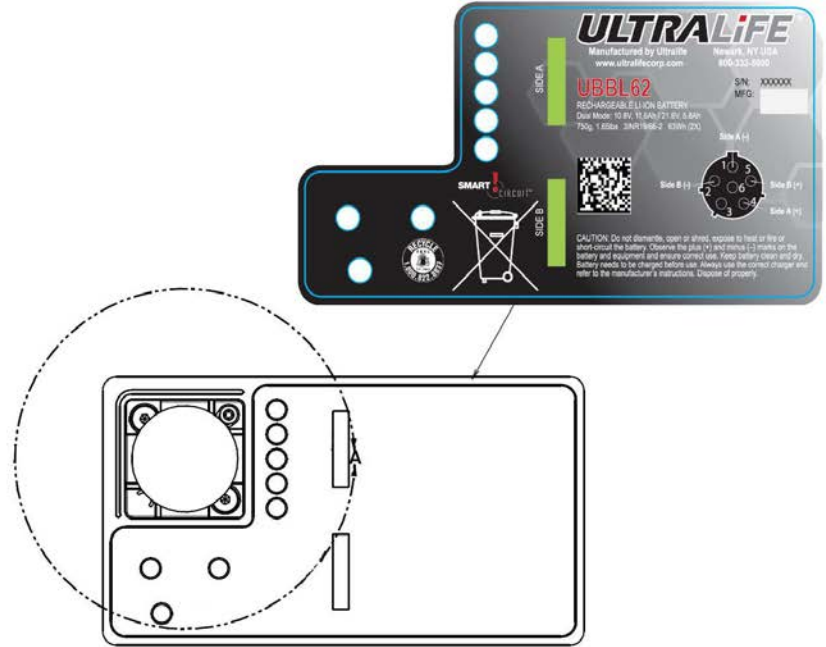
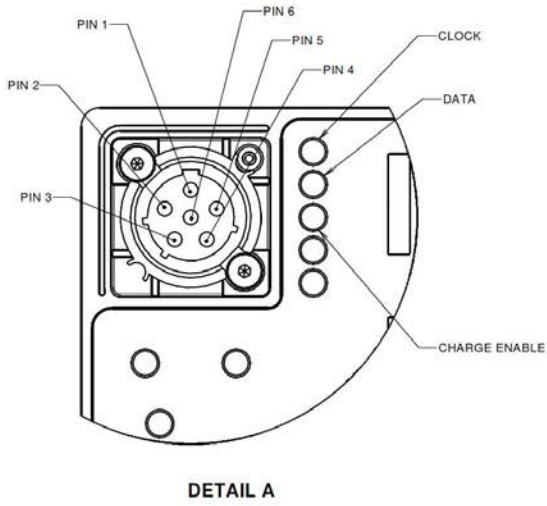
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# Dimensions



# Performance Graphs

