

# UCG150-12

12V 150AH

Deep Cycle Gel

# Ultracell®

'Quality in Every Language'

## UCG150-12



## Physical Specification

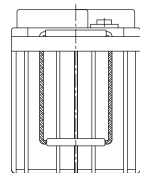
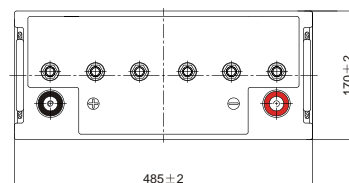
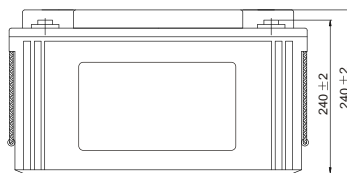
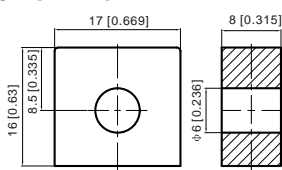
|                              |            |
|------------------------------|------------|
| Part Number                  | UCG150-12  |
| Length                       | 485 ± 2 mm |
| Width                        | 170 ± 2 mm |
| Container Height             | 240 ± 2 mm |
| Total Height (with terminal) | 240 ± 2 mm |
| Approx Weight                | 44 kg      |

## Specifications

|                                     |  |   |
|-------------------------------------|--|---|
|                                     | Nominal Voltage  | 12V   |
|                                     | Nominal Capacity (10HR)  | 150AH   |
| <b>Terminal Type</b>                | Standard Terminal  | F10 (Optional Terminal F11)   |
| <b>Container Material</b>           | Standard Option  | ABS   |
|                                     | Flame Retardant Option (FR)  | UL94-V0   |
| <b>Rated Capacity</b>               | 20hr, 1.80V/cell, 25°C   | 160.8 AH/8.04A  |
|                                     | 10hr, 1.80V/cell, 25°C   | 150.0 AH/15.0A  |
|                                     | 5hr, 1.75V/cell, 25°C  | 131.6 AH/26.3A  |
|                                     | 1hr, 1.60V/cell, 25°C  | 96.9 AH/96.9A   |
| <b>Max Discharge Current</b>        | 1500A (5s)   |   |
| <b>Internal Resistance</b>          | Approx 2.5m Ω  |   |
| <b>Discharge Characteristics</b>    | Operating Temp. Range  | Discharge: -20 ~ 55°C<br>Charge: 0 ~ 40°C<br>Storage: -20 ~ 50°C                          |
|                                     | Nominal Operating Temp. Range  | 25 ± 3°C  |
|                                     | Cycle Use  | Initial Charging Current less than 45.0A Voltage 14.4V ~ 15.0V Temp. Coefficient -30mV/°C |
|                                     | Standby Use  | No limit on Initial Charging Current Voltage 13.5V ~ 13.8V Temp. Coefficient -20mV/°C     |
|                                     | Capacity affect by Temperature   | 40°C 103%<br>25°C 100%<br>0°C 86%   |
| <b>Design Floating Life at 20°C</b> | 15 Years   |   |
| <b>Self Discharge</b>               | Ultracell batteries may be stored for up to 6 months at 25°C(77°F) and then a refresh charge is required. For higher temperatures the time interval will be shorter. |   |

## Dimensions

### F10 Terminal



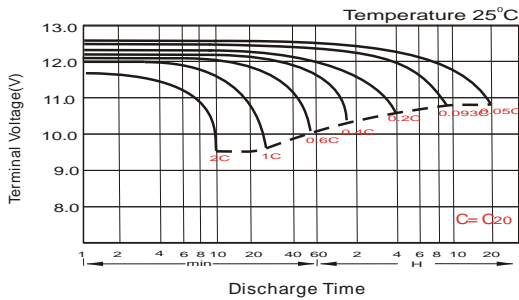
### Constant Current Discharge (Amperes) at 20°C

| F.V/Ti me   | 10mi n | 15mi n | 20mi n | 30mi n | 45mi n | 1h   | 2h   | 3h   | 4h   | 5h   | 6h   | 8h   | 10h  | 20h  |
|-------------|--------|--------|--------|--------|--------|------|------|------|------|------|------|------|------|------|
| 1.85V/cel l | 219.6  | 184.8  | 161.5  | 116.2  | 92.3   | 74.9 | 46.5 | 36.3 | 29.4 | 23.9 | 20.8 | 17.0 | 14.2 | 7.97 |
| 1.80V/cel l | 280.6  | 223.3  | 190.9  | 137.1  | 107.3  | 83.9 | 50.8 | 39.0 | 31.4 | 25.6 | 22.3 | 18.0 | 15.0 | 8.04 |
| 1.75V/cel l | 308.3  | 243.9  | 205.3  | 142.3  | 111.4  | 87.8 | 52.7 | 39.8 | 32.1 | 26.3 | 23.0 | 18.3 | 15.2 | 8.12 |
| 1.70V/cel l | 336.1  | 260.4  | 215.8  | 148.2  | 115.8  | 90.5 | 54.8 | 40.9 | 32.9 | 27.0 | 23.4 | 18.6 | 15.3 | 8.27 |
| 1.65V/cel l | 362.7  | 276.9  | 229.2  | 156.3  | 118.7  | 93.6 | 56.3 | 42.6 | 34.1 | 27.7 | 23.9 | 18.9 | 15.6 | 8.37 |
| 1.60V/cel l | 393.8  | 296.1  | 244.2  | 165.0  | 123.8  | 96.9 | 58.2 | 43.9 | 35.1 | 28.6 | 24.5 | 19.1 | 15.8 | 8.42 |

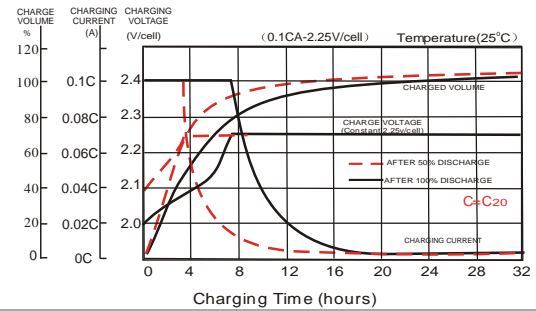
### Constant Power Discharge (Watts) at 20°C

| F.V/Ti me   | 10mi n | 15mi n | 20mi n | 30mi n | 45mi n | 1h    | 2h    | 3h   | 4h   | 5h   | 6h   | 8h   | 10h  | 20h  |
|-------------|--------|--------|--------|--------|--------|-------|-------|------|------|------|------|------|------|------|
| 1.85V/cel l | 409.8  | 348.4  | 307.7  | 223.3  | 178.5  | 145.4 | 90.7  | 70.9 | 57.5 | 46.9 | 41.1 | 33.6 | 28.0 | 15.9 |
| 1.80V/cel l | 516.6  | 414.7  | 358.2  | 260.3  | 205.9  | 161.9 | 98.3  | 75.9 | 61.1 | 50.2 | 44.0 | 35.6 | 29.7 | 16.1 |
| 1.75V/cel l | 560.6  | 448.6  | 382.2  | 268.9  | 212.7  | 168.7 | 101.7 | 77.1 | 62.4 | 51.4 | 45.1 | 36.2 | 30.0 | 16.2 |
| 1.70V/cel l | 602.5  | 475.4  | 399.4  | 278.8  | 220.6  | 173.6 | 105.5 | 79.0 | 63.9 | 52.6 | 46.0 | 36.7 | 30.2 | 16.5 |
| 1.65V/cel l | 645.6  | 502.2  | 422.3  | 292.8  | 225.2  | 178.8 | 108.1 | 82.2 | 65.9 | 54.0 | 46.9 | 37.2 | 30.8 | 16.7 |
| 1.60V/cel l | 689.0  | 530.7  | 445.2  | 306.0  | 232.6  | 183.7 | 111.1 | 84.3 | 67.7 | 55.5 | 47.8 | 37.5 | 31.1 | 16.8 |

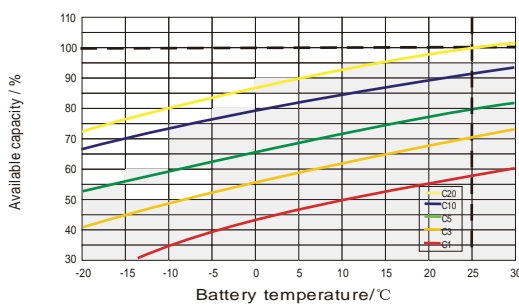
### Discharge Characteristics



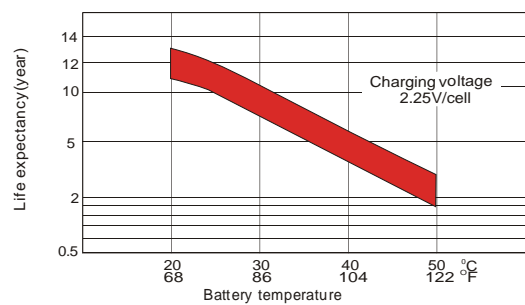
### Float Charging Characteristics



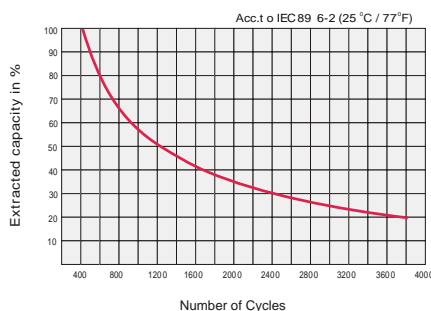
### Temperature Effects in Relation to Battery Capacity



### Effect of Temperature on Long Term Float Life



### Cycle Life in Relation to Depth of Discharge



### General Relation of Capacity VS. Storage Time

