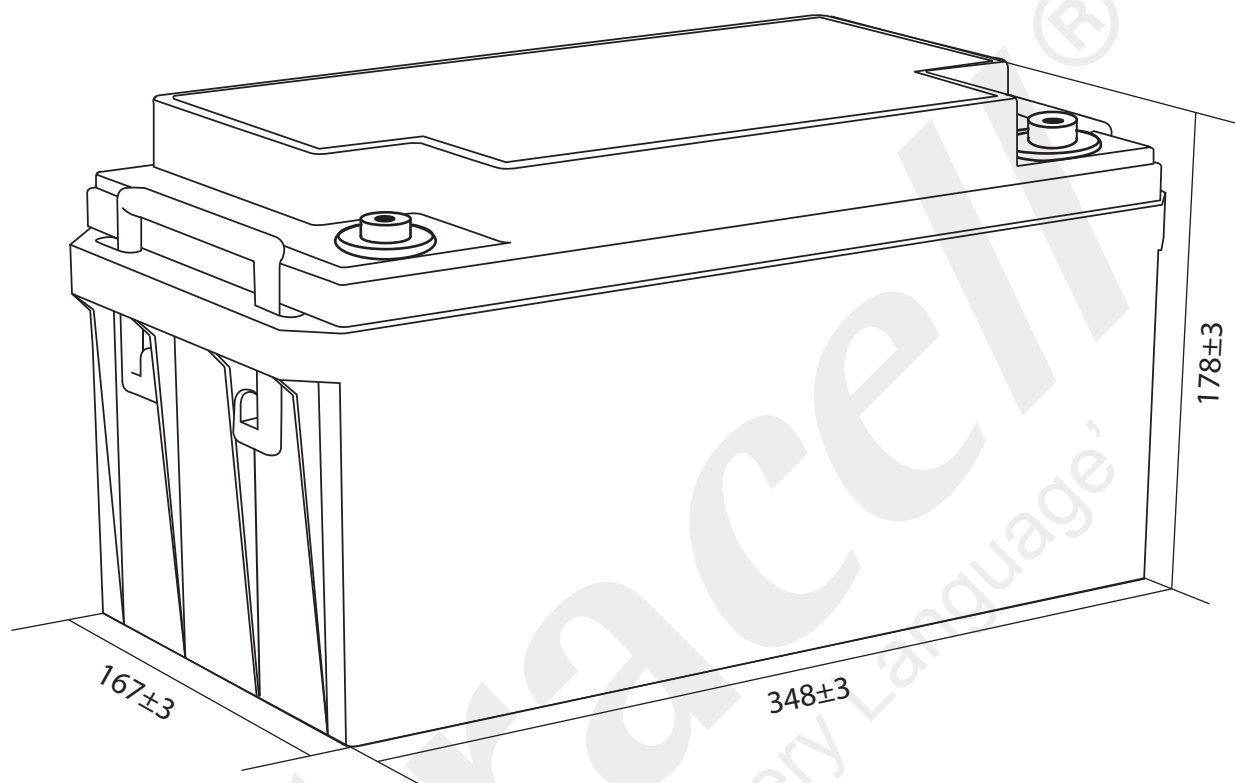
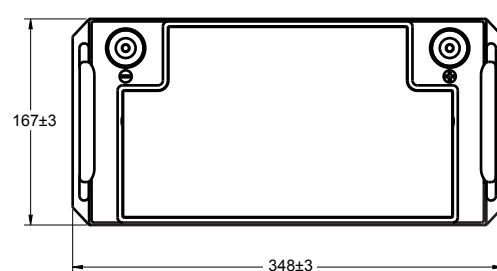
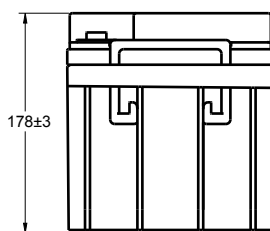
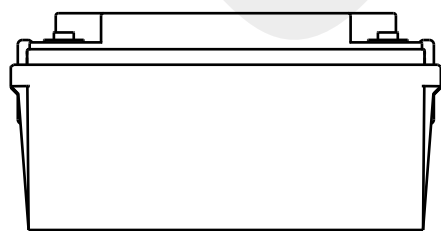




### Technical Dimensions (mm)

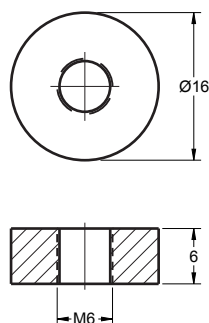


## Image



## Terminal Dimensions (mm)

Standard  
Terminal: F6



## Technical Specification

|                                     |                                  |                                                                                                      |
|-------------------------------------|----------------------------------|------------------------------------------------------------------------------------------------------|
| <b>Output</b>                       | Nominal Voltage                  | 12V                                                                                                  |
|                                     | Nominal Capacity (10HR)          | 65Ah                                                                                                 |
| <b>Terminal Type</b>                | Standard Terminal                | F6                                                                                                   |
| <b>Container Material</b>           | Standard Option                  | ABS                                                                                                  |
|                                     | Flame Retardant Option (FR)      | ABS (UL94:VO)                                                                                        |
| <b>Rated Capacity</b>               | (20HR 1.80V/cell, 25°C)          | 67.0 Ah/3.35A                                                                                        |
|                                     | (10HR 1.80V/cell, 25°C)          | 65.0 Ah/6.50A                                                                                        |
|                                     | (5HR 1.75V/cell, 25°C)           | 55.5 Ah/11.1A                                                                                        |
|                                     | (3HR 1.75V/cell, 25°C)           | 48.0 Ah/16.0A                                                                                        |
|                                     | (1HR 1.60V/cell, 25°C)           | 38.8 Ah/38.8A                                                                                        |
| <b>Max Discharge Current</b>        | 780A (5s)                        |                                                                                                      |
| <b>Internal Resistance</b>          | Approx 7.5mΩ                     |                                                                                                      |
| <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 19.5A.<br>Voltage 14.4V ~ 15.0V @ 25°C Temp. Coefficient -30mV/°C |
|                                     | Standby Use                      | Initial Charging Current less than 19.5A.<br>Voltage 13.5V ~ 13.8V @ 25°C Temp. Coefficient -20mV/°C |
|                                     | Capacity affected by Temperature | 40°C 103%<br>25°C 100%<br>0°C 86%                                                                    |
| <b>Design Floating Life at 20°C</b> | 10 Years                         |                                                                                                      |

## Self Discharge

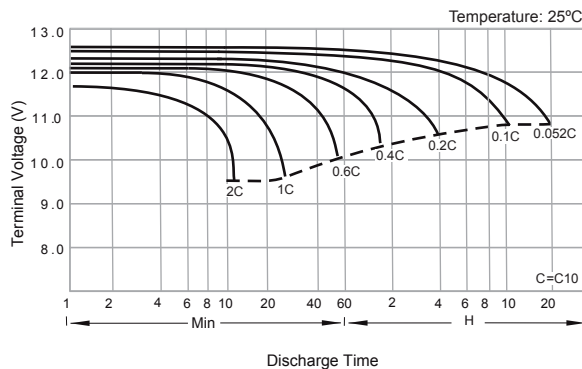
**Ultracell®** UCG batteries may be stored for up to 9 months at 25°C and then a refresh charge is required. For higher temperatures the time intervals will be shorter.

## Constant Current Discharge / Constant Power Discharge At 25°C (Amperes & Watts/Cell)

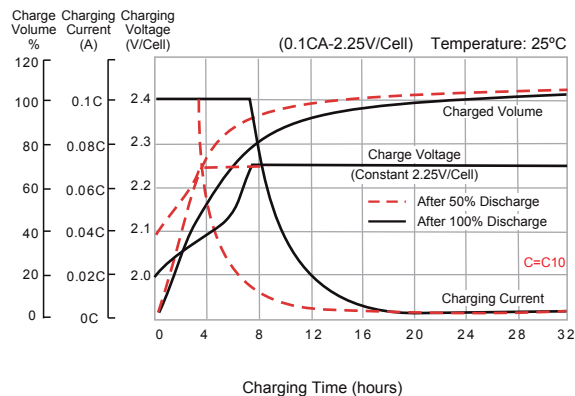
A = Amperes W = Watts

| F.V/TIME          | 5     | 10    | 15    | 20    | 30    | 45   | 60   | 2     | 3     | 4     | 5     | 6     | 8     | 10    | 20    |
|-------------------|-------|-------|-------|-------|-------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| A W               | min   | min   | min   | min   | min   | min  | min  | hours | hours | hours | hours | hours | hours | hours | hours |
| <b>1.85V/cell</b> | 104.8 | 82.4  | 70.1  | 58.6  | 46.3  | 35.2 | 29.1 | 18.5  | 14.4  | 11.8  | 10.0  | 8.74  | 7.12  | 6.03  | 3.25  |
|                   | 193.1 | 153.4 | 131.7 | 111.3 | 88.7  | 67.9 | 56.4 | 36.0  | 28.1  | 23.2  | 19.7  | 17.3  | 14.1  | 12.0  | 6.46  |
| <b>1.80V/cell</b> | 138.6 | 103.7 | 83.4  | 68.3  | 53.3  | 39.9 | 32.4 | 20.1  | 15.4  | 12.6  | 10.8  | 9.38  | 7.59  | 6.50  | 3.35  |
|                   | 252.9 | 191.0 | 154.9 | 127.9 | 100.9 | 76.5 | 62.4 | 39.0  | 30.0  | 24.6  | 21.1  | 18.4  | 15.0  | 12.9  | 6.65  |
| <b>1.75V/cell</b> | 159.5 | 116.3 | 93.0  | 74.9  | 56.8  | 42.2 | 34.2 | 21.1  | 16.0  | 13.0  | 11.1  | 9.64  | 7.72  | 6.57  | 3.38  |
|                   | 284.6 | 210.6 | 170.4 | 138.9 | 106.6 | 80.2 | 65.7 | 40.7  | 31.0  | 25.3  | 21.6  | 18.9  | 15.2  | 13.0  | 6.70  |
| <b>1.70V/cell</b> | 177.7 | 128.3 | 100.5 | 79.7  | 59.9  | 44.3 | 35.7 | 22.1  | 16.5  | 13.4  | 11.3  | 9.85  | 7.82  | 6.60  | 3.45  |
|                   | 307.8 | 226.6 | 181.2 | 146.4 | 111.6 | 83.8 | 68.3 | 42.5  | 32.0  | 26.0  | 22.1  | 19.3  | 15.4  | 13.1  | 6.83  |
| <b>1.65V/cell</b> | 194.1 | 137.1 | 105.8 | 83.8  | 62.8  | 45.7 | 37.0 | 22.7  | 17.2  | 13.8  | 11.6  | 10.1  | 7.95  | 6.66  | 3.48  |
|                   | 330.7 | 239.5 | 189.0 | 152.6 | 115.8 | 85.6 | 70.2 | 43.5  | 33.1  | 26.7  | 22.5  | 19.6  | 15.6  | 13.2  | 6.88  |
| <b>1.60V/cell</b> | 215.8 | 150.1 | 114.1 | 90.0  | 66.7  | 48.3 | 38.8 | 23.5  | 17.8  | 14.1  | 11.8  | 10.3  | 8.04  | 6.77  | 3.51  |
|                   | 359.2 | 256.1 | 200.4 | 162.0 | 122.1 | 89.9 | 73.2 | 44.8  | 34.1  | 27.2  | 22.9  | 20.0  | 15.8  | 13.4  | 6.94  |

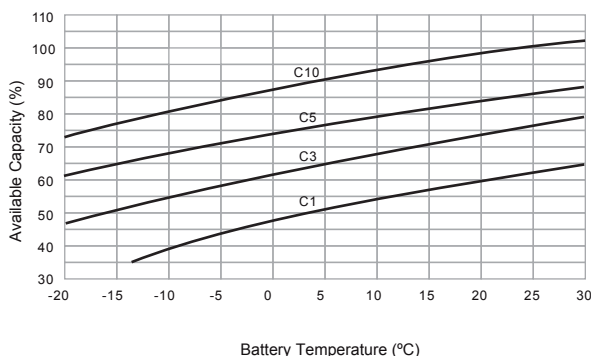
## Discharge Characteristics



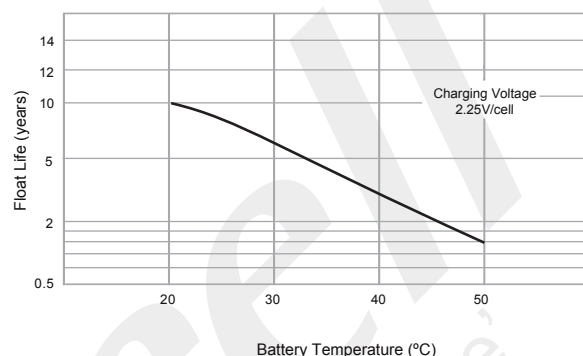
## Float Charging Characteristics



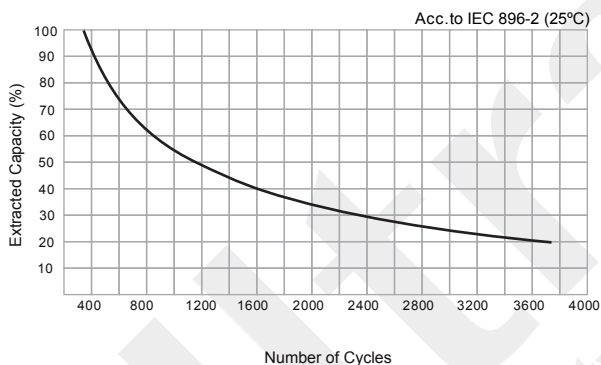
## Temperature Effects in Relation to Battery Capacity



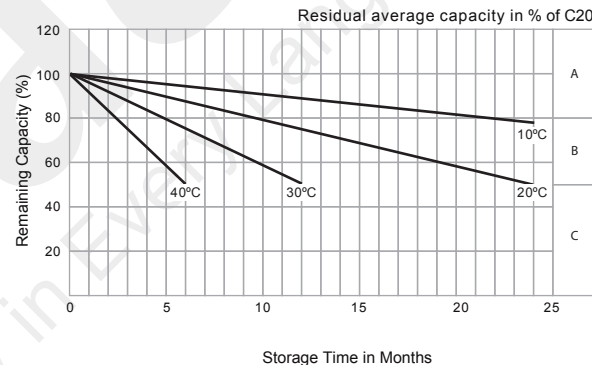
## Effect of Temperature on Long Term Float Life



## Cycle Life in Relation to Depth of Discharge



## General Relation of Capacity vs. Storage Time



## General Relation of Capacity vs. Storage Time (Notes)

- No supplementary charge required.  
(Carryout supplementary charge before use if 100% capacity is required.)
- Supplementary charge required before use. Optional charging way as below:
  - Charged for above 3 days at limited current 0.25CA and constant voltage 2.25V/cell.
  - Charged for above 20 hours at limited current 0.25CA and constant voltage 2.45V/cell.
  - Charged for 8 ~ 10 hours at limited current 0.05 CA.
- Supplementary charge may often fail to recover the capacity.  
The battery should never be left standing till this is reached.