# UCG120-12

12V 120AH

Deep Cycle

Ultracell®

'Quality in Every Language'

## UCG120-12




## Physical Specification

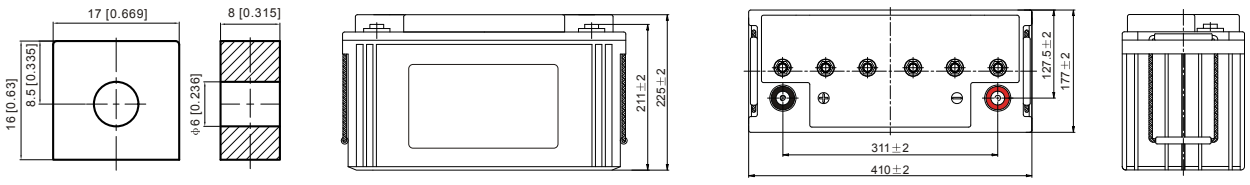
| | |
|---|---|
| Part Number | **UCG120-12** |
| Length | **409 ± 2 mm** |
| Width | **176 ± 2 mm** |
| Container Height | **225 ± 2 mm** |
| Total Height (with terminal) | **225 ± 2 mm** |
| Approx Weight | **37 kg** |

## Specifications

| | | |
|---|---|---|
| | Nominal Voltage | 12V |
| | Nominal Capacity 20HR) | 120AH |
| **Terminal Type** | Standard Terminal | F10 |
| | Optional Terminal | F11 |
| **Container Material** | Standard Option | ABS |
| | 20hr, 1.80V/cell, 25°C | 124.8Ah |
| | 10hr, 1.80V/cell, 25°C | 120Ah |
| | 5hr, 1.75V/cell, 25°C | 99Ah |
| | 1hr, 1.60V/cell, 25°C | 72Ah |
| **Max Discharge Current** | 960A(5s) | |
| **Internal Resistance** | 4.4mΩ | |
| **Discharge Characteristics** | Operating Temp. Range | Discharge: -15 ~ 50°C |
| | | Charge: -10 ~ 50°C |
| | | Storage: -20 ~ 50°C |
| | Nominal Operating Temp. Range | 25 ± 3°C |
| | Cycle Use | 13.80V ~ 14.10V Temp. Coefficient -30mV/°C |
| | Standby Use | No limit on Initial Charging Current Voltage<br>13.5V ~ 13.8V Temp. Coefficient -18mV/°C |
| | Capacity affect by Temperature | 40°C 103% |
| | | 25°C 100% |
| | | 0°C 86% |
| **Design Floating Life at 20°C** | 12~15 Years | |
| **Self Discharge** | Ultracell batteries may be stored for up to 6 months at 25°C(77°F) and then a refresh charge is required.<br>For higher temperatures the time interval will be shorter. | |

## Dimensions

### F10 Terminal



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Revised: 14 Apr 2015

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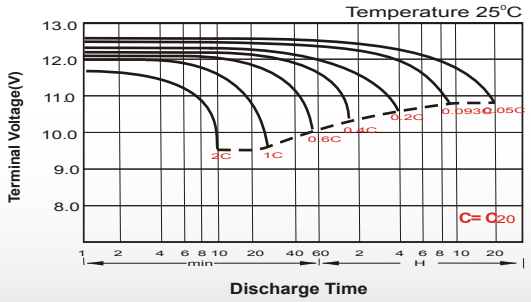
## Constant Current Discharge (Amperes) at 20°C

| F.V/ Time | 20min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 7h | 8h | 9h | 10h | 20h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.85V/cell | 110.0 | 86.3 | 65.9 | 55.1 | 35.0 | 26.7 | 22.1 | 19.1 | 16.4 | 14.6 | 13.1 | 12.0 | 11.3 | 6.24 |
| 1.80V/cell | 126.0 | 96.5 | 72.6 | 60.8 | 37.8 | 28.6 | 23.4 | 20.0 | 17.3 | 15.2 | 13.8 | 12.6 | 11.9 | 6.50 |
| 1.75V/cell | 141.6 | 106.1 | 78.5 | 65.1 | 40.1 | 30.2 | 24.5 | 20.8 | 17.9 | 15.8 | 14.2 | 13.0 | 12.1 | 6.63 |
| 1.70V/cell | 152.5 | 113.6 | 83.4 | 68.9 | 42.5 | 31.4 | 25.3 | 21.5 | 18.5 | 16.3 | 14.6 | 13.3 | 12.4 | 6.71 |
| 1.67V/cell | 158.7 | 118.0 | 86.3 | 71.5 | 43.6 | 32.4 | 25.9 | 21.9 | 18.8 | 16.5 | 14.9 | 13.5 | 12.5 | 6.78 |
| 1.60V/cell | 172.0 | 126.4 | 92.7 | 75.9 | 45.4 | 33.7 | 26.9 | 22.6 | 19.3 | 16.9 | 15.1 | 13.8 | 12.8 | 6.88 |

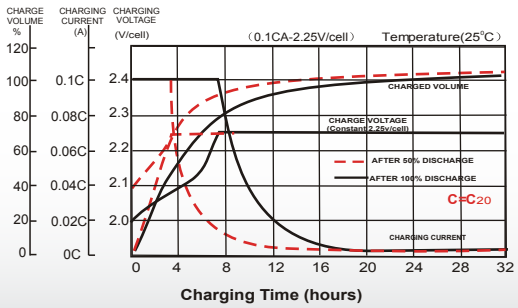
## Constant Power Discharge (Watts) at 20°C

| F.V/ Time | 20min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 7h | 8h | 9h | 10h | 20h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.85V/cell | 210.5 | 166.3 | 127.7 | 107.3 | 68.3 | 52.2 | 43.4 | 37.6 | 32.6 | 28.9 | 26.1 | 23.9 | 22.6 | 12.5 |
| 1.80V/cell | 238.0 | 184.1 | 139.8 | 117.8 | 73.6 | 55.7 | 45.8 | 39.4 | 34.1 | 30.2 | 27.3 | 25.1 | 23.6 | 13.0 |
| 1.75V/cell | 264.5 | 200.7 | 150.1 | 125.5 | 77.8 | 58.8 | 47.9 | 40.8 | 35.2 | 31.2 | 28.1 | 25.8 | 24.0 | 13.2 |
| 1.70V/cell | 281.8 | 213.0 | 158.2 | 132.0 | 82.0 | 61.0 | 49.3 | 41.9 | 36.3 | 32.1 | 28.9 | 26.5 | 24.6 | 13.4 |
| 1.67V/cell | 290.0 | 219.0 | 162.7 | 136.2 | 83.7 | 62.7 | 50.4 | 42.7 | 36.8 | 32.5 | 29.3 | 26.7 | 24.8 | 13.5 |
| 1.60V/cell | 310.8 | 232.2 | 173.4 | 143.9 | 86.7 | 64.9 | 52.1 | 43.9 | 37.6 | 33.1 | 29.7 | 27.3 | 25.3 | 13.6 |

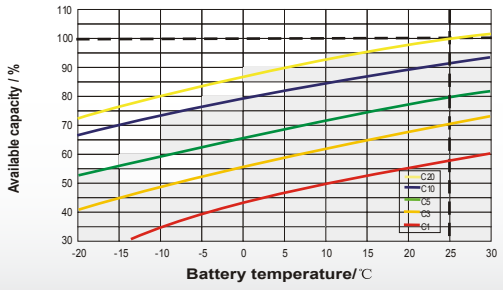
### Discharge Characteristics



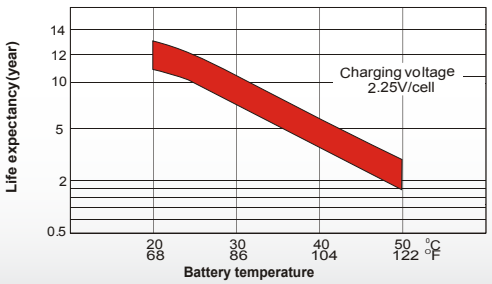

### Charging Characteristics



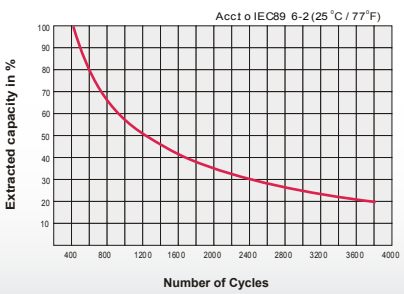

### Temperature Effects in Relation to Battery Capacity



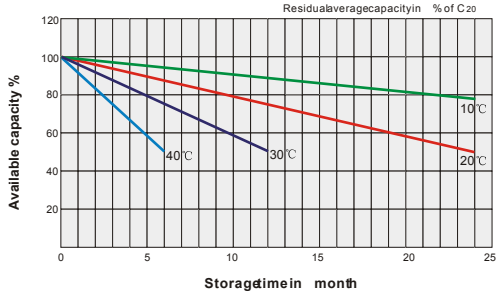

### Effect of Temperature on Long Term Float Life




### Cycle Life in Relation to Depth of Discharge




### General Relation of Capacity VS. Storage Time



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