

UC 100-12

12V 100AH

Deep Cycle

Ultracell®

'Quality in Every Language'

UC100-12



Physical Specification

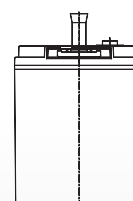
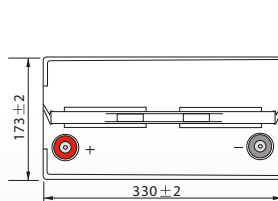
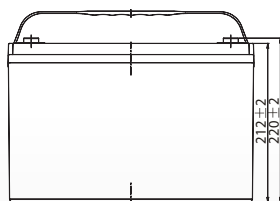
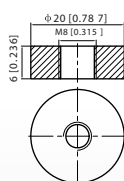
| | |
|-------------------------------|----------------------------------|
| Part Number: | UC100-12 |
| Length: | 330 ± 2 mm (12.99 inches) |
| Width: | 173 ± 2 mm (6.81 inches) |
| Container Height: | 212 ± 2 mm (8.35 inches) |
| Total Height (with terminal): | 220 ± 2 mm (8.66 inches) |
| Approx Weight: | Approx 30.4kg (67.0lbs) |

Specifications

| | | |
|-------------------------------------|--|---|
| | Normal Voltage | 12V |
| | Normal Capacity (20HR) | 100.0AH |
| Terminal Type | Standard Terminal | F11 |
| | Optional Terminal | - |
| Container Material | Standard Option | ABS |
| | Flame Retardant Option (FR) | ABS(UL94:VO) |
| Rated Capacity | 107.2 AH/5.36A | (20hr, 1.80V/cell, 25°C / 77°F) |
| | 100.0 AH/10.0A | (10hr, 1.80V/cell, 25°C / 77°F) |
| | 87.7 AH/17.5A | (5hr, 1.75V/cell, 25°C / 77°F) |
| | 79.5 AH/26.5A | (3hr, 1.75V/cell, 25°C / 77°F) |
| | 64.6 AH/64.6A | (1hr, 1.60V/cell, 25°C / 77°F) |
| Max Discharge Current | 1200A (5s) | |
| Internal Resistance | Approx 4.9mΩ | |
| Discharge Characteristics | Operating Temp. Range | Discharge: -15 ~ 50°C (5 ~ 122°F) |
| | | Charge: 0 ~ 40°C (5 ~ 104°F) |
| | | Storage: -15 ~ 40°C (5 ~ 104°F) |
| | Nominal Operating Temp. Range | 25 ± 3°C (77 ± 5°F) |
| | Cycle Use | Initial Charging Current less than 30.0A. Voltage 14.4V ~ 15.0V at 25°C (77°F) Temp. Coefficient -30mV/°C |
| | Standby Use | No limit on Initial Charging Current Voltage 13.5V ~ 13.8V at 25°C (77°F) Temp. Coefficient -20mV/°C |
| Capacity affected by Temperature | 40°C (104°F) 103% | |
| | 25°C (77°F) 100% | |
| | 0°C (32°F) 86% | |
| Design Floating Life at 20°C | 12 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. For higher temperatures the time interval will be shorter. | |

Dimensions

F11 Terminal



ALL DATA IS SUBJECT TO CHANGE WITHOUT NOTICE

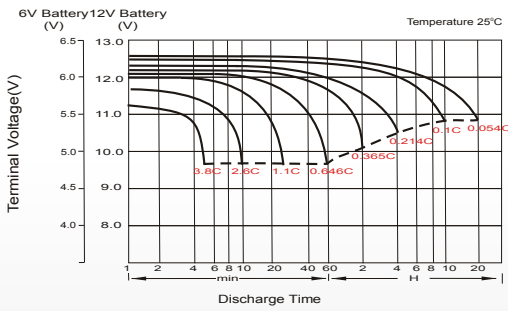
Constant Current Discharge (Amperes) at 25°C (77°F)

| F.V/Time | 10 min | 15 min | 20 min | 30 min | 45 min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|------------|--------|--------|--------|--------|--------|------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 146.4 | 123.2 | 107.7 | 77.5 | 61.5 | 49.9 | 31.0 | 24.2 | 19.6 | 15.9 | 13.9 | 11.3 | 9.4 | 5.31 |
| 1.80V/cell | 187.1 | 148.9 | 127.3 | 91.4 | 71.6 | 55.9 | 33.9 | 26.0 | 20.9 | 17.1 | 14.9 | 12.0 | 10.0 | 5.36 |
| 1.75V/cell | 205.6 | 162.6 | 136.9 | 94.9 | 74.3 | 58.5 | 35.1 | 26.5 | 21.4 | 17.5 | 15.3 | 12.2 | 10.1 | 5.41 |
| 1.70V/cell | 224.1 | 173.6 | 143.9 | 98.8 | 77.2 | 60.4 | 36.5 | 27.2 | 22.0 | 18.0 | 15.6 | 12.4 | 10.2 | 5.51 |
| 1.65V/cell | 241.8 | 184.6 | 152.8 | 104.2 | 79.2 | 62.4 | 37.5 | 28.4 | 22.7 | 18.5 | 16.0 | 12.6 | 10.4 | 5.58 |
| 1.60V/cell | 262.5 | 197.4 | 162.8 | 110.0 | 82.5 | 64.6 | 38.8 | 29.3 | 23.4 | 19.1 | 16.3 | 12.7 | 10.5 | 5.61 |

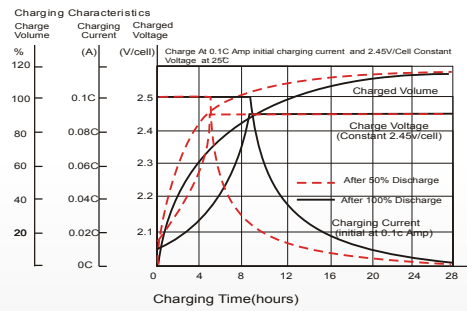
Constant Power Discharge (Watts) at 25°C (77°F)

| F.V/Time | 10 min | 15 min | 20 min | 30 min | 45 min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|------------|--------|--------|--------|--------|--------|-------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 273.2 | 232.3 | 205.2 | 148.8 | 119.0 | 96.9 | 60.4 | 47.2 | 38.4 | 31.3 | 27.4 | 22.4 | 18.7 | 10.6 |
| 1.80V/cell | 344.4 | 276.5 | 238.8 | 173.5 | 137.3 | 107.9 | 65.6 | 50.6 | 40.8 | 33.5 | 29.3 | 23.7 | 19.8 | 10.7 |
| 1.75V/cell | 373.8 | 299.1 | 254.8 | 179.3 | 141.8 | 112.5 | 67.8 | 51.4 | 41.6 | 34.3 | 30.1 | 24.1 | 20.0 | 10.8 |
| 1.70V/cell | 401.7 | 316.9 | 266.3 | 185.8 | 147.0 | 115.7 | 70.3 | 52.7 | 42.6 | 35.1 | 30.7 | 24.5 | 20.2 | 11.0 |
| 1.65V/cell | 430.4 | 334.8 | 281.5 | 195.2 | 150.2 | 119.2 | 72.1 | 54.8 | 44.0 | 36.0 | 31.3 | 24.8 | 20.6 | 11.1 |
| 1.60V/cell | 459.4 | 353.8 | 296.8 | 204.0 | 155.1 | 122.5 | 74.1 | 56.2 | 45.1 | 37.0 | 31.9 | 25.0 | 20.8 | 11.2 |

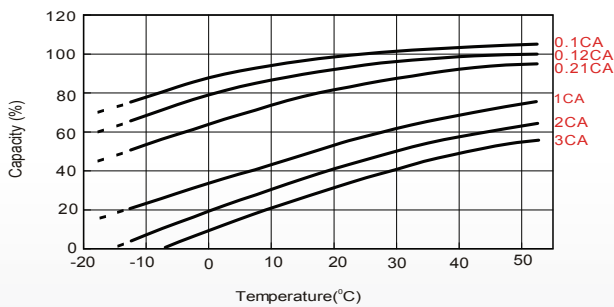
Discharge Characteristics



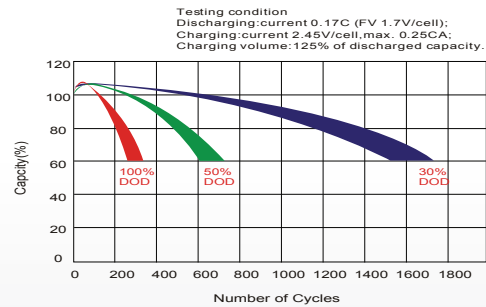
Charging Characteristics (cycle use)



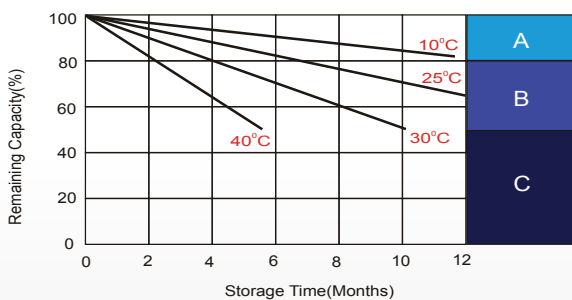
Temperature Effects in Relation to Battery Capacity



Cycle Life in Relation to Depth of Discharge



Self Discharge Characteristics



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

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