

UL5-12L



Physical Specification

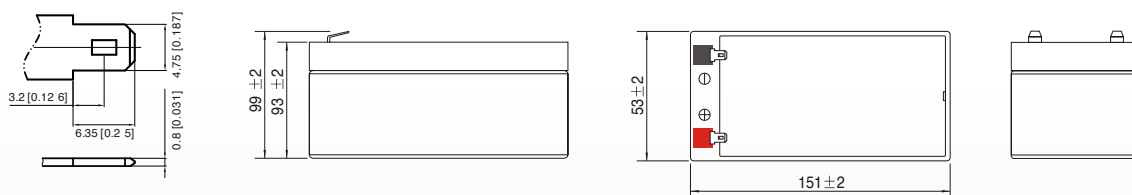
| | |
|-------------------------------|---------------------------------|
| Part Number: | UL5-12L |
| Length: | 151 ± 2 mm (5.94 inches) |
| Width: | 53 ± 2 mm (2.09 inches) |
| Container Height: | 93 ± 2 mm (3.66 inches) |
| Total Height (with terminal): | 99 ± 2 mm (3.90 inches) |
| Approx Weight: | Approx 1.75kg (3.86lbs) |

Specifications

| | | |
|------------------------------|--|---|
| | Normal Voltage | 12V |
| | Normal Capacity (20HR) | 5AH |
| Terminal Type | Standard Terminal | F1 |
| | Optional Terminal | F2 |
| Container Material | Standard Option | ABS |
| | Flame Retardant Option (FR) | UL94:VO |
| Rated Capacity | 5.00 AH/0.27A | (20hr, 1.80V/cell, 25°C / 77°F) |
| | 4.65 AH/0.502A | (10hr, 1.80V/cell, 25°C / 77°F) |
| | 4.60 AH/0.92A | (5hr, 1.75V/cell, 25°C / 77°F) |
| | 4.14 AH/1.38A | (3hr, 1.75V/cell, 25°C / 77°F) |
| | 3.39 AH/3.39A | (1hr, 1.60V/cell, 25°C / 77°F) |
| Max Discharge Current | 81A (5s) | |
| Internal Resistance | Approx 30mΩ | |
| 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 1.62A. 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 | 5 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

F1 Terminal



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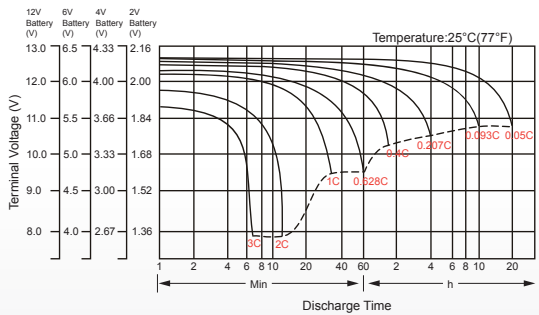
Constant Current Discharge (Amperes) at 25°C (77°F)

| F.V/Time | 5 min | 10 min | 15 min | 20 min | 30 min | 45 min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|------------|-------|--------|--------|--------|--------|--------|------|------|------|------|------|------|-------|-------|-------|
| 1.85V/cell | 10.3 | 7.90 | 6.54 | 5.66 | 4.37 | 3.22 | 2.72 | 1.61 | 1.26 | 1.02 | 0.83 | 0.72 | 0.583 | 0.487 | 0.267 |
| 1.80V/cell | 13.8 | 10.1 | 7.90 | 6.69 | 5.16 | 3.75 | 3.04 | 1.75 | 1.35 | 1.09 | 0.89 | 0.78 | 0.618 | 0.502 | 0.270 |
| 1.75V/cell | 15.6 | 11.1 | 8.63 | 7.19 | 5.36 | 3.89 | 3.18 | 1.82 | 1.38 | 1.12 | 0.92 | 0.80 | 0.629 | 0.516 | 0.273 |
| 1.70V/cell | 17.1 | 12.1 | 9.22 | 7.56 | 5.58 | 4.04 | 3.28 | 1.86 | 1.42 | 1.14 | 0.94 | 0.81 | 0.638 | 0.526 | 0.278 |
| 1.65V/cell | 18.9 | 13.0 | 9.80 | 8.03 | 5.88 | 4.15 | 3.36 | 1.89 | 1.48 | 1.18 | 0.97 | 0.83 | 0.648 | 0.537 | 0.281 |
| 1.60V/cell | 20.8 | 14.2 | 10.5 | 8.55 | 6.21 | 4.32 | 3.39 | 1.97 | 1.52 | 1.22 | 1.00 | 0.85 | 0.654 | 0.543 | 0.283 |

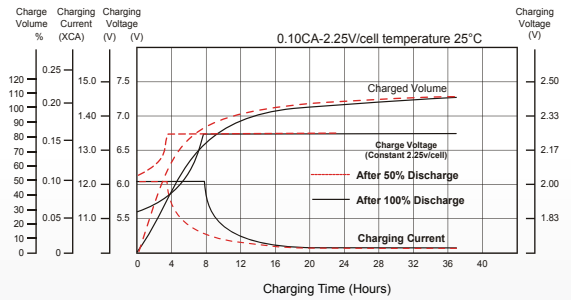
Constant Power Discharge (Watts) at 25°C (77°F)

| F.V/Time | 5 min | 10 min | 15 min | 20 min | 30 min | 45 min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|------------|-------|--------|--------|--------|--------|--------|------|------|------|------|------|------|-------|-------|-------|
| 1.85V/cell | 18.8 | 14.6 | 12.2 | 10.7 | 8.34 | 6.19 | 5.24 | 3.12 | 2.45 | 2.00 | 1.63 | 1.42 | 1.151 | 0.964 | 0.530 |
| 1.80V/cell | 25.0 | 18.4 | 14.5 | 12.4 | 9.68 | 7.15 | 5.84 | 3.38 | 2.62 | 2.12 | 1.74 | 1.52 | 1.217 | 0.992 | 0.534 |
| 1.75V/cell | 27.6 | 19.9 | 15.7 | 13.2 | 9.97 | 7.35 | 6.08 | 3.49 | 2.66 | 2.16 | 1.79 | 1.55 | 1.235 | 1.018 | 0.539 |
| 1.70V/cell | 29.5 | 21.2 | 16.5 | 13.8 | 10.3 | 7.61 | 6.25 | 3.57 | 2.73 | 2.21 | 1.83 | 1.59 | 1.252 | 1.037 | 0.548 |
| 1.65V/cell | 32.1 | 22.7 | 17.4 | 14.5 | 10.8 | 7.73 | 6.35 | 3.60 | 2.83 | 2.28 | 1.87 | 1.61 | 1.268 | 1.057 | 0.555 |
| 1.60V/cell | 34.6 | 24.1 | 18.3 | 15.3 | 11.3 | 8.01 | 6.38 | 3.74 | 2.90 | 2.35 | 1.93 | 1.64 | 1.278 | 1.067 | 0.557 |

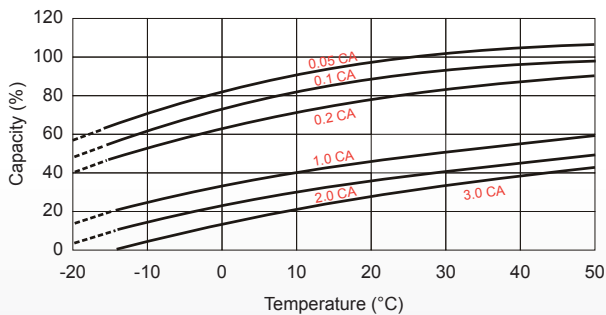
Discharge Characteristics



Float Charging Characteristics



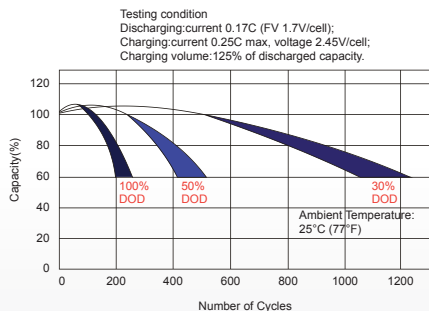
Temperature Effects in Relation to Battery Capacity



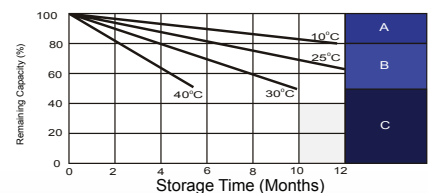
Effect of Temperature on Long Term Float Life



Cycle Life in Relation to Depth of Discharge



Self Discharge Characteristics



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