

# CXL250-12

12V 250AH

Extended Life



## CXL250-12

Awaiting Image

## Physical Specification

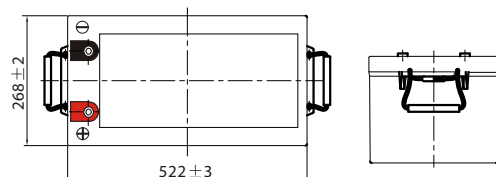
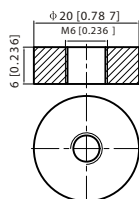
|                               |                                   |
|-------------------------------|-----------------------------------|
| Part Number:                  | <b>CXL250-12</b>                  |
| Length:                       | <b>522 ± 3 mm (20.55 inches)</b>  |
| Width:                        | <b>268 ± 3 mm (10.55 inches)</b>  |
| Container Height:             | <b>220 ± 3 mm (8.66 inches)</b>   |
| Total Height (with terminal): | <b>226 ± 3 mm (8.90 inches)</b>   |
| Approx Weight:                | <b>Approx 77.0 Kg (169.8 lbs)</b> |

## Specifications

|                              |   |   |      |
|------------------------------|---|---|------|
|                              | Nominal Voltage   | 12V   |      |
|                              | Nominal Capacity (10HR)   | 250AH   |      |
| Terminal Type                | Standard Terminal   | T8  |      |
|                              | Optional Terminal   | -   |      |
| Container Material           | Standard Option   | ABS   |      |
|                              | Flame Retardant Option (FR)   | ABS (UL94:VO)   |      |
| Rated Capacity               | 267.5 AH/13.38A   | (20hr,1.80V/cell, 25°C / 77°F)  |      |
|                              | 250.0 AH/25.0A  | (10hr,1.80V/cell, 25°C / 77°F)  |      |
|                              | 217.5 AH/43.5A  | (5hr,1.75V/cell, 25°C / 77°F)   |      |
|                              | 195.0 AH/65.0A  | (3hr,1.75V/cell, 25°C / 77°F)   |      |
|                              | 155.0 AH/155.0A   | (1hr,1.60V/cell, 25°C / 77°F)   |      |
| Max Discharge Current        | 2500A (5s)  |   |      |
| Internal Resistance          | Approx 2.5mΩ  |   |      |
| Discharge Characteristics    | Operating Temp. Range   | Discharge: -15 ~ 50°C (5 ~ 122°F)   |      |
|                              |   | Charge: 0 ~ 40°C (32 ~ 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 75.0A.Voltage<br>14.4V ~ 15.0V at 25°C (77°F) Temp. Coefficient -30mV/°C |      |
|                              | Standby Use   | No limit on Initial Charging Current Voltage<br>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 | 15 Years  |   |      |
| Self Discharge               | Canbat 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

### T8 Terminal



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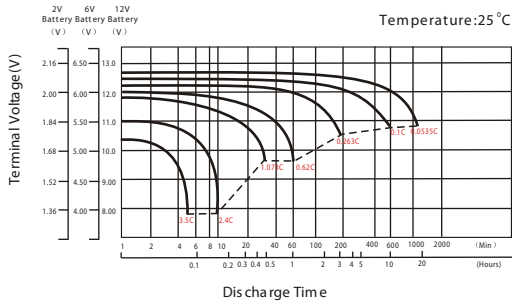
## Constant Current Discharge (Amperes) at 25 °C (77°F)

| F.V/Time   | 10min | 15min | 20min | 30min | 45min | 1h    | 2h   | 3h   | 4h   | 5h   | 6h   | 8h   | 10h  | 20h  |
|------------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 292.5 | 246.0 | 218.3 | 181.0 | 139.7 | 119.5 | 77.4 | 58.2 | 47.7 | 40.1 | 35.1 | 28.2 | 24.2 | 12.9 |
| 1.80V/cell | 334.7 | 276.2 | 241.3 | 196.6 | 150.7 | 126.1 | 83.2 | 62.5 | 50.7 | 42.5 | 37.2 | 29.7 | 25.0 | 13.4 |
| 1.75V/cell | 380.1 | 311.3 | 266.7 | 213.6 | 164.3 | 137.5 | 86.5 | 65.0 | 52.4 | 43.5 | 38.4 | 30.7 | 25.7 | 13.7 |
| 1.70V/cell | 429.3 | 345.4 | 294.3 | 233.2 | 177.0 | 145.5 | 91.1 | 68.4 | 54.8 | 46.0 | 40.2 | 31.9 | 26.7 | 14.1 |
| 1.65V/cell | 461.0 | 369.8 | 313.1 | 246.1 | 187.3 | 150.5 | 94.5 | 71.2 | 56.9 | 47.5 | 41.6 | 33.0 | 27.4 | 14.5 |
| 1.60V/cell | \     | 405.1 | 340.2 | 262.6 | 194.7 | 155.0 | 96.9 | 73.0 | 58.2 | 48.6 | 42.5 | 33.6 | 28.0 | 14.7 |

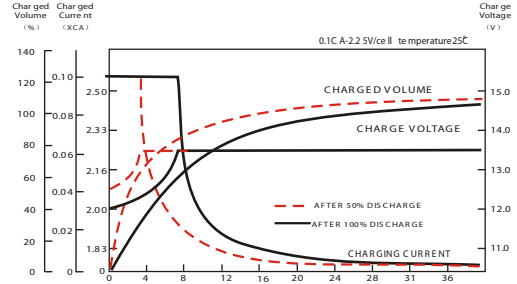
## Constant Power Discharge (Watts) at 25 °C (77°F)

| F.V/Time   | 10min | 15min | 20min | 30min | 45min | 1h    | 2h    | 3h    | 4h    | 5h   | 6h   | 8h   | 10h  | 20h  |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|
| 1.85V/cell | 546.2 | 464.0 | 415.8 | 348.6 | 271.3 | 232.9 | 151.8 | 114.6 | 94.1  | 79.4 | 69.8 | 56.2 | 48.4 | 25.9 |
| 1.80V/cell | 617.7 | 514.1 | 453.0 | 372.9 | 290.4 | 244.5 | 162.1 | 122.4 | 99.5  | 83.8 | 73.6 | 59.0 | 49.9 | 26.7 |
| 1.75V/cell | 690.4 | 572.3 | 495.9 | 401.9 | 313.7 | 265.3 | 168.0 | 126.8 | 102.6 | 85.5 | 75.7 | 60.8 | 51.2 | 27.4 |
| 1.70V/cell | 762.3 | 626.2 | 543.3 | 436.4 | 336.7 | 279.9 | 176.6 | 133.2 | 107.0 | 90.2 | 79.2 | 63.3 | 53.1 | 28.0 |
| 1.65V/cell | 811.2 | 665.4 | 573.7 | 456.8 | 353.1 | 287.5 | 182.0 | 138.0 | 110.8 | 92.8 | 81.7 | 65.3 | 54.5 | 28.9 |
| 1.60V/cell | \     | 716.9 | 616.5 | 484.0 | 365.0 | 294.5 | 185.7 | 140.9 | 112.9 | 94.7 | 83.2 | 66.3 | 55.6 | 29.3 |

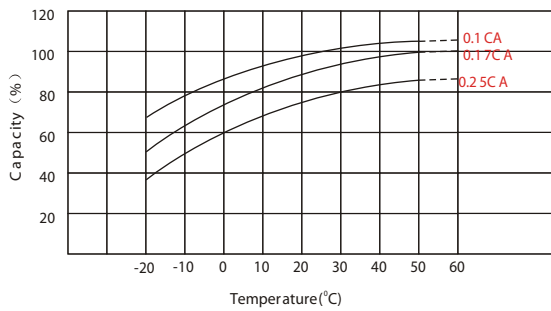
### Discharge Characteristics



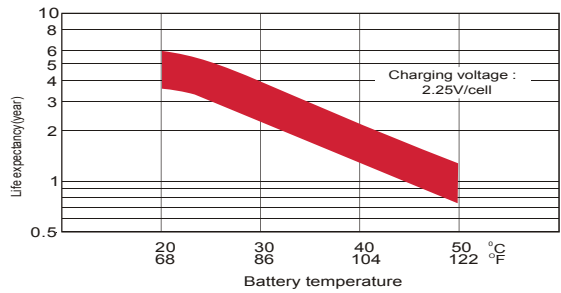
### Float Charging Characteristics



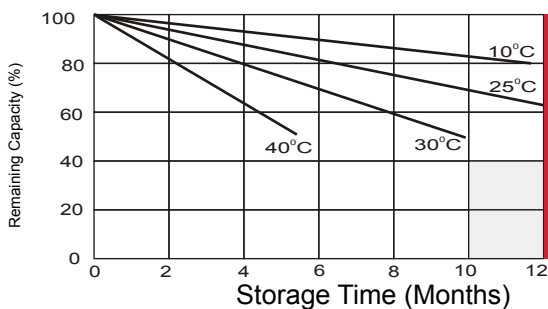
### Temperature Effects in Relation to Battery Capacity



### Effect of Temperature on Long Term Float Life



### Self Discharge Characteristics



**A**

No supplementary required  
(Carryout 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 voltage 2.25V/cell.  
 2. Charged for above 20 hours at limited current 0.25CA and constant voltage 2.25V/cell.  
 3. Charged for 8 ~ 10 hours at limited current 0.05 CA.

**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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