

# CBL40-12

12V 40AH

General Purpose Sealed Lead Acid Battery

# CANBAT

## CBL40-12



## Physical Specification

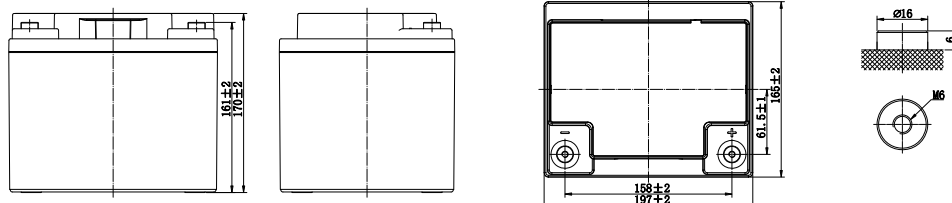
|                               |                                 |
|-------------------------------|---------------------------------|
| Part Number:                  | <b>CBL40-12</b>                 |
| Length:                       | <b>197 ± 2 mm (7.76 inches)</b> |
| Width:                        | <b>165 ± 2 mm (6.50 inches)</b> |
| Container Height:             | <b>170 ± 2 mm (6.69 inches)</b> |
| Total Height (with terminal): | <b>170 ± 2 mm (6.69 inches)</b> |
| Approx Weight:                | <b>13.2 Kg (29.1 lbs)</b>       |

## Specifications

|                              |   |   |
|------------------------------|---|---|
|                              | Nominal Voltage   | 12V   |
|                              | (C20 ,1.75V/cell)   | 40AH  |
| Terminal Option              | M6  |   |
| Container Material           | Standard Option   | ABS   |
|                              | Flame Retardant Option (FR)   | ABS (UL94:VO)   |
| Rated Capacity               | (20hr,2.00A,1.80V/cell)   | 40.0 Ah   |
|                              | (10hr,3.80A,1.80V/cell)   | 38.0 Ah   |
|                              | (5hr,6.52A,1.75V/cell)  | 32.6 Ah   |
|                              | (3hr,9.74A,1.75V/cell)  | 29.2 Ah   |
|                              | (1hr,24.0A,1.60V/cell)  | 24.0 Ah   |
| Max Discharge Current (5s)   | 380A  |   |
| Internal Resistance          | Approx. 10.0mΩ  |   |
| Discharge Characteristics    | Operating Temp. Range   | Discharge: -15°C~50°C (5°F~122°F)   |
|                              |   | Charge: -20~40°C (-4~104°F)   |
|                              |   | Storage: -15°C~40°C (5°F~104°F)   |
|                              | Nominal Operating Temp. Range   | 25 ± 3°C (77 ± 5°F)   |
|                              | Cycle Use   | Initial Charging Current less than 11.4A. Voltage 14.4V~15.0V at 25°C (77°F) Temp. Coefficient -30mV/°C |
|                              | Self Discharge  | Initial Charging Current less than 11.4A. 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 | 20+ Years   |   |
| Self Discharge               | Canbat Lead Acid AGM 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. Self-discharge is less than 2% |   |

## Dimensions

### M6 Terminal



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12V 40AH

General Purpose Sealed Lead Acid Battery

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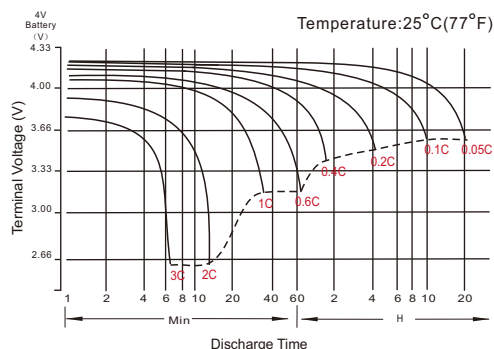
## Constant Current Discharge (Amperes) at 25 °C (77 °F)

| F.V/Time   | 5min  | 10min | 15min | 20min | 30min | 45min | 1h   | 1.5h | 2h   | 3h   | 4h   | 5h   | 6h   | 8h   | 10h  | 20h  |
|------------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 87.0  | 61.8  | 57.7  | 45.6  | 34.6  | 25.1  | 18.9 | 14.7 | 11.8 | 8.66 | 7.08 | 5.92 | 5.47 | 4.17 | 3.49 | 1.83 |
| 1.80V/cell | 98.9  | 70.2  | 64.5  | 51.0  | 38.7  | 26.6  | 20.9 | 16.1 | 12.8 | 9.50 | 7.63 | 6.37 | 5.87 | 4.47 | 3.80 | 2.00 |
| 1.75V/cell | 107.4 | 76.1  | 68.9  | 54.4  | 41.3  | 27.5  | 21.6 | 16.6 | 13.2 | 9.74 | 7.82 | 6.52 | 5.92 | 4.55 | 3.84 | 2.02 |
| 1.70V/cell | 114.9 | 81.2  | 72.4  | 57.2  | 43.5  | 28.1  | 22.4 | 17.2 | 13.7 | 9.92 | 8.02 | 6.66 | 5.95 | 4.63 | 3.88 | 2.04 |
| 1.67V/cell | 118.9 | 83.7  | 73.6  | 58.1  | 44.1  | 28.5  | 22.9 | 17.5 | 13.8 | 10.1 | 8.13 | 6.74 | 5.98 | 4.68 | 3.91 | 2.05 |
| 1.60V/cell | 123.1 | 86.6  | 74.6  | 59.0  | 44.8  | 28.9  | 24.0 | 18.3 | 14.4 | 10.4 | 8.36 | 6.95 | 6.02 | 4.79 | 3.96 | 2.08 |

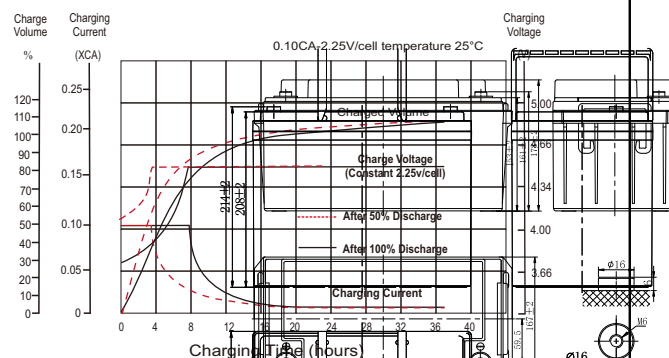
## Constant Power Discharge (Watts/cell) at 25 °C (77 °F)

| F.V/Time   | 5min  | 10min | 15min | 20min | 30min | 45min | 1h   | 1.5h | 2h   | 3h   | 4h   | 5h   | 6h   | 8h   | 10h  | 20h  |
|------------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 159.5 | 114.2 | 102.7 | 81.2  | 61.7  | 45.3  | 40.0 | 28.4 | 22.7 | 17.4 | 13.8 | 11.5 | 10.4 | 8.16 | 6.86 | 3.60 |
| 1.80V/cell | 178.4 | 127.8 | 114.9 | 90.8  | 69.0  | 47.7  | 43.8 | 30.9 | 24.6 | 18.6 | 14.7 | 12.4 | 11.1 | 8.71 | 7.28 | 3.82 |
| 1.75V/cell | 190.4 | 136.4 | 122.6 | 96.8  | 73.5  | 49.1  | 45.1 | 31.7 | 25.3 | 19.0 | 15.1 | 12.6 | 11.1 | 8.88 | 7.39 | 3.88 |
| 1.70V/cell | 200.2 | 143.4 | 128.9 | 101.9 | 77.4  | 49.7  | 46.4 | 32.6 | 26.0 | 19.6 | 15.4 | 12.8 | 11.2 | 8.98 | 7.49 | 3.93 |
| 1.67V/cell | 203.4 | 145.7 | 131.0 | 103.5 | 78.6  | 50.2  | 47.1 | 33.1 | 26.2 | 19.9 | 15.6 | 13.0 | 11.2 | 9.09 | 7.54 | 3.96 |
| 1.60V/cell | 206.3 | 147.7 | 132.9 | 105.0 | 79.7  | 50.4  | 48.9 | 34.2 | 27.2 | 20.4 | 15.9 | 13.3 | 11.2 | 9.28 | 7.66 | 4.03 |

## Discharge Characteristics



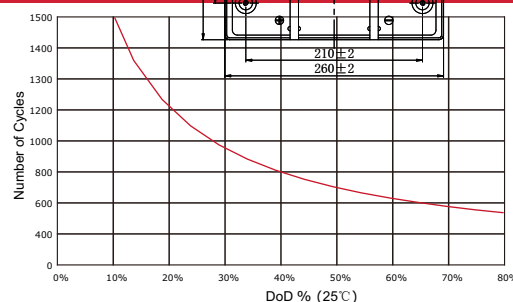
## Float Charging Characteristics



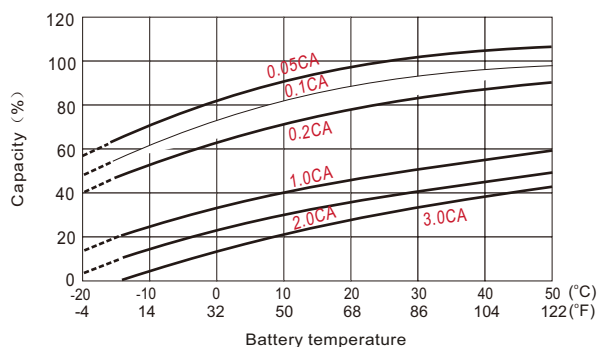
## Valve-Regulated Sealed Lead Acid Batteries

Sealed lead acid batteries are engineered to provide reliable power in a compact design. They are spill-proof and require zero maintenance, as adding water is never necessary. The acid in the battery is suspended in a glass mat separator, which makes the cells leak-proof during normal battery operation. Our batteries are proudly designed in Canada with quality and performance in mind, offering one of the highest cycle life among other sealed lead acid battery brands. Canbat AGM batteries are manufactured with pure lead to ensure a low self-discharge rate of less than 2%, meaning stored batteries are only required a recharge once every six months. The series also features an outer container made from ABS material.

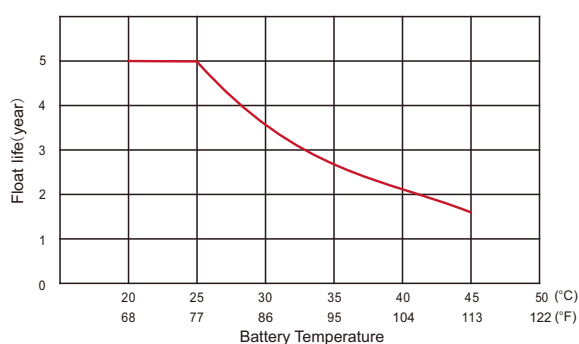
## Cycle Life Relation o Depth of Discharge



## Temperature Effects in Relation to Battery Capacity



## Float Service Life



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