



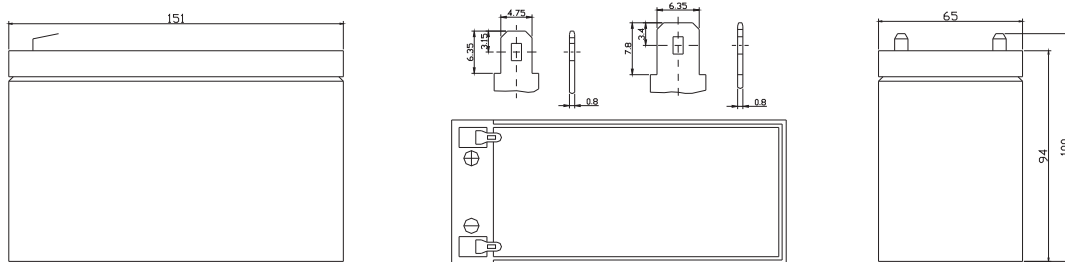
## GT12-7.0 (12V7Ah)

### Features:

- Structure: compact design, shorter internal connectors between cells, thus low internal resistance
- Plate: Pasted flat type, with patent formula of AM
- Terminal: Two or more types terminals are convenient for selection
- Vent system: Gas can be vented through flame arrester
- Separator: Using improved AGM separator, make lower resistance higher assembling pressure to increase cycle life
- Battery case: Made of high strength ABS and UL94-V0 is optional
- Terminal sealing: Double sealing technics(mechanical+epoxy gule)

### Dimensions

Unit: mm Dimension: 151(L)\*65(W)\*93.5(H)



### Application:

Small UPS  
Emergency Light  
Security System  
Toys  
Illumination light  
Fire alarms  
Medical equipments

### Specification

|                                            |                                                                                                                    |
|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| Cells Per Unit                             | 6                                                                                                                  |
| Voltage Per Unit                           | 12                                                                                                                 |
| Capacity                                   | 7Ah@20hr-rate to 1.75V per cell @25°C                                                                              |
| Weight                                     | Approx. 2.05 Kg                                                                                                    |
| Max. Discharge Current                     | 70A (5 sec)                                                                                                        |
| Internal Resistance                        | Approx. 25 mΩ                                                                                                      |
| Operating Temperature Range                | Discharge: -20°C~60°C<br>Charge: 0°C~50°C<br>Storage: -20°C~60°C                                                   |
| Normal Operating Temperature Range         | 25°C±5°C                                                                                                           |
| Float charging Voltage                     | 13.7 to 13.9 VDC/unit Average at 25°C                                                                              |
| Recommended Maximum Charging Current Limit | 2.16 A                                                                                                             |
| Equalization and Cycle Service             | 14.6 to 14.8 VDC/unit Average at 25°C                                                                              |
| Self Discharge                             | Up to 6 months at 25°C. Self-discharge ratio less than 3% per month at 25°C. Please charge batteries before using. |
| Terminal                                   | Terminal F1/F2                                                                                                     |
| Container Material                         | A.B.S. (UL94-HB) , Flammability resistance of UL94-V1 can be available upon request.                               |

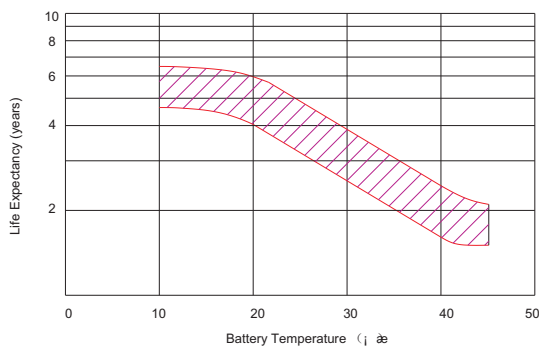
### Constant Current Discharge Characteristics : A(25 C)

| F.V/Time | 5MIN  | 10MIN | 15MIN | 30MIN | 1HR   | 2HR   | 3HR   | 4HR   | 5HR   | 8HR   | 10HR  | 20HR  |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 9.60V    | 26.23 | 17.20 | 12.81 | 6.818 | 4.322 | 2.643 | 1.742 | 1.418 | 1.166 | 0.768 | 0.665 | 0.356 |
| 10.0V    | 25.28 | 16.77 | 12.40 | 6.730 | 4.265 | 2.590 | 1.709 | 1.398 | 1.155 | 0.765 | 0.658 | 0.353 |
| 10.2V    | 23.80 | 15.94 | 12.05 | 6.628 | 4.224 | 2.562 | 1.694 | 1.384 | 1.148 | 0.758 | 0.648 | 0.343 |
| 10.5V    | 21.39 | 14.90 | 11.37 | 6.445 | 4.172 | 2.529 | 1.679 | 1.364 | 1.138 | 0.751 | 0.645 | 0.336 |
| 10.8V    | 19.17 | 13.90 | 10.73 | 6.232 | 4.114 | 2.508 | 1.659 | 1.317 | 1.133 | 0.748 | 0.634 | 0.322 |
| 11.1V    | 16.77 | 12.74 | 9.90  | 5.995 | 4.016 | 2.407 | 1.627 | 1.298 | 1.128 | 0.742 | 0.624 | 0.317 |

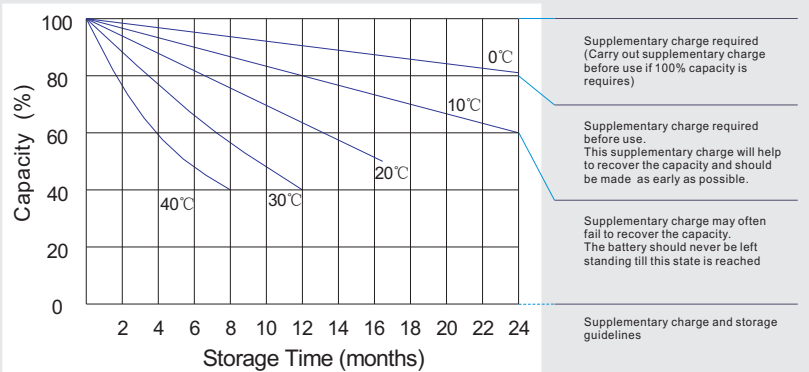
### Constant Power Discharge Characteristics : W(25 C)

| F.V/Time | 5MIN  | 10MIN | 15MIN | 30MIN | 1HR   | 2HR   | 3HR   | 4HR   | 5HR   | 8HR   | 10HR  | 20HR  |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 9.60V    | 284.5 | 188.6 | 141.3 | 78.04 | 51.67 | 31.14 | 20.82 | 16.98 | 13.97 | 9.195 | 7.964 | 4.270 |
| 10.0V    | 277.1 | 184.6 | 139.3 | 77.23 | 50.91 | 30.73 | 20.48 | 16.74 | 13.84 | 9.159 | 7.889 | 4.235 |
| 10.2V    | 263.5 | 177.3 | 137.5 | 76.56 | 50.53 | 30.46 | 20.31 | 16.58 | 13.76 | 9.090 | 7.787 | 4.126 |
| 10.5V    | 240.5 | 170.0 | 130.3 | 75.00 | 49.85 | 30.14 | 20.16 | 16.36 | 13.65 | 9.013 | 7.733 | 4.057 |
| 10.8V    | 217.0 | 159.1 | 123.1 | 73.22 | 49.20 | 29.92 | 19.92 | 15.81 | 13.58 | 8.974 | 7.615 | 3.894 |
| 11.1V    | 191.4 | 148.1 | 115.9 | 71.21 | 48.12 | 28.87 | 19.53 | 15.58 | 13.53 | 8.910 | 7.502 | 3.832 |

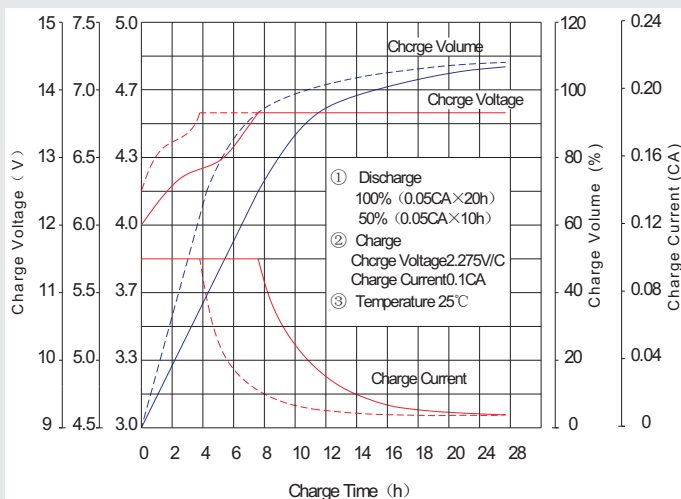
### Effect of Temperature on long term Float Life



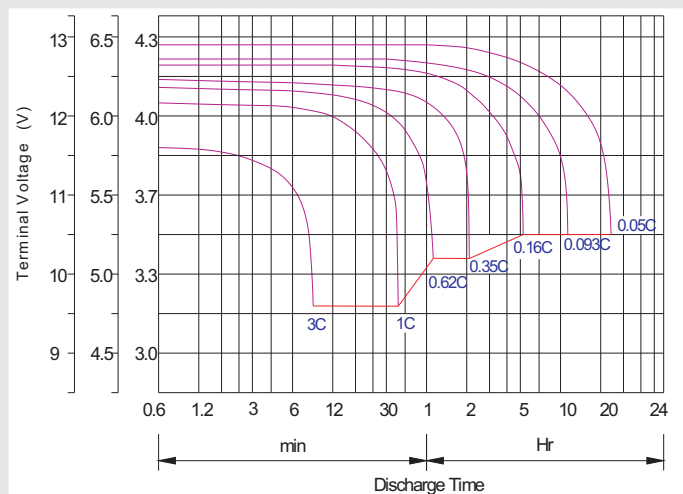
### Storage characteristic



### Charge Characteristic Curve for Standby Use



### Discharge Characteristic Curve



### Discharge Current VS. Discharge Voltage

| Final Discharge Voltage V/cell | 1.75V         | 1.70V             | 1.60V         |
|--------------------------------|---------------|-------------------|---------------|
| Discharge Current (A)          | $A \leq 0.2C$ | $0.2C < A < 1.0C$ | $A \geq 1.0C$ |

### Charging Method:

|                  |                                                 |
|------------------|-------------------------------------------------|
| Constant Voltage | -0.2Cx2h+2.4~2.45V/Cellx24h, Max. Current 0.3CA |
| Constant Current | -0.2Cx2h+0.1CAx12h                              |
| Fast             | -0.2Cx2h+0.3CAx4.0h                             |

Charge the batteries at least once every six months, if they are stored at 25°C  
Avoid battery over discharge, especially battery series connection use..