

### Solar and UPS Battery

Solar and UPS Battery are designed with AGM (Absorbent Glass Mat) technology, High performance plates and electrolyte to give extra power output for common power backup system.  
Solar and UPS Battery are the general purpose batteries with 5 years floating design life at 25 °C  
Meet with IEC, BS, JIS and Eurobat standard. UL(MH62092), CE approved.

### Application

- \* Emergency Power System
- \* Communication equipment
- \* Telecommunication systems
- \* Uninterruptible power supplies
- \* Electric toy car and wheelchairs, etc.
- \* Power tools
- \* Alarm system
- \* Marine equipment
- \* Medical equipment
- \* Fire and Security System

### General Features

- \* Heavy Duty Grid
- \* Mechanized assembly
- \* Non-spillable construction
- \* High Reliability and Stability
- \* Sealed and Maintenance-free
- \* Long Life and low self-discharge design

### Construction

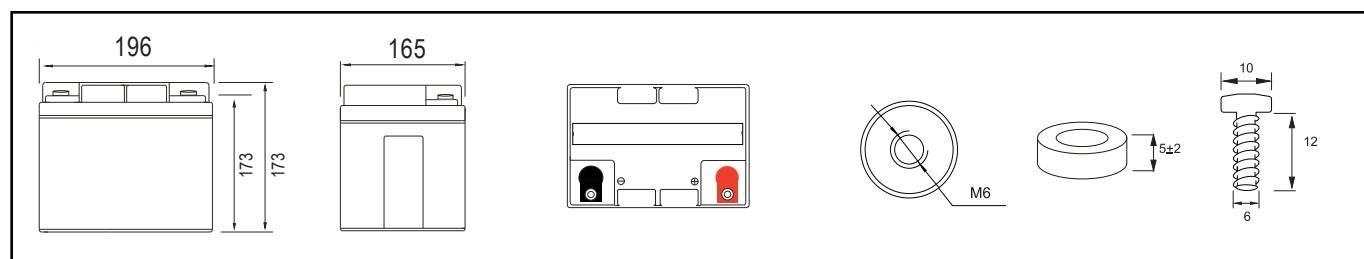
- \* Positive ..... Lead dioxide
- \* Electrolyte ..... Sulfuric acid
- \* Separator ..... Fiber glass
- \* Container ..... ABS(UL94-HB) / Flame Retardant ABS (UL94-V0)
- \* Negative ..... Lead
- \* Safety Valve ..... EPDR
- \* Terminal ..... Copper



### Specification

| Battery Model                     | Nominal Voltage                                         |                            | 12V                       |                           |
|-----------------------------------|---------------------------------------------------------|----------------------------|---------------------------|---------------------------|
|                                   | Rated capacity (10 Hour rate)                           |                            | 38Ah                      |                           |
|                                   | Cells Per battery                                       |                            | 6                         |                           |
| Dimension                         | Length                                                  | Width                      | Height                    | Total Height              |
|                                   | 196mm (7.71 inches)                                     | 165mm (6.49 inches)        | 173mm (6.81 inches)       | 173mm (6.81 inches)       |
| Approx Weight                     | 11.80kg(26.01lbs) ± 3%                                  |                            |                           |                           |
| Capacity @ 25°C (77°F)            | 20 hour rate(2.151A,10.5V)                              | 10 hour rate(3.933A,10.8V) | 5 hour rate(7.313A,10.5V) | 1 hour rate(24.040A,9.6V) |
|                                   | 43.02Ah                                                 | 39.33Ah                    | 36.56Ah                   | 24.04Ah                   |
| Max.discharge current             | 400A (5 Sec.)                                           |                            |                           |                           |
| Internal Resistance               | Full charged at 25°C (77°F) : Approx 9.0mΩ              |                            |                           |                           |
| Capacity affected by Temp.(10 HR) | 40°C (104°F)                                            | 25°C (77°F)                | 0°C (32°F)                | -15°C (5°F)               |
|                                   | 102%                                                    | 100%                       | 85%                       | 65%                       |
| Self Discharge @25°C (77°F)       | After 3 months storage                                  |                            | After 6 months storage    | After 12 months storage   |
|                                   | 91%                                                     |                            | 82%                       | 64%                       |
| Charge method @25°C (77°F)        | Cycle Use                                               |                            | Float Use                 |                           |
|                                   | 14.40-14.70V (Initial charging current less than 11.4A) |                            | 13.50-13.80V              |                           |

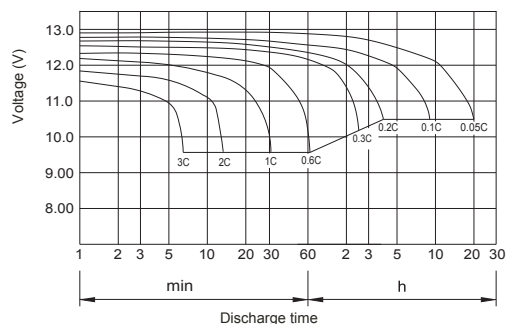
### Outer dimension (mm)



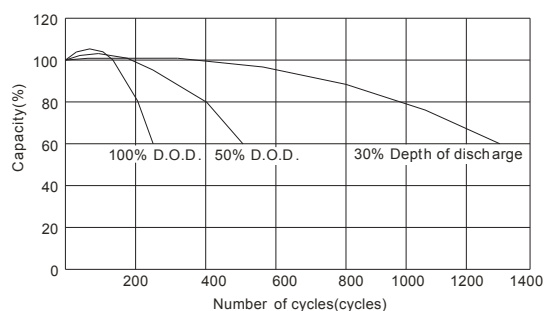
### Terminal Type (mm)

| Constant Current(Amp) and Constant Power(Watt) Discharge Table at 25°C (77°F) |   |         |         |         |        |        |        |        |       |       |
|-------------------------------------------------------------------------------|---|---------|---------|---------|--------|--------|--------|--------|-------|-------|
| F.V\TIME                                                                      |   | 5min    | 10min   | 15min   | 30min  | 1 hr   | 3 hr   | 5 hr   | 10 hr | 20 hr |
| 1.80V/cell                                                                    | A | 102.873 | 82.718  | 59.863  | 44.311 | 22.762 | 10.400 | 7.153  | 3.933 | 2.123 |
|                                                                               | W | 183.628 | 149.802 | 110.627 | 82.240 | 42.405 | 19.500 | 13.568 | 7.724 | 4.185 |
| 1.75V/cell                                                                    | A | 105.805 | 85.707  | 61.071  | 45.171 | 23.661 | 10.755 | 7.313  | 4.001 | 2.151 |
|                                                                               | W | 192.142 | 156.500 | 113.898 | 84.876 | 44.530 | 20.327 | 13.998 | 7.922 | 4.278 |
| 1.70V/cell                                                                    | A | 113.136 | 90.913  | 63.487  | 45.816 | 23.756 | 10.863 | 7.430  | 4.085 | 2.205 |
|                                                                               | W | 207.378 | 168.006 | 119.419 | 86.822 | 45.350 | 20.824 | 14.400 | 8.186 | 4.421 |
| 1.65V/cell                                                                    | A | 116.190 | 92.744  | 65.098  | 46.247 | 23.874 | 11.024 | 7.569  | 4.185 | 2.280 |
|                                                                               | W | 214.371 | 172.597 | 123.881 | 88.608 | 43.618 | 21.342 | 14.806 | 8.491 | 4.644 |
| 1.60V/cell                                                                    | A | 122.177 | 96.408  | 67.111  | 40.869 | 24.040 | 11.293 | 7.825  | 4.361 | 2.366 |
|                                                                               | W | 226.271 | 180.765 | 128.518 | 78.959 | 46.829 | 22.043 | 15.416 | 8.944 | 4.884 |

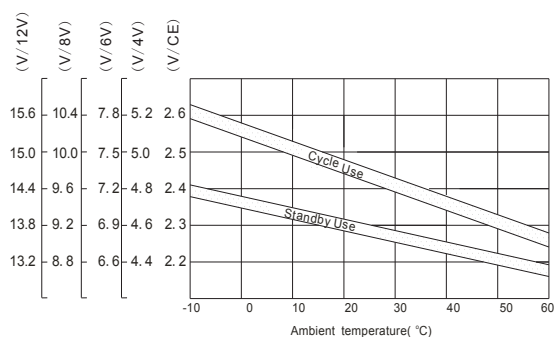
### Discharge characteristic Curve



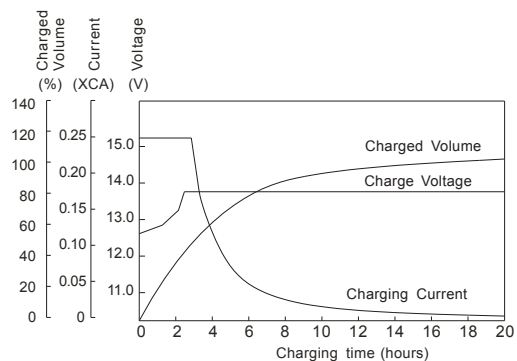
### Cycle service life in relation to depth of discharge



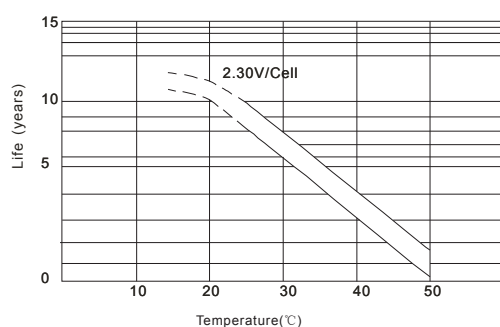
### Relationship between charging voltage and temperature



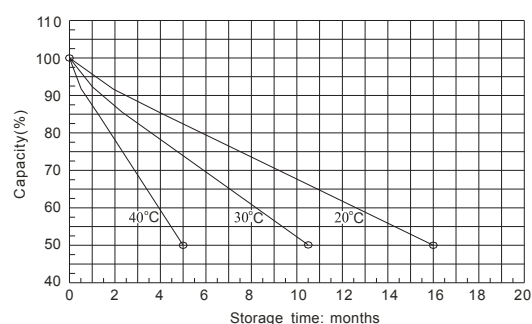
### Constant voltage charging characteristic (0.25CA, at 25°C)



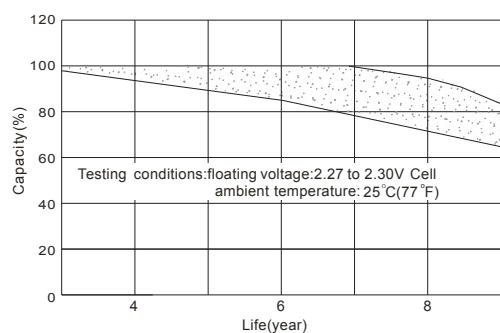
### Temperature effects on float life



### Self-discharge characteristic



### Life characteristics of standby use



### Charge characteristic Curve for standby use

