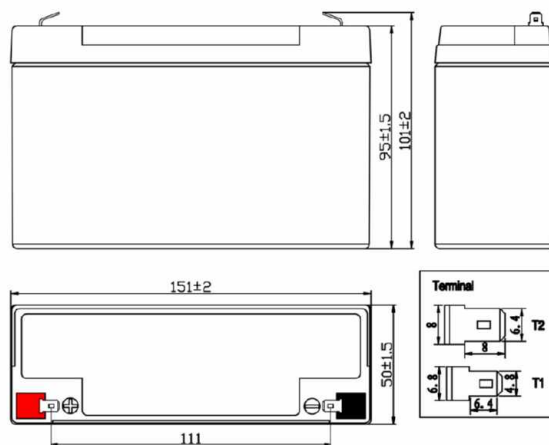


## Specification

|                             |   |                                |
|-----------------------------|---|--------------------------------|
| Nominal Voltage (V)         | 6V (3 cells in series)  |                                |
| Rated Capacity              | 12Ah  | (C <sub>20</sub> , 1.75V/cell) |
| Dimensions(mm)              | Length  | 151 ± 2 mm                     |
|                             | Width   | 50 ± 1.5 mm                    |
|                             | Height  | 95 ± 1.5 mm                    |
|                             | Total Height  | 101 ± 2 mm                     |
| Nominal Capacity @25°C (Ah) | 20 Hour rate (0.606A to 5.25 volts)   | 12.1Ah                         |
|                             | 10 Hour rate (1.158A to 5.25 volts)   | 11.5Ah                         |
|                             | 5 Hour rate (2.070A to 5.25 volts)  | 10.3Ah                         |
|                             | 1 Hour rate (7.800A to 4.80 volts)  | 7.80Ah                         |
|                             | 15 min rate (23.10A to 4.80 volts)  | 5.77Ah                         |
| Approx. Weight              | 1.65 kg   |                                |
| Terminal                    | T1/T2   |                                |
| Max. Discharge Current      | 180A @25°C (5s)   |                                |
| Internal Resistance         | 8mΩ @25°C (Full Charged Battery)  |                                |
| Floating Design Life        | 5 years @25°C   |                                |
| Ambient Temperature         | Charge: -15°C~50°C  |                                |
|                             | Discharge: -20°C~60°C   |                                |
|                             | Storage: -20°C~50°C   |                                |
| Container Material          | A.B.S , UL94-HB , UL94-V0 , Optional  |                                |
| Self Discharge              | VRLA batteries can be stored for more than 6 months at 25°C. Self-Discharge ratio less than 3% per month at 25°C. Please charge batteries before using. |                                |



## Certification



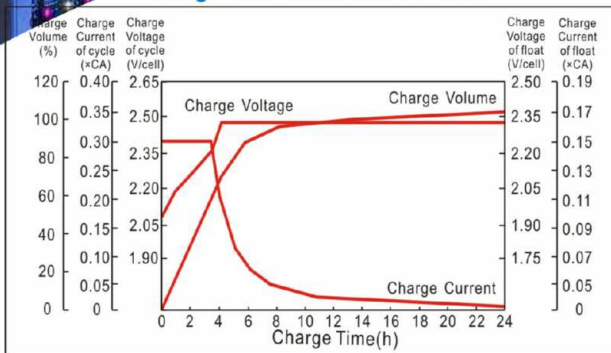
## Constant Current Discharge Characteristics (A), (25°C)

| F.V/TIME   | 5min  | 10min | 15min | 30min | 60min | 2H    | 3H    | 5H    | 8H    | 10H   | 20H   |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1.60V/cell | 47.34 | 31.02 | 23.10 | 12.30 | 7.800 | 4.394 | 3.138 | 2.117 | 1.402 | 1.200 | 0.642 |
| 1.70V/cell | 42.96 | 28.74 | 21.78 | 11.94 | 7.626 | 4.326 | 3.060 | 2.086 | 1.380 | 1.170 | 0.619 |
| 1.75V/cell | 38.58 | 26.94 | 20.58 | 11.58 | 7.530 | 4.290 | 3.030 | 2.070 | 1.368 | 1.158 | 0.606 |
| 1.80V/cell | 34.62 | 25.20 | 19.38 | 11.22 | 7.422 | 4.254 | 2.994 | 2.046 | 1.350 | 1.140 | 0.582 |

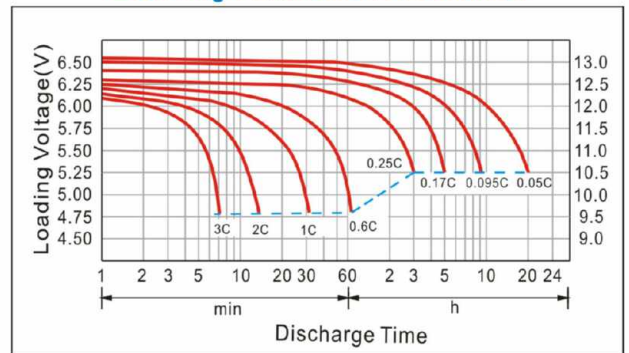
## Constant Wattage Discharge Characteristics (Watt), (25°C)

| F.V/TIME   | 5min  | 10min | 15min | 30min | 60min | 2H    | 3H    | 5H    | 8H    | 10H   | 20H   |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1.60V/cell | 85.61 | 56.61 | 42.54 | 23.47 | 15.47 | 8.716 | 6.255 | 4.223 | 2.796 | 2.396 | 1.284 |
| 1.70V/cell | 79.12 | 53.41 | 40.84 | 22.98 | 15.19 | 8.616 | 6.110 | 4.164 | 2.755 | 2.340 | 1.240 |
| 1.75V/cell | 72.02 | 50.96 | 38.93 | 22.48 | 15.01 | 8.551 | 6.055 | 4.137 | 2.734 | 2.318 | 1.217 |
| 1.80V/cell | 65.20 | 48.09 | 36.98 | 21.97 | 14.81 | 8.487 | 5.988 | 4.092 | 2.700 | 2.282 | 1.169 |

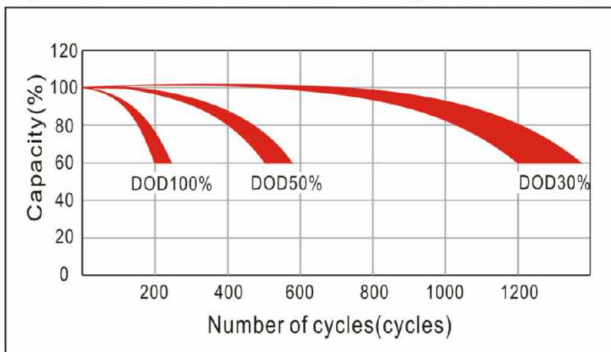
### Charge Characteristics Curve



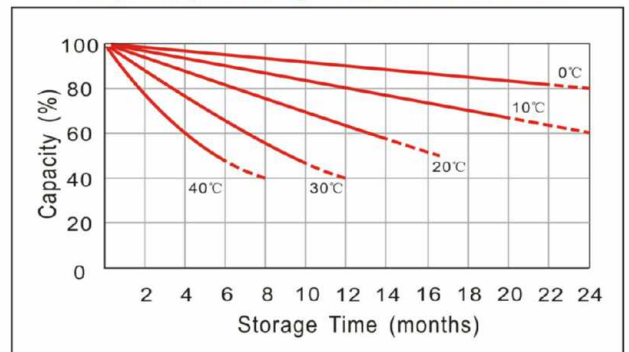
### Discharge Characteristics Curve



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



### Capacity Storage Characteristics



### Capacity Factors with Different Temperature

| Battery type |        | -20°C | -10°C | 0°C | 5°C | 10°C | 20°C | 25°C | 30°C | 40°C | 45°C |
|--------------|--------|-------|-------|-----|-----|------|------|------|------|------|------|
| GEL Battery  | 6V&12V | 50%   | 70%   | 83% | 85% | 90%  | 98%  | 100% | 102% | 104% | 105% |
|              | 2V     | 60%   | 75%   | 85% | 88% | 92%  | 99%  | 100% | 103% | 105% | 106% |
| AGM Battery  | 6V&12V | 46%   | 66%   | 76% | 83% | 90%  | 98%  | 100% | 103% | 107% | 109% |
|              | 2V     | 55%   | 70%   | 80% | 85% | 92%  | 99%  | 100% | 104% | 108% | 110% |

## Maintenance & Cautions

#### ☑ Charging Procedure:

| Application              | Charging method                                      | Charge voltage at 25°C | Temperature compensation coefficient of charging voltage | Max.charging current | Temperature |
|--------------------------|--|------------------------|--|----------------------|-------------|
| For standby power source | Constant voltage charging (With current restriction) | 2.25~2.30 V/cell       | -3mV/°C/cell   | 0.2CA                | -15~50°C    |
| For cycle service        |  | 2.45~2.50 V/cell       | -4mV/°C/cell   | 0.3CA                |             |

- ☑ Every month, recommend inspection every battery voltage.
- ☑ Every three months, recommend equalization charge for one time. **Equalization charge method:**  
 Step 1: Discharge: 100% rate capacity discharge.  
 Step 2: Charge: Max. Current 0.3CA, constant voltage 2.45~2.50V/Cell charge 24h.
- ☑ Length of service life will be directly affected by the number of discharge cycles, depth of discharge, Ambient temperature and charging voltage.
- ☑ Charge the batteries at least once every six months, if they are stored at 25°C. **Charging Method:**  
 Constant Voltage :  $-0.2C \times 2h + 2.4 \sim 2.45V/cell \times 24h$  , Max. Current 0.25CA  
 Constant Current :  $-0.2C \times 2h + 0.1C \times 12h$   
 Fast :  $-0.2C \times 2h + 0.3C \times 4h$

#### ☑ Terminal of torque:

| Bolt     | M5     | M6                | M8              |
|----------|--------|-------------------|-----------------|
| Terminal | T3、T10 | T4、T7、T11、T12、T13 | T5、T6、T8、T9、T14 |
| Torque   | 6~7N.m | 8~10N.m           | 10~12N.m        |