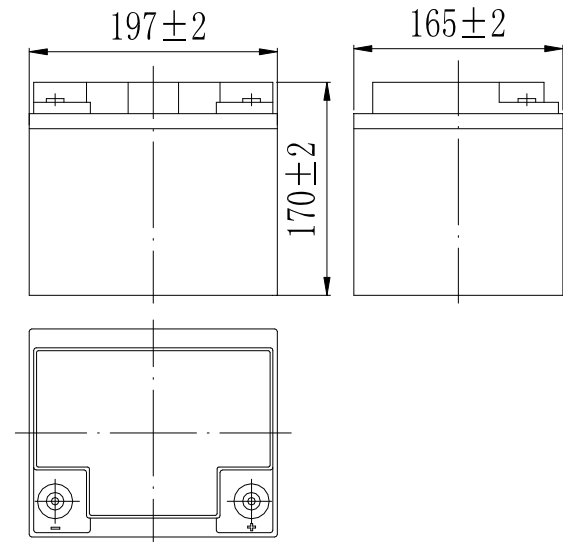


### Specifications

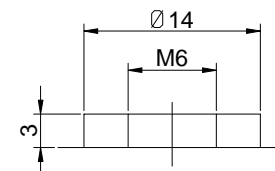
|   |              |   |
|---|--------------|---|
| Nominal Voltage                           |              | 12 V  |
| Capacity (25°C)                           | 20HR(10.5V)  | 40Ah  |
|   | 5HR(10.2V)   | 31.2Ah  |
|   | 1HR(9.6V)    | 23.3Ah  |
| Dimension                                 | Length       | 197 ± 2mm (7.75inch)                                  |
|   | Width        | 165 ± 2mm (6.50inch)                                  |
|   | Height       | 170 ± 2mm (6.69inch)                                  |
|   | Total Height | 170 ± 2mm (6.69inch)                                  |
| Approx. Weight                            |              | 12.5kg (27.5lbs) ± 4%                                 |
| Terminal type                             |              | T9  |
| Internal resistance (Fully charged, 25°C) |              | Approx.9.5m Ω   |
| Capacity affected by temperature (10HR)   | 40°C         | 103%  |
|   | 25°C         | 100%  |
|   | 0°C          | 88%   |
|   | -15°C        | 70%   |
| Self-discharge (25°C)                     | 3 month      | Remaining Capacity: 94%                               |
|   | 6 month      | Remaining Capacity: 88%                               |
|   | 12 month     | Remaining Capacity: 75%                               |
| Nominal operating temperature             |              | 25°C ± 3°C (77°F ± 5°F)                               |
| Operating temperature range               | Discharge    | -15°C ~ 55°C (5°F ~ 131°F)                            |
|   | Charge       | -10°C ~ 55°C (14°F ~ 131°F)                           |
|   | Storage      | -20°C ~ 55°C (-4°F ~ 131°F)                           |
| Float charging voltage(25°C)              |              | 13.50 to 13.80V<br>Temperature compensation: -18mV/°C |
| Cyclic charging voltage(25°C)             |              | 14.10 to 14.40V<br>Temperature compensation: -30mV/°C |
| Maximum charging current                  |              | 8 A   |
| Terminal material                         |              | Copper  |
| Maximum discharge current                 |              | 400A(5 sec.)  |
| Designed floating life(20°C)              |              | 15 years  |



### Dimensions



### Terminal



Terminal T9

- ◆ Gelled electrolyte technology;
- ◆ PVC separator;
- ◆ Recognized by UL & CE;
- ◆ ABS container.

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

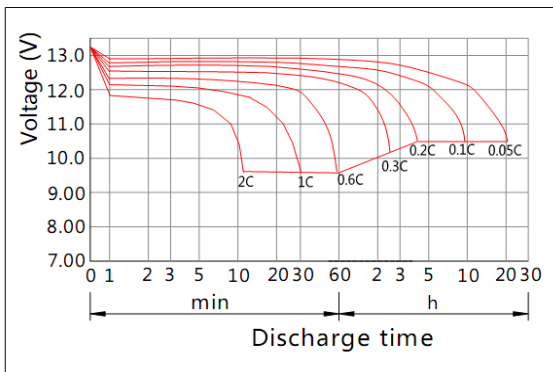
| F.V/TIME | 15min | 30min | 60min | 2h   | 3h   | 4h   | 5h   | 6h   | 8h   | 10h  | 20h  | 48h  | 120h |
|----------|-------|-------|-------|------|------|------|------|------|------|------|------|------|------|
| 9.60V    | 54.0  | 37.3  | 23.3  | 13.6 | 9.60 | 7.56 | 6.32 | 5.40 | 4.20 | 3.75 | 2.04 | ---  | ---  |
| 9.90V    | 52.8  | 36.5  | 22.9  | 13.5 | 9.52 | 7.52 | 6.28 | 5.36 | 4.16 | 3.74 | 2.04 | ---- | ---  |
| 10.2V    | 50.8  | 35.4  | 22.4  | 13.4 | 9.48 | 7.44 | 6.24 | 5.32 | 4.16 | 3.73 | 2.02 | 0.89 | ---  |
| 10.5V    | 49.2  | 34.6  | 21.9  | 13.2 | 9.40 | 7.40 | 6.20 | 5.28 | 4.12 | 3.70 | 2.00 | 0.89 | 0.37 |
| 10.8V    | 46.4  | 33.3  | 21.2  | 12.9 | 9.12 | 7.16 | 6.00 | 5.12 | 4.00 | 3.68 | 2.00 | 0.89 | 0.37 |

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

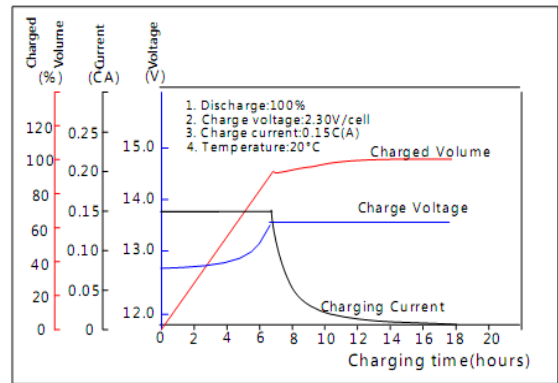
| F.V/TIME | 15min | 30min | 60min | 2h  | 3h  | 4h   | 5h   | 6h   | 8h   | 10h  | 20h  | 48h  | 120h |
|----------|-------|-------|-------|-----|-----|------|------|------|------|------|------|------|------|
| 9.60V    | 603   | 425   | 268   | 158 | 113 | 89.2 | 75.2 | 64.0 | 50.0 | 44.8 | 24.6 | ---  | ---  |
| 9.90V    | 588   | 416   | 264   | 157 | 113 | 88.8 | 74.8 | 63.6 | 50.0 | 44.8 | 24.6 | ---- | ---  |
| 10.2V    | 566   | 404   | 258   | 156 | 112 | 88.0 | 74.0 | 63.2 | 49.6 | 44.6 | 24.5 | 10.7 | ---  |
| 10.5V    | 547   | 394   | 252   | 154 | 111 | 87.6 | 73.6 | 62.8 | 49.2 | 44.4 | 24.1 | 10.6 | 4.44 |
| 10.8V    | 518   | 380   | 244   | 150 | 108 | 84.8 | 71.6 | 60.8 | 47.6 | 44.0 | 24.2 | 10.6 | 4.40 |

Note: The above characteristics data can be obtained within three charge/discharge cycles.

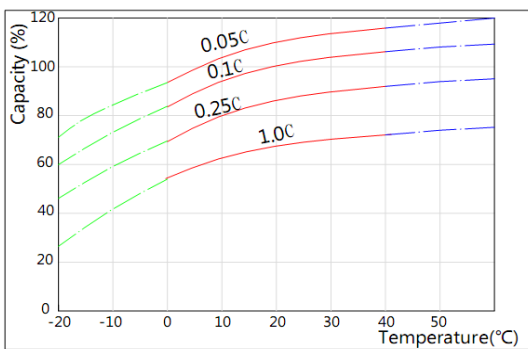
### Discharge Characteristics(25°C)



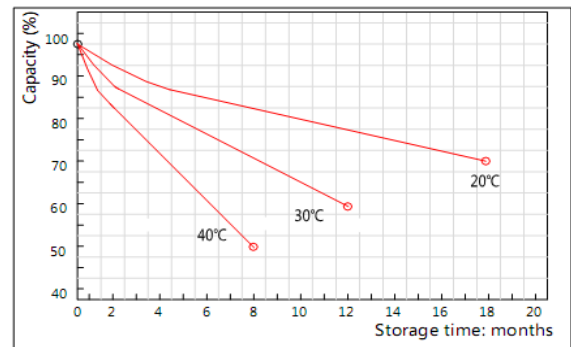
### Charging Characteristics(25°C)



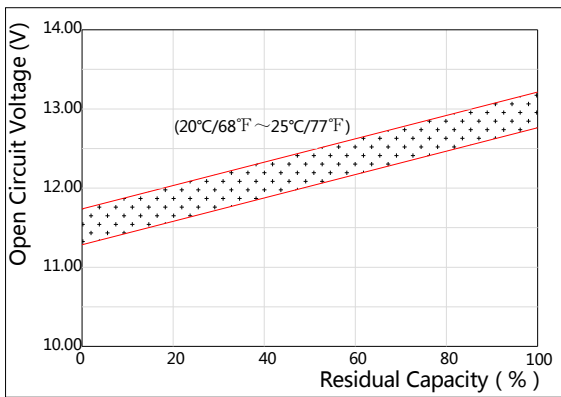
### Effect of Temperature on Capacity



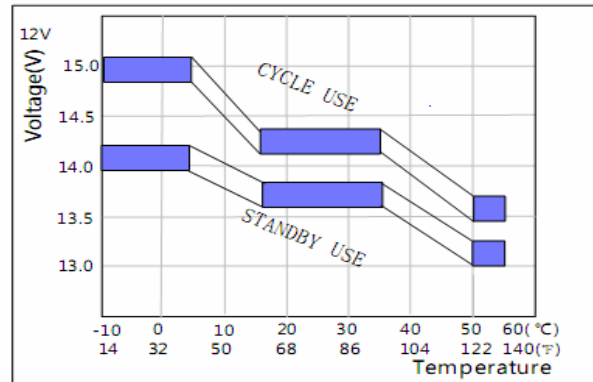
### Self-discharge Characteristics



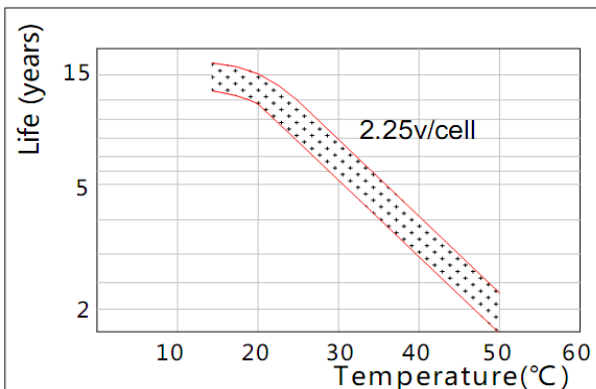
### The Relationship for Open Circuit Voltage and Residual Capacity (25°C)



### The Relationship for Charging Voltage and Temperature



### Floating Life on Temperature



### Cycle Life on D.O.D(25°C)

