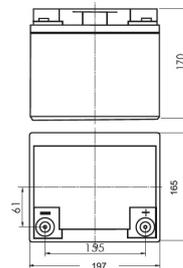
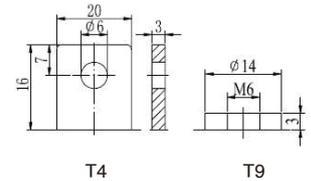




#### Dimensions



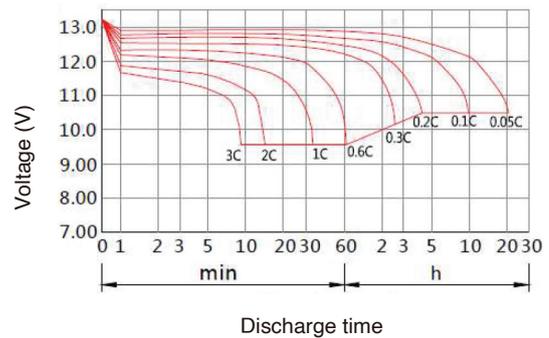
#### Terminal



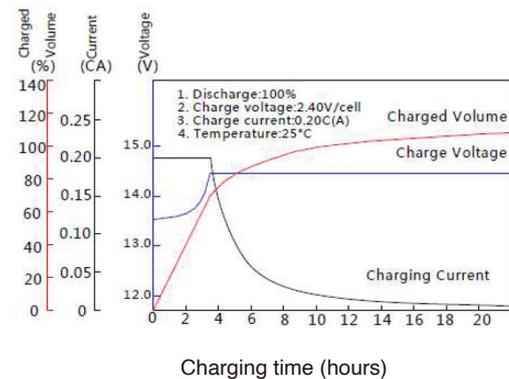
### Specifications

|   |              |   |
|---|--------------|---|
| Nominal Voltage                           |              | 12V   |
| Capacity (25°C)                           | 10HR (10.5V) | 40Ah  |
|   | 5HR (10.5V)  | 35Ah  |
|   | 1HR (9.60V)  | 24.8Ah  |
| Dimensions                                | Length       | 197 ± 2mm (7.76inch)                                  |
|   | 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                             |              | T4/T9   |
| Internal resistance (Fully charged, 25°C) |              | Approx. 8.5mΩ   |
| Capacity affected by temperature (20HR)   | 40°C         | 102%  |
|   | 25°C         | 100%  |
|   | 0°C          | 85%   |
|   | -15°C        | 65%   |
| Self-discharge (25°C)                     | 3 month      | Remaining Capacity: 91%                               |
|   | 6 month      | Remaining Capacity: 82%                               |
|   | 12 month     | Remaining Capacity: 65%                               |
| Nominal operating temperature             |              | 25°C ± 3°C (77°F ± 5°F)                               |
| Operating temperature range               | Discharge    | -15°C ~ 50°C (5°F ~ 122°F)                            |
|   | Charge       | -10°C ~ 50°C (14°F ~ 122°F)                           |
|   | Storage      | -20°C ~ 50°C (-4°F ~ 122°F)                           |
| Floating charging voltage (25°C)          |              | 13.60 to 13.80V<br>Temperature compensation: -18mV/°C |
| Cycling charging current                  |              | 14.50 to 14.90V<br>Temperature compensation: -30mV/°C |
| Maximum charging current                  |              | 12A   |
| Terminal material                         |              | Copper  |
| Maximum discharging current               |              | 400A (5sec.)  |
| Design floating life (20°C)               |              | 12 years  |

### Discharge Characteristics (25°C)



### Charging Characteristics (25°C)



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

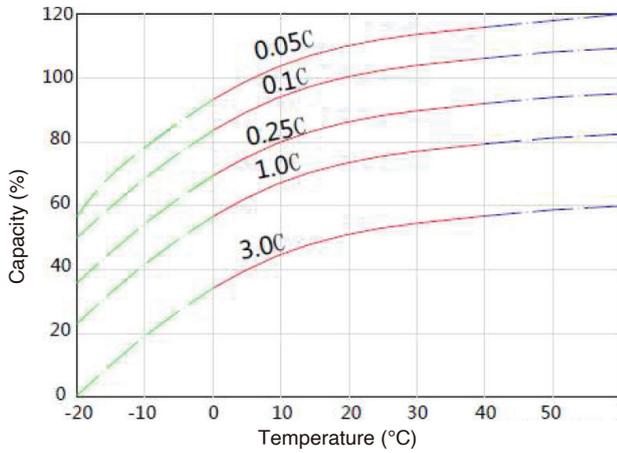
| F.V/TIME | 10min | 15min | 30min | 60min | 2h   | 3h   | 4h   | 5h   | 8h   | 10h  | 20h  |
|----------|-------|-------|-------|-------|------|------|------|------|------|------|------|
| 9.60V    | 84.0  | 66.0  | 40.0  | 24.8  | 14.6 | 10.2 | 8.36 | 7.14 | 4.90 | 4.07 | 2.14 |
| 9.90V    | 81.5  | 64.4  | 39.2  | 24.4  | 14.5 | 10.1 | 8.31 | 7.10 | 4.87 | 4.06 | 2.13 |
| 10.2V    | 78.1  | 62.0  | 38.0  | 23.8  | 14.4 | 10.1 | 8.26 | 7.05 | 4.83 | 4.05 | 2.13 |
| 10.5V    | 74.8  | 59.9  | 37.1  | 23.3  | 14.2 | 10.0 | 8.20 | 7.00 | 4.80 | 4.03 | 2.11 |
| 10.8V    | 70.6  | 56.8  | 35.7  | 22.6  | 13.8 | 9.70 | 7.95 | 6.79 | 4.66 | 4.00 | 2.10 |

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

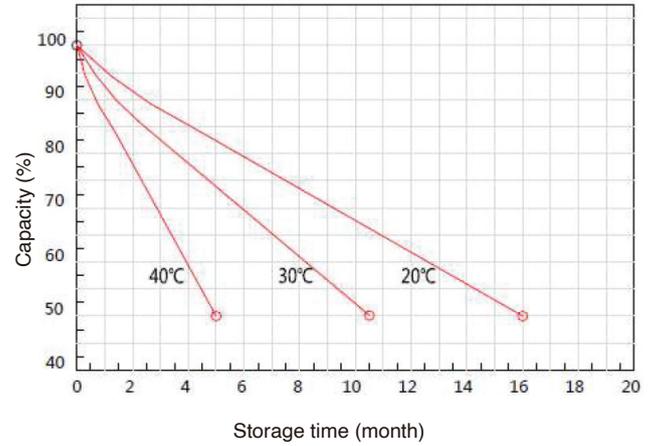
| F.V/TIME | 10min | 15min | 30min | 60min | 2h  | 3h  | 4h   | 5h   | 8h   | 10h  | 20h  |
|----------|-------|-------|-------|-------|-----|-----|------|------|------|------|------|
| 9.60V    | 907   | 725   | 449   | 283   | 169 | 120 | 98.4 | 84.4 | 58.2 | 48.6 | 25.7 |
| 9.90V    | 880   | 707   | 440   | 278   | 168 | 119 | 97.8 | 83.9 | 57.8 | 48.5 | 25.6 |
| 10.2V    | 844   | 681   | 426   | 271   | 167 | 118 | 97.1 | 83.3 | 57.4 | 48.4 | 25.5 |
| 10.5V    | 807   | 658   | 416   | 266   | 164 | 118 | 96.4 | 82.7 | 57.0 | 48.1 | 25.4 |
| 10.8V    | 762   | 623   | 401   | 258   | 160 | 114 | 93.5 | 80.3 | 55.3 | 47.8 | 25.2 |

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

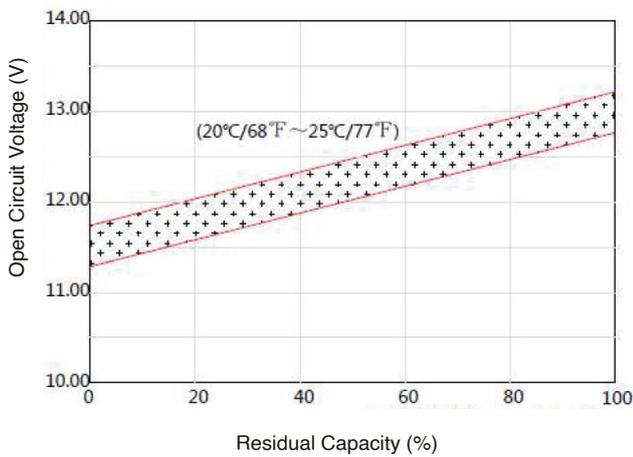
#### ■ Effect of Temperature on Capacity



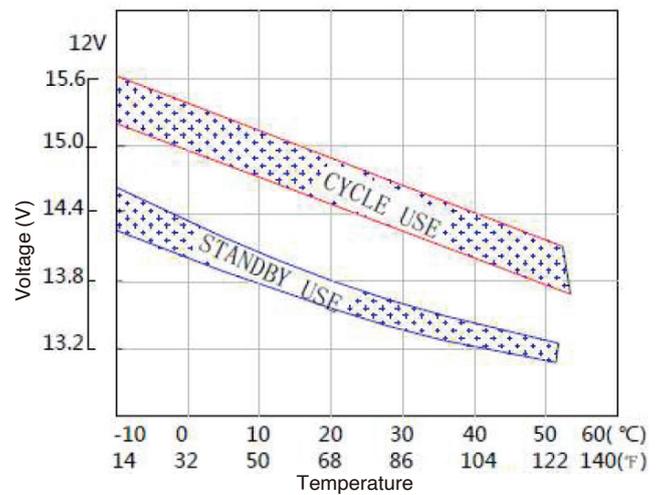
#### ■ Self-discharge Characteristic



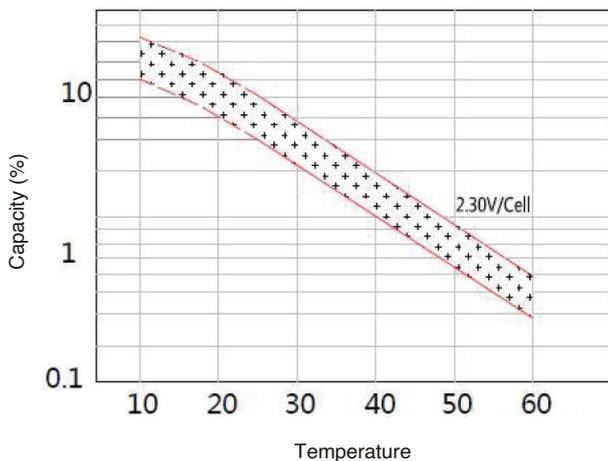
#### ■ The Relationship for Open Circuit Voltage and Residual Capacity (25°C)



#### ■ The Relationship for Charging Voltage and Temperature



#### ■ Floating Life on Temperature



#### ■ Cycle Life on D.O.D (25°C)

