

**Specifications**

|   |              |   |
|---|--------------|---|
| Nominal Voltage                           |              | 12 V  |
| Capacity (25°C)                           | 120HR(11.1V) | 168Ah   |
|   | 10HR(10.8V)  | 140Ah   |
|   | 1HR(9.6V)    | 78 Ah   |
| Dimension                                 | Length       | 532±2mm (20.9inch)                                    |
|   | Width        | 207±2mm (8.15inch)                                    |
|   | Height       | 215±2mm (8.46inch)                                    |
|   | Total Height | 240±2mm (9.45inch)                                    |
| Approx. Weight                            |              | Approx. 52.5kg ( 116 lbs)                             |
| Terminal type                             |              | T11   |
| Internal resistance (Fully charged, 25°C) |              | Approx. 5.5m 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 ~ 50°C(5°F ~ 122°F)                             |
|   | Charge       | -10°C ~ 50°C(14°F ~ 122°F)                            |
|   | Storage      | -20°C ~ 50°C(-4°F ~ 122°F)                            |
| Float charging voltage(25°C)              |              | 13.50 to 13.62V<br>Temperature compensation: -18mV/°C |
| Cyclic charging voltage(25°C)             |              | 14.10 to 14.40V<br>Temperature compensation: -24mV/°C |
| Maximum charging current                  |              | 28A   |
| Terminal material                         |              | Copper  |
| Maximum discharge current                 |              | 700A (5 sec.)   |
| Designed floating life(20°C)              |              | 20 years  |

- ◆ Gelled electrolyte technology;
- ◆ Tubular Positive Plate;
- ◆ ABS container.
- ◆ DIN 40742 Standard

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

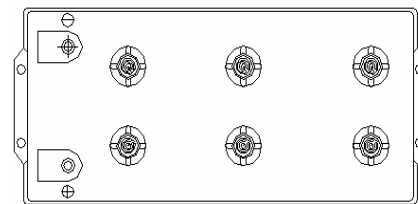
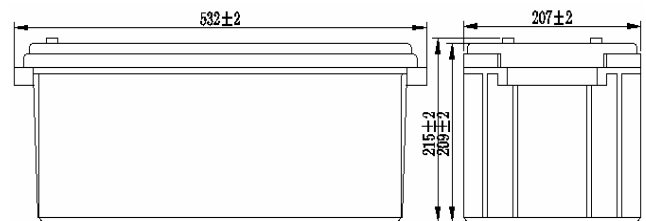
| F.V/TIME | 30min | 60min | 2h   | 3h   | 4h   | 5h   | 6h   | 8h   | 10h  | 20h  | 24h  | 48h  | 72h  | 120h |
|----------|-------|-------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.65V    | 116   | 77.1  | 50.3 | 35.8 | 30.9 | 26.5 | 22.7 | 17.1 | 14.2 | 7.49 | 6.84 | ---  | ---  | ---  |
| 1.70V    | 113   | 75.2  | 49.8 | 35.5 | 30.7 | 26.4 | 22.5 | 16.9 | 14.2 | 7.47 | 6.79 | ---  | ---  | ---  |
| 1.75V    | 110   | 73.7  | 49.1 | 35.1 | 30.2 | 26.2 | 22.4 | 16.7 | 14.1 | 7.43 | 6.75 | 3.36 | ---  | ---  |
| 1.80V    | 106   | 71.3  | 47.7 | 34.6 | 29.9 | 25.5 | 21.7 | 16.5 | 14.0 | 7.37 | 6.71 | 3.36 | ---  | ---  |
| 1.85V    | 98.5  | 66.3  | 44.4 | 33.0 | 27.9 | 23.7 | 20.2 | 15.5 | 13.2 | 6.93 | 6.35 | 3.27 | 2.25 | 1.37 |

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

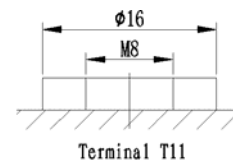
| F.V/TIME | 30min | 60min | 2h   | 3h   | 4h   | 5h   | 6h   | 8h   | 10h  | 20h  | 24h  | 48h  | 72h  | 120h |
|----------|-------|-------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.65V    | 185   | 123   | 82.3 | 58.9 | 51.2 | 44.3 | 38.1 | 28.8 | 24.2 | 12.7 | 11.6 | ---  | ---  | ---  |
| 1.70V    | 180   | 120   | 82.0 | 58.8 | 51.0 | 44.3 | 38.1 | 28.7 | 24.1 | 12.7 | 11.6 | ---  | ---  | ---  |
| 1.75V    | 177   | 119   | 81.2 | 58.6 | 50.6 | 44.0 | 38.0 | 28.4 | 23.9 | 12.6 | 11.5 | 5.77 | ---  | ---  |
| 1.80V    | 170   | 116   | 79.4 | 58.2 | 50.4 | 43.3 | 36.9 | 28.2 | 23.8 | 12.5 | 11.4 | 5.73 | ---  | ---  |
| 1.85V    | 161   | 109   | 74.3 | 55.7 | 47.2 | 40.4 | 34.5 | 26.4 | 22.5 | 11.9 | 10.9 | 5.64 | 3.94 | 2.43 |

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

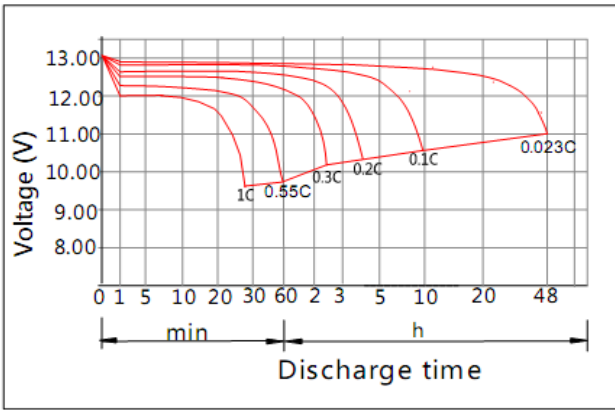
**Dimensions**



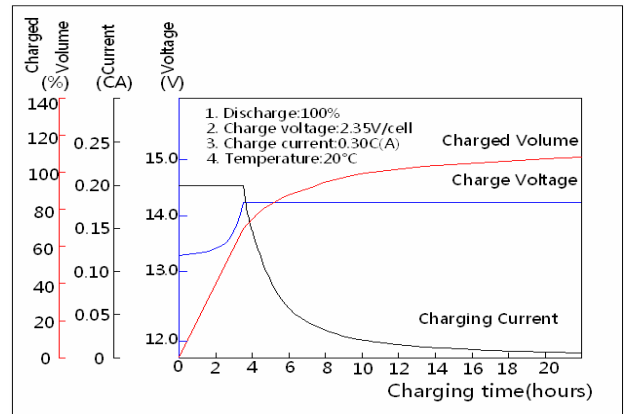
**Terminal**



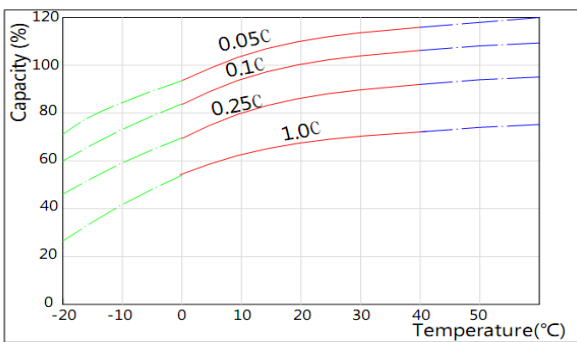
Discharge Characteristics(25°C)



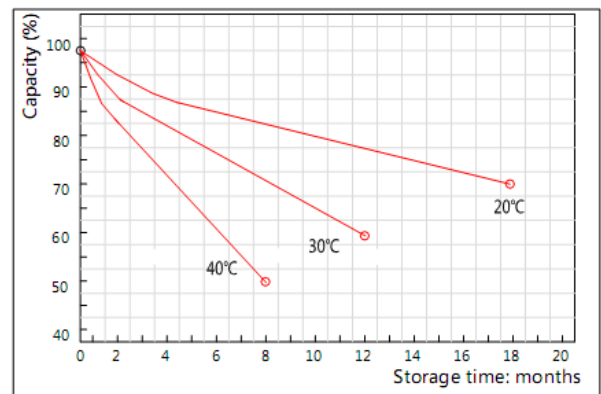
Charging Characteristics(25°C)



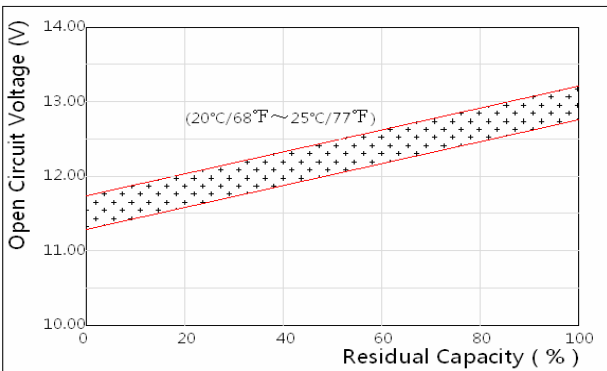
Effect of Temperature on Capacity



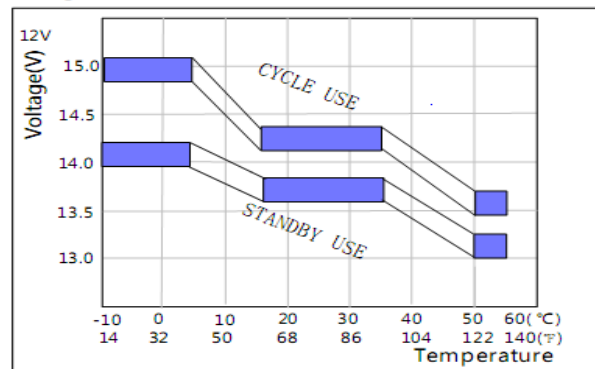
Self-discharge Characteristics



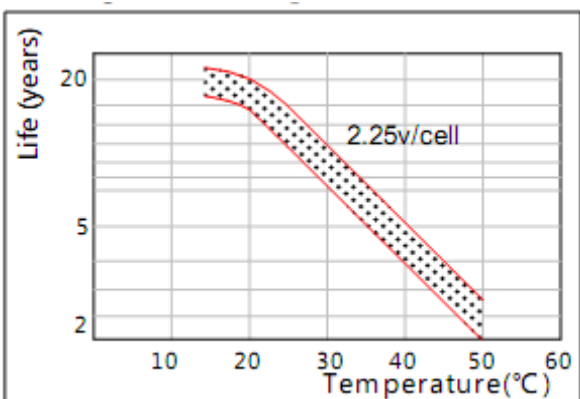
The Relationship for Open Circuit Voltage and Residual Capacity (25°C)



The Relationship for Charging Voltage and Temperature



Floating Life on Temperature



Cycle Life on D.O.D(25°C)

