

**Specifications**

|   |              |   |
|---|--------------|---|
| Nominal Voltage                           |              | 12 V  |
| Capacity (25°C)                           | 20HR(10.5V)  | 110 Ah  |
|   | 5HR(10.2V)   | 86 Ah   |
|   | 1HR(9.6V)    | 64 Ah   |
| Dimension                                 | Length       | 330 ± 2mm (12.99inch)                                 |
|   | Width        | 171 ± 2mm (6.73inch)                                  |
|   | Height       | 225 ± 2mm (8.86inch)                                  |
|   | Total Height | 225 ± 2mm (8.86inch)                                  |
| Approx. Weight                            |              | 33.5kg (73.7lbs) ± 4%                                 |
| Terminal type                             |              | T9  |
| Internal resistance (Fully charged, 25°C) |              | Approx. 5.2m 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                  |              | 22A   |
| Terminal material                         |              | Copper  |
| Maximum discharge current                 |              | 880A(5 sec.)  |
| Designed floating life(20°C)              |              | 15 years  |

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

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

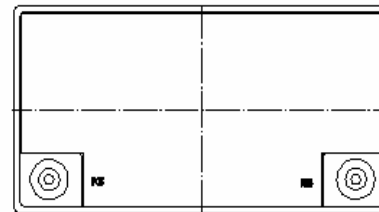
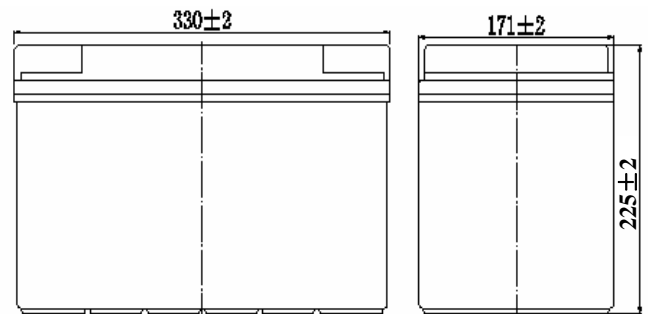
| F.V/TIME | 15min | 30min | 60min | 2h   | 3h   | 4h   | 5h   | 6h   | 8h   | 10h  | 20h  | 48h  | 120h |
|----------|-------|-------|-------|------|------|------|------|------|------|------|------|------|------|
| 9.60V    | 149   | 103   | 64.0  | 37.4 | 26.4 | 20.8 | 17.4 | 14.9 | 11.6 | 10.3 | 5.62 | ---  | ---  |
| 9.90V    | 145   | 100   | 63.0  | 37.2 | 26.2 | 20.7 | 17.3 | 14.7 | 11.4 | 10.3 | 5.61 | ---- | ---  |
| 10.2V    | 140   | 97.4  | 61.5  | 36.9 | 26.1 | 20.5 | 17.2 | 14.6 | 11.4 | 10.3 | 5.60 | 2.23 | ---  |
| 10.5V    | 135   | 95.0  | 60.3  | 36.3 | 25.9 | 20.4 | 17.1 | 14.5 | 11.3 | 10.2 | 5.50 | 2.44 | 1.01 |
| 10.8V    | 128   | 91.5  | 58.4  | 35.4 | 25.1 | 19.7 | 16.5 | 14.1 | 11.0 | 10.1 | 5.50 | 2.44 | 1.01 |

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

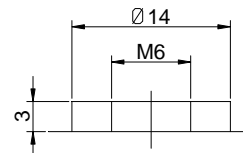
| F.V/TIME | 15min | 30min | 60min | 2h  | 3h  | 4h  | 5h  | 6h  | 8h  | 10h | 20h  | 48h  | 120h |
|----------|-------|-------|-------|-----|-----|-----|-----|-----|-----|-----|------|------|------|
| 9.60V    | 1507  | 1062  | 670   | 396 | 283 | 223 | 188 | 160 | 125 | 112 | 61.6 | ---  | ---  |
| 9.90V    | 1470  | 1041  | 660   | 393 | 282 | 222 | 187 | 159 | 125 | 112 | 61.5 | ---  | ---- |
| 10.2V    | 1416  | 1009  | 644   | 390 | 280 | 220 | 185 | 158 | 124 | 112 | 61.3 | 26.8 | ---- |
| 10.5V    | 1368  | 985   | 631   | 384 | 278 | 219 | 184 | 157 | 123 | 111 | 60.3 | 26.6 | 11.1 |
| 10.8V    | 1296  | 949   | 611   | 374 | 269 | 212 | 179 | 152 | 119 | 110 | 60.5 | 26.6 | 11.0 |

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

**Dimensions**

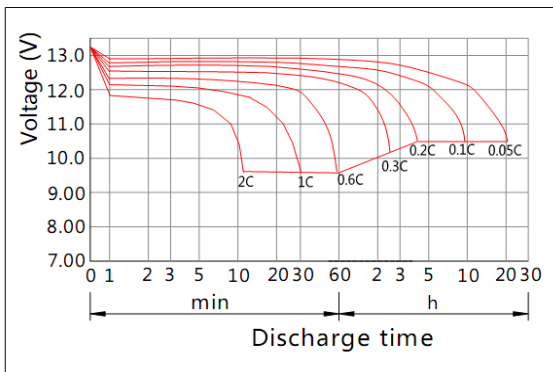


**Terminal**

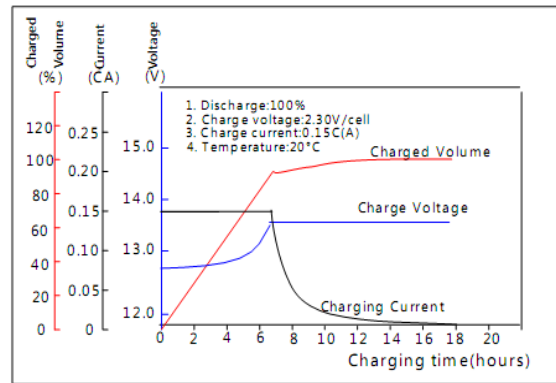


Terminal T9

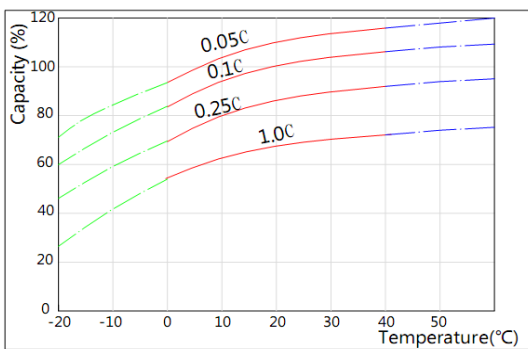
Discharge Characteristics(25°C)



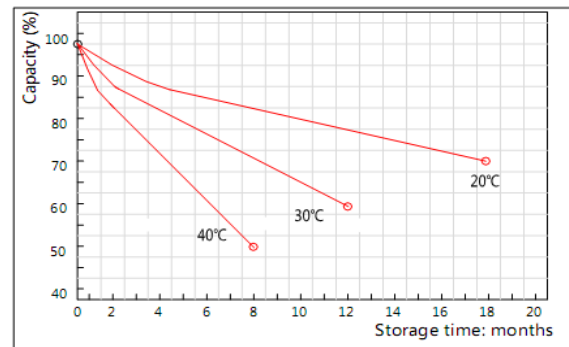
Charging Characteristics(25°C)



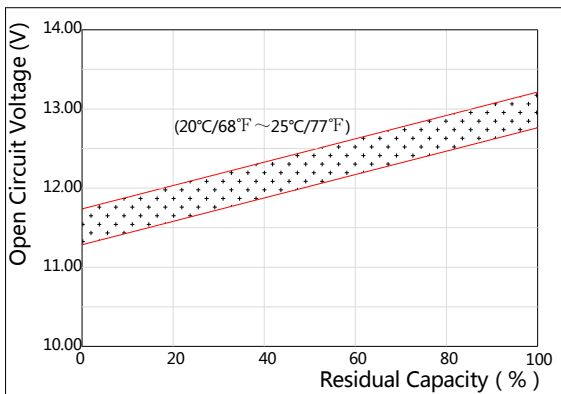
Effect of Temperature on Capacity



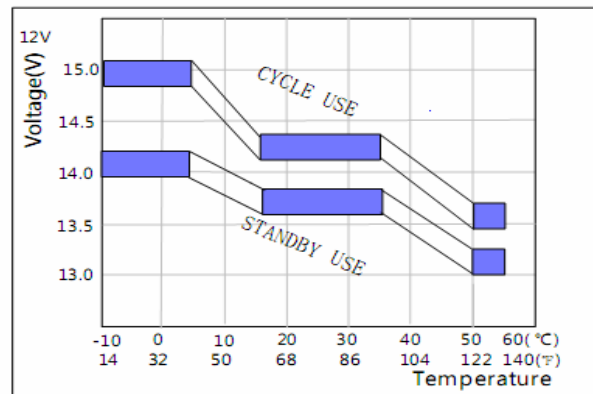
Self-discharge Characteristics



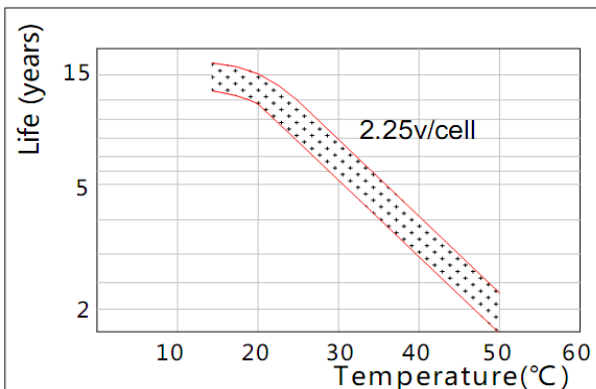
The Relationship for Open Circuit Voltage and Residual Capacity (25°C)



The Relationship for Charging Voltage and Temperature



Floating Life on Temperature



Cycle Life on D.O.D(25°C)

