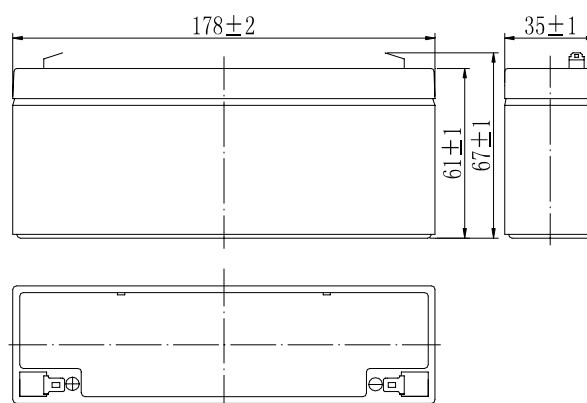


Specifications

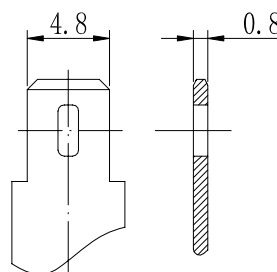
| | | |
|--|--------------|---|
| Nominal Voltage | | 12 V |
| Capacity (25 °C) | 20HR(10.5V) | 2.3Ah |
| | 10HR(10.5V) | 2.1Ah |
| | 1HR(9.60V) | 1.5Ah |
| Dimension | Length | 178 ± 2mm (7.01inch) |
| | Width | 35 ± 1mm (1.38inch) |
| | Height | 61 ± 1mm (2.40inch) |
| | Total Height | 67 ± 1mm (2.64inch) |
| Approx. Weight | | 0.88kg (1.96lbs) ± 5% |
| Terminal type | | T1 |
| Internal resistance (Fully charged, 25 °C) | | Approx. 60m Ω |
| 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) |
| Float charging voltage(25 °C) | | 13.60 to 13.80V Temperature compensation: -18mV/°C |
| Cyclic charging voltage(25 °C) | | 14.50 to 14.90V Temperature compensation: -30mV/°C |
| Maximum charging current | | 0.69A |
| Terminal material | | Copper |
| Maximum discharge current | | 34.5A(5 sec.) |
| Designed floating life(20 °C) | | 10years |



Dimensions



Terminal



Terminal T1

- ◆ Absorbent glass mat technology;
- ◆ Recognized by UL & CE;
- ◆ ABS container.

Constant Current Discharge Characteristics (A, 25 °C)

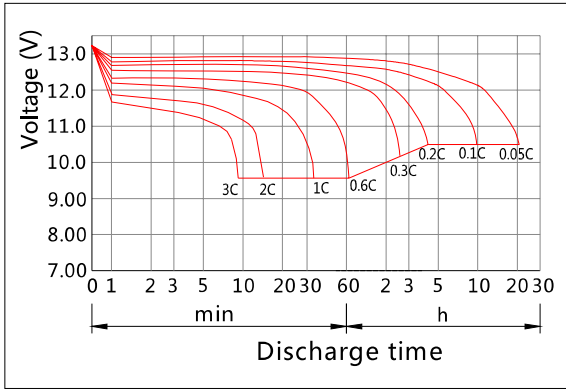
| F.V/TIME | 5min | 10min | 15min | 30min | 60min | 2h | 3h | 4h | 5h | 10h | 20h |
|----------|------|-------|-------|-------|-------|------|------|------|------|------|-------|
| 9.60V | 8.74 | 5.52 | 4.37 | 2.44 | 1.50 | 0.82 | 0.59 | 0.47 | 0.40 | 0.22 | 0.117 |
| 9.90V | 8.48 | 5.35 | 4.27 | 2.39 | 1.47 | 0.81 | 0.58 | 0.47 | 0.40 | 0.22 | 0.116 |
| 10.2V | 8.13 | 5.13 | 4.11 | 2.32 | 1.44 | 0.81 | 0.58 | 0.46 | 0.39 | 0.22 | 0.116 |
| 10.5V | 7.78 | 4.91 | 3.97 | 2.26 | 1.41 | 0.79 | 0.58 | 0.46 | 0.39 | 0.21 | 0.115 |
| 10.8V | 7.34 | 4.64 | 3.76 | 2.18 | 1.36 | 0.77 | 0.56 | 0.45 | 0.38 | 0.21 | 0.113 |

Constant Power Discharge Characteristics (Watt, 25 °C)

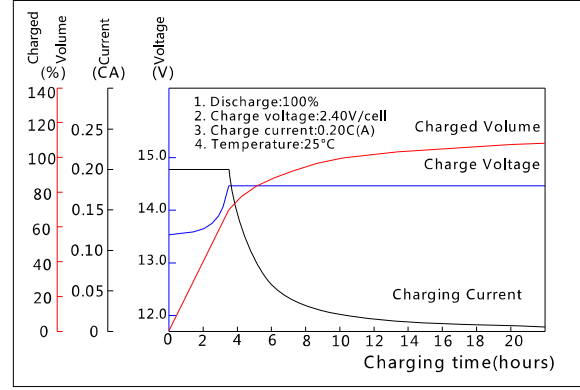
| F.V/TIME | 5min | 10min | 15min | 30min | 60min | 2h | 3h | 4h | 5h | 10h | 20h |
|----------|------|-------|-------|-------|-------|------|------|------|------|------|------|
| 9.60V | 97.5 | 62.3 | 49.8 | 27.9 | 17.3 | 9.56 | 6.97 | 5.59 | 4.76 | 2.61 | 1.40 |
| 9.90V | 94.6 | 60.4 | 48.6 | 27.4 | 17.1 | 9.50 | 6.93 | 5.56 | 4.73 | 2.60 | 1.40 |
| 10.2V | 90.7 | 57.9 | 46.8 | 26.5 | 16.6 | 9.42 | 6.88 | 5.52 | 4.70 | 2.58 | 1.39 |
| 10.5V | 86.8 | 55.4 | 45.2 | 25.9 | 16.3 | 9.28 | 6.83 | 5.48 | 4.67 | 2.57 | 1.38 |
| 10.8V | 81.9 | 52.3 | 42.8 | 24.9 | 15.8 | 9.04 | 6.63 | 5.31 | 4.53 | 2.52 | 1.35 |

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

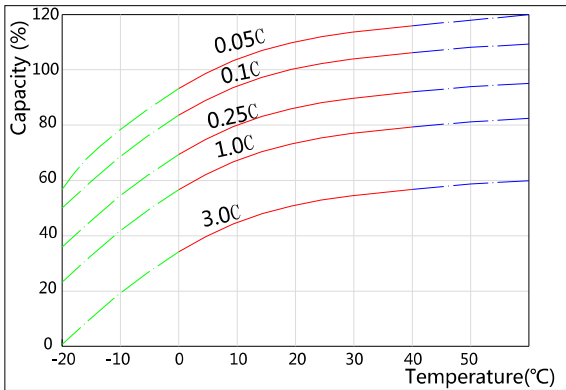
Discharge Characteristics(25°C)



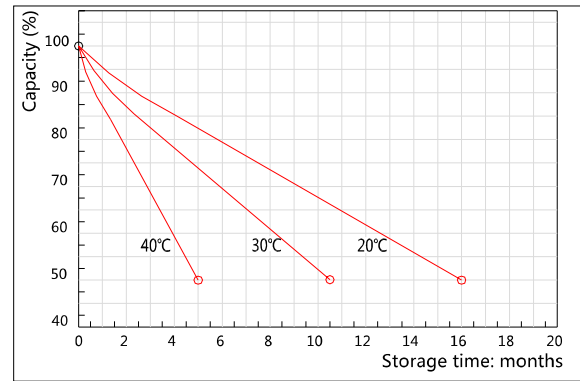
Charging Characteristics(25°C)



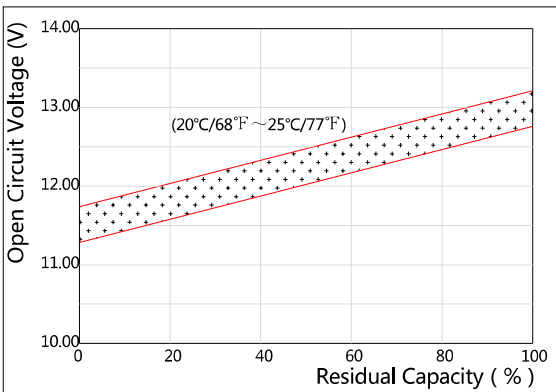
Effect of Temperature on Capacity



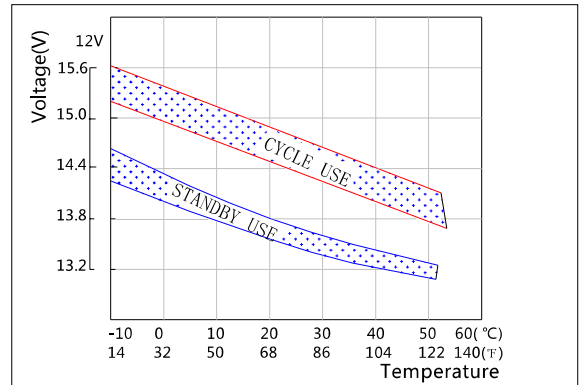
Self-discharge Characteristics



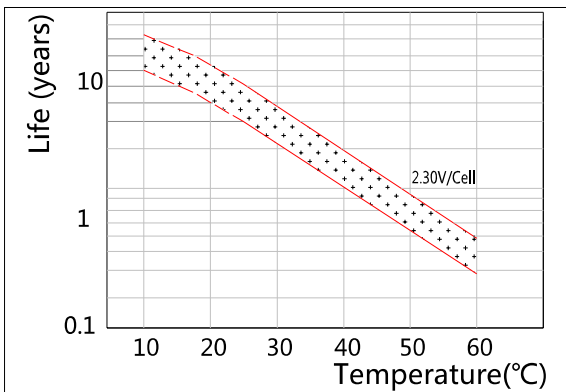
The Relationship for Open Circuit Voltage and Residual Capacity (25°C)



The Relationship for Charging Voltage and Temperature



Floating Life on Temperature



Cycle Life on D.O.D(25°C)

