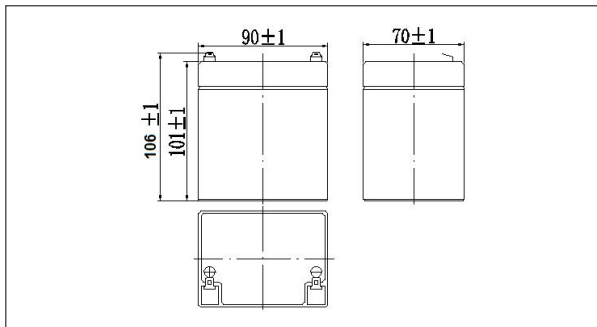


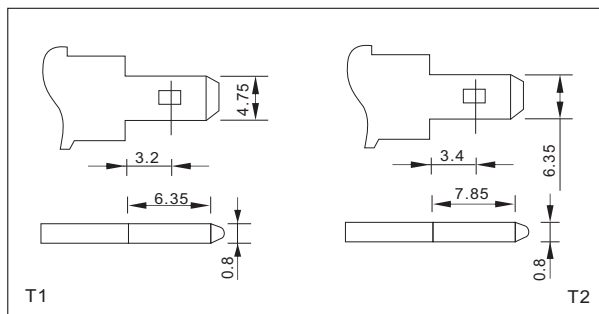
Specifications

| | | |
|-------------------------------|--------------------|-------------------|
| Nominal Voltage | 12V | |
| Rated capacity (20 hour rate) | 5Ah | |
| Dimensions | Length | 90±1mm(3.54inch) |
| | Width | 70±1mm(2.76inch) |
| | Height | 101±1mm(3.98inch) |
| | Total Height | 106±1mm(4.17inch) |
| Approx. Weight | 1.70kg(3.74lbs)±4% | |

Outer dimensions (mm)



Terminal Type (mm)



Characteristics

| | | |
|---|-------------|---|
| Capacity (25°C) | 20HR(10.5V) | 5Ah |
| | 10HR(10.5V) | 4.7Ah |
| | 1HR(9.60V) | 3Ah |
| Terminal type | | T1/T2 |
| Internal resistance (Fully charged, 25°C) | | Approx. 27mΩ |
| Capacity affected by temperature (20HR) | 40°C | 102% |
| | 25°C | 100% |
| | 0°C | 85% |
| | -15°C | 65% |
| Self-discharge (25°C) | 3 months | Remaining Capacity: 91% |
| | 6 months | Remaining Capacity: 82% |
| | 12 months | 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) | | 13.50 to 13.80V Temperature compensation: -18mV/°C |
| Cyclic charging voltage (25°C) | | 14.50 to 15.00V Temperature compensation: -30mV/°C |
| Maximum charging current | | 1.5A |
| Maximum discharge current | | 75A (5 sec.) |
| Designed floating life (20°C) | | 5 years |

Construction

| Component | Positive plate | Negative plate | Container | Cover | Separator | Electrolyte | Safety valve | Terminal |
|--------------|----------------|----------------|-----------|-------|-----------|---------------|--------------|----------|
| Raw material | Lead dioxide | Lead | ABS | ABS | AGM | Sulfuric acid | Rubber | Copper |

Constant Current Discharge Characteristics Unit: A (25°C, 77°F)

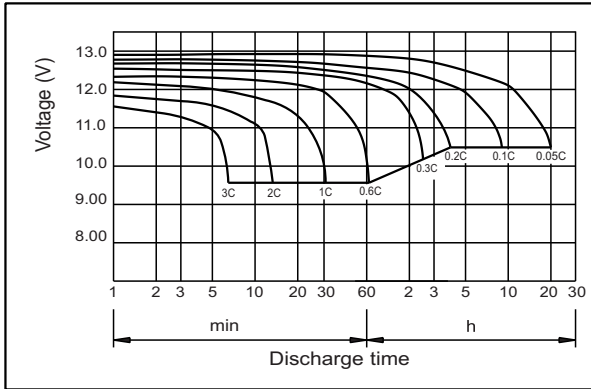
| F.V/Time | 5min | 10min | 15min | 30min | 60min | 2h | 3h | 4h | 5h | 10h | 20h |
|----------|------|-------|-------|-------|-------|------|------|------|------|------|------|
| 9.60V | 19.1 | 12.1 | 9.45 | 5.33 | 3.28 | 1.79 | 1.24 | 1.03 | 0.87 | 0.47 | 0.25 |
| 9.90V | 18.5 | 11.7 | 9.22 | 5.22 | 3.23 | 1.78 | 1.23 | 1.02 | 0.87 | 0.47 | 0.25 |
| 10.2V | 17.8 | 11.3 | 8.88 | 5.06 | 3.14 | 1.77 | 1.22 | 1.01 | 0.86 | 0.47 | 0.25 |
| 10.5V | 17.0 | 10.8 | 8.58 | 4.94 | 3.08 | 1.74 | 1.22 | 1.01 | 0.86 | 0.47 | 0.25 |
| 10.8V | 16.0 | 10.2 | 8.13 | 4.76 | 2.99 | 1.69 | 1.18 | 0.97 | 0.83 | 0.46 | 0.25 |

Constant Power Discharge Characteristics Unit: W (25°C, 77°F)

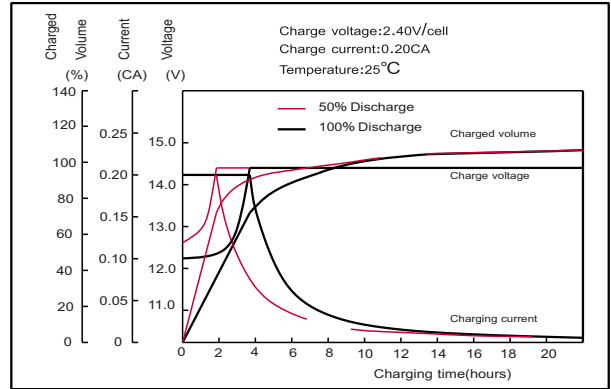
| F.V/Time | 5min | 10min | 15min | 30min | 60min | 2h | 3h | 4h | 5h | 10h | 20h |
|----------|------|-------|-------|-------|-------|------|------|------|------|------|------|
| 9.60V | 213 | 136 | 108 | 61.0 | 37.9 | 21.0 | 14.7 | 12.2 | 10.4 | 5.68 | 3.05 |
| 9.90V | 207 | 132 | 105 | 59.8 | 37.4 | 20.8 | 14.6 | 12.1 | 10.4 | 5.66 | 3.03 |
| 10.2V | 198 | 127 | 101 | 58.0 | 36.4 | 20.7 | 14.5 | 12.1 | 10.3 | 5.63 | 3.02 |
| 10.5V | 190 | 121 | 97.8 | 56.6 | 35.7 | 20.3 | 14.4 | 12.0 | 10.2 | 5.60 | 3.00 |
| 10.8V | 179 | 115 | 92.6 | 54.5 | 34.6 | 19.8 | 14.0 | 11.6 | 9.90 | 5.49 | 2.94 |

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

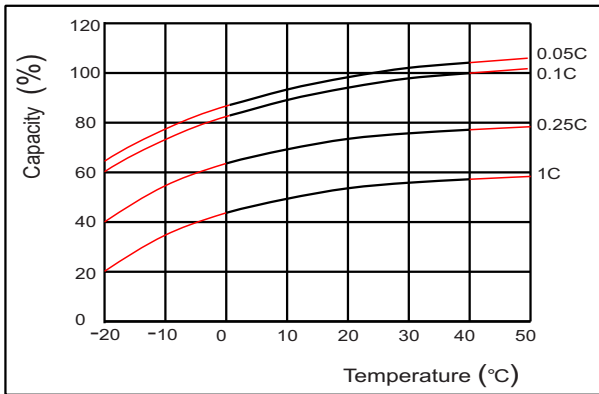
● Discharge characteristics(25°C)



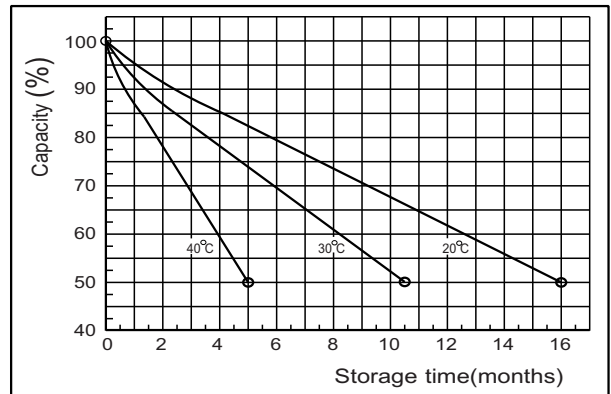
● Charging characteristics (25°C)



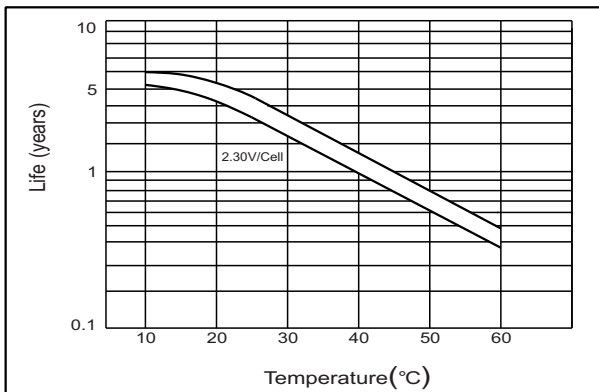
● Effect of temperature on capacity



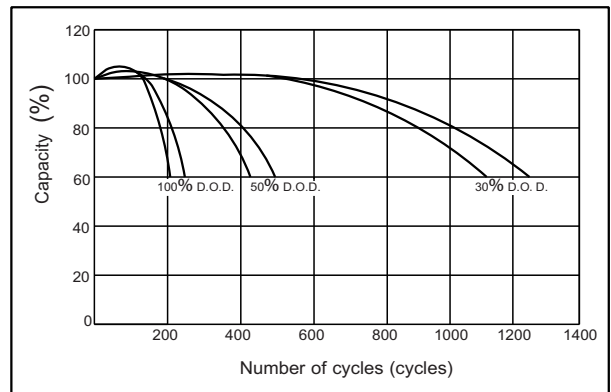
● Self-discharge characteristics



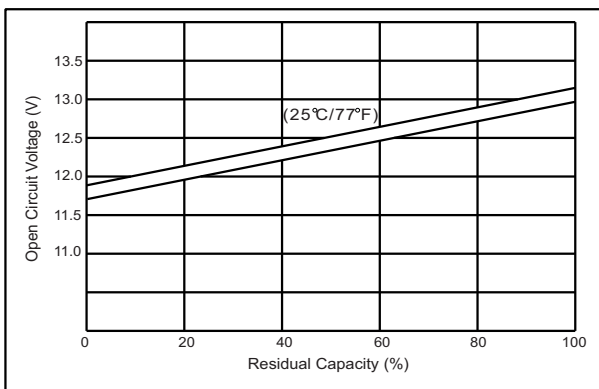
● Floating life on temperature



● Cycle life on D.O.D(25°C)



● The relationship for OCV and Capacity (25°C)



● The relationship for Charging voltage and Temperature

