

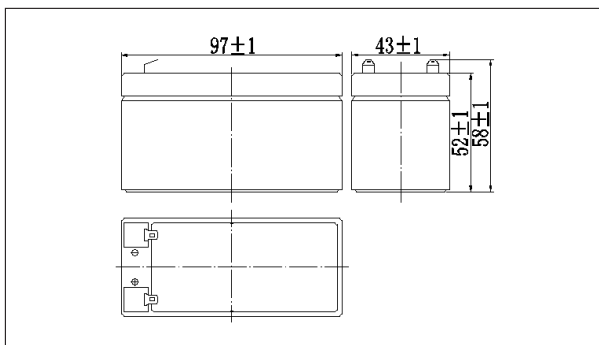
NP12-1.2Ah 12V1.2Ah

● Specifications

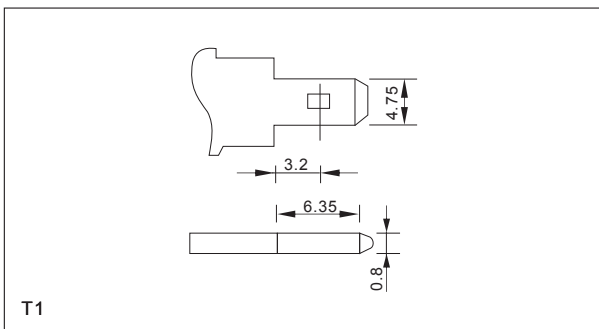
| | | |
|-------------------------------|--------------|--------------------|
| Nominal Voltage | | 12V |
| Rated capacity (20 hour rate) | | 1.2Ah |
| Dimensions | Length | 98±1mm(3.86inch) |
| | Width | 43±1mm(1.69inch) |
| | Height | 52±1mm(2.05inch) |
| | Total Height | 58±1mm(2.28inch) |
| Approx. Weight | | 0.54kg(1.19lbs)±5% |



● Outer dimensions (mm)



● Terminal Type (mm)



● Characteristics

| | | |
|---|-------------|---|
| Capacity (25°C) | 20HR(10.5V) | 1.2Ah |
| | 10HR(10.5V) | 1.1Ah |
| | 1HR(9.60V) | 0.72Ah |
| Terminal type | | T1 |
| Internal resistance (Fully charged, 25°C) | | Approx. 90m Ω |
| 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 | | 0.36A |
| Maximum discharge current | | 18A(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 | 4.58 | 2.90 | 2.27 | 1.28 | 0.79 | 0.43 | 0.30 | 0.25 | 0.21 | 0.11 | 0.06 |
| 9.90V | 4.45 | 2.82 | 2.21 | 1.25 | 0.77 | 0.43 | 0.30 | 0.24 | 0.21 | 0.11 | 0.06 |
| 10.2V | 4.26 | 2.70 | 2.13 | 1.21 | 0.75 | 0.42 | 0.29 | 0.24 | 0.21 | 0.11 | 0.06 |
| 10.5V | 4.08 | 2.58 | 2.06 | 1.18 | 0.74 | 0.42 | 0.29 | 0.24 | 0.21 | 0.11 | 0.06 |
| 10.8V | 3.85 | 2.44 | 1.95 | 1.14 | 0.72 | 0.41 | 0.28 | 0.23 | 0.20 | 0.11 | 0.06 |

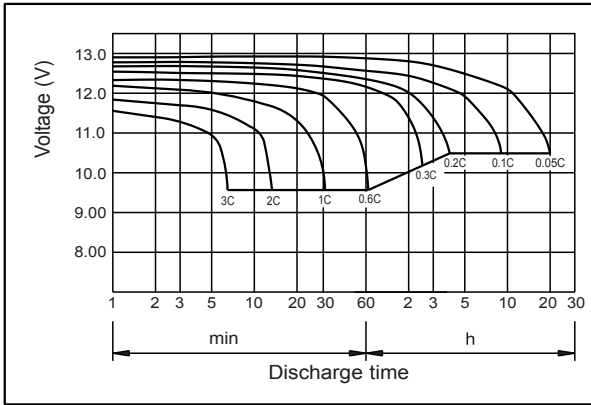
● Constant Power Discharge Characteristics Unit:W(25°C,77°F)

| F.V/Time | 5min | 10min | 15min | 30min | 60min | 2h | 3h | 4h | 5h | 10h | 20h |
|----------|------|-------|-------|-------|-------|------|------|------|------|------|------|
| 9.60V | 51.2 | 32.8 | 25.9 | 14.6 | 9.10 | 5.03 | 3.53 | 2.93 | 2.50 | 1.36 | 0.73 |
| 9.90V | 49.6 | 31.8 | 25.2 | 14.4 | 8.97 | 5.00 | 3.51 | 2.91 | 2.48 | 1.36 | 0.73 |
| 10.2V | 47.6 | 30.5 | 24.3 | 13.9 | 8.74 | 4.96 | 3.49 | 2.89 | 2.47 | 1.35 | 0.72 |
| 10.5V | 45.5 | 29.2 | 23.5 | 13.6 | 8.56 | 4.88 | 3.46 | 2.87 | 2.45 | 1.34 | 0.72 |
| 10.8V | 43.0 | 27.5 | 22.2 | 13.1 | 8.30 | 4.76 | 3.36 | 2.79 | 2.38 | 1.32 | 0.71 |

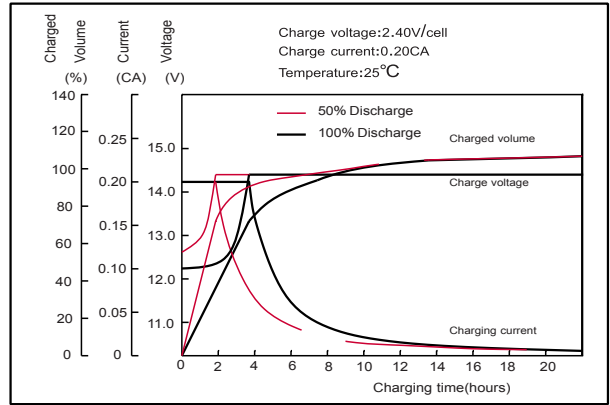
Note: The above characteristics data can be obtained within three charge or discharge cycles.

NP12-1.2Ah 12V1.2Ah

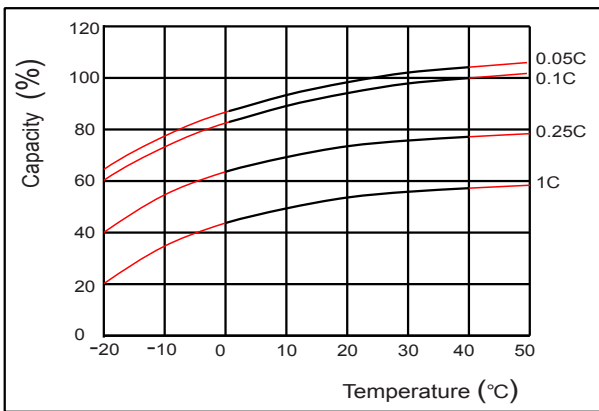
● Discharge characteristics(25°C)



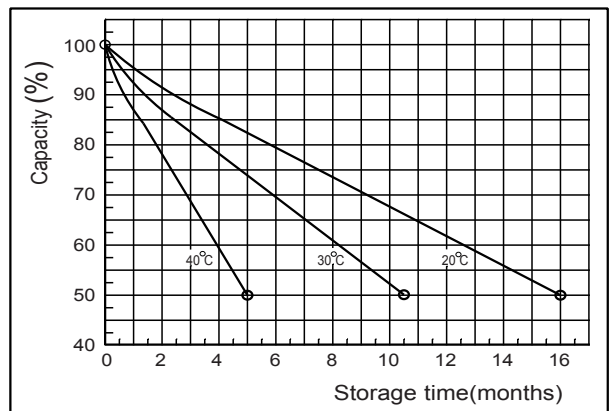
● Charging characteristics (25°C)



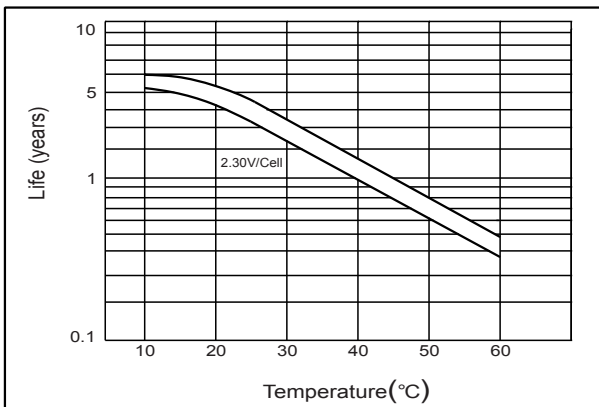
● Effect of temperature on capacity



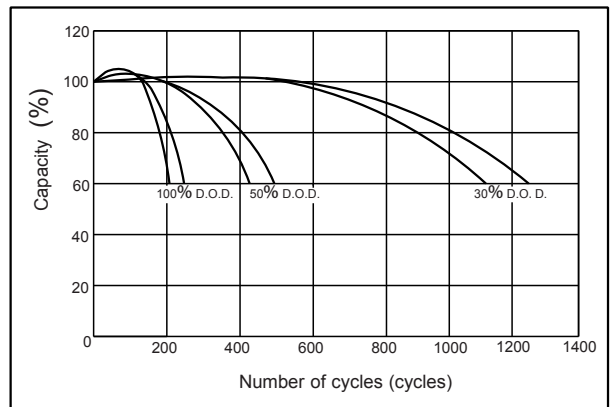
● Self-discharge characteristic



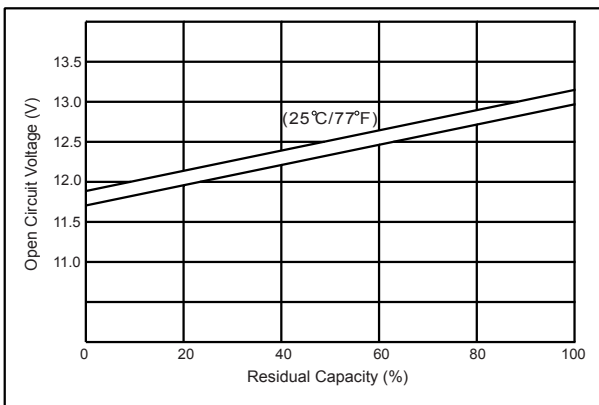
● Floating life on temperature



● Cycle life on D.O.D.(25°C)



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



● The relationship for Charging voltage and Temperature

