

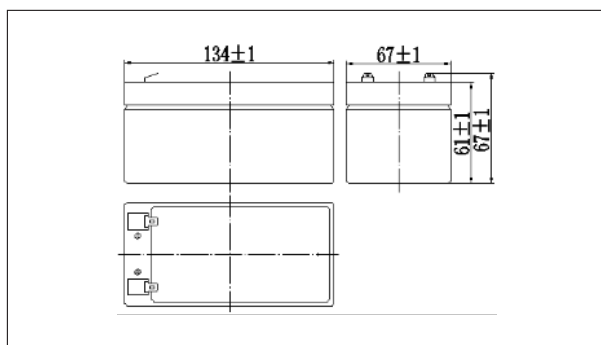
NP12-3.2Ah 12V3.2Ah

Specifications

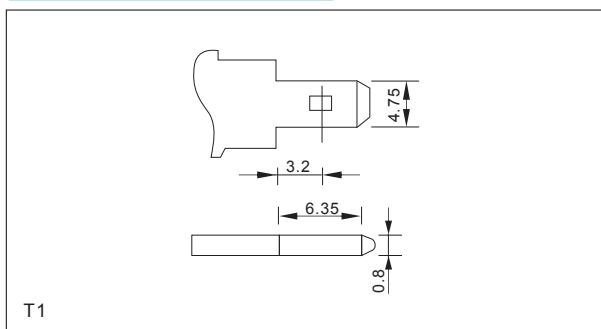
| | | |
|-------------------------------|--------------|-------------------|
| Nominal Voltage | | 12V |
| Rated capacity (20 hour rate) | | 3.2Ah |
| Dimensions | Length | 134±1mm(5.28inch) |
| | Width | 67±1mm(2.64inch) |
| | Height | 61±1mm(2.40inch) |
| | Total Height | 67±1mm(2.64inch) |
| Approx. Weight | | 1.2kg(2.65lbs)±5% |



Outer dimensions (mm)



Terminal Type (mm)



Characteristics

| | | |
|---|-------------|--|
| Capacity (25°C) | 20HR(10.5V) | 3.2Ah |
| | 10HR(10.5V) | 3.0Ah |
| | 1HR(9.60V) | 2.0Ah |
| Terminal type | | T1 |
| Internal resistance (Fully charged, 25°C) | | Approx. 50m 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) | | 13.60 to 13.80V Temperature compensation: -18mV/°C |
| Cyclic charging voltage(25°C) | | 14.50 to 15.00V Temperature compensation: -30mV/°C |
| Maximum charging current | | 0.96A |
| Maximum discharge current | | 48A(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 | 12.2 | 7.74 | 6.05 | 3.41 | 2.10 | 1.15 | 0.79 | 0.66 | 0.56 | 0.30 | 0.16 |
| 9.90V | 11.9 | 7.51 | 5.90 | 3.34 | 2.06 | 1.14 | 0.79 | 0.65 | 0.55 | 0.30 | 0.16 |
| 10.2V | 11.4 | 7.20 | 5.69 | 3.24 | 2.01 | 1.13 | 0.78 | 0.65 | 0.55 | 0.30 | 0.16 |
| 10.5V | 10.9 | 6.89 | 5.49 | 3.16 | 1.97 | 1.11 | 0.78 | 0.64 | 0.55 | 0.30 | 0.16 |
| 10.8V | 10.3 | 6.50 | 5.20 | 3.04 | 1.91 | 1.08 | 0.75 | 0.62 | 0.53 | 0.29 | 0.16 |

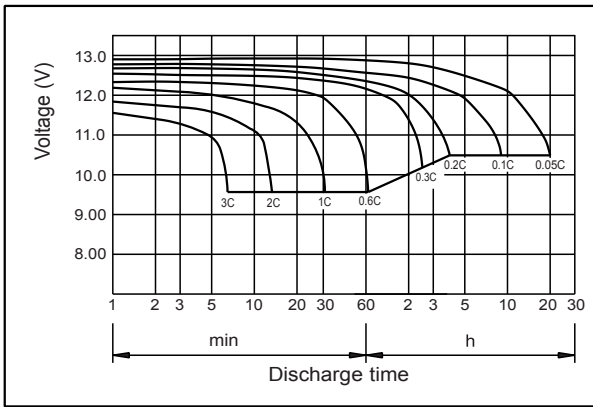
Constant Power Discharge Characteristics Unit:W(25°C,77°F)

| F.V/Time | 5min | 10min | 15min | 30min | 60min | 2h | 3h | 4h | 5h | 10h | 20h |
|----------|------|-------|-------|-------|-------|------|------|------|------|------|------|
| 9.60V | 136 | 87.4 | 68.9 | 39.1 | 24.3 | 13.4 | 9.42 | 7.81 | 6.66 | 3.64 | 1.95 |
| 9.90V | 132 | 84.7 | 67.3 | 38.3 | 23.9 | 13.3 | 9.37 | 7.77 | 6.63 | 3.62 | 1.94 |
| 10.2V | 127 | 81.2 | 64.8 | 37.1 | 23.3 | 13.2 | 9.30 | 7.71 | 6.58 | 3.60 | 1.93 |
| 10.5V | 121 | 77.7 | 62.6 | 36.2 | 22.8 | 13.0 | 9.24 | 7.66 | 6.53 | 3.58 | 1.92 |
| 10.8V | 115 | 73.4 | 59.3 | 34.9 | 22.1 | 12.7 | 8.96 | 7.43 | 6.34 | 3.51 | 1.88 |

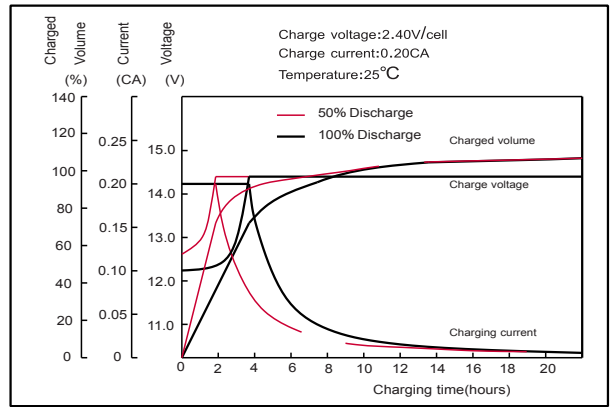
Note: The above characteristics data can be obtained within three charge or discharge cycles.

NP12-3.2Ah 12V3.2Ah

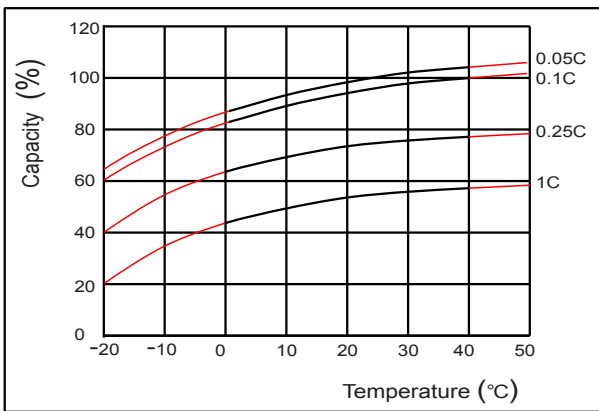
● Discharge characteristics(25°C)



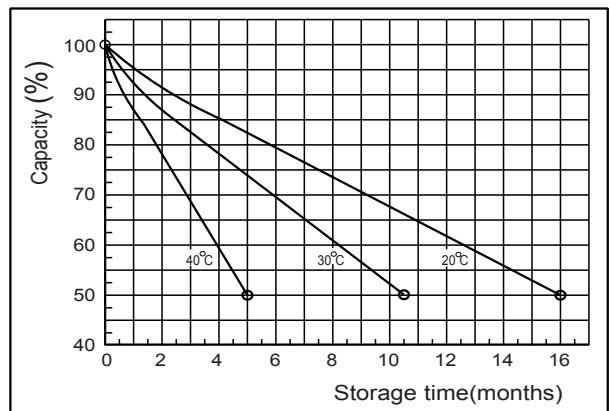
● Charging characteristics (25°C)



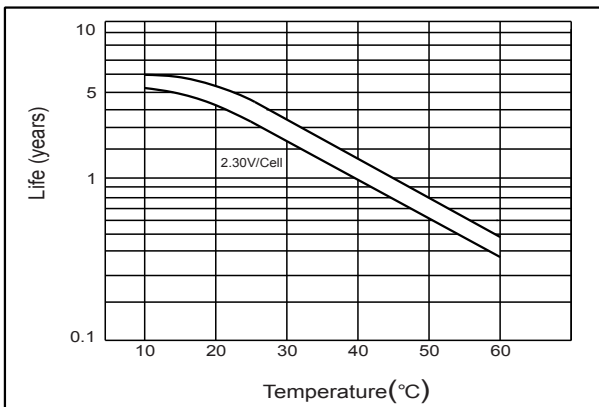
● Effect of temperature on capacity



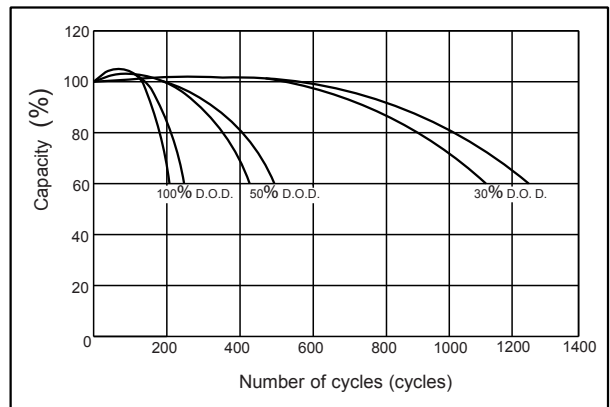
● Self-discharge characteristics



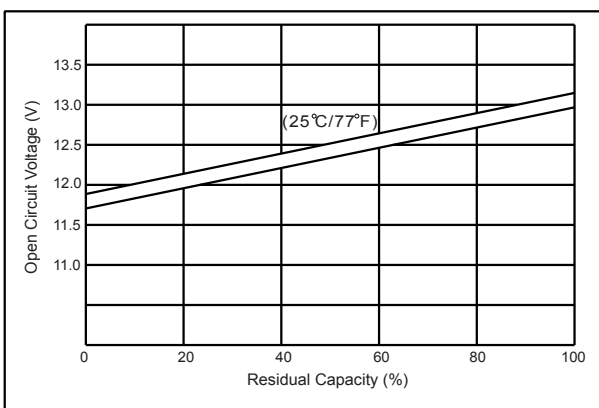
● Floating life on temperature



● Cycle life on D.O.D.(25°C)



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



● The relationship for Charging voltage and Temperature

