

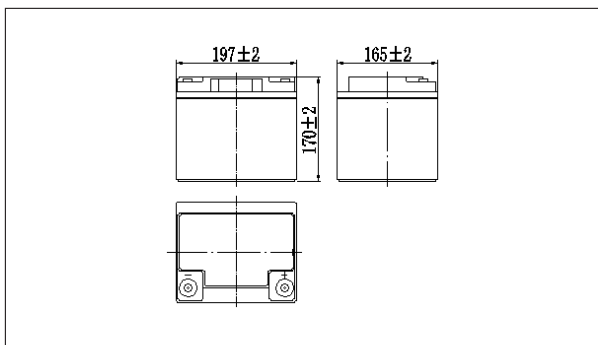
NP12-40Ah 12V40Ah

● Specifications

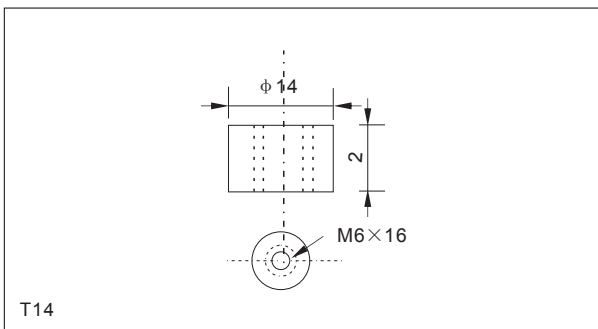
| | | |
|-------------------------------|--------------|--------------------|
| Nominal Voltage | | 12V |
| Rated capacity (10 hour rate) | | 40Ah |
| Dimensions | Length | 197±2mm(7.76inch) |
| | Width | 165±2mm(6.50inch) |
| | Height | 170±2mm6.69inch) |
| | Total Height | 170±2mm(6.69inch) |
| Approx. Weight | | 12.5kg(27.6lbs)±3% |



● Outer dimensions (mm)



● Terminal Type (mm)



● Characteristics

| | | |
|--|-------------|---|
| Capacity (25°C) | 10HR(10.8V) | 40Ah |
| | 3HR(10.8V) | 30Ah |
| | 1HR(10.5V) | 22Ah |
| Terminal type | | T14 |
| Internal resistance (Fully charged,25°C) | | Approx.9m Ω |
| Capacity affected by temperature (10HR) | 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 | | 12A |
| Maximum discharge current | | 400A(5 sec.) |
| Designed floating life(20°C) | | 10years |

● 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 | 10min | 15min | 30min | 60min | 2h | 3h | 4h | 5h | 8h | 10h | 20h |
|----------|-------|-------|-------|-------|------|------|------|------|------|------|------|
| 9.60V | 87.2 | 67.2 | 40.2 | 24.7 | 14.6 | 10.5 | 8.40 | 7.18 | 4.94 | 4.07 | 2.16 |
| 9.90V | 84.6 | 65.6 | 39.4 | 24.3 | 14.5 | 10.5 | 8.36 | 7.14 | 4.91 | 4.06 | 2.15 |
| 10.2V | 81.1 | 63.2 | 38.2 | 23.7 | 14.4 | 10.4 | 8.30 | 7.09 | 4.87 | 4.05 | 2.15 |
| 10.5V | 77.6 | 61.0 | 37.3 | 23.0 | 14.2 | 10.3 | 8.24 | 7.04 | 4.84 | 4.03 | 2.13 |
| 10.8V | 73.2 | 57.8 | 35.9 | 22.2 | 13.8 | 10.0 | 7.99 | 6.83 | 4.69 | 4.00 | 2.12 |

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

| F.V/Time | 10min | 15min | 30min | 60min | 2h | 3h | 4h | 5h | 8h | 10h | 20h |
|----------|-------|-------|-------|-------|-----|-----|------|------|------|------|------|
| 9.60V | 942 | 738 | 451 | 282 | 169 | 124 | 98.8 | 84.9 | 58.6 | 48.6 | 25.9 |
| 9.90V | 914 | 720 | 442 | 278 | 168 | 123 | 98.3 | 84.4 | 58.3 | 48.5 | 25.8 |
| 10.2V | 876 | 694 | 428 | 271 | 167 | 122 | 97.6 | 83.8 | 57.9 | 48.4 | 25.8 |
| 10.5V | 838 | 670 | 418 | 262 | 164 | 121 | 96.9 | 83.2 | 57.5 | 48.1 | 25.6 |
| 10.8V | 791 | 635 | 403 | 254 | 160 | 118 | 94.0 | 80.7 | 55.8 | 47.8 | 25.4 |

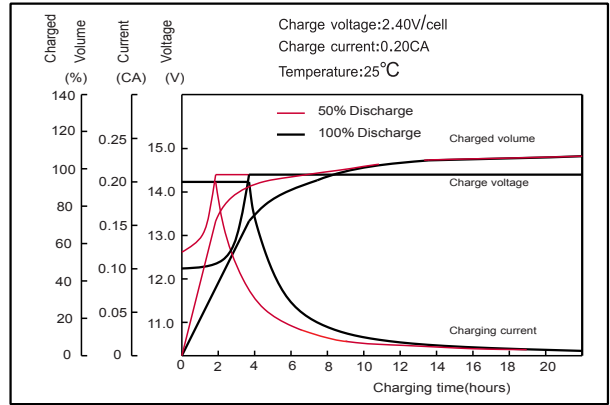
Note: The above characteristics data can be obtained within three charge or discharge cycles.

NP12-40Ah 12V40Ah

● **Discharge characteristics(25°C)**



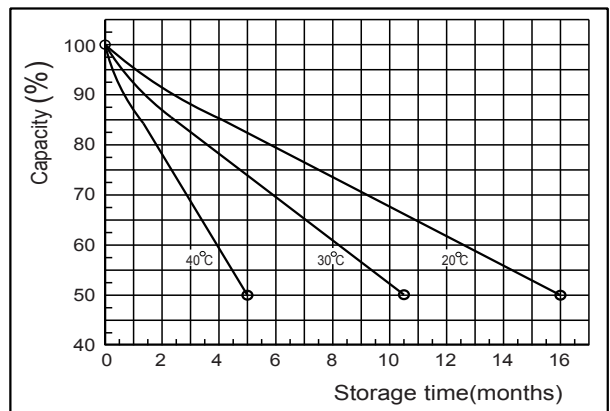
● **Charging characteristics (25°C)**



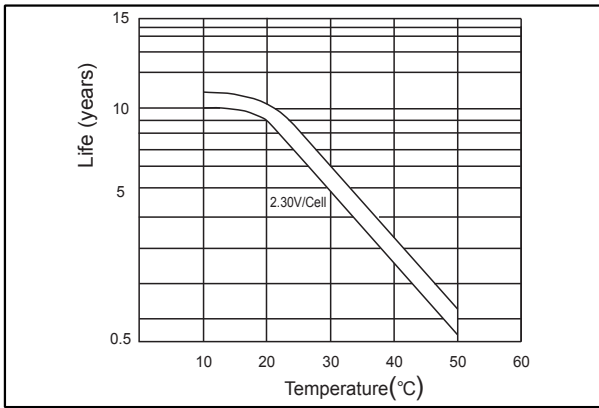
● **Temperature effects on Capacity**



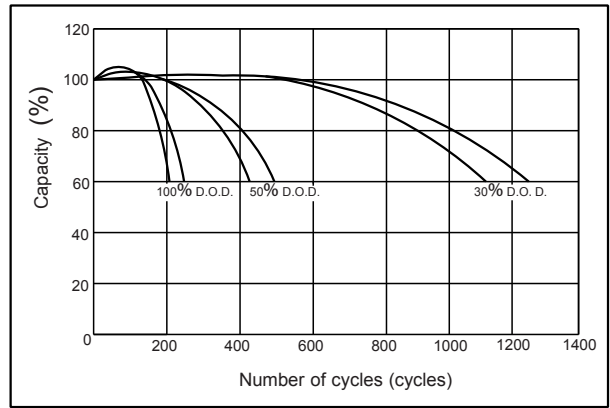
● **Self-discharge characteristics**



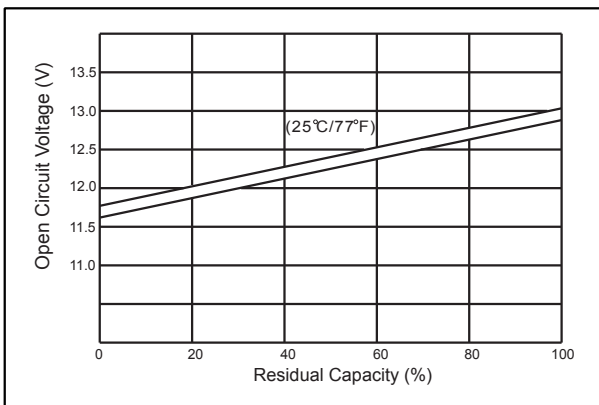
● **Floating life on Temperature**



● **Cycle life on D.O.D (25°C)**



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



● **The relationship for Charging voltage and Temperature**

