

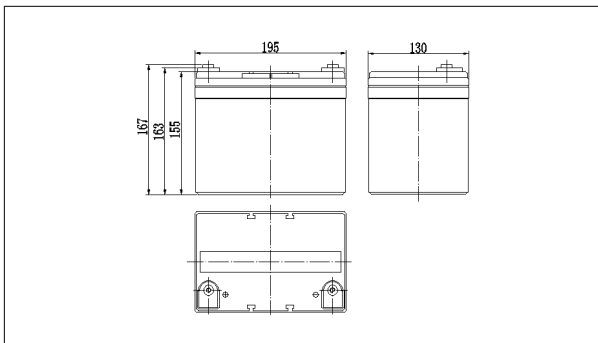
NP12-33Ah 12V33Ah

● Specifications

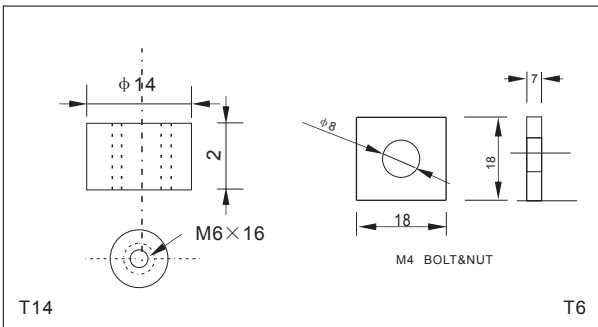
| | | |
|-------------------------------|--------------|---|
| Nominal Voltage | | 12V |
| Rated capacity (10 hour rate) | | 33Ah |
| Dimensions | Length | 195±2mm(7.68inch) |
| | Width | 130±2mm(5.12inch) |
| | Height | 155±2mm6.10inch) |
| | Total Height | T14:167±2mm(6.57inch) T6:180±2mm(7.09inch) |
| Approx. Weight | | 10kg(22.0lbs)±4% |



● Outer dimensions (mm)



● Terminal Type (mm)



● Characteristics

| | | |
|--|-------------|---|
| Capacity (25°C) | 10HR(10.8V) | 33Ah |
| | 3HR(10.8V) | 24Ah |
| | 1HR(10.5V) | 19Ah |
| Terminal type | | T14/T6 |
| Internal resistance (Fully charged,25°C) | | Approx. 11m 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 | | 9.9A |
| Maximum discharge current | | 330A(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 / lead |

● 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 | 71.9 | 55.4 | 33.2 | 20.4 | 12.1 | 8.68 | 6.93 | 5.92 | 4.07 | 3.36 | 1.78 |
| 9.90V | 69.8 | 54.1 | 32.5 | 20.1 | 12.0 | 8.63 | 6.89 | 5.89 | 4.05 | 3.35 | 1.78 |
| 10.2V | 66.9 | 52.1 | 31.5 | 19.6 | 11.9 | 8.57 | 6.85 | 5.85 | 4.02 | 3.34 | 1.77 |
| 10.5V | 64.0 | 50.3 | 30.7 | 19.0 | 11.7 | 8.51 | 6.80 | 5.81 | 3.99 | 3.32 | 1.76 |
| 10.8V | 60.4 | 47.7 | 29.6 | 18.4 | 11.4 | 8.26 | 6.59 | 5.63 | 3.87 | 3.30 | 1.75 |

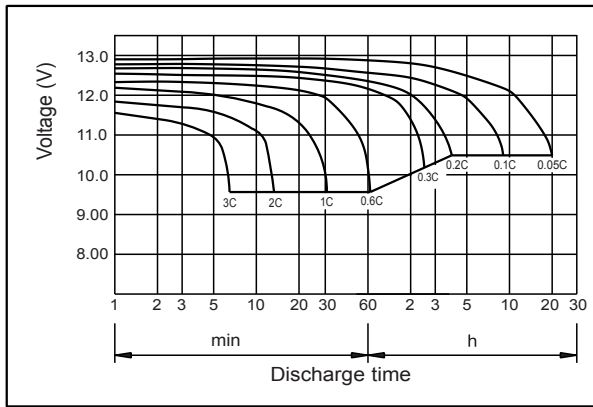
● Constant Power Discharge Characteristics Unit:W(25°C,77°F)

| F.V/Time | 10min | 15min | 30min | 60min | 2h | 3h | 4h | 5h | 8h | 10h | 20h |
|----------|-------|-------|-------|-------|-----|------|------|------|------|------|------|
| 9.60V | 777 | 609 | 372 | 232 | 140 | 102 | 81.5 | 70.0 | 48.4 | 40.1 | 21.4 |
| 9.90V | 754 | 594 | 365 | 229 | 139 | 102 | 81.1 | 69.6 | 48.1 | 40.0 | 21.3 |
| 10.2V | 723 | 572 | 354 | 223 | 138 | 101 | 80.5 | 69.1 | 47.8 | 39.9 | 21.3 |
| 10.5V | 691 | 553 | 345 | 216 | 136 | 100 | 79.9 | 68.7 | 47.4 | 39.7 | 21.1 |
| 10.8V | 653 | 524 | 332 | 209 | 132 | 97.1 | 77.5 | 66.6 | 46.0 | 39.4 | 21.0 |

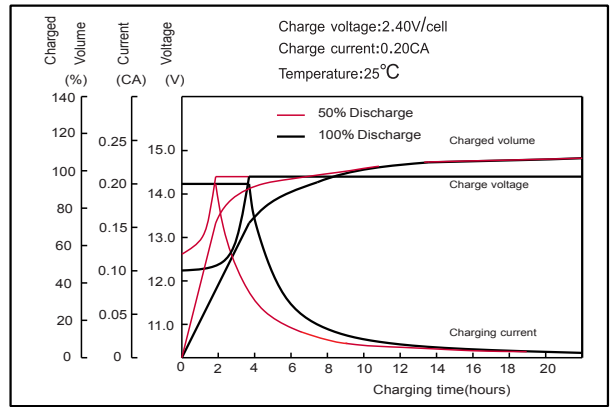
Note: The above characteristics data can be obtained within three charge or discharge cycles.

NP12-33Ah 12V33Ah

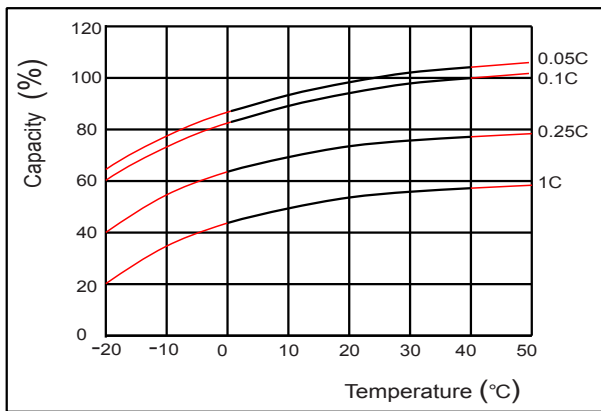
● Discharge characteristics(25°C)



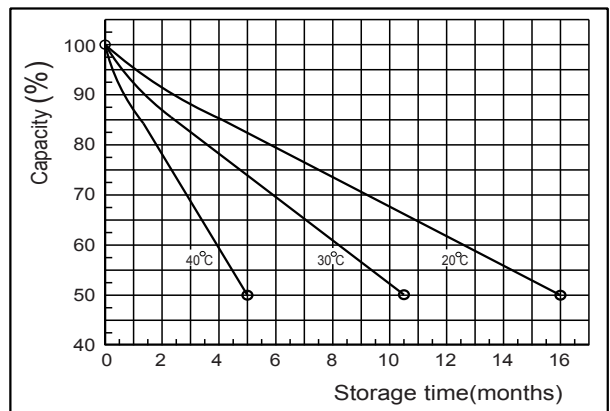
● Charging characteristics (25°C)



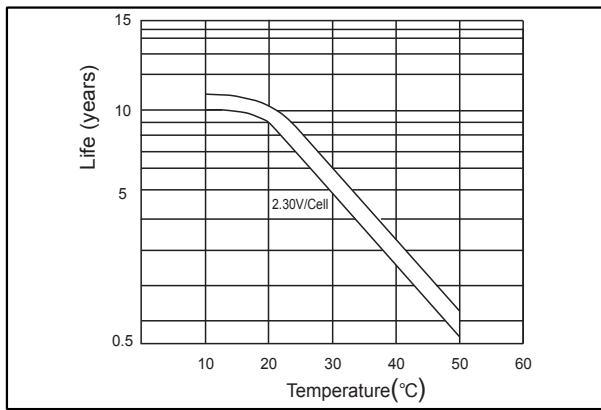
● Temperature effects on Capacity



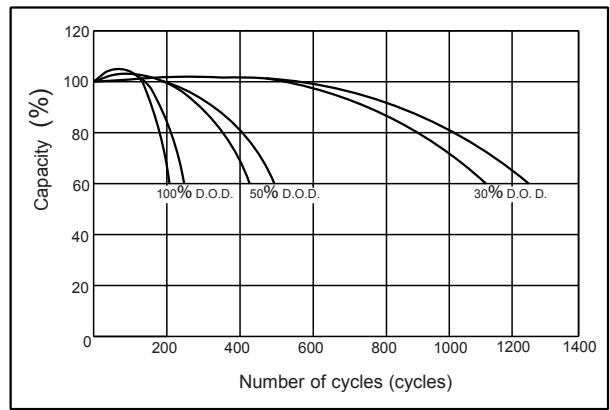
● Self-discharge characteristics



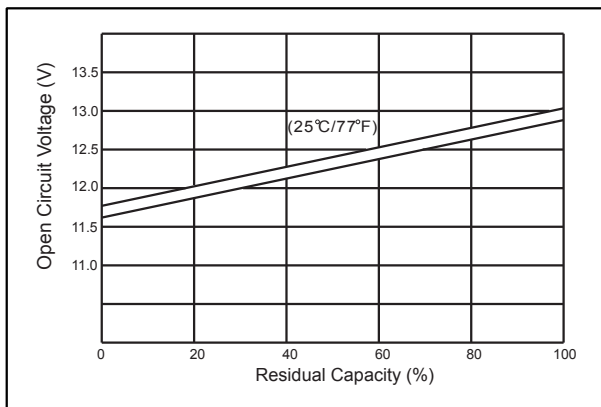
● Floating life on Temperature



● Cycle life on D.O.D (25°C)



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



● The relationship for Charging voltage and Temperature

