

NP12-80Ah 12V80Ah

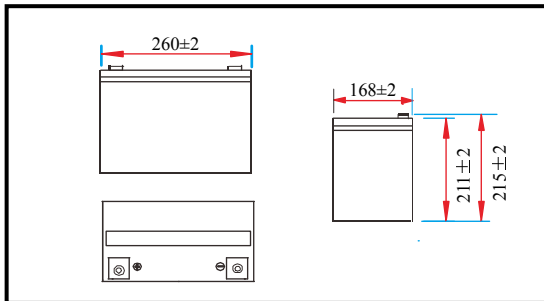
Valve Regulated Lead Acid Battery



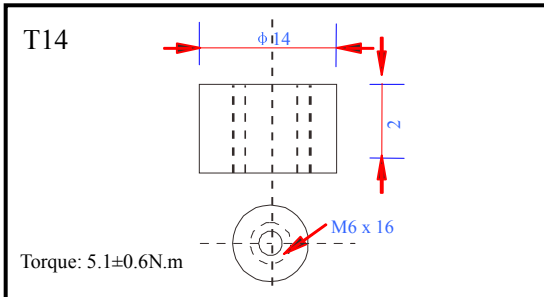
Specifications

| | | |
|-----------------------|------------------------|---------------------|
| Nominal voltage | 12V (6 cells per unit) | |
| Rated capacity (10HR) | 80Ah/10.8V | |
| Dimensions | Length | 260±2mm (10.24inch) |
| | Width | 168±2mm (6.61inch) |
| | Height | 211±2mm (8.31inch) |
| | Total height | 215±2mm (8.46inch) |
| Approx. weight | 24.20kg (53.30lbs)±3% | |

Outer dimensions (mm)



Terminal type (mm)



Characteristics

| | | |
|---|---|--|
| Capacity (25°C) | 10HR (10.8V) | 80Ah |
| | 3HR (10.8V) | 60Ah |
| | 1HR (10.5V) | 44Ah |
| Terminal type | | T14 |
| Internal resistance (Fully charged, 25°C) | | Approx. 5.5mΩ |
| 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/Block |
| Cyclic charging voltage (25°C) | | 14.50 to 15.00V Temperature compensation: -30mV/°C/Block |
| Maximum charging current | | 24A |
| Maximum discharge current | | 700A (5 sec.) |
| Design life | 10 years for floating (25°C) | |
| | Eurobat (20°C): 10-12 years, long life. | |

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: Ampere/Block (at 25°C, 77°F)

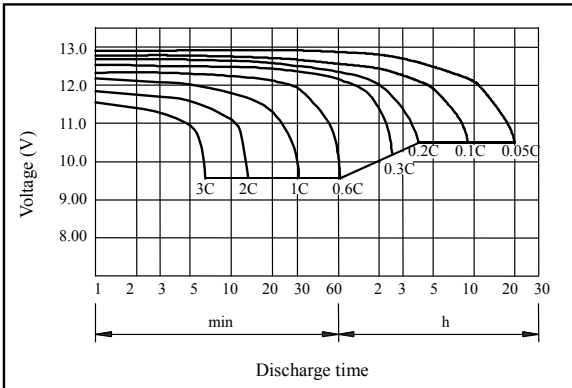
| F.V/Time | 10min | 15min | 30min | 60min | 2h | 3h | 4h | 5h | 8h | 10h | 20h |
|----------|-------|-------|-------|-------|------|------|------|------|------|------|------|
| 9.60V | 174 | 134 | 80.4 | 49.4 | 29.2 | 21.1 | 16.8 | 14.4 | 9.87 | 8.14 | 4.32 |
| 9.90V | 169 | 131 | 78.8 | 48.7 | 29.1 | 20.9 | 16.7 | 14.3 | 9.82 | 8.13 | 4.31 |
| 10.2V | 162 | 126 | 76.4 | 47.5 | 28.8 | 20.8 | 16.6 | 14.2 | 9.75 | 8.10 | 4.30 |
| 10.5V | 155 | 122 | 74.5 | 46.0 | 28.4 | 20.6 | 16.5 | 14.1 | 9.68 | 8.06 | 4.27 |
| 10.8V | 146 | 116 | 71.8 | 44.5 | 27.6 | 20.0 | 16.0 | 13.7 | 9.39 | 8.00 | 4.24 |

Constant power discharge characteristics unit: Watt/Block (at 25°C, 77°F)

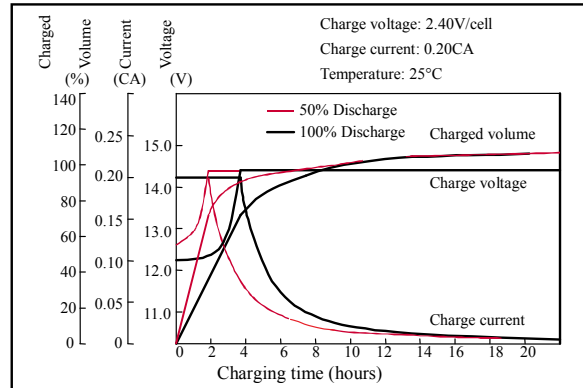
| F.V/Time | 10min | 15min | 30min | 60min | 2h | 3h | 4h | 5h | 8h | 10h | 20h |
|----------|-------|-------|-------|-------|-----|-----|-----|-----|-----|------|------|
| 9.60V | 1884 | 1476 | 902 | 564 | 339 | 248 | 198 | 170 | 117 | 97.2 | 51.8 |
| 9.90V | 1827 | 1440 | 884 | 555 | 337 | 246 | 197 | 169 | 117 | 97.0 | 51.7 |
| 10.2V | 1752 | 1387 | 857 | 541 | 334 | 244 | 195 | 168 | 116 | 96.8 | 51.5 |
| 10.5V | 1676 | 1340 | 836 | 524 | 329 | 243 | 194 | 166 | 115 | 96.2 | 51.2 |
| 10.8V | 1582 | 1269 | 806 | 507 | 320 | 235 | 188 | 161 | 112 | 95.5 | 50.9 |

Note 1: Above characteristics data can be obtained within three charge and discharge cycles.

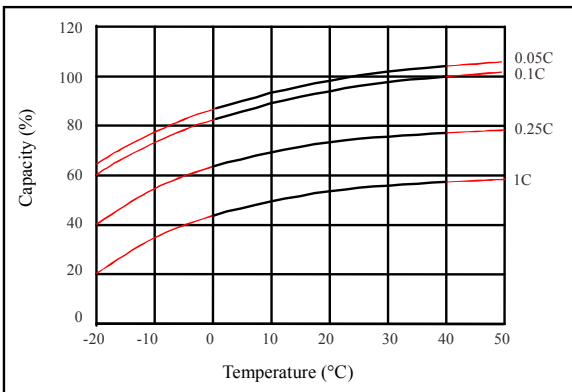
● Discharge characteristics (25°C)



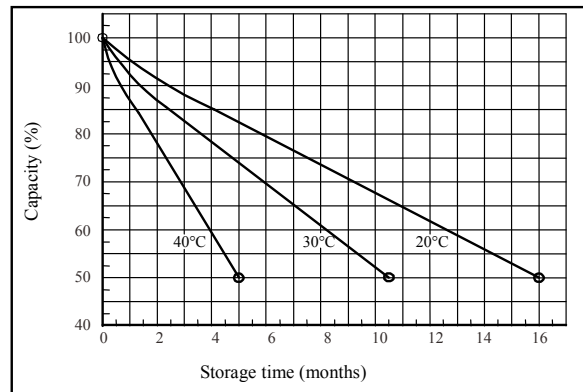
● Charging characteristics (25°C)



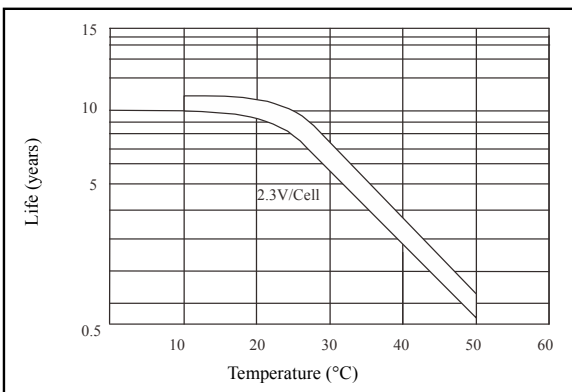
● Temperature effects on capacity



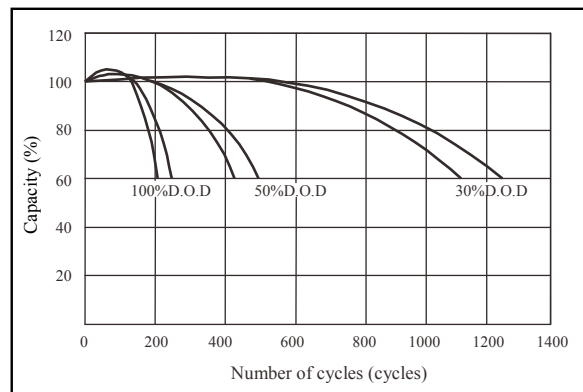
● Self-discharge characteristics



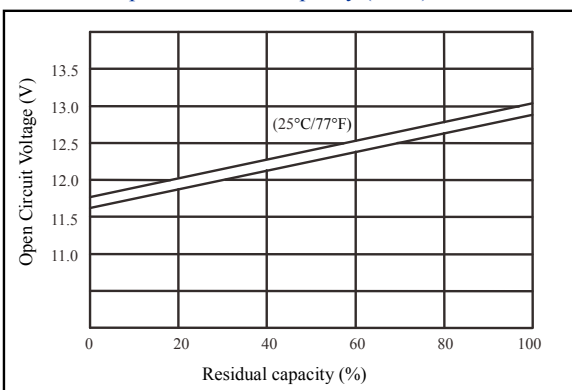
● Floating life on temperature



● Cycle life on D.O.D (25°C)



● Relationship for OCV and capacity (25°C)



● Relationship for charging voltage and temperature

