

NPD12-250Ah 12V250Ah

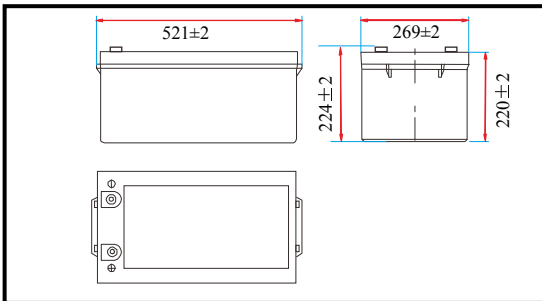
Valve Regulated Lead Acid Battery



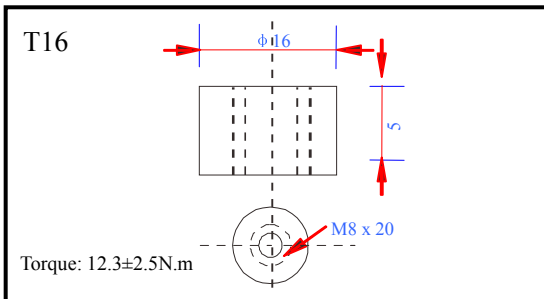
Specifications

| | | |
|-----------------------|------------------------|---------------------|
| Nominal voltage | 12V (6 cells per unit) | |
| Rated capacity (10HR) | 250Ah/10.8V | |
| Dimensions | Length | 521±2mm (20.51inch) |
| | Width | 269±2mm (10.59inch) |
| | Height | 220±2mm (8.66inch) |
| | Total height | 224±2mm (8.82inch) |
| Approx. weight | 74.50kg (164.20lbs)±3% | |

Outer dimensions (mm)



Terminal type (mm)



Characteristics

| | | |
|---|---|--|
| Capacity (25°C) | 10HR (10.8V) | 250Ah |
| | 3HR (10.8V) | 189Ah |
| | 1HR (10.5V) | 140Ah |
| Terminal type | | T16 |
| Internal resistance (Fully charged, 25°C) | | Approx. 2.6mΩ |
| 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 | | 75A |
| Maximum discharge current | | 1500A (5 sec.) |
| Design life | 10 years for floating (25°C) | |
| | Eurobat (20°C): 6-9 years, general purpose. | |

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)

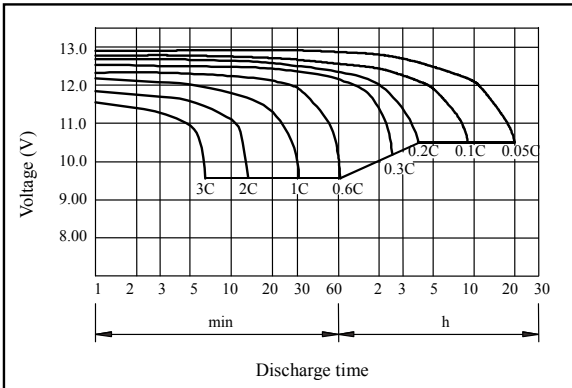
| F.V/Time | 15min | 30min | 60min | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|----------|-------|-------|-------|------|------|------|------|------|------|------|------|
| 9.60V | 428 | 256 | 158 | 93.2 | 67.1 | 53.6 | 45.8 | 39.8 | 31.5 | 26.0 | 13.8 |
| 9.90V | 418 | 251 | 155 | 92.6 | 66.7 | 53.3 | 45.5 | 39.6 | 31.3 | 25.9 | 13.7 |
| 10.2V | 403 | 243 | 151 | 91.8 | 66.3 | 52.9 | 45.2 | 39.3 | 31.1 | 25.8 | 13.7 |
| 10.5V | 389 | 238 | 147 | 90.4 | 65.8 | 52.5 | 44.9 | 39.0 | 30.9 | 25.7 | 13.6 |
| 10.8V | 368 | 229 | 142 | 88.1 | 63.8 | 51.0 | 43.5 | 37.8 | 29.9 | 25.5 | 13.5 |

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

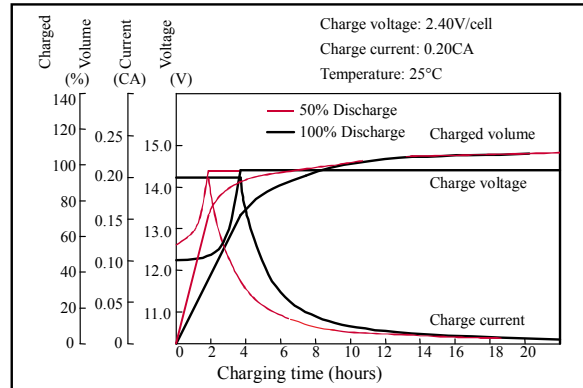
| F.V/Time | 15min | 30min | 60min | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|----------|-------|-------|-------|------|-----|-----|-----|-----|-----|-----|-----|
| 9.60V | 4704 | 2875 | 1797 | 1079 | 789 | 630 | 541 | 470 | 374 | 310 | 165 |
| 9.90V | 4591 | 2818 | 1770 | 1073 | 785 | 626 | 538 | 468 | 372 | 309 | 165 |
| 10.2V | 4422 | 2732 | 1725 | 1063 | 779 | 622 | 534 | 464 | 369 | 308 | 164 |
| 10.5V | 4271 | 2666 | 1671 | 1047 | 774 | 618 | 530 | 461 | 367 | 307 | 163 |
| 10.8V | 4045 | 2568 | 1617 | 1021 | 750 | 599 | 515 | 447 | 356 | 304 | 162 |

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

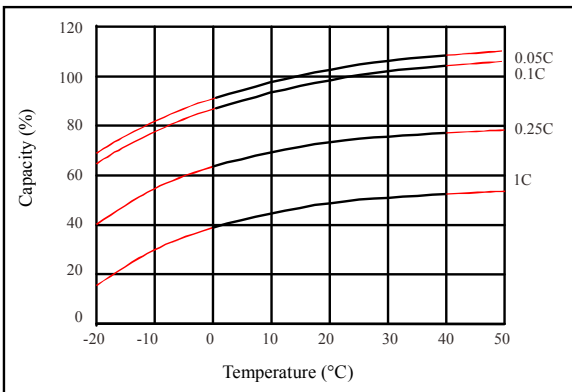
● Discharge characteristics (25°C)



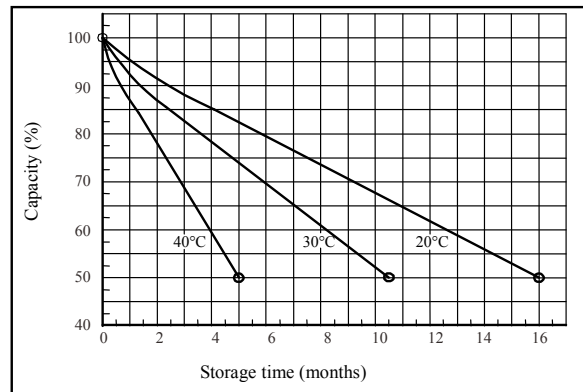
● Charging characteristics (25°C)



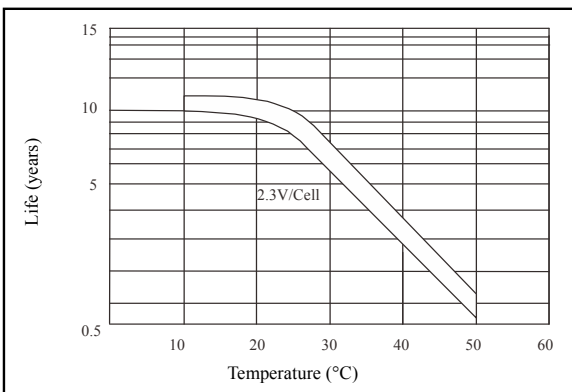
● Temperature effects on capacity



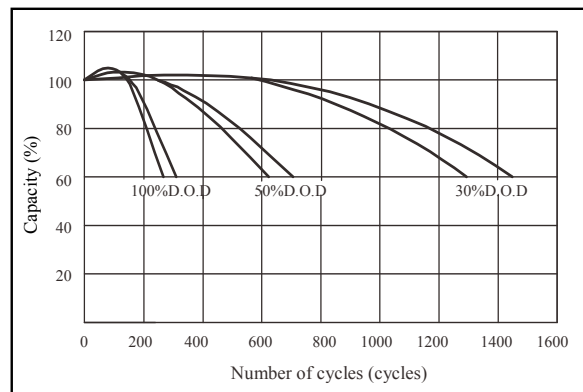
● Self-discharge characteristics



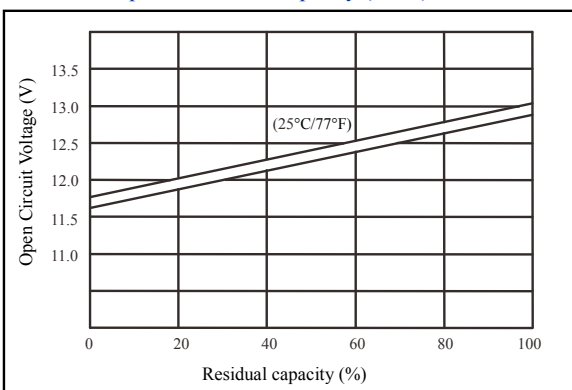
● Floating life on temperature



● Cycle life on D.O.D (25°C)



● Relationship for OCV and capacity (25°C)



● Relationship for charging voltage and temperature

