

NP6-12Ah 6V12Ah

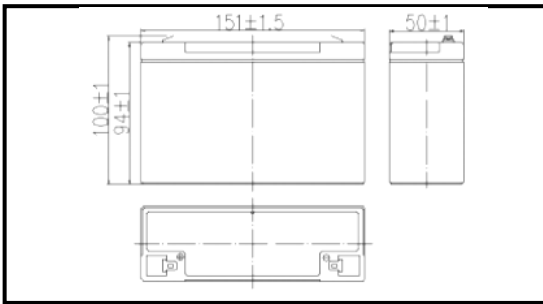
Valve Regulated Lead Acid Battery



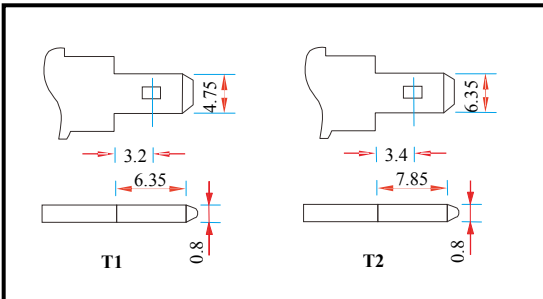
Specifications

| | | |
|-----------------------|-----------------------|----------------------|
| Nominal voltage | 6V (3 cells per unit) | |
| Rated capacity (20HR) | 12Ah/5.25V | |
| Dimensions | Length | 151±1.5mm (5.94inch) |
| | Width | 50±1mm (1.97inch) |
| | Height | 94±1mm (3.70inch) |
| | Total height | 100±1mm (3.94inch) |
| Approx. weight | 1.70kg (3.75lbs)±4% | |

Outer dimensions (mm)



Terminal type (mm)



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 | 5min | 10min | 15min | 30min | 60min | 2h | 3h | 4h | 5h | 10h | 20h |
|----------|------|-------|-------|-------|-------|------|------|------|------|------|------|
| 4.80V | 45.8 | 29.0 | 22.7 | 12.8 | 7.86 | 4.30 | 2.97 | 2.46 | 2.09 | 1.14 | 0.61 |
| 4.95V | 44.5 | 28.2 | 22.1 | 12.5 | 7.74 | 4.27 | 2.96 | 2.45 | 2.08 | 1.13 | 0.61 |
| 5.10V | 42.6 | 27.0 | 21.3 | 12.1 | 7.55 | 4.24 | 2.94 | 2.43 | 2.07 | 1.13 | 0.60 |
| 5.25V | 40.8 | 25.8 | 20.6 | 11.8 | 7.40 | 4.17 | 2.92 | 2.41 | 2.05 | 1.12 | 0.60 |
| 5.40V | 38.5 | 24.4 | 19.5 | 11.4 | 7.17 | 4.07 | 2.83 | 2.34 | 1.99 | 1.10 | 0.59 |

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

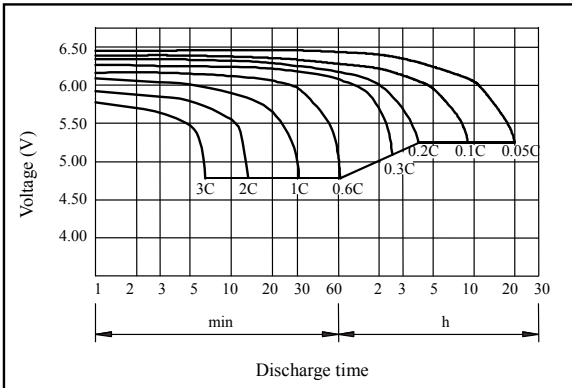
| F.V/Time | 5min | 10min | 15min | 30min | 60min | 2h | 3h | 4h | 5h | 10h | 20h |
|----------|------|-------|-------|-------|-------|------|------|------|------|------|------|
| 4.80V | 256 | 164 | 129 | 73.2 | 45.5 | 25.2 | 17.7 | 14.7 | 12.5 | 6.82 | 3.65 |
| 4.95V | 248 | 159 | 126 | 71.8 | 44.8 | 25.0 | 17.6 | 14.6 | 12.4 | 6.79 | 3.64 |
| 5.10V | 238 | 152 | 122 | 69.6 | 43.7 | 24.8 | 17.4 | 14.5 | 12.3 | 6.76 | 3.62 |
| 5.25V | 228 | 146 | 117 | 67.9 | 42.8 | 24.4 | 17.3 | 14.4 | 12.3 | 6.72 | 3.60 |
| 5.40V | 215 | 138 | 111 | 65.4 | 41.5 | 23.8 | 16.8 | 13.9 | 11.9 | 6.58 | 3.53 |

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

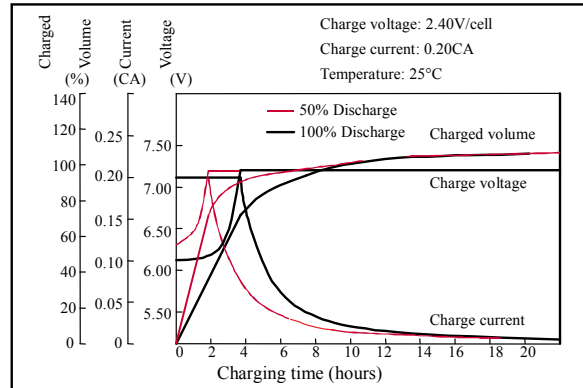
Characteristics

| | | |
|---|---|--|
| Capacity (25°C) | 20HR (5.25V) | 12Ah |
| | 10HR (5.25V) | 11Ah |
| | 1HR (4.80V) | 7.2Ah |
| Terminal type | | T1/T2 |
| Internal resistance (Fully charged, 25°C) | | Approx. 10mΩ |
| 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) | | 6.80 to 6.90V Temperature compensation: -9mV/°C/Block |
| Cyclic charging voltage (25°C) | | 7.25 to 7.50V Temperature compensation: -15mV/°C/Block |
| Maximum charging current | | 3.6A |
| Maximum discharge current | | 180A (5 sec.) |
| Design life | 5 years for floating (25°C) | |
| | Eurobat (20°C): 3-5 years, standard commercial. | |

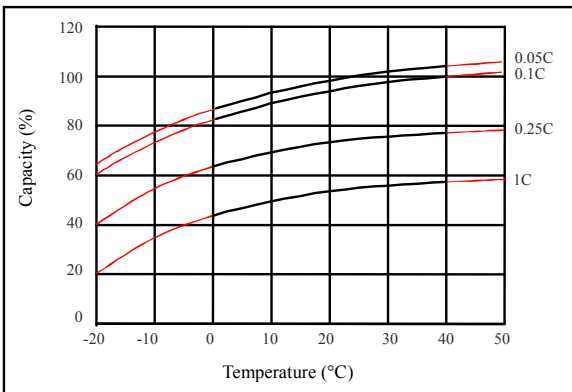
● Discharge characteristics (25°C)



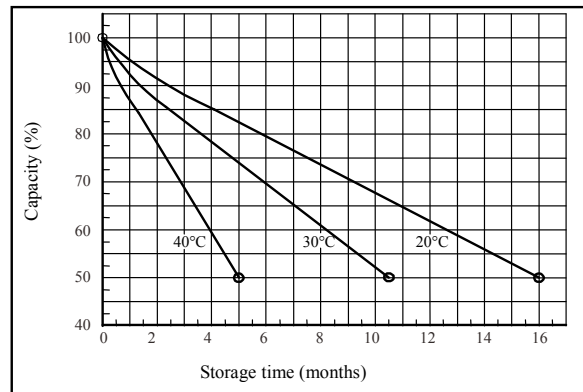
● Charging characteristics (25°C)



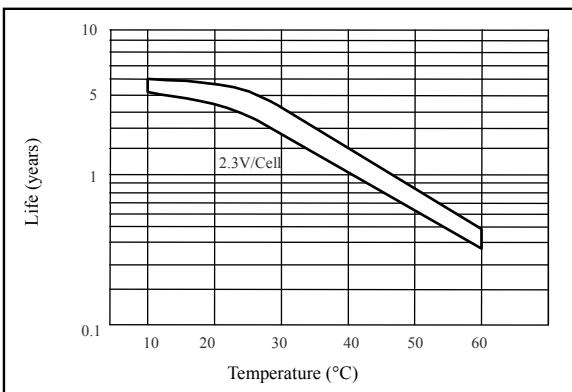
● Temperature effects on capacity



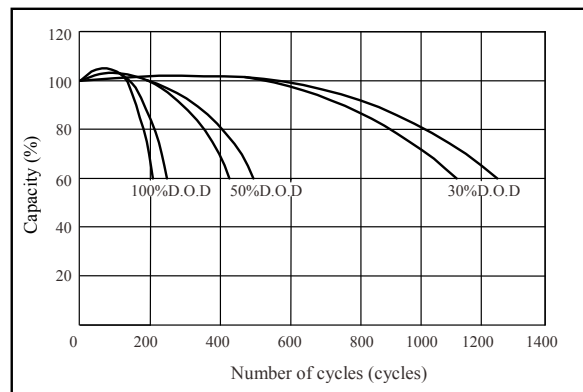
● Self-discharge characteristics



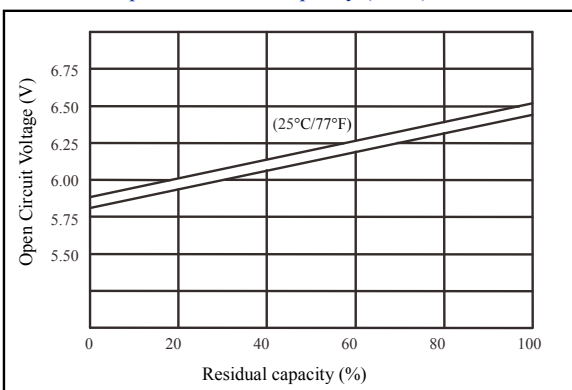
● Floating life on temperature



● Cycle life on D.O.D (25°C)



● Relationship for OCV and capacity (25°C)



● Relationship for charging voltage and temperature

