

NPD12-150AH 12V 150AH

VALVE REGULATED LEAD ACID BATTERY



Characteristics

| | | |
|--|-------------|---|
| Capacity (25°C) | 10HR(10.8V) | 150Ah |
| | 3HR(10.8V) | 114Ah |
| | 1HR(10.5V) | 88Ah |
| Terminal type | | T16 |
| Internal resistance (Fully charged,25°C) | | Approx.3.5m 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 | | 45A |
| Maximum discharge current | | 1200A(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 | 336 | 259 | 155 | 95.2 | 56.3 | 40.5 | 32.4 | 27.6 | 19.0 | 15.7 | 8.31 |
| 9.90V | 326 | 253 | 152 | 93.7 | 55.9 | 40.3 | 32.2 | 27.5 | 18.9 | 15.6 | 8.29 |
| 10.2V | 312 | 243 | 147 | 91.4 | 55.4 | 40.0 | 31.9 | 27.3 | 18.8 | 15.6 | 8.27 |
| 10.5V | 299 | 235 | 143 | 88.5 | 54.6 | 39.7 | 31.7 | 27.1 | 18.6 | 15.5 | 8.22 |
| 10.8V | 282 | 222 | 138 | 85.7 | 53.2 | 38.5 | 30.8 | 26.3 | 18.1 | 15.4 | 8.16 |

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

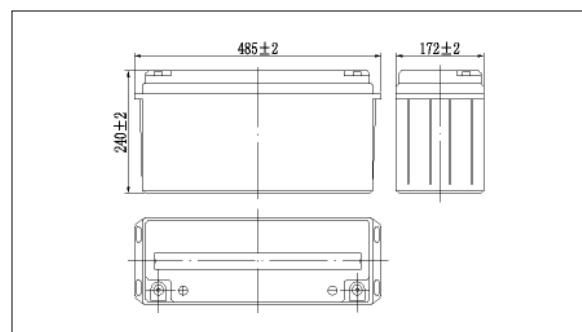
| F.V/Time | 10min | 15min | 30min | 60min | 2h | 3h | 4h | 5h | 8h | 10h | 20h |
|----------|-------|-------|-------|-------|-----|-----|-----|-----|-----|-----|------|
| 9.60V | 3626 | 2841 | 1737 | 1085 | 652 | 477 | 381 | 327 | 226 | 187 | 99.7 |
| 9.90V | 3517 | 2773 | 1702 | 1069 | 648 | 474 | 378 | 325 | 224 | 187 | 99.5 |
| 10.2V | 3372 | 2670 | 1650 | 1042 | 642 | 471 | 376 | 323 | 223 | 186 | 99.2 |
| 10.5V | 3227 | 2579 | 1610 | 1009 | 632 | 467 | 373 | 320 | 221 | 185 | 98.6 |
| 10.8V | 3046 | 2443 | 1551 | 976 | 616 | 453 | 362 | 311 | 215 | 184 | 97.9 |

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

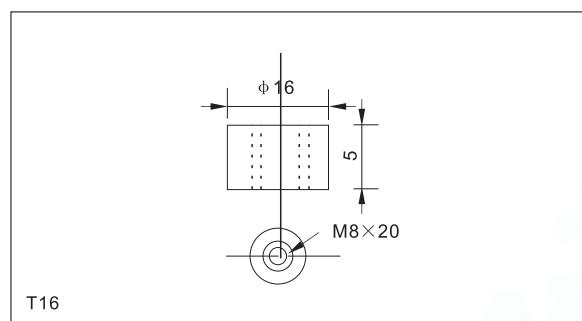
Specifications

| | | |
|-------------------------------|--------------|--------------------|
| Nominal Voltage | 12V | |
| Rated capacity (10 hour rate) | 150Ah | |
| Dimensions | Length | 485±2mm(19.09inch) |
| | Width | 172±2mm(6.77inch) |
| | Height | 240±2mm(9.45inch) |
| | Total Height | 240±2mm(9.45inch) |
| Approx. Weight | | 44.5kg(98.1lbs)±3% |

Outer dimensions (mm)

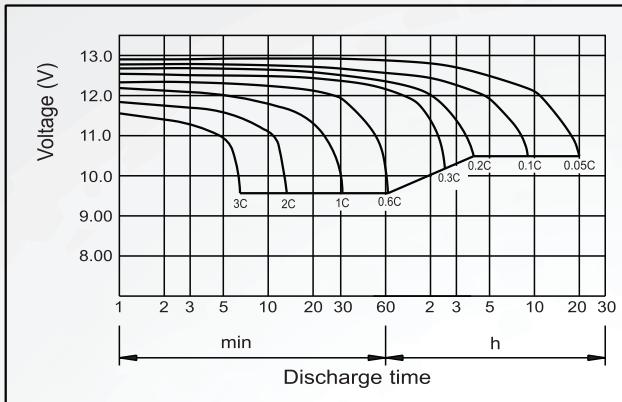


Terminal Type (mm)

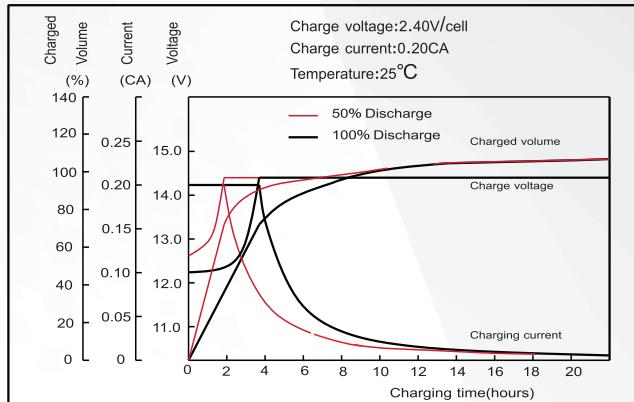


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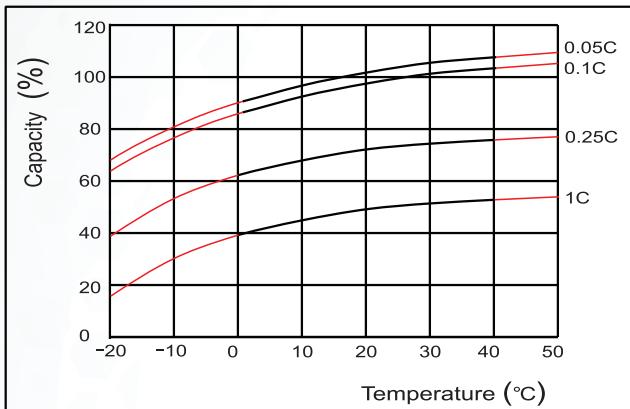
Discharge characteristics(25°C)



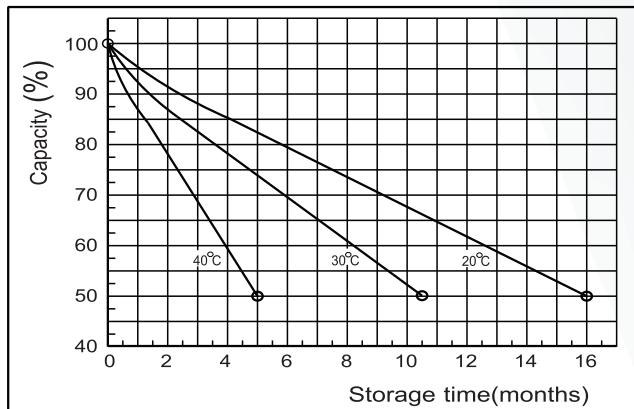
Charging characteristics (25°C)



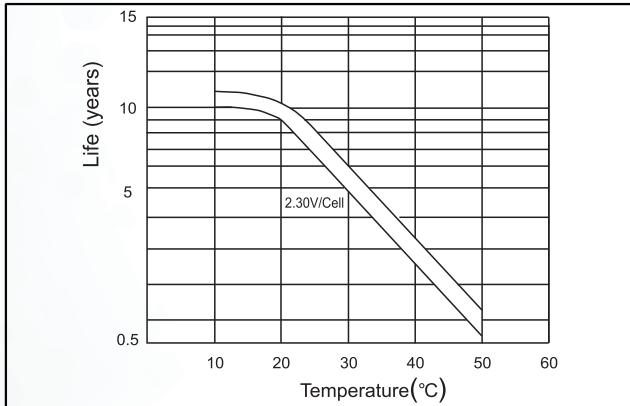
Temperature effects on Capacity



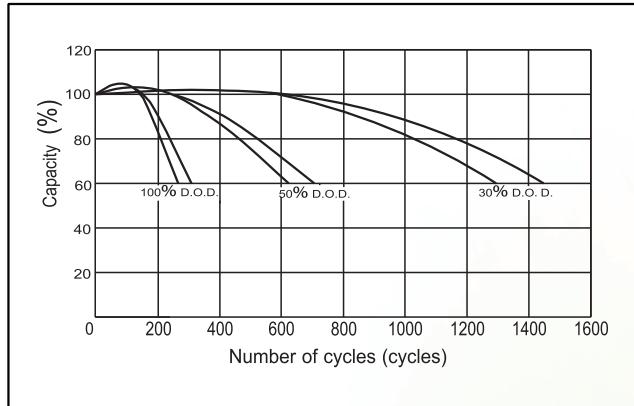
Self-discharge characteristics



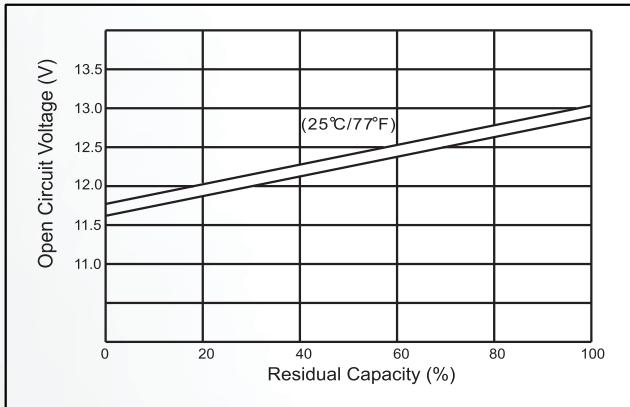
Floating life on Temperature



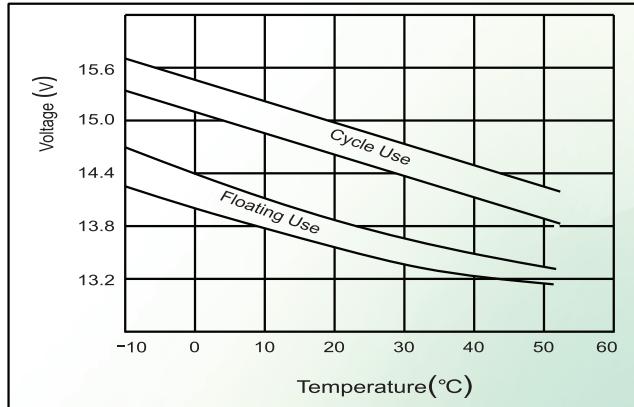
Cycle life on D.O.D (25°C)



The relationship for OCV and Capacity (25°C)



The relationship for Charging voltage and Temperature



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