

UPN 800 (2V800AH)

(Deep Cycle Premium Gel with Longer Life)



*** The color and the printed specifications of the products are subject to change without prior notice.

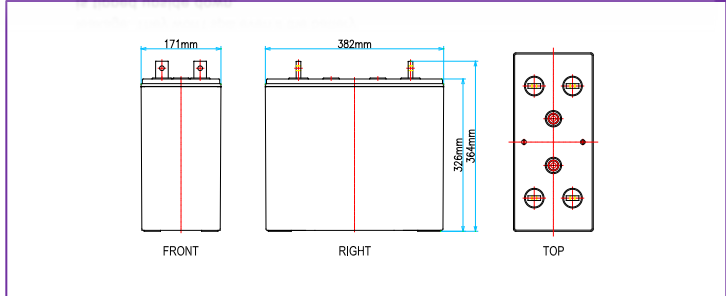
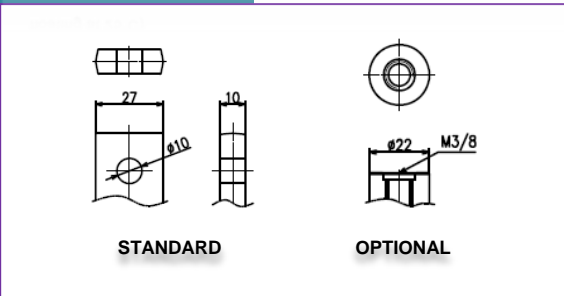
Technical Features of newmax

"The Ultra Power of Newmax Lead-Acid Battery"

UPN Series

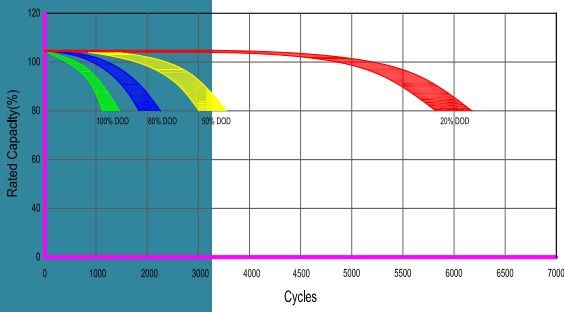
UPN series is an ultra efficient premium quality UPS/SOLAR system battery series. This innovative and technology intensive product has proven to last up to 60% longer than it's predecessor, the PNGB series. Constant drive for true innovation was the key to the success of our UPN series.

- 01 Long Life**
High density, anti-corrosive lead calcium alloy is used to promote longevity and durability. (15 years expected life when floating at 25°C)
- 02 No Need Equalizing Charge**
The floating voltage of each cell is 2.23 ~ 2.25V at 25°C
- 03 Leak free**
Environmentally friendly and perfectly sealed battery. Electrolyte is completely impregnated onto the separator to prevent leakage. They won't spill even if the battery is tipped upside down.
- 04 Safety**
Specially designed anti-explosion filter and safety valves prevent gas leakage when overcharged.

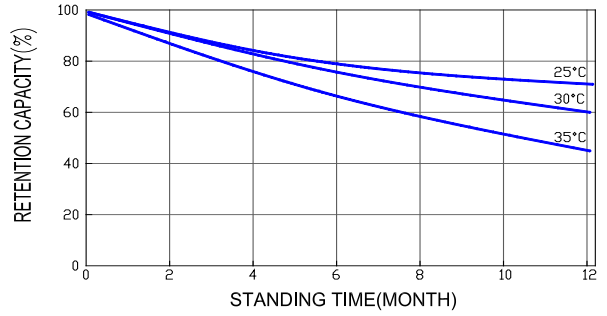


| Battery model | UPN 800 (2V800AH / 10 HOUR RATE) | | | |
|---|------------------------------------|-------------------------------------|------------------------|---------------|
| Rated Capacity (Ah, @20°C) | 10HR (1.80VPC) | 5HR (1.70VPC) | 3HR (1.67VPC) | 1HR (1.60VPC) |
| | 800AH | 728AH | 664AH | 528AH |
| Dimensions (mm/inch) | Length | Width | Height | Total height |
| | 382(15.04) | 171(6.73) | 326(12.83) | 364(14.33) |
| Approx. weight (kg/lbs) | 50.5kg±5% (111.3 lbs) | | | |
| Internal resistance (mΩ) | 0.23mΩ±10% (@25°C, 77°F) | | | |
| Max. discharge current (@5sec) | 6,400 A | Max. discharge current (continuous) | | 1,600A |
| Capacity affected by Temperature (%) | @30°C(86°F) | @25°C(77°F) | @10°C(50°F) | @-10°C(14°F) |
| | 105% | 103% | 95% | 78% |
| Self discharge (@25°C,77F) | After 1 month 3% | After 3 month 8% | After 6 month 15% | |
| Max. short duration discharge current (@0.1sec) | 9,600A ±10% | | | |
| Charging method (@25°C) | Cycle use | | Floating use | |
| | 2.40~2.50V (±5.5mV/°C) / 320A max. | | 2.23~2.25V (±3.3mV/°C) | |

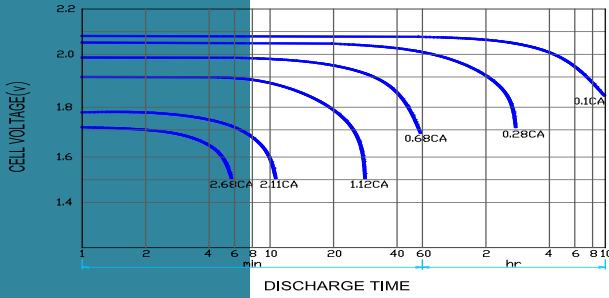
Cycle life vs Depth of Discharge@25°C



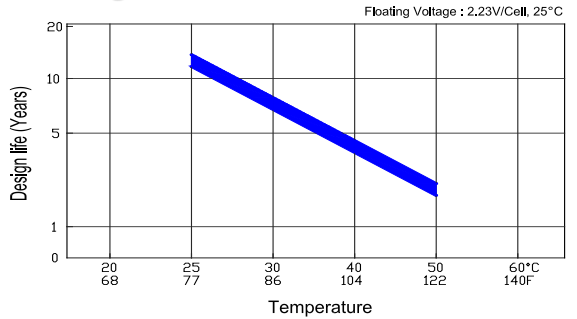
Self discharge



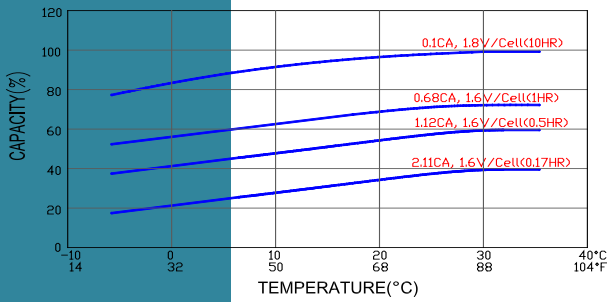
Discharge time vs Current



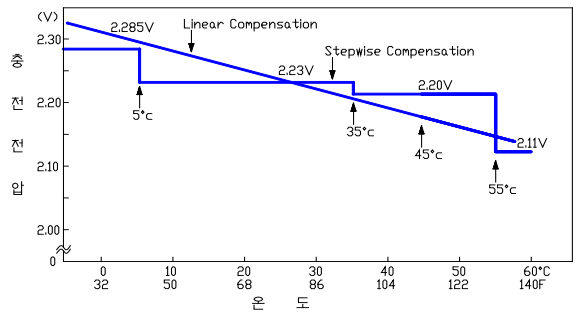
Floating life characteristics



Effect of temperature on capacity



Charging voltage vs Temperature



Constant current discharge ratings – Amperes per cell @ 25°C

| V/cell | Minutes | | | | | | Hours | | | | | |
|--------|---------|-------|-------|-------|-----|-----|-------|-----|-----|------|------|------|
| | 5 | 10 | 15 | 20 | 30 | 40 | 1 | 3 | 5 | 8 | 10 | 20 |
| 1.90V | 818 | 801 | 754 | 703 | 575 | 485 | 411 | 197 | 128 | 87.0 | 71.2 | 39.2 |
| 1.85V | 1,096 | 1,016 | 913 | 828 | 681 | 573 | 460 | 213 | 140 | 96.5 | 75.5 | 41.5 |
| 1.80V | 1,443 | 1,248 | 1,077 | 953 | 806 | 670 | 516 | 230 | 152 | 104 | 80.0 | 44.0 |
| 1.75V | 1,719 | 1,418 | 1,209 | 1,050 | 834 | 709 | 538 | 233 | 156 | 107 | 86.2 | 47.4 |
| 1.70V | 1,889 | 1,549 | 1,288 | 1,107 | 868 | 732 | 556 | 240 | 161 | 108 | 86.8 | 47.7 |
| 1.65V | 2,077 | 1,668 | 1,373 | 1,175 | 913 | 755 | 573 | 250 | 163 | 111 | 88.5 | 48.7 |
| 1.60V | 2,298 | 1,810 | 1,470 | 1,254 | 970 | 789 | 596 | 258 | 170 | 111 | 89.6 | 49.3 |

Constant power discharge ratings – Watts per cell @ 25°C

| V/cell | Minutes | | | | | | Hours | | | | | |
|--------|---------|-------|-------|-------|-------|-------|-------|-----|-----|-----|-----|------|
| | 5 | 10 | 15 | 20 | 30 | 40 | 1 | 3 | 5 | 8 | 10 | 20 |
| 1.90V | 1,587 | 1,554 | 1,463 | 1,364 | 1,133 | 955 | 809 | 388 | 252 | 174 | 142 | 78.3 |
| 1.85V | 2,126 | 1,970 | 1,772 | 1,607 | 1,341 | 1,129 | 906 | 419 | 275 | 193 | 151 | 83.0 |
| 1.80V | 2,800 | 2,420 | 2,089 | 1,848 | 1,587 | 1,319 | 1,016 | 453 | 300 | 208 | 160 | 88.0 |
| 1.75V | 3,335 | 2,752 | 2,345 | 2,036 | 1,643 | 1,397 | 1,061 | 459 | 307 | 213 | 172 | 94.9 |
| 1.70V | 3,665 | 3,005 | 2,498 | 2,147 | 1,710 | 1,442 | 1,095 | 473 | 316 | 216 | 174 | 95.5 |
| 1.65V | 4,029 | 3,236 | 2,664 | 2,279 | 1,799 | 1,487 | 1,129 | 493 | 322 | 221 | 177 | 97.4 |
| 1.60V | 4,457 | 3,511 | 2,851 | 2,433 | 1,911 | 1,554 | 1,174 | 509 | 335 | 221 | 179 | 98.6 |

