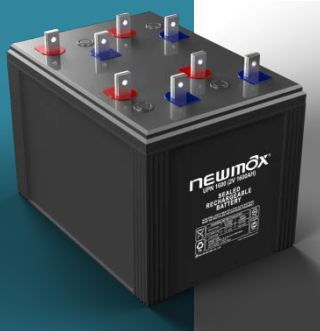


UPN 1400 (2V1400AH)

(Deep Cycle Premium Gel with Longer Life)



Technical Features of **newmax**

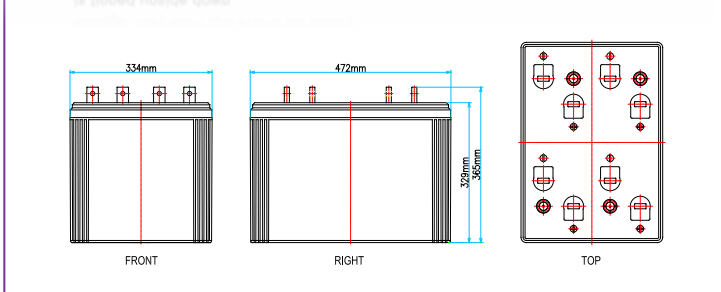
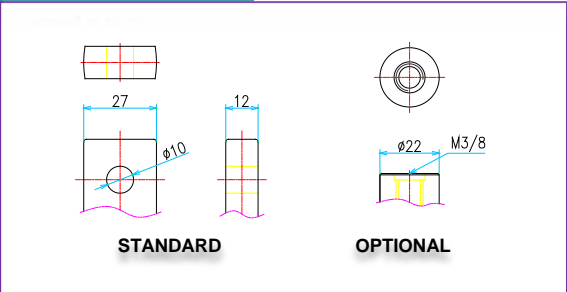
"The Ultra Power of Newmax Lead-Acid Battery"

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.

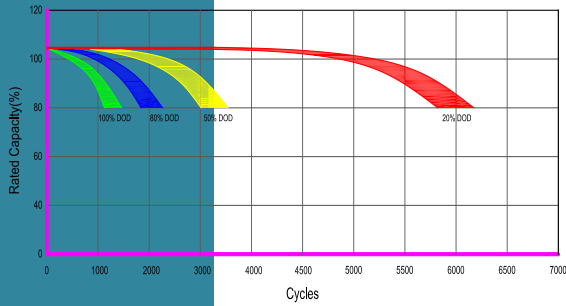
*** The color and the printed specifications of the products are subject to change without prior notice.

- 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.

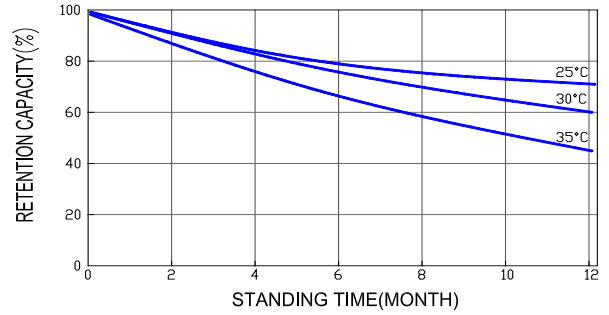


| Battery model | UPN 1400 (2V1400AH / 10 HOUR RATE) | | | |
|-------------------------------------------------|------------------------------------|-------------------------------------|------------------------|---------------|
| Rated Capacity (Ah, @20°C) | 10HR (1.80VPC) | 5HR (1.70VPC) | 3HR (1.67VPC) | 1HR (1.60VPC) |
| | 1400AH | 1274AH | 1162AH | 924AH |
| Dimensions (mm/inch) | Length | Width | Height | Total height |
| | 472(18.58) | 333(13.11) | 340(13.39) | 372(14.65) |
| Approx. weight (kg/lbs) | 97.0kg±5% (213.8 lbs) | | | |
| Internal resistance (mΩ) | 0.13mΩ±10% (@25°C, 77°F) | | | |
| Max. discharge current (@5sec) | 11,200 A | Max. discharge current (continuous) | | 2,800A |
| 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) | 16,800A ±10% | | | |
| Charging method (@25°C) | Cycle use | | Floating use | |
| | 2.40~2.50V (±5.5mV/°C) / 560A max. | | 2.23~2.25V (±3.3mV/°C) | |

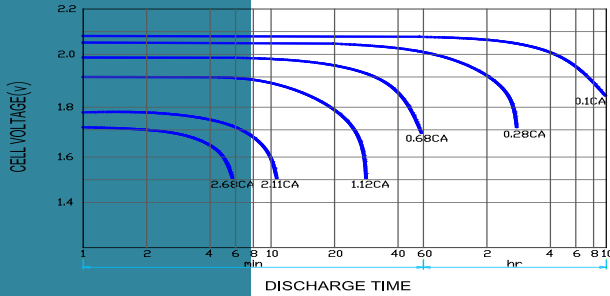
Cycle life vs Depth of Discharge@25°C



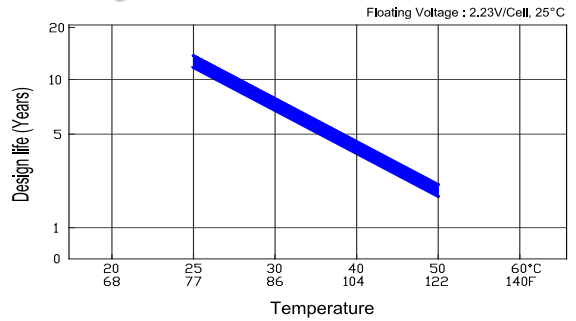
Self discharge



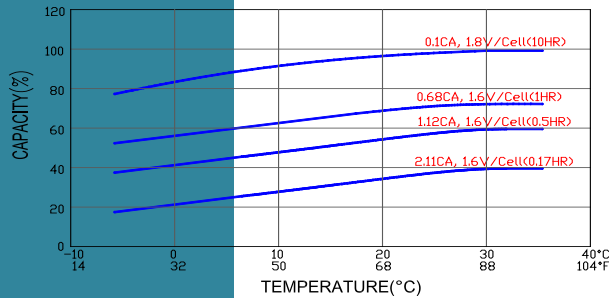
Discharge time vs Current



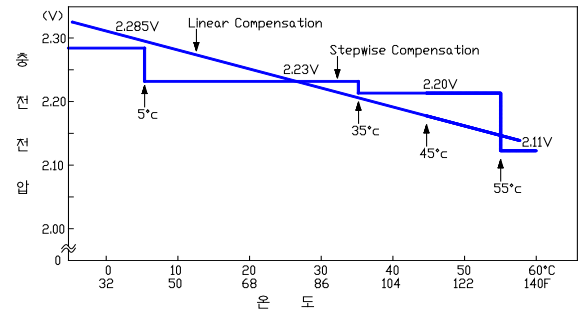
Floating life characteristics



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 | 1,431 | 1,401 | 1,320 | 1,230 | 1,007 | 848 | 718 | 345 | 224 | 152 | 125 | 68.5 |
| 1.85V | 1,918 | 1,777 | 1,599 | 1,450 | 1,191 | 1,003 | 805 | 372 | 244 | 169 | 132 | 72.6 |
| 1.80V | 2,526 | 2,183 | 1,884 | 1,667 | 1,410 | 1,172 | 903 | 402 | 266 | 182 | 140 | 77.0 |
| 1.75V | 3,009 | 2,482 | 2,115 | 1,837 | 1,460 | 1,241 | 942 | 408 | 273 | 187 | 151 | 83.0 |
| 1.70V | 3,306 | 2,711 | 2,254 | 1,936 | 1,519 | 1,281 | 973 | 420 | 281 | 189 | 152 | 83.6 |
| 1.65V | 3,634 | 2,919 | 2,403 | 2,055 | 1,599 | 1,321 | 1,003 | 438 | 286 | 194 | 155 | 85.2 |
| 1.60V | 4,021 | 3,167 | 2,572 | 2,194 | 1,698 | 1,380 | 1,043 | 452 | 298 | 194 | 157 | 86.3 |

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 | 2,777 | 2,719 | 2,560 | 2,387 | 1,983 | 1,672 | 1,415 | 679 | 442 | 304 | 249 | 137 |
| 1.85V | 3,721 | 3,448 | 3,101 | 2,812 | 2,347 | 1,976 | 1,586 | 734 | 481 | 338 | 264 | 145 |
| 1.80V | 4,900 | 4,236 | 3,655 | 3,234 | 2,778 | 2,308 | 1,778 | 792 | 524 | 363 | 280 | 154 |
| 1.75V | 5,837 | 4,816 | 4,103 | 3,563 | 2,875 | 2,445 | 1,856 | 804 | 538 | 373 | 302 | 166 |
| 1.70V | 6,413 | 5,258 | 4,372 | 3,757 | 2,993 | 2,523 | 1,917 | 827 | 554 | 377 | 304 | 167 |
| 1.65V | 7,051 | 5,663 | 4,662 | 3,988 | 3,149 | 2,602 | 1,976 | 863 | 563 | 387 | 310 | 170 |
| 1.60V | 7,800 | 6,145 | 4,989 | 4,257 | 3,345 | 2,719 | 2,054 | 890 | 587 | 387 | 314 | 173 |

