

UPN 400 (2V400AH)

(Deep Cycle Premium Gel with Longer Life)



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

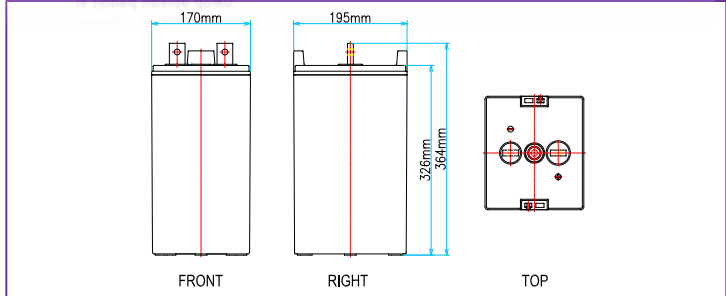
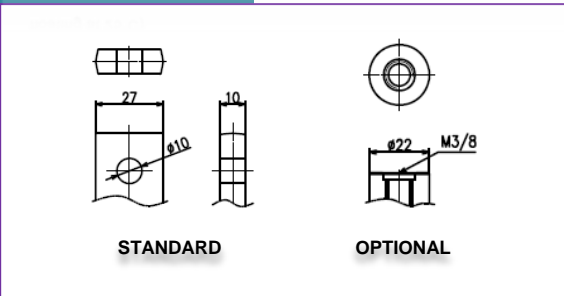
Technical Features of newmax

"The Ultra Power of Newmax Lead-Acid Battery"

UPN Series

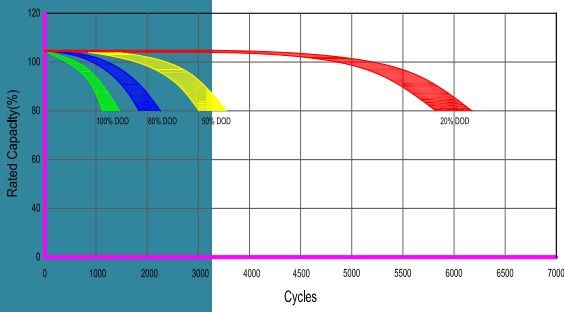
UPN series is an ultra efficient premium quality UPS/SOLAR system battery series. This innovative and technology intensive product has proven to last up to 60% longer than it's predecessor, the PNGB series. Constant drive for true innovation was the key to the success of our UPN series.

- | 01 Long Life | 02 No Need Equalizing Charge | 03 Leak free | 04 Safety |
|---|---|---|--|
| High density, anti-corrosive lead calcium alloy is used to promote longevity and durability. (15 years expected life when floating at 25°C) | The floating voltage of each cell is 2.23 ~ 2.25V at 25°C | 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. | Specially designed anti-explosion filter and safety valves prevent gas leakage when overcharged. |

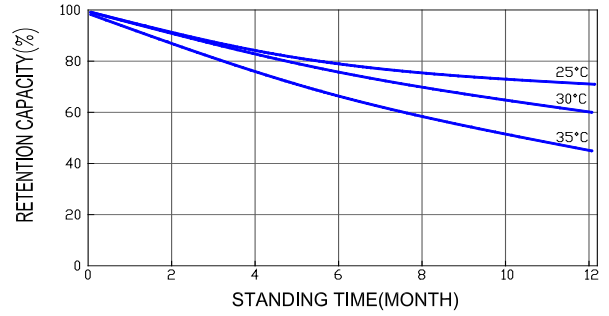


Battery model	UPN 400 (2V400AH / 10 HOUR RATE)			
Rated Capacity (Ah, @20°C)	10HR (1.80VPC)	5HR (1.70VPC)	3HR (1.67VPC)	1HR (1.60VPC)
	400AH	364AH	332AH	264AH
Dimensions (mm/inch)	Length	Width	Height	Total height
	195(7.68)	170(6.69)	326(12.83)	364(14.33)
Approx. weight (kg/lbs)	25.5kg±5% (56.2 lbs)			
Internal resistance (mΩ)	0.45mΩ±10% (@25°C, 77°F)			
Max. discharge current (@5sec)	3200 A	Max. discharge current (continuous)		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)	4,800A ±10%			
Charging method (@25°C)	Cycle use		Floating use	
	2.40~2.50V (±5.5mV/°C) / 160A max.		2.23~2.25V (±3.3mV/°C)	

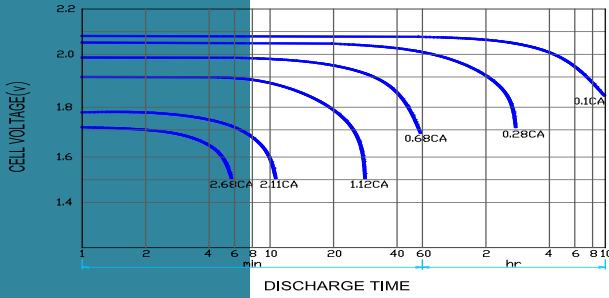
Cycle life vs Depth of Discharge@25°C



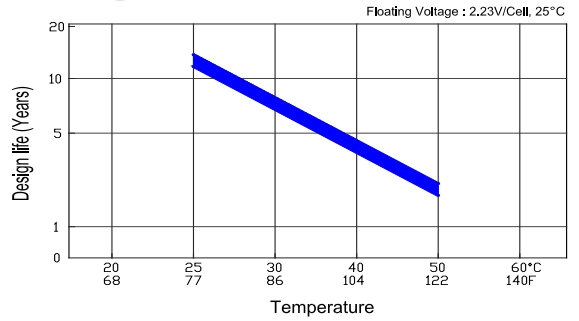
Self discharge



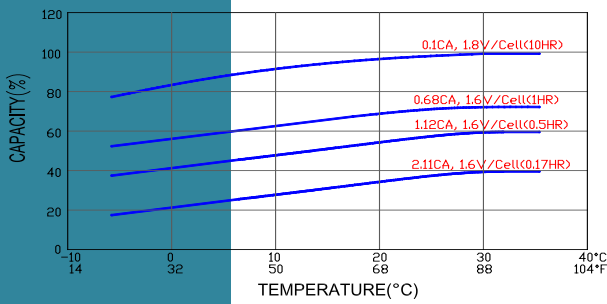
Discharge time vs Current



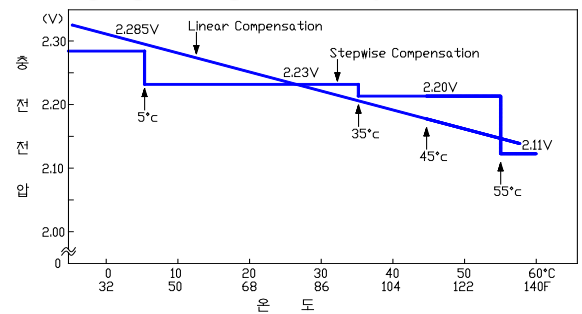
Floating life characteristics



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	409	400	377	352	288	242	205	98.5	64.1	43.5	35.6	19.6
1.85V	548	508	457	414	340	287	230	106	69.8	48.2	37.7	20.8
1.80V	722	624	538	476	403	335	258	115	76.0	51.9	40.0	22.0
1.75V	860	709	604	525	417	355	269	117	78.0	53.3	43.1	23.7
1.70V	945	774	644	553	434	366	278	120	80.3	53.9	43.4	23.9
1.65V	1,038	834	687	587	457	377	287	125	81.7	55.3	44.3	24.3
1.60V	1,149	905	735	627	485	394	298	129	85.1	55.3	44.8	24.7

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	793	777	731	682	567	478	404	194	126	87.0	71.2	39.2
1.85V	1,063	985	886	803	671	564	453	210	137	96.5	75.5	41.5
1.80V	1,400	1,210	1,044	924	794	659	508	226	150	104	80.0	44.0
1.75V	1,668	1,376	1,172	1,018	822	699	530	230	154	107	86.2	47.4
1.70V	1,832	1,502	1,249	1,073	855	721	548	236	158	108	86.8	47.7
1.65V	2,015	1,618	1,332	1,139	900	743	564	246	161	111	88.5	48.7
1.60V	2,229	1,756	1,425	1,216	956	777	587	254	168	111	89.6	49.3

