

UPN 500 (2V500AH)

(Deep Cycle Premium Gel with Longer Life)



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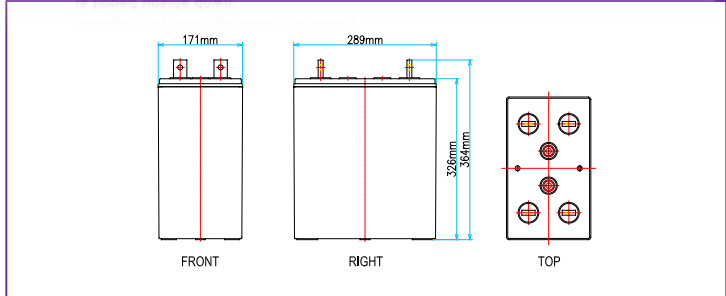
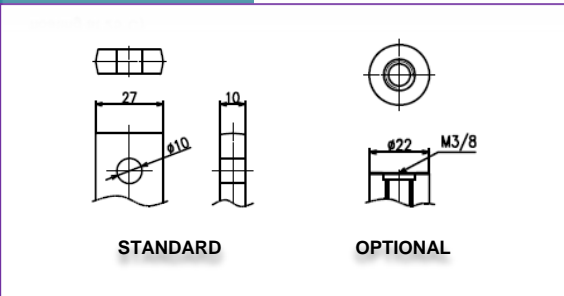
Technical Features of newmax

"The Ultra Power of Newmax Lead-Acid Battery"

UPN Series

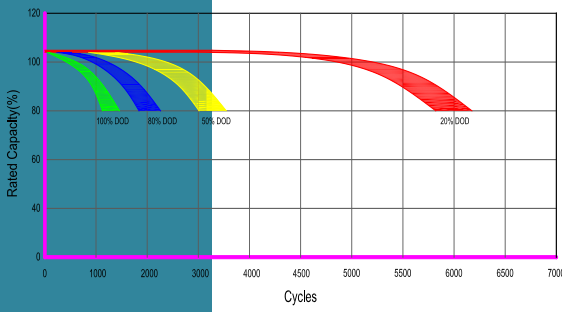
UPN series is an ultra efficient premium quality UPS/SOLAR system battery series. This innovative and technology intensive product has proven to last up to 60% longer than it's predecessor, the PNGB series. Constant drive for true innovation was the key to the success of our UPN series.

- | 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. |

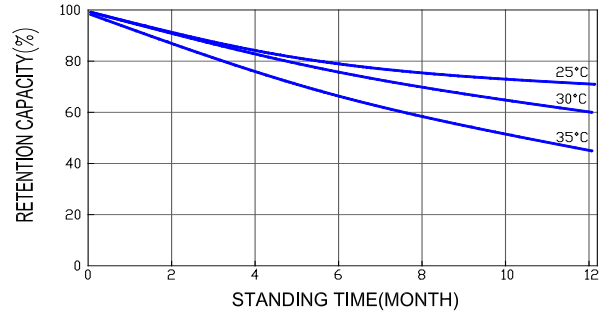


Battery model	UPN 500 (2V500AH / 10 HOUR RATE)			
Rated Capacity (Ah, @20°C)	10HR (1.80VPC)	5HR (1.70VPC)	3HR (1.67VPC)	1HR (1.60VPC)
	500AH	455AH	415AH	330AH
Dimensions (mm/inch)	Length	Width	Height	Total height
	289(11.38)	171(6.73)	326(12.83)	364(14.33)
Approx. weight (kg/lbs)	32.5kg±5% (71.7 lbs)			
Internal resistance (mΩ)	0.36mΩ±10% (@25°C, 77°F)			
Max. discharge current (@5sec)	4,000 A	Max. discharge current (continuous)		1,000A
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)	6,000A ±10%			
Charging method (@25°C)	Cycle use		Floating use	
	2.40~2.50V (±5.5mV/°C) / 200A max.		2.23~2.25V (±3.3mV/°C)	

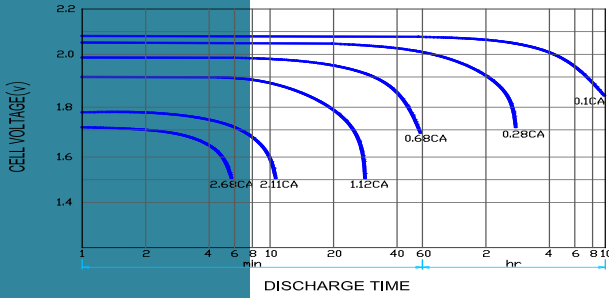
Cycle life vs Depth of Discharge@25°C



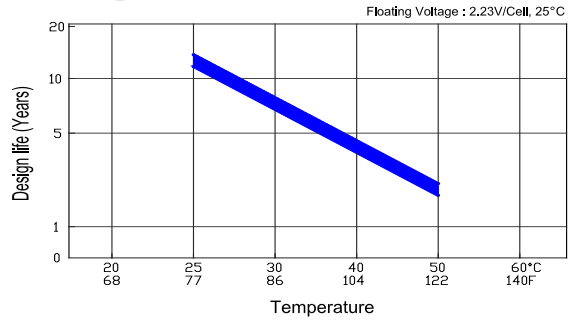
Self discharge



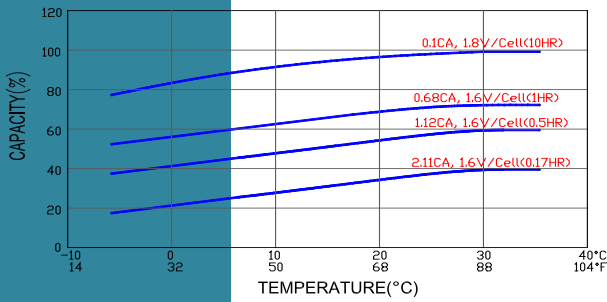
Discharge time vs Current



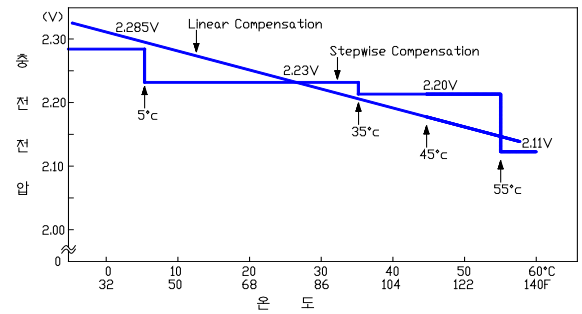
Floating life characteristics



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	511	501	471	439	360	303	257	123	80.1	54.3	44.5	24.5
1.85V	685	635	571	518	426	358	288	133	87.2	60.3	47.2	25.9
1.80V	902	780	673	595	504	418	322	144	95.0	64.9	50.0	27.5
1.75V	1075	887	755	656	521	443	337	146	97.5	66.7	53.9	29.6
1.70V	1181	968	805	692	543	457	348	150	100	67.4	54.3	29.8
1.65V	1298	1043	858	734	571	472	358	156	102	69.1	55.3	30.4
1.60V	1436	1131	918	784	606	493	372	161	106	69.1	56.0	30.8

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	992	971	914	853	708	597	505	243	158	109	89	49
1.85V	1329	1231	1108	1004	838	706	567	262	172	121	94	52
1.80V	1750	1513	1306	1155	992	824	635	283	187	130	100	55
1.75V	2085	1720	1465	1273	1027	873	663	287	192	133	108	59
1.70V	2290	1878	1561	1342	1069	901	685	296	198	135	109	60
1.65V	2518	2023	1665	1424	1125	929	706	308	201	138	111	61
1.60V	1786	2195	1782	1520	1195	971	733	318	210	138	112	62

