

# UPN 900 (2V900AH)

(Deep Cycle Premium Gel with Longer Life)



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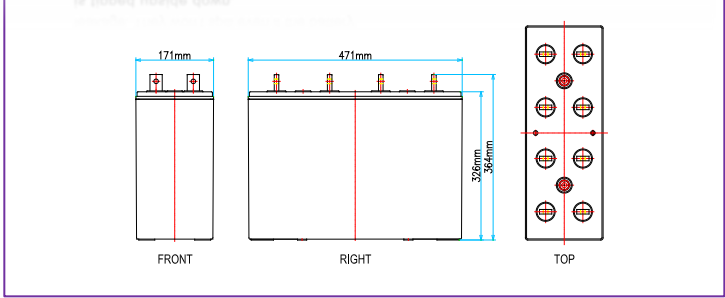
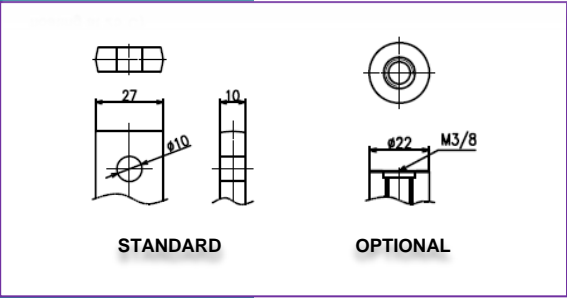
### Technical Features of newmax

*"The Ultra Power of Newmax Lead-Acid Battery"*

#### UPN Series

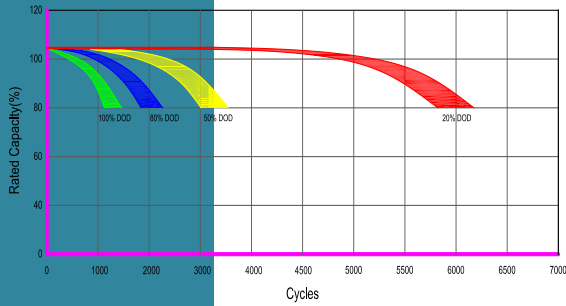
UPN series is an ultra efficient premium quality UPS/SOLAR system battery series. This innovative and technology intensive product has proven to last up to 60% longer than it's predecessor, the PNGB series. Constant drive for true innovation was the key to the success of our UPN series.

- 01 Long Life**  
 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.

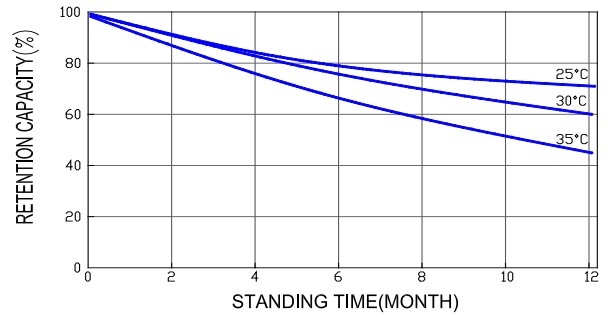


Battery model	UPN 900 (2V900AH / 10 HOUR RATE)			
Rated Capacity (Ah, @20°C)	10HR (1.80VPC)	5HR (1.70VPC)	3HR (1.67VPC)	1HR (1.60VPC)
	900AH	819AH	747AH	594AH
Dimensions (mm/inch)	Length	Width	Height	Total height
	471(18.54)	171(6.73)	326(12.83)	364(14.33)
Approx. weight (kg/lbs)	59.0kg±5% (130.1 lbs)			
Internal resistance (mΩ)	0.20mΩ±10% (@25°C, 77°F)			
Max. discharge current (@5sec)	7,200 A	Max. discharge current (continuous)		1,800A
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)	10,800A ±10%			
Charging method (@25°C)	Cycle use		Floating use	
	2.40~2.50V (±5.5mV/°C) / 360A max.		2.23~2.25V (±3.3mV/°C)	

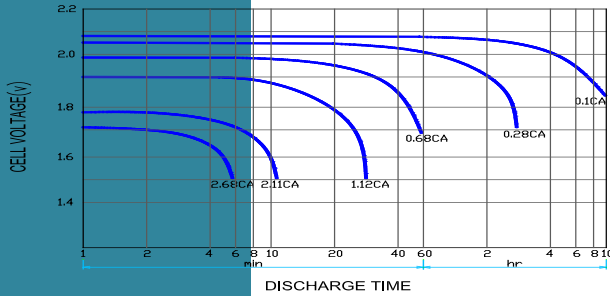
### Cycle life vs Depth of Discharge@25°C



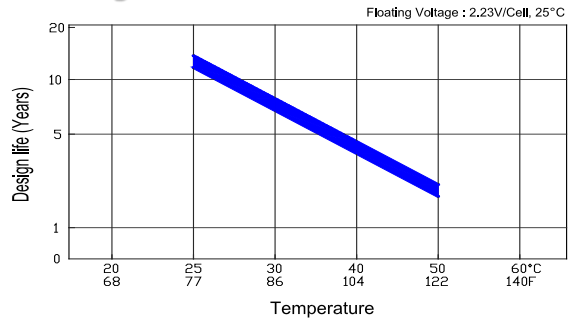
### Self discharge



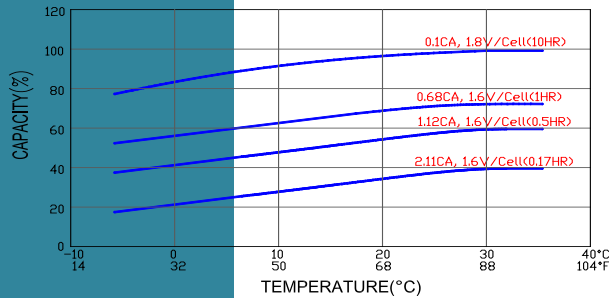
### Discharge time vs Current



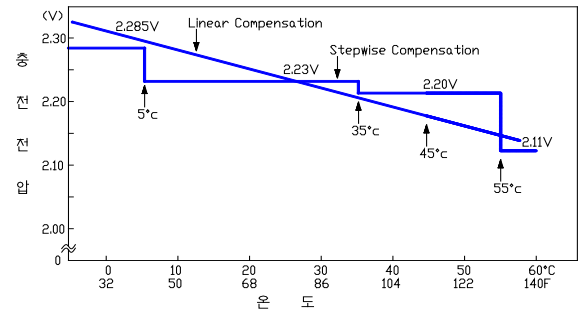
### Floating life characteristics



### 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	920	901	848	791	647	545	462	222	144	97.8	80.1	44.1
1.85V	1,233	1,143	1,028	932	766	645	518	239	157	109	84.9	46.7
1.80V	1,624	1,404	1,211	1,072	906	753	580	259	171	117	90.0	49.5
1.75V	1,934	1,596	1,360	1,181	938	798	606	262	176	120	97.0	53.4
1.70V	2,125	1,742	1,449	1,245	977	823	626	270	181	121	97.7	53.7
1.65V	2,336	1,877	1,545	1,321	1,028	849	645	281	184	124	100	54.8
1.60V	2,585	2,036	1,653	1,411	1,091	887	670	290	191	124	101	55.5

### 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	1,785	1,748	1,646	1,535	1,275	1,075	910	437	284	196	160	88
1.85V	2,392	2,217	1,994	1,808	1,509	1,270	1,020	472	309	217	170	93
1.80V	3,150	2,723	2,350	2,079	1,786	1,484	1,143	509	337	234	180	99
1.75V	3,752	3,096	2,638	2,291	1,848	1,572	1,193	517	346	240	194	107
1.70V	4,123	3,380	2,811	2,415	1,924	1,622	1,232	532	356	243	195	107
1.65V	4,533	3,641	2,997	2,564	2,024	1,672	1,270	555	362	249	199	110
1.60V	5,014	3,950	3,207	2,737	2,150	1,748	1,320	572	377	249	202	111

