

# UPN 150 (2V150AH)

(Deep Cycle Premium Gel with Longer Life)



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

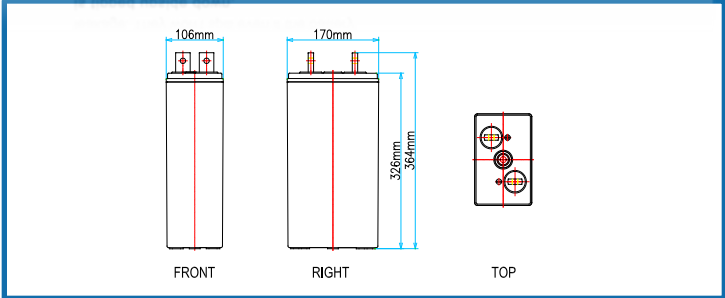
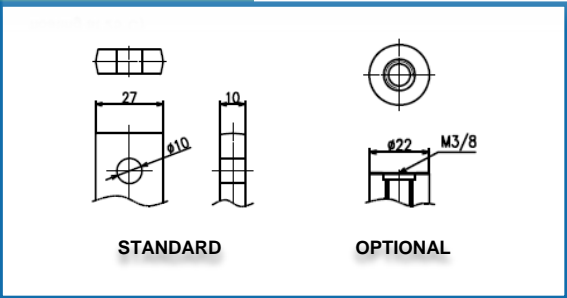
### Technical Features of newmax

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

#### UPN Series

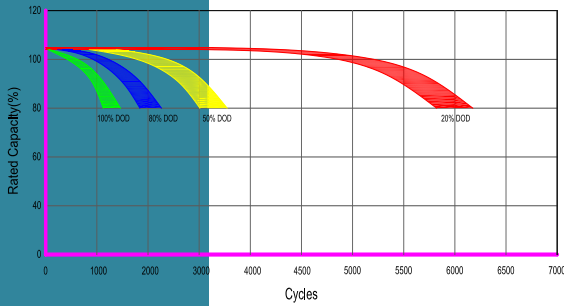
UPN series is an ultra efficient premium quality UPS/SOLAR system battery series. This innovative and technology intensive product has proven to last up to 60% longer than it's predecessor, the PNGB series. Constant drive for true innovation was the key to the success of our UPN series.

- | 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. |

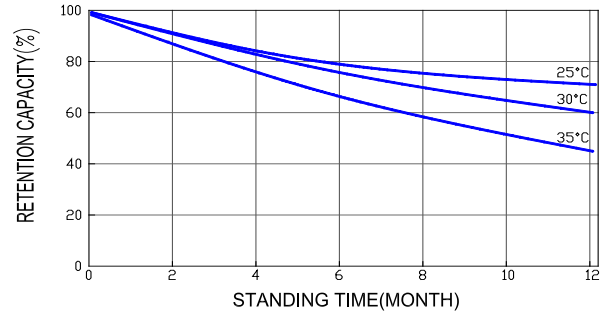


Battery model	UPN 150 (2V150AH / 10 HOUR RATE)			
Rated Capacity (Ah, @20°C)	10HR (1.80VPC)	5HR (1.70VPC)	3HR (1.67VPC)	1HR (1.60VPC)
	150AH	137AH	125AH	99AH
Dimensions (mm/inch)	Length	Width	Height	Total height
	106(4.17)	170(6.69)	326(12.83)	364(14.33)
Approx. weight (kg/lbs)	11.0kg±5% (24.3lbs)			
Internal resistance (mΩ)	1.20mΩ±10% (@25°C, 77°F)			
Max. discharge current (@5sec)	1200 A	Max. discharge current (continuous)		300A
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)	1,730A ±10%			
Charging method (@25°C)	Cycle use		Floating use	
	2.40~2.50V (±5.5mV/°C) / 60A max.		2.23~2.25V (±3.3mV/°C)	

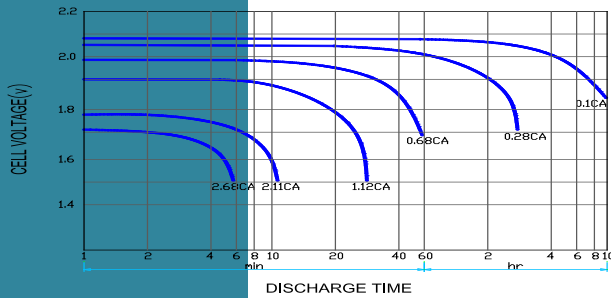
**Cycle life vs Depth of Discharge@25°C**



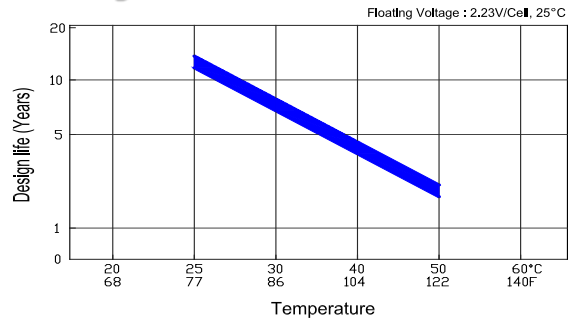
**Self discharge**



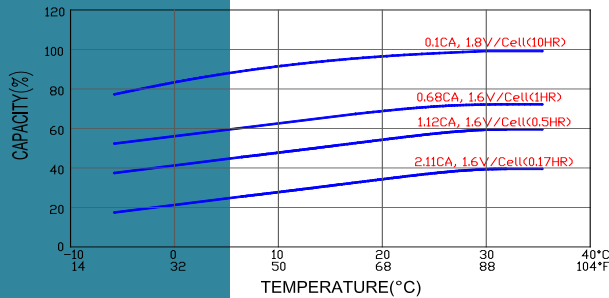
**Discharge time vs Current**



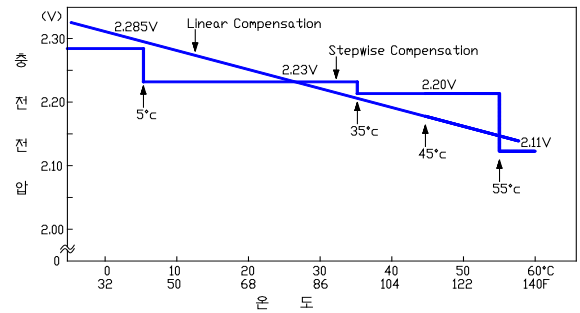
**Floating life characteristics**



**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	153	150	141	132	108	90.9	77.0	36.9	24.0	16.3	13.3	7.3
1.85V	205	190	171	155	128	107	86.3	39.9	26.2	18.1	14.2	7.8
1.80V	271	234	202	179	151	126	96.7	43.1	28.5	19.5	15.0	8.3
1.75V	322	266	227	197	156	133	101	43.7	29.3	20.0	16.2	8.9
1.70V	354	290	241	207	163	137	104	45.0	30.1	20.2	16.3	9.0
1.65V	389	313	257	220	171	141	107	46.9	30.6	20.7	16.6	9.1
1.60V	431	339	276	235	182	148	112	48.4	31.9	20.7	16.8	9.2

**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	297	291	274	256	213	179	152	72.8	47.3	32.6	26.7	14.7
1.85V	399	369	332	301	251	212	170	78.6	51.6	36.2	28.3	15.6
1.80V	525	454	392	347	298	247	190	84.9	56.2	38.9	30.0	16.5
1.75V	625	516	440	382	308	262	199	86.1	57.6	40.0	32.3	17.8
1.70V	687	563	468	402	321	270	205	88.7	59.3	40.4	32.6	17.9
1.65V	755	607	499	427	337	279	212	92.4	60.4	41.5	33.2	18.3
1.60V	836	658	535	456	358	291	220	95.4	62.9	41.5	33.6	18.5