Updated Oct. 2014

UPN 2000 (2V2000AH)

(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

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

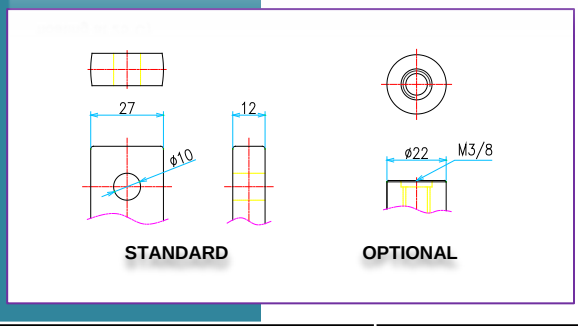
The floating voltage of each cell is 2.23 ~ 2.25V at 25˚C

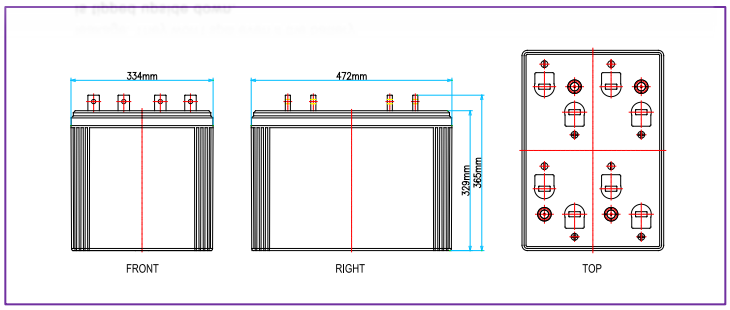
03 Leak free

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 2000 (2V2000AH / 10 HOUR RATE)			
Rated Capacity (Ah, @20℃)	10HR (1.80VPC)	5HR (1.70VPC)	3HR (1.67VPC)	1HR (1.60VPC)
	2000AH	1820AH	1660AH	1320AH
Dimensions (mm/inch)	Length	Width	Height	Total height
	472(18.58)	333(13.11)	340(13.39)	372(14.65)
Approx. weight (kg/lbs)	126.0kg±5% (277.8 lbs)			
Internal resistance (mΩ)	0.09mΩ±10% (@25℃, 77℉)			
Max. discharge current (@5sec)	16,000 A	Max. discharge current (continuous)		4,000A
Capacity affected by Temperature (%)	@30℃(86℉)	@25℃(77℉)	@10℃(50℉)	@-10℃(14℉)
	105%	103%	95%	78%
Self discharge (@25℃,77F)	After 1 month 3%	After 3 month 8%		After 6 month 15%
Max. short duration discharge current (@0.1sec)	24,000A ±10%			
Charging method (@25℃)	Cycle use		Floating use	
	2.40~2.50V (±5.5mV/℃) / 800A max.		2.23~2.25V (±3.3mV/℃)	

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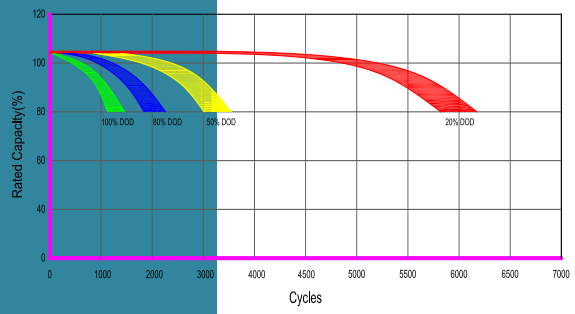
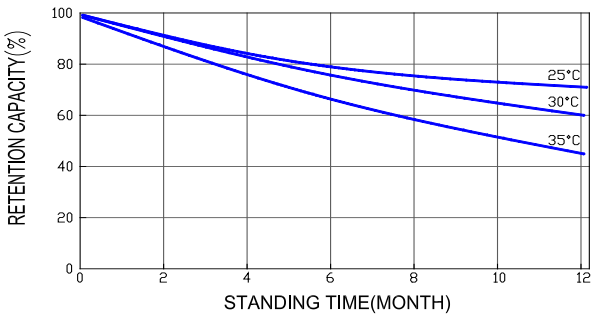
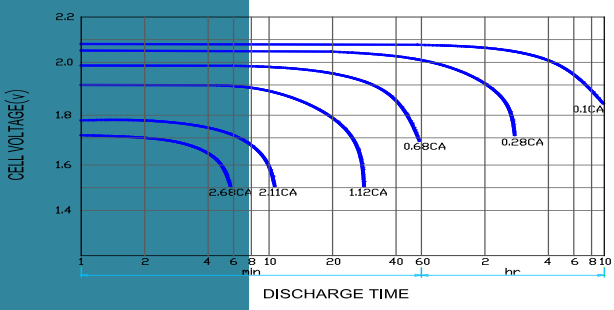
Cycle life vs Depth of Discharge@25℃



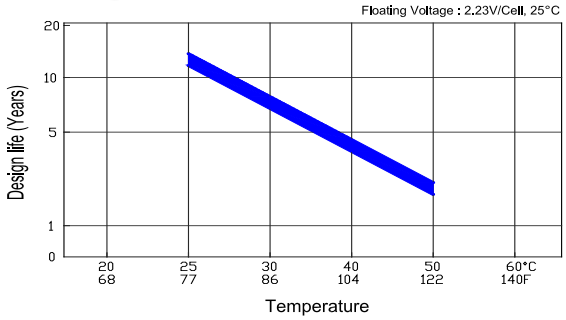
Self discharge



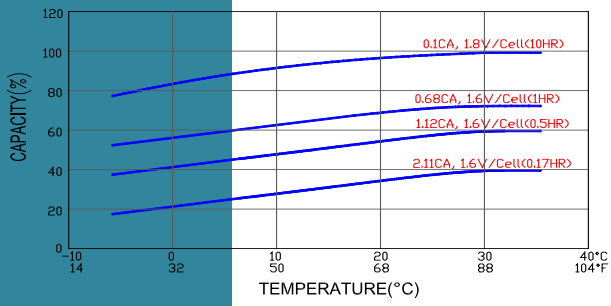
Discharge time vs Current



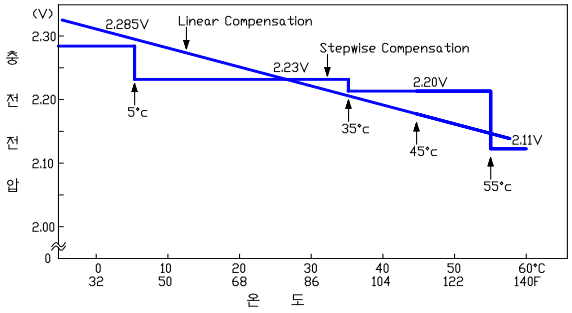
Floating life characteristics



Effect of temperature on capacity



Charging voltage vs Temperature



Constant current discharge ratings – Amperes per cell @ 25℃

V/cell	Minutes						Hours					
	5	10	15	20	30	40	1	3	5	8	10	20
1.90V	2,045	2,002	1,885	1,758	1,438	1,212	1,026	493	320	217	178	97.9
1.85V	2,740	2,539	2,284	2,071	1,702	1,433	1,150	532	349	241	189	104
1.80V	3,608	3,119	2,692	2,382	2,014	1,674	1,289	574	380	260	200	110
1.75V	4,298	3,546	3,022	2,624	2,085	1,773	1,346	583	390	267	216	119
1.70V	4,723	3,872	3,220	2,766	2,170	1,830	1,390	600	401	270	217	119
1.65V	5,192	4,170	3,433	2,936	2,284	1,887	1,433	626	409	277	221	122
1.60V	5,744	4,525	3,674	3,135	2,425	1,972	1,489	645	426	277	224	123

Constant power discharge ratings – Watts per cell @ 25℃

V/cell	Minutes						Hours					
	5	10	15	20	30	40	1	3	5	8	10	20
1.90V	3,966	3,884	3,657	3,410	2,834	2,388	2,022	970	631	435	356	196
1.85V	5,315	4,926	4,430	4,017	3,353	2,822	2,266	1,048	687	482	377	208
1.80V	7,000	6,051	5,222	4,620	3,968	3,297	2,540	1,132	749	519	400	220
1.75V	8,339	6,879	5,862	5,091	4,108	3,493	2,652	1,148	768	533	431	237
1.70V	9,162	7,512	6,246	5,367	4,275	3,605	2,738	1,182	791	539	434	239
1.65V	10,073	8,090	6,660	5,697	4,499	3,717	2,822	1,232	805	553	443	243
1.60V	11,143	8,778	7,127	6,082	4,778	3,884	2,934	1,271	838	553	448	247