

UPN 250 (2V250AH)

(Deep Cycle Premium Gel with Longer Life)



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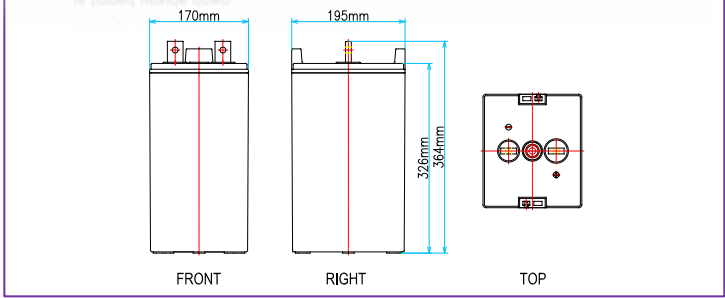
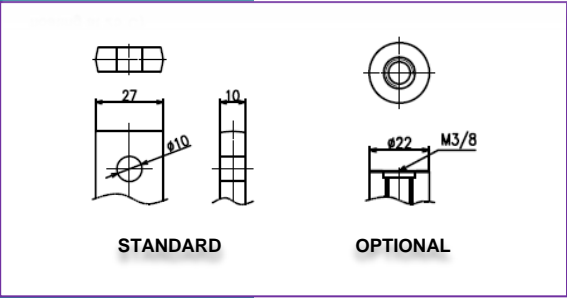
Technical Features of newmax

"The Ultra Power of Newmax Lead-Acid Battery"

UPN Series

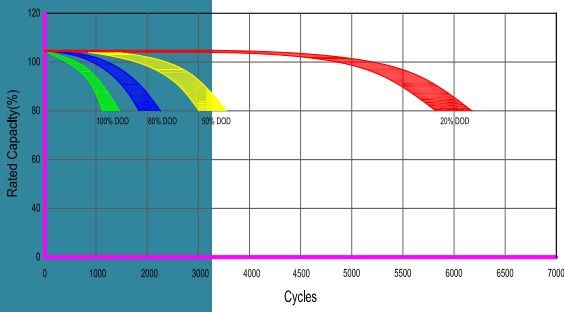
UPN series is an ultra efficient premium quality UPS/SOLAR system battery series. This innovative and technology intensive product has proven to last up to 60% longer than it's predecessor, the PNGB series. Constant drive for true innovation was the key to the success of our UPN series.

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.

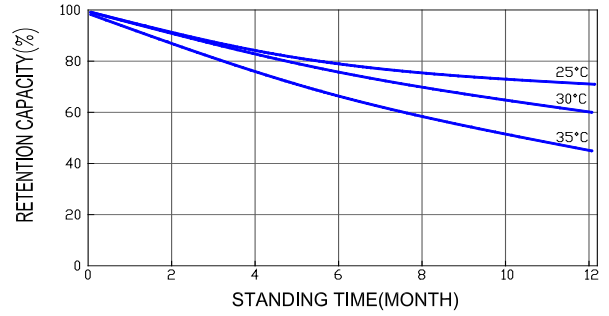


Battery model	UPN 250 (2V250AH / 10 HOUR RATE)			
Rated Capacity (Ah, @20°C)	10HR (1.80VPC)	5HR (1.70VPC)	3HR (1.67VPC)	1HR (1.60VPC)
	250AH	228AH	208AH	165AH
Dimensions (mm/inch)	Length	Width	Height	Total height
	195(7.68)	170(6.69)	326(12.83)	364(14.33)
Approx. weight (kg/lbs)	17.5kg±5% (38.6 lbs)			
Internal resistance (mΩ)	0.72mΩ±10% (@25°C, 77°F)			
Max. discharge current (@5sec)	2000 A	Max. discharge current (continuous)		500A
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)	3,000A ±10%			
Charging method (@25°C)	Cycle use		Floating use	
	2.40~2.50V (±5.5mV/°C) / 100A max.		2.23~2.25V (±3.3mV/°C)	

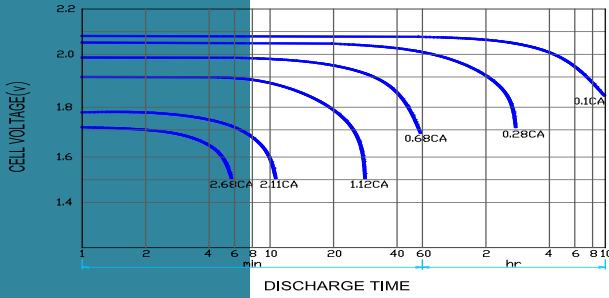
Cycle life vs Depth of Discharge@25°C



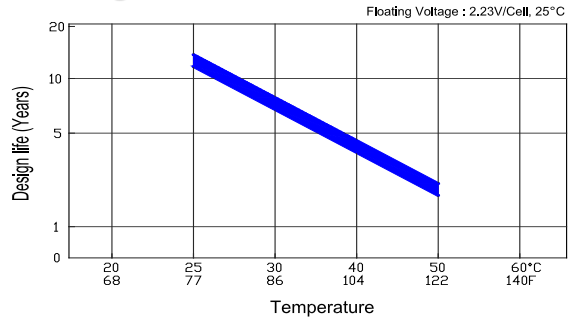
Self discharge



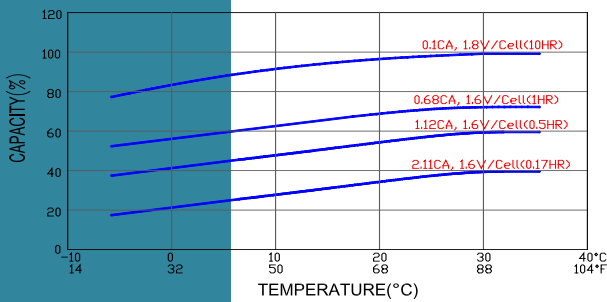
Discharge time vs Current



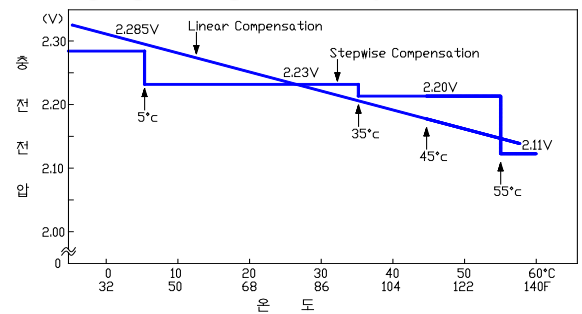
Floating life characteristics



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	256	250	236	220	180	152	128	61.6	40.0	27.2	22.2	12.2
1.85V	342	317	285	259	213	179	144	66.5	43.6	30.1	23.6	13.0
1.80V	451	390	336	298	252	209	161	71.8	47.5	32.4	25.0	13.8
1.75V	537	443	378	328	261	222	168	72.9	48.8	33.3	27.0	14.8
1.70V	590	484	402	346	271	229	174	75.0	50.2	33.7	27.1	14.9
1.65V	649	521	429	367	285	236	179	78.2	51.1	34.6	27.7	15.2
1.60V	718	566	459	392	303	246	186	80.7	53.2	34.6	28.0	15.4

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	496	485	457	426	354	298	253	121	78.9	54.3	44.5	24.5
1.85V	664	616	554	502	419	353	283	131	85.9	60.3	47.2	25.9
1.80V	875	756	653	578	496	412	317	141	93.6	64.9	50.0	27.5
1.75V	1,042	860	733	636	513	437	331	144	96.1	66.7	53.9	29.6
1.70V	1,145	939	781	671	534	451	342	148	98.8	67.4	54.3	29.8
1.65V	1,259	1,011	832	712	562	465	353	154	101	69.1	55.3	30.4
1.60V	1,393	1,097	891	760	597	486	367	159	105	69.1	56.0	30.8

