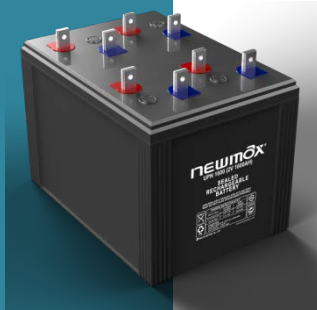


UPN 1600 (2V1600AH)

(Deep Cycle Premium Gel with Longer Life)



Technical Features of **newmax**

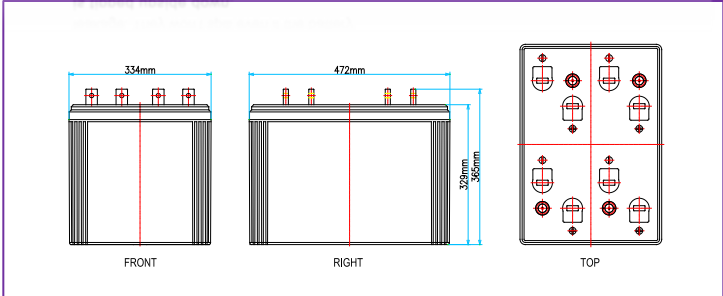
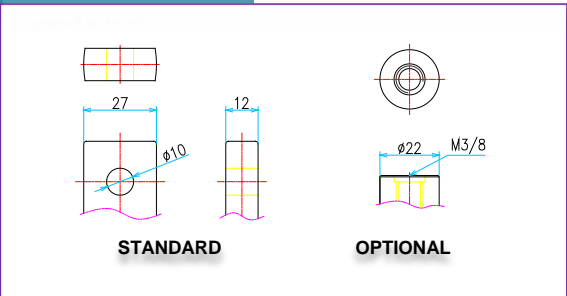
"The Ultra Power of Newmax Lead-Acid Battery"

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.

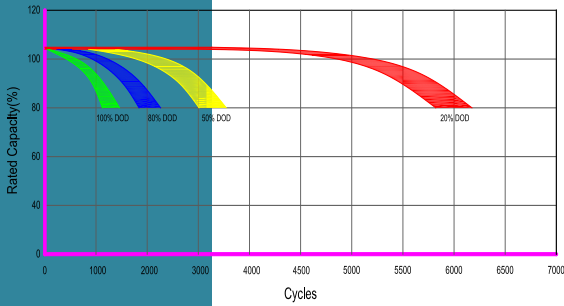
*** The color and the printed specifications of the products are subject to change without prior notice.

- 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.

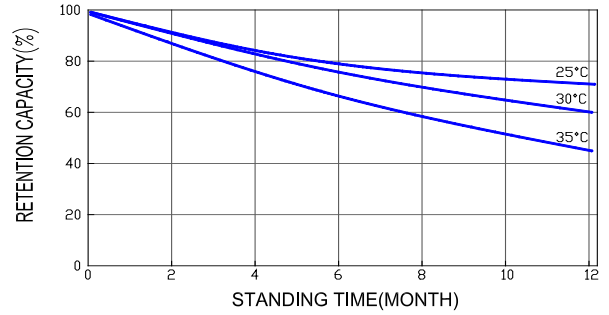


Battery model	UPN 1600 (2V1600AH / 10 HOUR RATE)			
Rated Capacity (Ah, @20°C)	10HR (1.80VPC)	5HR (1.70VPC)	3HR (1.67VPC)	1HR (1.60VPC)
	1600AH	1456AH	1328AH	1056AH
Dimensions (mm/inch)	Length	Width	Height	Total height
	472(18.58)	333(13.11)	340(13.39)	372(14.65)
Approx. weight (kg/lbs)	107.0kg±5% (235.9 lbs)			
Internal resistance (mΩ)	0.11mΩ±10% (@25°C, 77°F)			
Max. discharge current (@5sec)	12,800 A	Max. discharge current (continuous)		3,200A
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)	19,200A ±10%			
Charging method (@25°C)	Cycle use		Floating use	
	2.40~2.50V (±5.5mV/°C) / 640A max.		2.23~2.25V (±3.3mV/°C)	

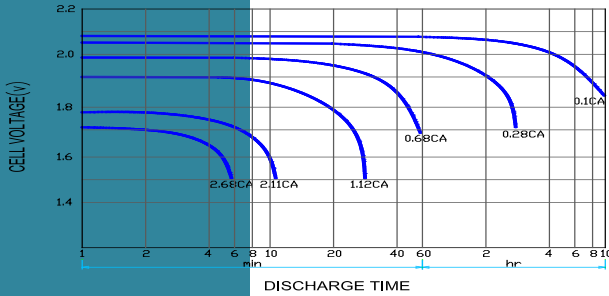
Cycle life vs Depth of Discharge@25°C



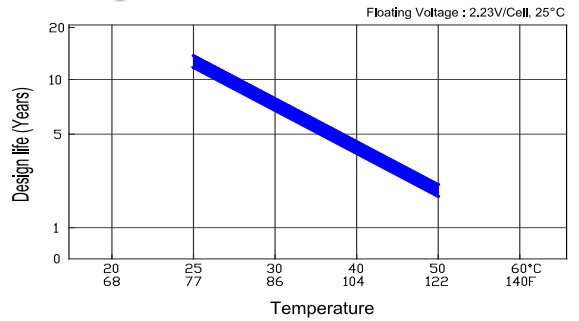
Self discharge



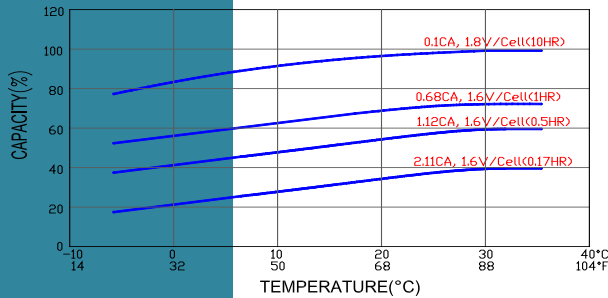
Discharge time vs Current



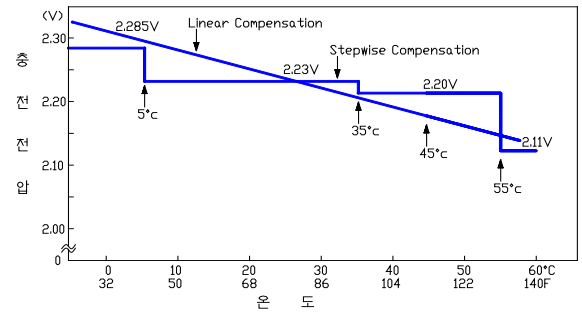
Floating life characteristics



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	1,636	1,602	1,508	1,406	1,151	970	821	394	256	174	142	78.3
1.85V	2,192	2,031	1,827	1,657	1,362	1,146	920	426	279	193	151	83.0
1.80V	2,887	2,495	2,153	1,905	1,611	1,339	1,031	460	304	208	160	88.0
1.75V	3,439	2,837	2,417	2,099	1,668	1,418	1,077	466	312	213	172	94.9
1.70V	3,778	3,098	2,576	2,213	1,736	1,464	1,112	480	321	216	174	95.5
1.65V	4,154	3,336	2,746	2,349	1,827	1,509	1,146	500	327	221	177	97.4
1.60V	4,595	3,620	2,939	2,508	1,940	1,577	1,191	516	340	221	179	98.6

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	3,173	3,107	2,926	2,728	2,267	1,910	1,618	776	505	348	285	157
1.85V	4,252	3,941	3,544	3,214	2,683	2,258	1,813	838	550	386	302	166
1.80V	5,600	4,841	4,178	3,696	3,175	2,638	2,032	905	599	415	320	176
1.75V	6,671	5,504	4,690	4,072	3,286	2,794	2,121	919	615	427	345	190
1.70V	7,329	6,010	4,997	4,293	3,420	2,884	2,191	946	633	431	347	191
1.65V	8,058	6,472	5,328	4,557	3,599	2,973	2,258	986	644	443	354	195
1.60V	8,914	7,023	5,702	4,865	3,822	3,107	2,347	1,017	671	443	359	197

