

# newmax®

The Ultra Power of Newmax Lead-Acid Battery





# DAEJIN

LEAD-ACID BATTERY

The story of Industrial Sealed Lead Rechargeable battery will be written newly by Daejin Newmax battery from now on.

We, Daejin Battery have never stopped to challenge ourselves for making a best product and service under the spirit of serving to our clients, and not only are manufacturing an industrial battery with the most top quality and stability but are improving a quality and stability through a continuous quality improvement and international certification, and are moving forward to be a leading company in the

world for a business field of industrial battery with a harmony of all employees as a family. The executives and all staff members of Daejin will not settle down at the current status and will keep trying to upgrade the system constantly through a work of review for CEO after an internal and external examination once a year, and an implementation of continuous environment management program by each department and team.

## DAEJIN BATTERY CO., LTD.

We, Daejin Battery, are pleased to speak about ourselves briefly.  
We have made a fresh start as a family of Daejin, which is specialized company for PVC flooring with more than 30 years history, taking over Newmax battery who was a leader for industrial SLA battery.  
All staffs and CEO are trying to strengthen ourselves recruiting many specialists for each field, and have laid the groundwork for being a leader of industrial SLA battery based upon world classed manufacturing facility and technology, and as well promise to provide a good quality product and service to clients look for us, and to give the profits back to our clients and society.

We would like to ask your support and cheer for our growth and development.

Many thanks

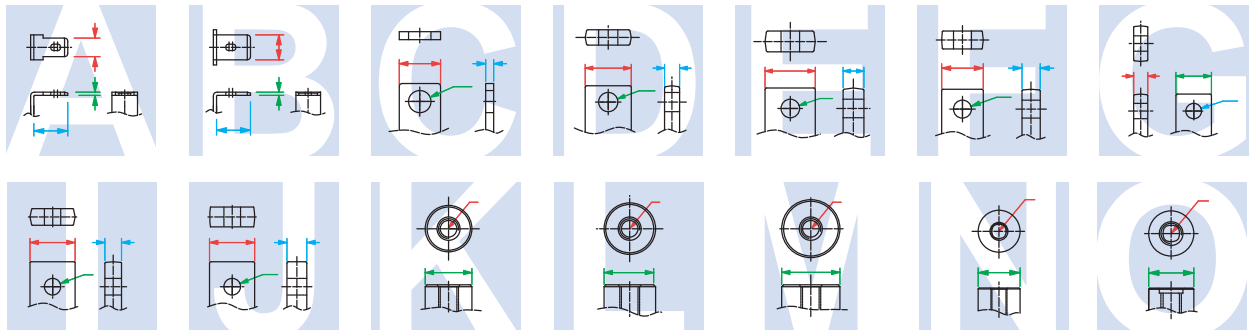




## COMPANY HISTORY

- 2015. Membership of BC(Battery Council International)
- 2013. Designated as an Export prospective company  
Awarded the President's award at Annual Trade Day  
Established overseas factory in Hanoi, Vietnam
- 2012. Awarded One of the Best Exporters at the 49th Annual Trade Day (by the Korean Government)  
Awarded the Prime Minister's Award at the 49th Annual Trade Day  
Technical Collaboration with FAAM, a Renowned Italian Battery Company
- 2011. Obtained Excellent Green-Biz
- 2010. Registered as Central Contractor Registration(CCR) for supply to the US Government  
Obtained Environment-Friendly Mark (E-Mark)
- 2009. Obtained Korean Industrial Standards Certification (KS C 8518 HSB type)  
Benchmarking Test Approved for Korea Telecom AGM Storage battery  
Obtained ISO 9001 / ISO 14001 (BVQ international cert.)  
Awarded President's Award at the 46th Annual Trade Day  
UL (Underwriters Laboratories) Approved MH16651  
Established Daejin Battery Co., Ltd.
- 2008. Awarded President's Award at the 45th Annual Trade Day Daejin Co.,Ltd.
- 2007. Awarded Knowledge Economy Minister's Award at the 44th Annual Trade Day Daejin Co.,Ltd.
- 2006. Commended as a "Good Taxpayer" by Director of the National Tax Service  
Culture and Tourism Minister's Award Daejin Co.,Ltd.
- 2004. The Korea International Trade Association Chairman's Award Daejin Co.,Ltd.  
Awarded President's Award at the 41th Annual Trade Day Daejin Co.,Ltd.
- 2003. Commended by the Governor of Chungnam Province Daejin Co.,Ltd.  
Designated as a "Superior New-Tech Firm"  
(by Small and Medium Business Administration, SMBA)  
Designated as a INNO-BIZ (by SMBA) and a Venture Business (by SMBA)
- 2002. Obtained ISO 9001 - ICG Certification Daejin Co.,Ltd.  
Knowledge Economy Minister's Award  
(commendation for contribution to quality management) Daejin Battery Co.,Ltd.
- 2001. SMBA Director's Award (in community development) Daejin Co.,Ltd.
- 1994. Registered as a foreign trade business - Daejin co.,Ltd.
- 1993. Registered its trademark NEWMAX Battery  
- Korean Intellectual Property Office (KIPO) Reg. Daejin Co.,Ltd.
- 1990. Established Daejin Inc.(CEO: Kim Jeongtae) Daejin Co.,Ltd.
- 1979. Established Daejin Industrial Co.

## TERMINAL TYPES



### TERMINAL (mm)

(A) — / (B) — / (C) —

Type	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
(A)	4.75	6.30	12.00	15.00	17.00	11.50	4.50	11.50	13.50	13.50	M6	M6	M6	M8	M8
(B)	0.80	0.80	6.50	6.30	6.30	5.00	11.50	5.25	5.00	5.00	14.00	15.50	17.50	21.00	22.00
(C)	8.60	8.60	2.30	5.00	7.00	5.00	5.00	5.00	5.00	6.00					



Technical Features of **newmox**<sup>®</sup>  
**"The Ultra Power of Newmax Lead-Acid Battery"**

PNB Series is AGM and VRLA type batteries available in various capacities and dimensions which can be installed in any direction. The sealed structure is possible due to technology that prevents over pressuring from excess gas formation. This series can be used for UPS, telecommunications, lighting systems and more.

<b>01</b>	<b>Longer Life</b>	<b>02</b>	<b>Maintenance Free</b>	<b>03</b>	<b>Leak Free</b>	<b>04</b>	<b>Safety</b>
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Advanced technology is used to produce batteries suited for long service life. High density, anti-corrosive lead calcium alloy is used to minimize impurities and resistance.

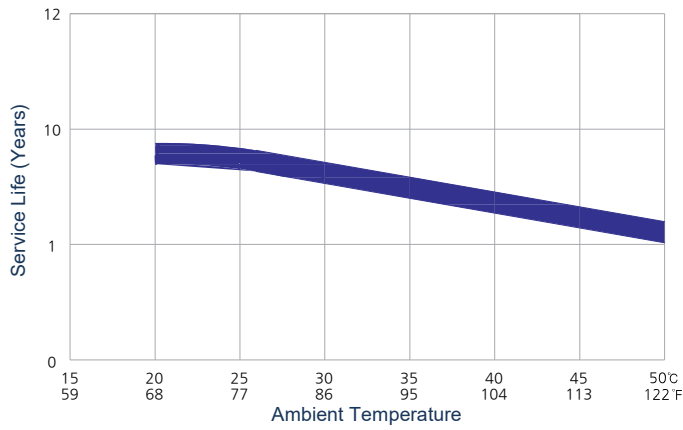
NEWMAX Battery has a gas re-combining design that doesn't need maintenance until the end of its life.

Ultra-Porous Absorptive Glass Mat stores the electrolyte between the lead plates. Air-tight sealed container makes it leak free.

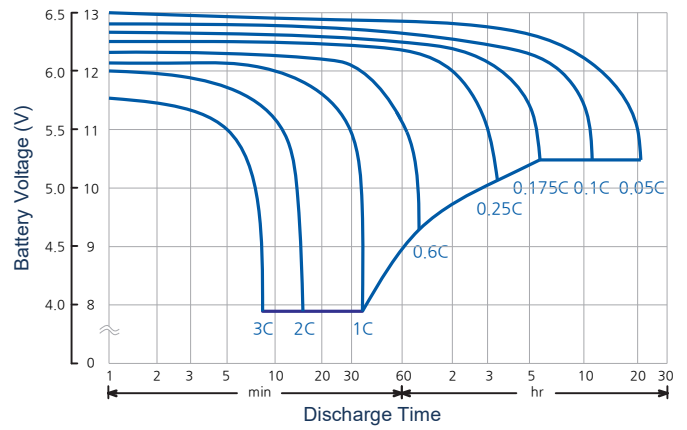
Specially designed anti-explosion filter and safety valves prevent gas leakage when overcharged.



### Characteristic



### Discharge time vs current



### 12 Voltage PNB Series Battery Range Specifications

Battery Type	(V)	Nominal Capacity(AH)				Dimension								Weight		Terminal type	
		20HR	10HR	5HR	1HR	Length		Width		Height		T.Height		Approx.		(S)	(O)
		(1.75)	Final V.P.C (1.75)	V.P.C (1.70)	(1.60)	(mm)	(inch)	(mm)	(inch)	(mm)	(inch)	(mm)	(inch)	(Lb)	(kg)		
PNB 1272	12	7.2	6.6	6.1	4.3	151	5.94	65	2.56	95	3.74	100	3.94	5.3	2.4	A	B
PNB 12120	12	12.0	11.0	10.2	7.2	151	5.94	98	3.86	95	3.74	100	3.94	7.9	3.6	B	A
PNB 12180	12	18.0	16.6	15.3	10.8	180	7.09	75	2.95	167	6.57	167	6.57	13.0	5.9	C	
PNB 12210	12	21.0	19.3	17.9	12.6	192	7.56	116	4.57	144	5.67	144	5.67	17.2	7.8	C	
PNB 12240	12	24.0	22.1	20.4	14.4	165	6.50	175	6.89	126	4.96	126	4.96	20.1	9.1	C	
PNB 12280	12	28.0	25.8	23.8	16.8	165	6.50	125	4.92	180	7.09	180	7.09	23.1	10.5	C	
PNB 12340	12	34.0	31.3	28.9	20.4	196	7.72	130	5.12	168	6.61	168	6.61	24.3	11.0	C	

### 12 Voltage PNB Series Battery Range Specifications

Battery Type	(V)	Nominal Capacity(AH)				Dimension								Weight		Terminal type	
		20HR	10HR	5HR	1HR	Length		Width		Height		T.Height		Approx.		(S)	(O)
		(1.80)	Final V.P.C (1.75)	V.P.C (1.70)	(1.60)	(mm)	(inch)	(mm)	(inch)	(mm)	(inch)	(mm)	(inch)	(Lb)	(kg)		
PNB 12400	12	42	40	36	24	197	7.76	166	6.54	170	6.69	170	6.69	28.9	13.1	D	K
PNB 12650	12	70	65	59	39	325	12.80	166	6.54	175	6.89	175	6.89	46.5	21.1	E	M
PNB 12800	12	80	75	64	42	350	13.78	166	6.54	175	6.89	175	6.89	51.8	23.5	E	M
PNB 121000	12	100	92	83	63	332	13.07	174	6.85	215	8.46	239	9.46	61.7	28.0	F	N
PNB 121200	12	120	114	104	75	500	19.69	180	7.09	196	7.68	224	8.82	79.4	36.0	H	N
PNB 121300	12	130	124	113	81	500	19.69	180	7.09	196	7.68	224	8.82	87.1	39.5	H	N
PNB 121500	12	150	143	131	94	500	19.69	260	10.24	196	7.72	225	8.86	94.8	43.0	H	N
PNB 122000	12	200	190	174	125	500	19.69	260	10.24	195	7.72	225	8.86	123.5	56.0	H	N
PNB 122000	12	220	209	191	138	500	19.69	260	10.24	195	7.72	225	8.86	132.3	60.0	H	N



### Technical Features of **newmox**<sup>®</sup> **"The Ultra Power of Newmax Lead-Acid Battery"**

The truly maintenance free PNC Series is designed specifically for deep cycle mobile power units such as electric wheelchairs and scooters. Our unique lead plate design is optimized for exceptional performance in deep cycle applications.

#### 01 Deep Cycle Specialization

Thicker plates are used in conjunction with special additives to greatly enhance deep cycle capability.

#### 02

#### Longer Life

High density, anti-corrosive lead calcium alloy is used to minimize impurities and resistance.

#### 03

#### Maintenance Free

NEWMAX Battery has a gas re-combining design that doesn't need maintenance until the end of its life.

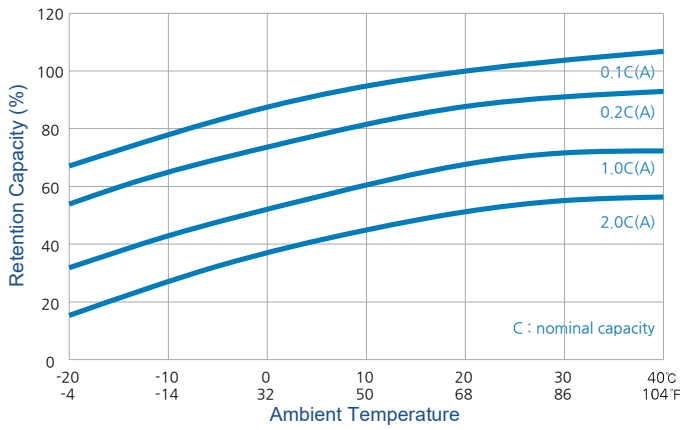
#### 04

#### Leak free

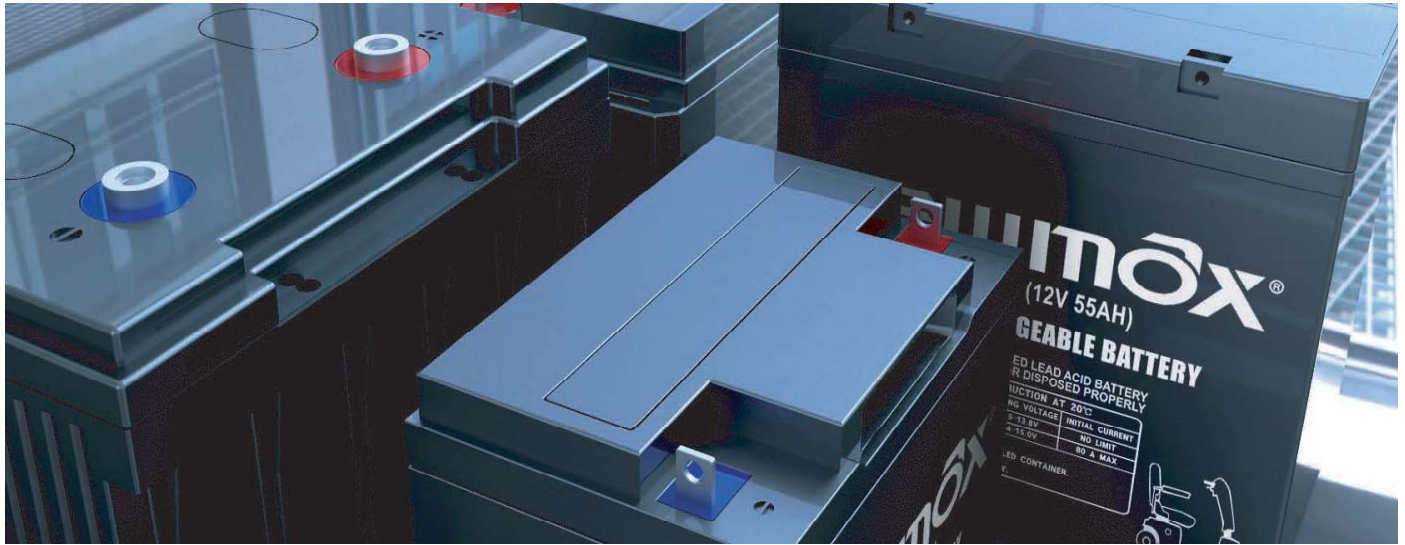
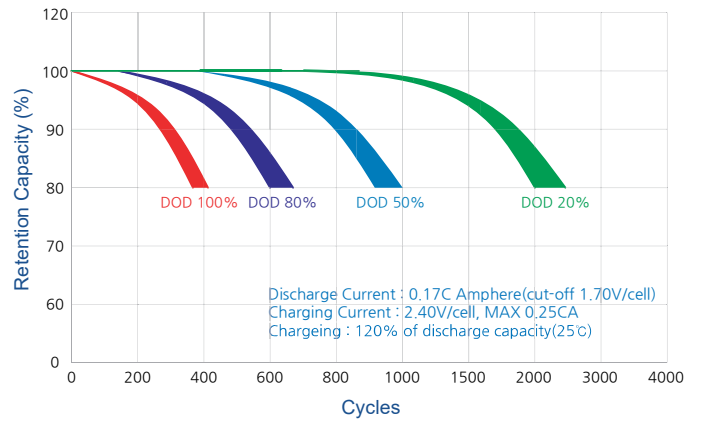
Ultra-porous Absorptive Glass Mat holds and impregnated the acid electrolyte onto the lead plate. An air-tight sealed container makes it leak free.



### Effect of temperature on capacity



### Cycle life characteristic



### 12 Voltage PNC Series Battery Range Specifications

Battery Type	(V)	Nominal Capacity(AH)				Dimension								Weight		Terminal type	
		20HR	10HR	5HR	1HR	Length		Width		Height		T.Height		Approx.		(S)	(O)
		(1.75)	Final (1.75)	V.P.C (1.70)	(1.60)	(mm)	(inch)	(mm)	(inch)	(mm)	(inch)	(mm)	(inch)	(Lb)	(kg)		
PNC 12350	12	35	33	30	22	196	7.72	130	5.12	168	6.61	168	6.61	25.1	11.4	C	
PNC 12390P	12	39	37	33	24	196	7.72	130	5.12	168	6.61	168	6.61	26.2	11.9	K	
Battery Type	(V)	Nominal Capacity(AH)				Dimension								Weight		Terminal type	
		10HR	5HR	3HR	1HR	Length		Width		Height		T.Height		Approx.		(S)	(O)
		(1.75)	Final (1.70)	V.P.C (1.67)	(1.60)	(mm)	(inch)	(mm)	(inch)	(mm)	(inch)	(mm)	(inch)	(Lb)	(kg)		
PNC 12400	12	40	37	33	26	197	7.76	166	6.54	170	6.69	170	6.69	31.5	14.3	D	K
PNC 12500P	12	50	46	42	33	197	7.76	166	6.54	170	6.69	170	6.69	32.6	14.8	D	K
PNC 12550	12	55	51	46	36	229	9.02	138	5.43	208	8.19	213	8.39	39.7	18.0	L	
PNC 12700	12	70	64	58	46	325	12.80	166	6.54	175	6.89	175	6.89	50.7	23.0	E	M
PNC 12800	12	80	75	68	54	500	19.69	180	7.09	195	7.68	224	8.82	65.0	29.5	H	N
PNC 121000	12	100	94	85	67	500	19.69	180	7.09	195	7.68	224	8.82	71.7	32.5	H	N
PNC 121200	12	120	113	102	80	500	19.69	180	7.09	195	7.68	224	8.82	87.1	39.5	H	N
PNC 121500	12	150	141	128	101	500	19.69	260	10.24	196	7.72	225	8.86	101.4	46.0	H	N
PNC 122000	12	200	188	170	134	500	19.69	260	10.24	196	7.72	225	8.86	132.3	60.0	H	N



### Technical Features of **newmax**<sup>®</sup> **"The Ultra Power of Newmax Lead-Acid Battery"**

NEWMAX Solar Gel(SG Series) batteries are true maintenance-free sealed batteries engineered specifically to satisfy the need for frequent deep cycles from photovoltaic (PV) and renewable energy storage applications. We are confident that our technology-intensive, long-lasting, and environment friendly SG Series batteries will provide stability and efficiency for your everyday renewable energy needs.

#### 01 Long Life for Deep Cycle

High density, anti-corrosive lead calcium alloy is used in harmony with the GEL electrolyte to reduce the sulfation effect significantly.

#### 02 Maintenance Free

NEWMAX Battery has a gas re-combining design that doesn't need maintenance until the end of its life.

#### 03

#### Leak free

Gel Technology is applied to prevent leakage. They won't spill even if the battery is tipped upside down.

#### 04

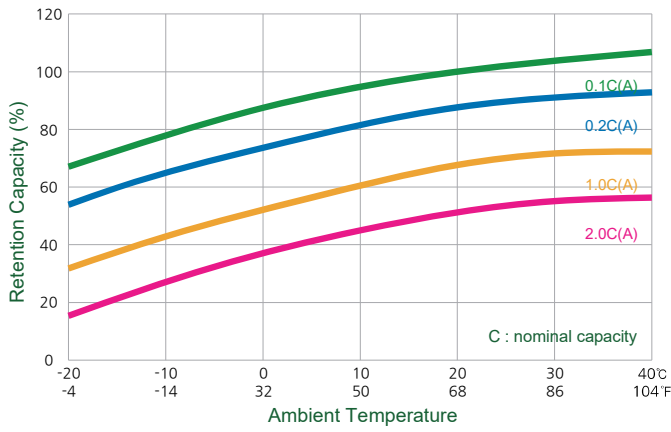
#### Safety

Specially designed anti-explosion filter and safety valves prevent gas leakage when overcharged.

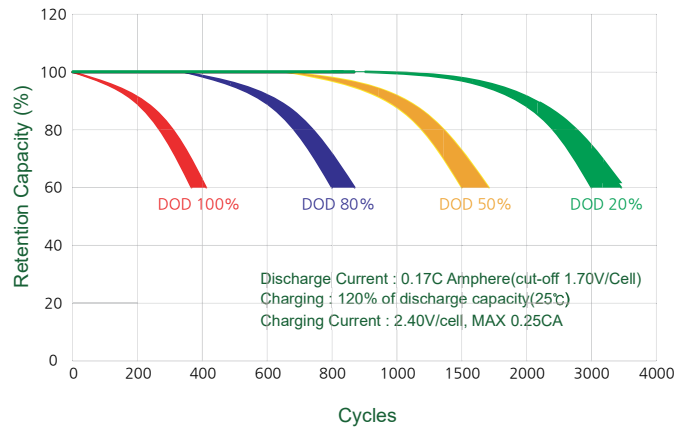




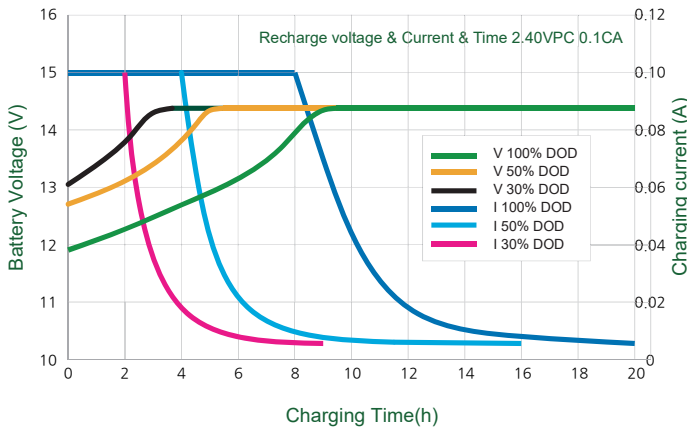
### Effect of temperature on capacity



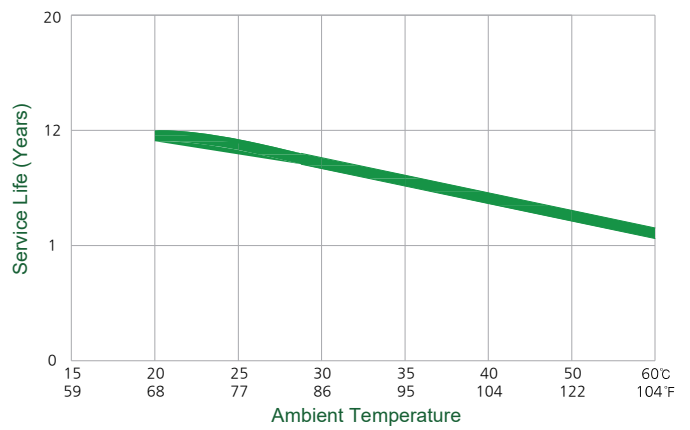
### Cycle life characteristic



### DOD % vs Recharging time curve



### Floating life characteristics



## 12 Voltage SG Series Battery Specifications

Battery Type	(V)	Nominal Capacity(AH)				Dimension								Weight		Terminal type	
		20HR	10HR	5HR	1HR	Length		Width		Height		T.Height		Approx.		(S)	(O)
		(1.80)	Final V.P.C (1.75)	(1.70)	(1.60)	(mm)	(inch)	(mm)	(inch)	(mm)	(inch)	(mm)	(inch)	(Lb)	(kg)		
SG 650H	12	70	65	59	39	325	12.80	166	6.54	175	6.89	175	6.89	46.5	21.1	E	M
SG 800H	12	80	75	70	53	350	13.78	166	6.54	175	6.89	175	6.89	52.9	24.0	E	M
SG 1000H	12	100	95	87	66	500	19.69	180	7.09	195	7.68	224	8.82	66.1	30.0	H	N
SG 1200H	12	120	114	104	79	500	19.69	180	7.09	195	7.68	224	8.82	80.5	36.5	H	N
SG 1500H	12	150	143	131	99	500	19.69	260	10.24	196	7.72	225	8.86	94.8	43.0	H	N
SG 2000H	12	200	190	174	132	500	19.69	260	10.24	196	7.72	225	8.86	125.7	57.0	H	N
SG 2000H	12	220	209	191	145	500	19.69	260	10.24	196	7.72	225	8.86	134.5	61.0	H	N



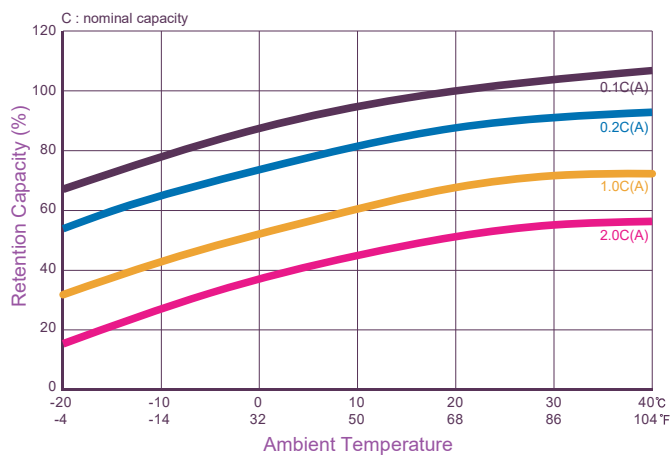
### Technical Features of **newmax**

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

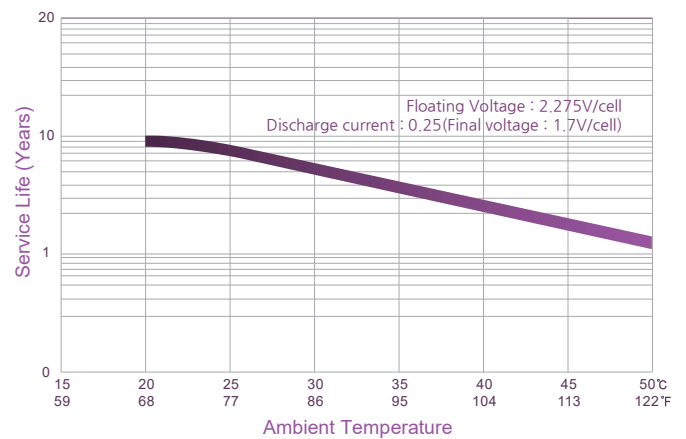
The PNGB series has a completely sealed gas-recombining structure which has a relatively long life. It is available in various capacities and dimensions. This series is fit for both floating and deep cycle service, such as UPS, telecommunication and lighting systems. They are usable in a wide temperature range, from -20°C to 50°C and can be used in various services including high-rate discharge.



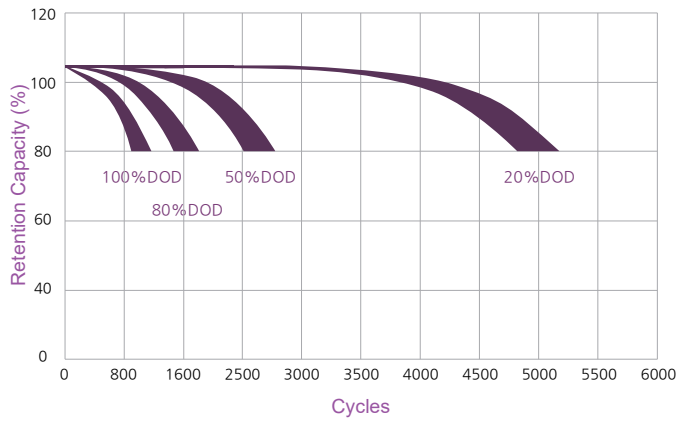
Effect of temperature on capacity



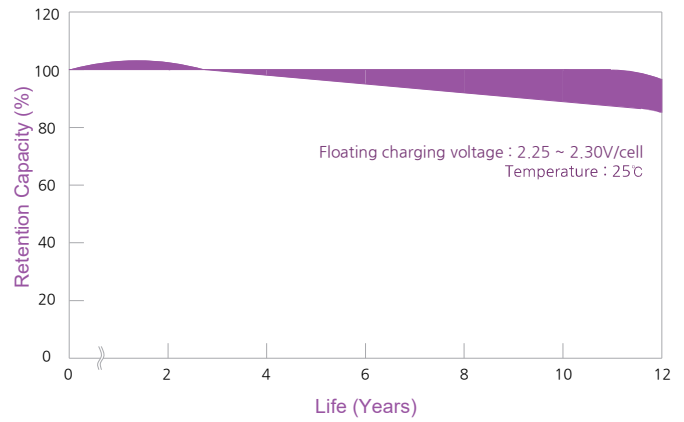
Floating life characteristics



### Cycle life DOD %



### Floating life for capacity characteristic



## 2 Voltage PNBG Series Battery Range Specifications

Battery Type	(V)	Nominal Capacity(AH)				Dimension								Weight		Terminal type	
		10HR	5HR	3HR	1HR	Length		Width		Height		T.Height		Approx.		(S)	(O)
		(1.80)	Final V.P.C (1.70) (1.67)		(1.60)	(mm)	(inch)	(mm)	(inch)	(mm)	(inch)	(mm)	(inch)	(Lb)	(kg)		
PNBG 21000	2	100	91	83	66	106	4.17	170	6.69	326	12.83	364	14.33	17.1	7.7	I	P
PNBG 21200	2	120	109	100	79	106	4.17	170	6.69	326	12.83	364	14.33	19.8	9.0	I	P
PNBG 21500	2	150	137	125	99	106	4.17	170	6.69	326	12.83	364	14.33	22.0	10.0	I	P
PNBG 22000	2	200	182	166	132	106	4.17	170	6.69	326	12.83	364	14.33	26.5	12.0	I	P
PNBG 22500	2	250	228	208	165	195	7.68	170	6.69	326	12.83	364	14.33	34.2	15.5	I	P
PNBG 23000	2	300	273	249	198	195	7.68	170	6.69	326	12.83	364	14.33	40.3	18.3	I	P
PNBG 24000	2	400	364	332	264	195	7.68	170	6.69	326	12.83	364	14.33	50.0	22.7	I	P
PNBG 25000	2	500	455	415	330	289	11.38	171	6.73	326	12.83	364	14.33	63.9	29.0	I	P
PNBG 26000	2	600	546	498	396	289	11.38	171	6.73	326	12.83	364	14.33	73.9	33.5	I	P
PNBG 27000	2	700	637	581	462	382	15.04	171	6.73	326	12.83	364	14.33	89.3	40.5	I	P
PNBG 28000	2	800	728	664	528	382	15.04	171	6.73	326	12.83	364	14.33	99.2	45.0	I	P
PNBG 29000	2	900	819	747	594	471	18.54	171	6.73	326	12.83	364	14.33	116.8	53.0	I	P
PNBG 210000	2	1000	910	830	660	471	18.54	171	6.73	326	12.83	364	14.33	127.9	58.0	I	P
PNBG 212000	2	1200	1092	996	792	471	18.54	171	6.73	326	12.83	364	14.33	147.7	67.0	I	P
PNBG 214000	2	1400	1274	1162	924	472	18.58	333	13.11	340	13.39	372	14.65	191.8	87.0	J	P
PNBG 216000	2	1600	1456	1328	1056	472	18.58	333	13.11	340	13.39	372	14.65	211.6	96.0	J	P
PNBG 218000	2	1800	1638	1494	1188	472	18.58	333	13.11	340	13.39	372	14.65	231.5	105	J	P
PNBG 220000	2	2000	1820	1660	1320	472	18.58	333	13.11	340	13.39	372	14.65	249.1	113	J	P



### Technical Features of **newmox**<sup>®</sup>

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

The Newmax UPN Series is an ultra efficient premium quality UPS 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)

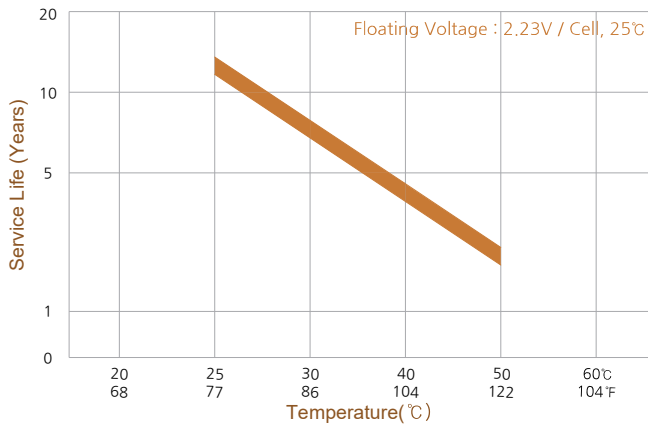
The floating voltage of each cell is 2.23 ~ 2.25V at 25°C

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.

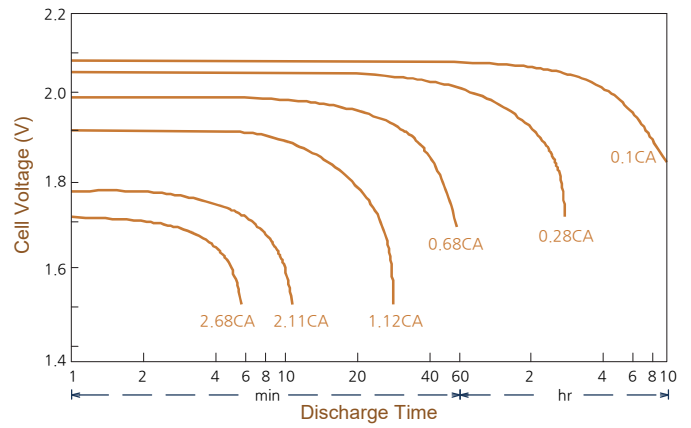
Specially designed anti-explosion filter and safety valves prevent gas leakage when overcharged.



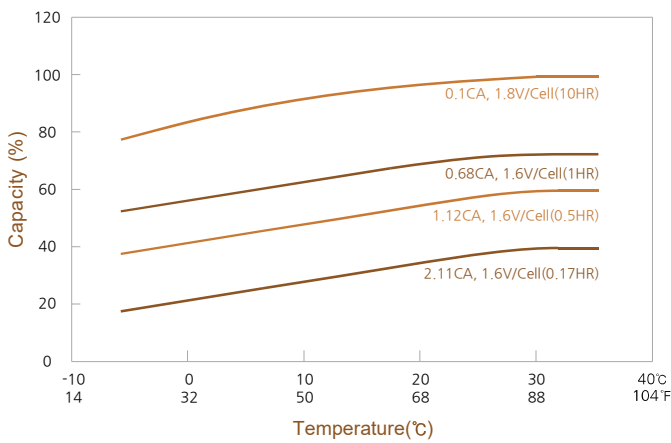
### Floating life characteristics



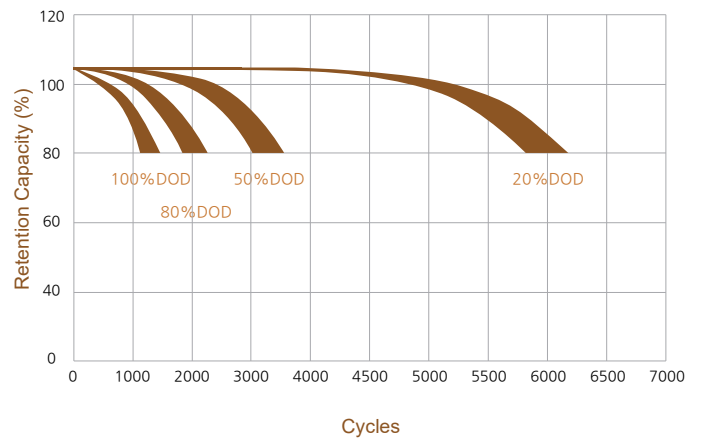
### Discharge time vs current



### Effect of temperature on capacity



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



## 2 Voltage UPN Series Battery Specifications

Battery Type	(V)	Nominal Capacity(AH)				Dimension								Weight		Terminal type	
		10HR	5HR	3HR	1HR	Length		Width		Height		T.Height		Approx.			
		(1.80)	Final V.P.C (1.70)	V.P.C (1.67)	(1.60)	(mm)	(inch)	(mm)	(inch)	(mm)	(inch)	(mm)	(inch)	(Lb)	(kg)	(S)	(O)
UPN 150	2	150	137	125	99	106	4.17	170	6.69	326	12.83	364	14.33	24.3	11.0	I	P
UPN 200	2	200	182	166	132	106	4.17	170	6.69	326	12.83	364	14.33	29.8	13.5	I	P
UPN 250	2	250	228	208	165	195	7.68	170	6.69	326	12.83	364	14.33	38.6	17.5	I	P
UPN 300	2	300	273	249	198	195	7.68	170	6.69	326	12.83	364	14.33	45.2	20.5	I	P
UPN 400	2	400	364	332	264	195	7.68	170	6.69	326	12.83	364	14.33	56.2	25.5	I	P
UPN 500	2	500	455	415	330	289	11.38	171	6.73	326	12.83	364	14.33	71.7	32.5	I	P
UPN 600	2	600	546	498	396	289	11.38	171	6.73	326	12.83	364	14.33	83.8	38.0	I	P
UPN 700	2	700	637	581	462	382	15.04	171	6.73	326	12.83	364	14.33	100.3	45.5	I	P
UPN 800	2	800	728	664	528	382	15.04	171	6.73	326	12.83	364	14.33	111.3	50.5	I	P
UPN 900	2	900	819	747	594	471	18.54	171	6.73	326	12.83	364	14.33	130.1	59.0	I	P
UPN 1000	2	1000	910	830	660	471	18.54	171	6.73	326	12.83	364	14.33	143.3	65.0	I	P
UPN 1200	2	1200	1092	996	792	471	18.54	171	6.73	326	12.83	364	14.33	154.3	70.0	I	P
UPN 1400	2	1400	1274	1162	924	472	18.58	333	13.11	340	13.39	372	14.65	213.8	97.0	J	P
UPN 1600	2	1600	1456	1328	1056	472	18.58	333	13.11	340	13.39	372	14.65	235.9	107	J	P
UPN 1800	2	1800	1638	1494	1188	472	18.58	333	13.11	340	13.39	372	14.65	260.1	118	J	P
UPN 2000	2	2000	1820	1660	1320	472	18.58	333	13.11	340	13.39	372	14.65	277.8	126	J	P



### Technical Features of **newmax**

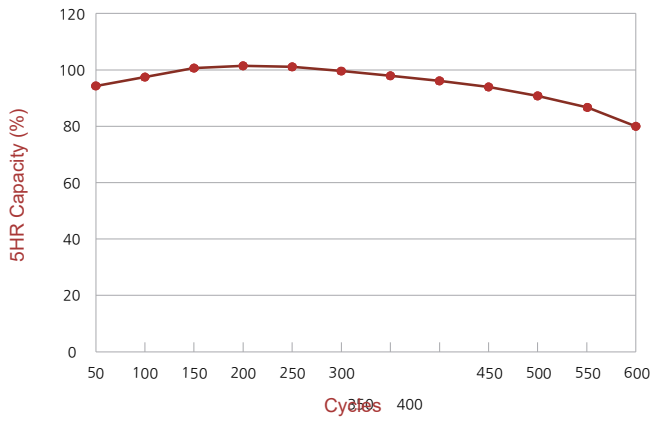
#### "The Ultra Power of Newmax Lead-Acid Battery"

Our BM series batteries are built to provide an ultra-long life while withstanding a bumpy ride on some of the world's roughest and mountainous golf courses located in South Korea. These batteries will provide a lively ride throughout the round.

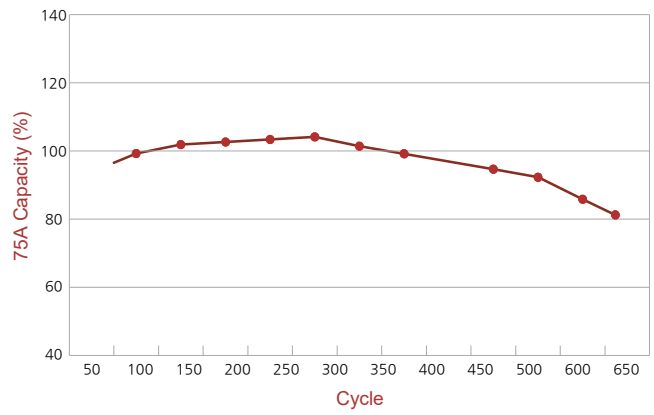
01	Case & Cover	02	Separators	03	Plates	04	Electrolytes / Cap
-	<ul style="list-style-type: none"> <li>- Use of Polypropylene(PP) Resin.</li> <li>- A special saddle plate installed for prevention of a short on the bottom from withdrawal of active substances.</li> <li>- A design which keeps the electrolytes from being leaking.</li> </ul>	-	<ul style="list-style-type: none"> <li>- Use a highly porous and corrosion-resistant PVC material</li> <li>- A glass fiber applied to the surface to prevent withdrawal of active substances</li> <li>- Low electric resistance and excellent physical traits</li> </ul>	-	<ul style="list-style-type: none"> <li>- Made from 99.99% or higher purity lead processed into an active substance.</li> <li>- Use an antimony alloy metal with higher corrosion-resistance on the board</li> <li>- The negative plate uses highly porous and deep cycle-resistant additives.</li> <li>- A special additive applied the positive plate for a long service life</li> </ul>	-	<ul style="list-style-type: none"> <li>- Electrolytes contain highly pure, refined sulphuric acid (KS M 1203 No.3 or higher)</li> <li>- Cap has a structure that can filter acid haze and gas generated during the recharge step 3, and discharge only the gas.</li> <li>- Uses a filter that can prevent an explosion from inflammation of the interior</li> </ul>



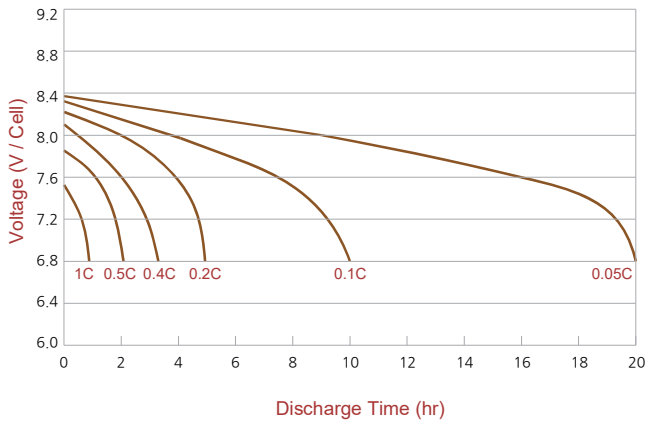
### 5hr Cycles life characteristics



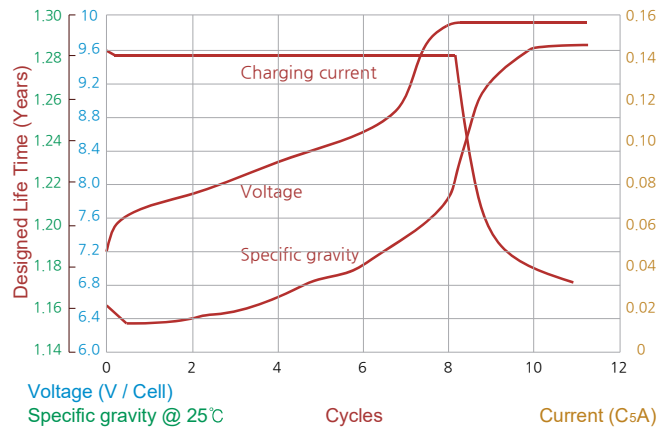
### 75A Discharge cycle life characteristics



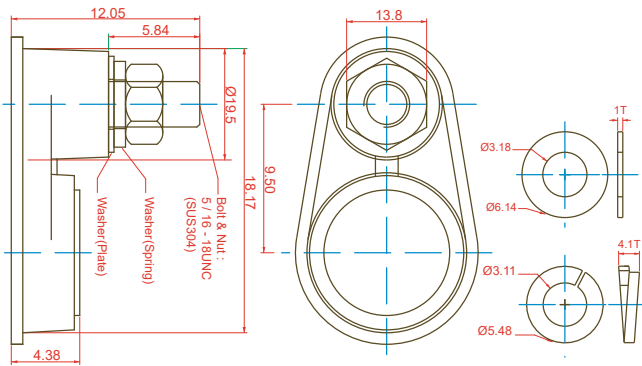
### Discharge Characteristics



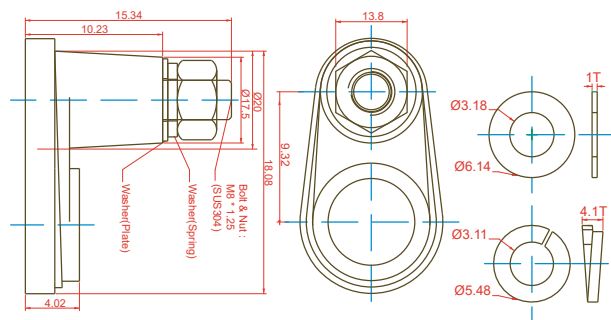
### Charging characteristics



### A Standard



### B Standard



### BM Series Battery Range Specifications

Battery Type	(V)	Nominal Capacity(AH)			Exterior Dimension				Liquid amount (t)	Weight (KG)	Terminal type
		20HR	5HR	75A(min)	Length (mm)	Width (mm)	Height (mm)	Total height (mm)			
BM 6225	6	225	185	115	260	183	247	279	5.7	28.6	Standard
BM 6240	6	240	195	132	260	183	247	279	5.4	30.7	Standard
BM 8190	8	190	155	90	260	183	247	279	5.2	31.6	Standard
BM 8240	8	240	190	110	260	183	283	317	6.2	37.6	Standard
BM 8260	8	260	200	120	260	182	295	338	7.2	39.5	Standard
BM 12165	12	165	135	70	331	183	247	279	6.8	39.6	Standard