

PNB 12700 (12V70AH/C₂₀)



(Power Newmax AGM Battery)



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

AGM, VRLA for UPS, Telecommunication

"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 gassing. This series can be used for UPS, telecommunications, lighting systems and more.

Plate	Paste type
Battery type	Sealed and Maintenance free operation
Structure	Nonspillable construction design
Container/cover	Special ABS resin (Optional Flame retardant, UL94-V0)
Safety	Safety valve installation for explosion proof.
High quality and high reliability and low self discharge characteristic	
Exceptional deep discharge recovery performance	
Micro-porous Absorptive Glass Mat. Separator (Electro-suspension electrolyte)	

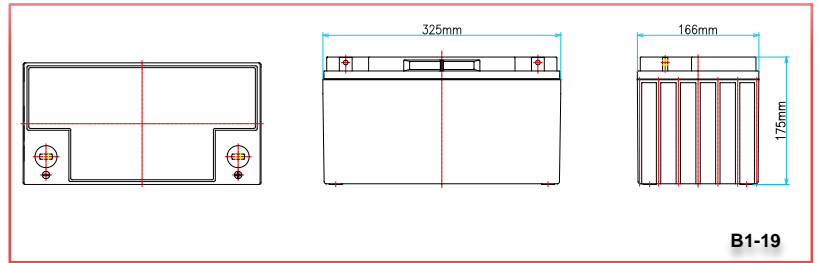
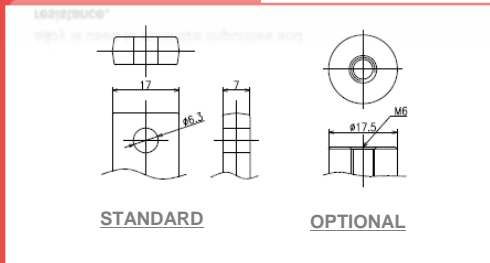
01 Long Life 02 Maintenance Free 03 Leak Free 04 Safety

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.

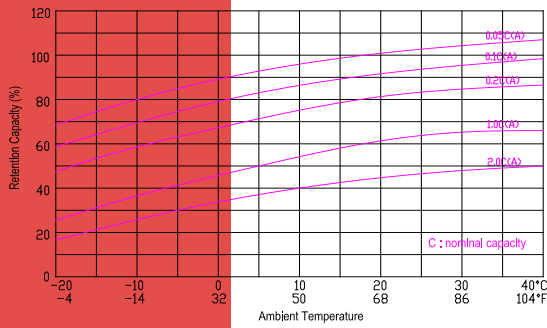
Ultra-Porous Absorptive Glass Mat stores the electrolyte between the lead plates. Air-tight sealed container makes it leak free.

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

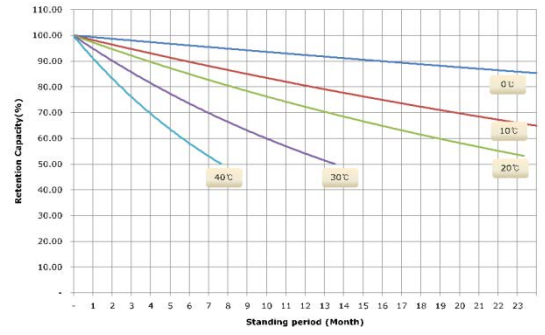


Battery model	PNB 12700 (12V70AH / 20 HOUR RATE)			
Rated Capacity (@25°C)	20HR (1.80VPC)	10HR (1.80VPC)	5HR (1.70VPC)	1HR (1.60VPC)
	70Ah	65Ah	59Ah	42Ah
Dimensions (mm/inch)	Length	Width	Height	Total Height
	325(12.80)	166(6.54)	175(6.89)	175(6.89)
Weight	21.1kg (46.5lbs)±5%			
Internal resistance	6.20 mΩ±10% (@25°C, 77°F)			
Max. discharge current (5sec)	520 A	Max. discharge current (continuous)		195A
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)	1300 A			
Recommended Charging (25°C)	Cycle use		Floating use	
	2.40~2.50V/cell (±5.5mV/°C/Cell) / 26.0A max.		2.21~2.23V/cell (±3.3mV/°C/cell)	

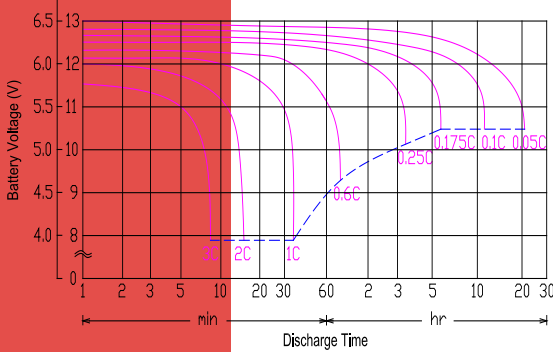
Effect of temperature on capacity



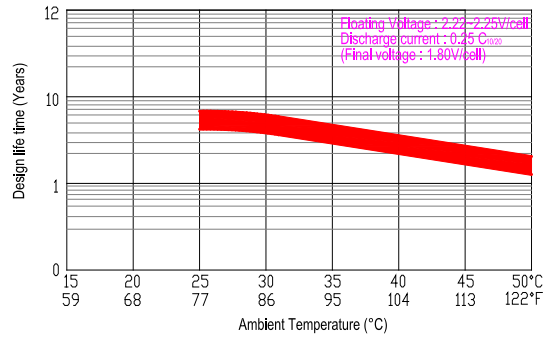
Self discharge



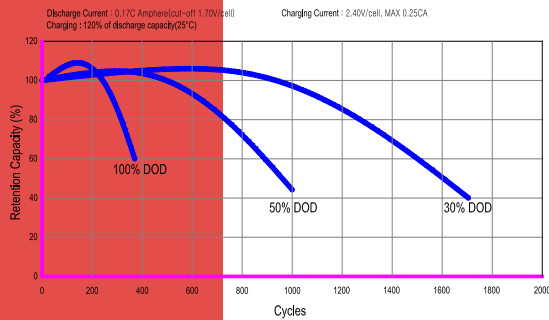
Discharge time vs current



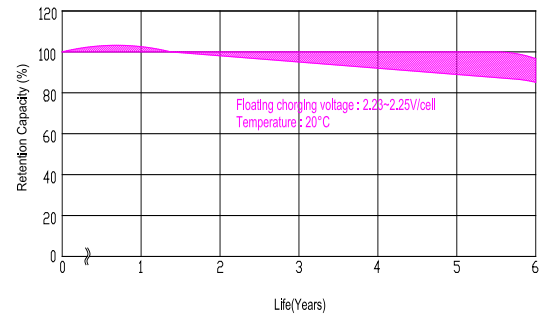
Floating life characteristics



Cycle life vs DOD %



Floating life for capacity characteristics



Constant current discharge ratings – Amperes per cell @ 25C

V/cell	Minutes						Hours					
	5	10	15	20	30	40	1	3	5	8	10	20
1.90V	125	105	98.1	80.0	66.4	56.6	40.6	16.3	10.3	7.1	6.0	3.3
1.85V	149	124	113	91.7	73.9	63.1	41.6	16.9	10.7	7.4	6.3	3.4
1.80V	174	138	121	97.2	75.9	65.0	41.9	17.6	10.9	7.7	6.5	3.6
1.75V	188	146	126	100.1	77.5	66.9	42.2	18.2	11.2	7.9	6.6	3.6
1.70V	203	153	131	102.1	78.5	67.5	42.4	18.5	11.8	8.1	6.9	3.8
1.65V	209	156	133	103.9	79.3	67.7	42.6	19.2	12.0	8.5	7.2	3.9
1.60V	215	159	134	104.7	79.4	67.8	42.9	19.5	12.4	8.6	7.3	4.0

Constant power discharge ratings – Watts per cell @ 25C

V/cell	Minutes						Hours					
	5	10	15	20	30	40	1	3	5	8	10	20
1.90V	243	203	190	155	131	111	80	32	20.2	14.2	12.1	6.6
1.85V	290	240	219	178	146	124	82	33	21	14.8	12.6	6.9
1.80V	338	267	235	189	149	128	83	35	22	15.3	13.0	7.2
1.75V	364	282	245	194	153	132	83	36	22	15.7	13.3	7.3
1.70V	393	296	253	198	155	133	84	36	23	16.3	13.8	7.5
1.65V	406	303	257	202	156	133	84	38	24	16.9	14.3	7.8
1.60V	417	309	259	203	156	134	85	38	24	17	14.7	8.1

