



NorthBaH

Power for Life

AGM BATTERIES FOR GENERAL USE



Our company ranks amongst the leaders in energy solutions companies in Greece, currently expanding in the global market. Northbatt specializes in batteries for industrial applications. (i.e. batteries for motive and reserve power).

Having four decades of experience, Northbatt is committed to provide the most efficient solutions to cover its customer's industrial needs, giving power to people's life. Our company has long-lasting collaborations, high quality product standards and comprehensive after-sales technical support, offering solutions for batteries, chargers and all the relevant equipment. Our products are designed to satisfy the needs for the following applications like industrial vehicles, forklifts, solar & renewable energy sources, IT information technology, utility networks, telecommunications, UPS, marine, etc. We proudly welcome you to our battery and energy solutions family!





FEATURES AGM > VRLA

- **Sealed Maintenance Free:** No need for checking Electrolyte level and topping throughout its life. Sealed Construction ensures no leakage or seepage of electrolyte from terminal or casing.
- **Free From Orientation Constraints:** The sealed construction with immobilised electrolyte allows the battery to be installed in any position, horizontal vertical sideways – without any effect on its performance.
- **Eco Friendly:** The unique gas recombination technology effectively nullifies generation of gas during normal use, It is totally eco – friendly, ensuring clean and safe environment.
- **Good Service Life:** Between 8 to 12 Years life for small and medium monoblock range depending on cyclic / float applications.
- **Low self Discharge :** very low Self discharge as compared to conventional flooded batteries.
- **Charge Retention & Recovery:** Excellent charge retention and recovery ability due to special design of plates and separat with an absolutely balanced electrolyte
- **Superior High Rate Discharge:** Very Low internal resistance and very high electrolyte – active material reactive interface – allows very high currents for short and medium duration.
- **High Reliability:** Tough construction and heavy duty design with superior corrosion resistant lead calcium tin alloy.

BENEFITS AGM > VRLA

- **Saving of manpower for regular topping up and cleaning corroded terminals** as in conventional batteries.
- **Battery can be installed inside offices and working areas** – no need for separate battery rooms , costly acid proof flooring etc. Battery can be installed in a cabinet also.
- **No need for elaborate air exhaust systems** as in conventional battery installation.
- **Saving from transmission loss – Higher efficiency**
Lower electricity consumption Lower cost cabling
- **Can be stored for 3 to 6 Months** , depending upon ambient temperature before recharge and without any loss of efficiency or performance .
- **Very long shelf life**
- **Leads to greatly improved ability to recover from deep discharge**
- **Required smaller capacity (as compared to flooded batteries)** for high rate discharges up to 15mins/30mins/60mins duration
- **Lower size, lower space requirement.**

APPLICATIONS

STANDBY POWER



UPS System



Telecommunication System



Fire Alarm & Security System



Power Plants & substations



Railway Signalling

PORTABLE POWER



Search Light



Marine & Offshore Equipment



Solar Lanterns



Medical ElectroniCS

GENERAL APPLICATION

BATTERY TYPE	V	AH	DIMENSIONS				max. Charge Current	Recom. max. Discharge Current (5 sec)	WEIGHT	TERMINALS	
			L	W	H	T.H				TYPE	LAYOUT
			(mm)				A	A	(Kg)		
		C10							8-9 Years Lifetime		
1.3-6	6	1,3	97	24	52	58	0,39	12	0,28	FI	C
3.2-6	6	3,2	134	34	61	67	0,96	32	0,61	61	C
4.5-6	6	4,5	70	47	101	107	1,35	45	0,71	71	B
7.0-6	6	7	151	34	94	100	2,10	70	0,98	98	C
12.0-6	6	7	151	50	94	100	3,60	120	1,75	75	C
3.2-8	8	3,2	134	36	63	69	0,96	32	0,61	FI	E
1.3-12	12	1,3	97	43	52	58	0,39	13	0,56	FI	E
2.3-12	12	2,3	178	35	61	67	0,69	23	0,88	FI	C
3.3-12	12	3,3	134	66	62	67	0,99	33	1,23	23	E
5.0-12	12	5	90	70	101	107	1,50	50	1,56	FI, F2	C
6.0-12	12	6	151	50	96	101	1,80	60	1,80	FI	F
7.0-12	12	7	151	65	95	101	2,10	70	2,05	FI, F2	F
7.2-12	12	7,2	151	65	95	101	2,16	72	2,22	FI, F2	F
7.5-12	12	7,5	151	65	94	100	2,25	75	2,60	F2	F
9.0-12	12	9	151	65	95	101	2,70	90	2,60	FI, F2	F
12-12	12	12	151	98	95	101	3,60	120	3,46	FI, F2	F
18-12	12	18	181	76	167	167	5,40	180	5,03	M5	D
26-12	12	26	166	175	125	125	7,80	260	7,92	M5	D
		C10							10-12 Years Lifetime		
33-12	12	33	195	130	163	168	9,90	330	9,55	M6-B	C
40-12	12	40	197	165	170	170	12,00	400	12,52	M6-B	C
55-12	12	55	230	138	208	211	15,50	550	16,12	M6-B	C
65-12	12	65	350	167	179	179	19,50	650	20,45	M6-B	c
75-12	12	75	260	168	211	214	22,50	750	22,15	M6-B	C
80-12	12	80	350	166	179	179	24,00	800	23,05	M6-B	c
100-12	12	100	330	171	214	220	30,00	1.000	28,55	M6-B	c
120-12	12	120	407	176	225	225	36,00	1.200	34,00	M8	c
150-12	12	150	485	172	240	240	45,00	1.500	43,00	M8	c
200-12	12	200	522	240	218	223	60,00	2.000	58,10	M8	E

Advantage : International size - Matches dimension of any International equipment.
High Rate performance - matches or betters High Rate performance of equivalent international types.



Power for Life

CHARGE LIMITS



Table (2) shows the charge voltage and limit current. The charge voltage of the battery has to be reduced with increasing temperature and increased with decreasing temperature. Accordingly, charging with a given voltage requires increased charge current when the temperature is high and reduced charge current at a lower temperature.

- a) Even under high temperature, a charging voltage of 2.2V/cell is required.
- b) Even under low temperature, the charging voltage must be set at less than 245V/cell so as to prevent gas generation from the battery.
- c) The battery life will be shortened as service temperature rises.

CHARGER



'Constant Potential' charges with current limit facility only, are recommended for normal continuous operation.

CHARGE PARAMETERS



Recharge Voltages : Batteries to be recharged in CC-CV mode only.

TABLE 2

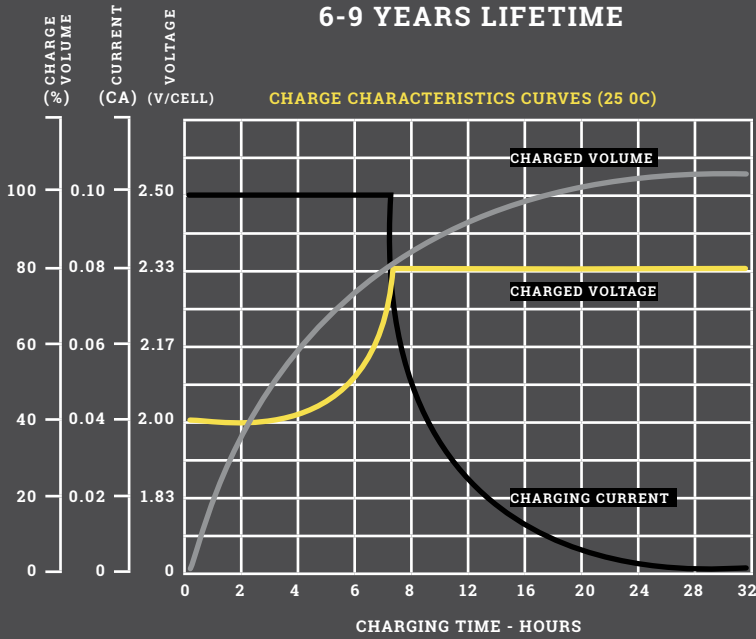
Mode of Operation	Voltage setting per 12 V unit for ambient temperature 20 -30°C	Current Setting
Float	13.7V +/- 0.1V	Maximum : 0.3CA Minimum : 0.1CA
Cyclic	14.7V +/- 0.1V	

Temperature Compensation:
(Reference 25°C)
Float: -18mV/°C /12V Unit
Cyclic: -30mV/°C/12V Unit

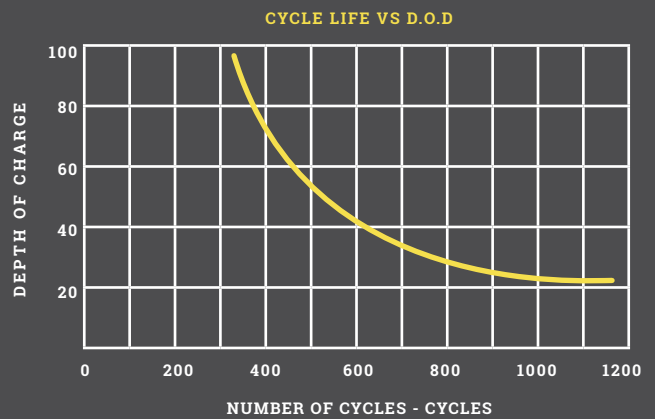
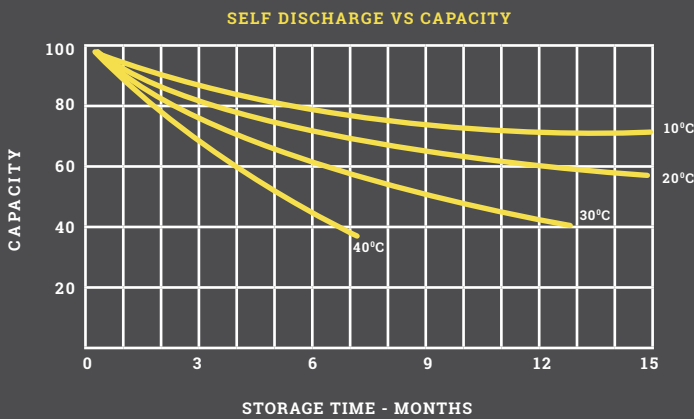
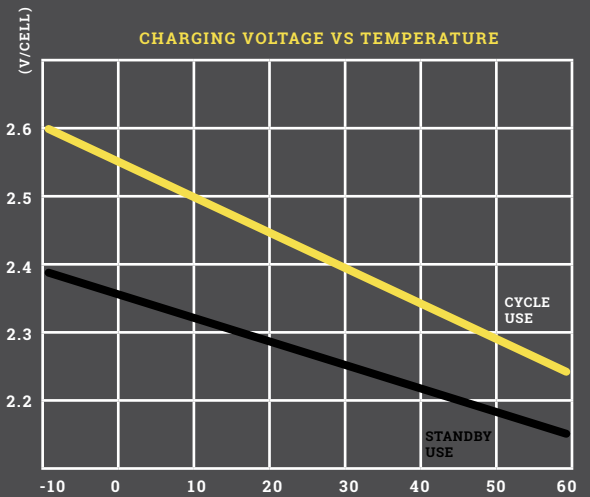
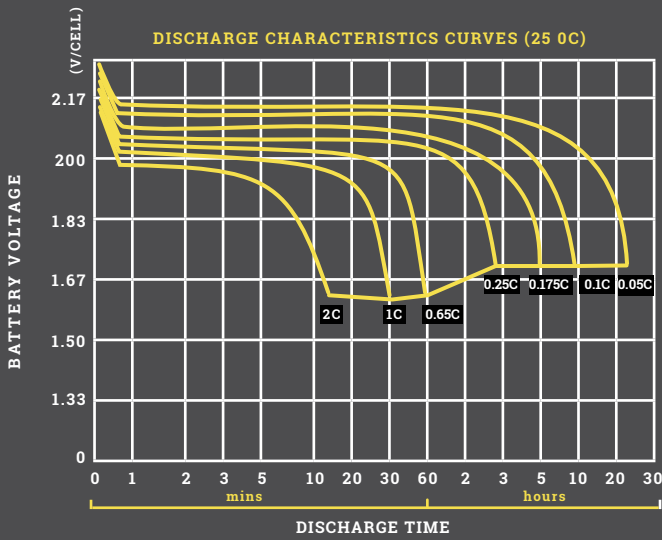
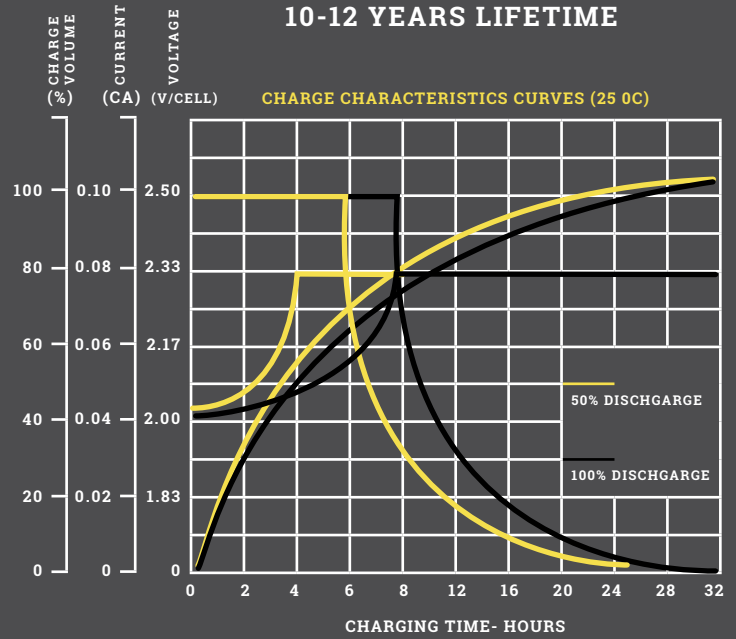


PERFORMANCE CURVES

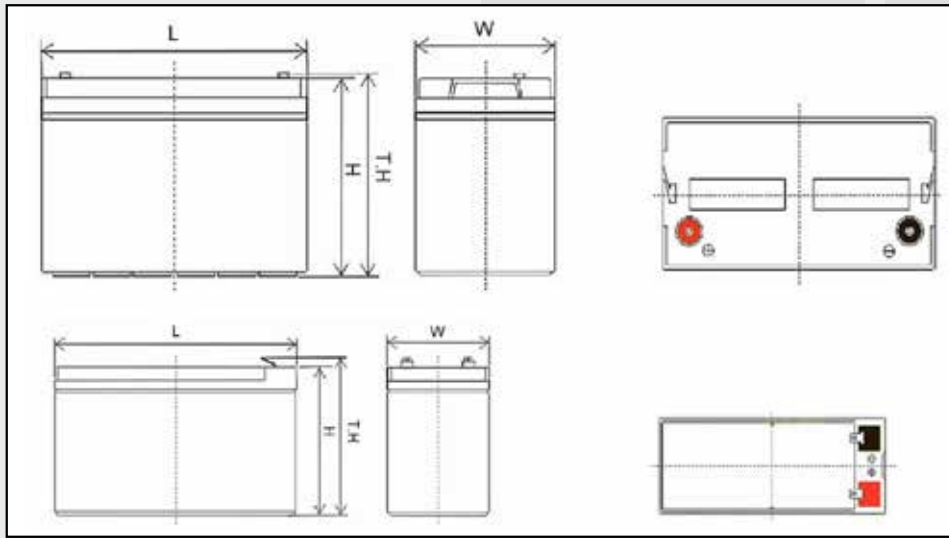
6-9 YEARS LIFETIME



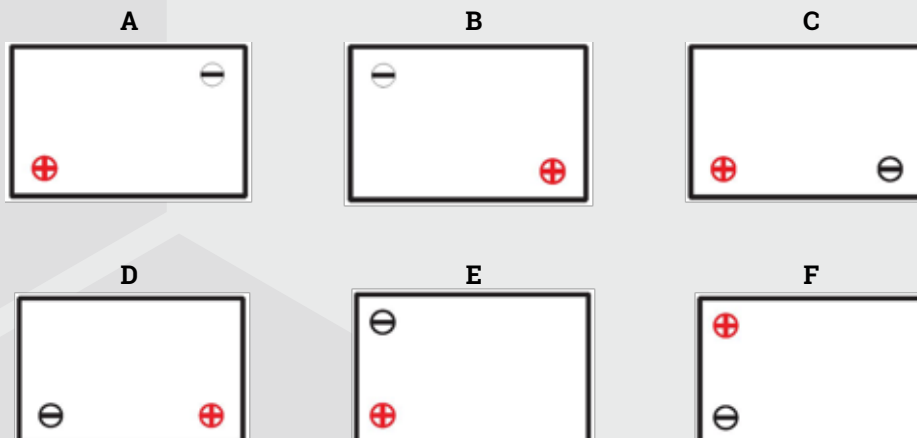
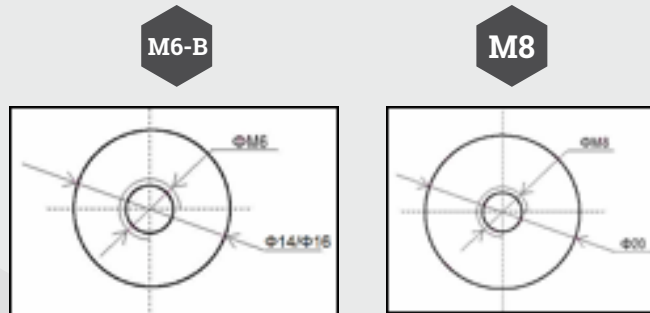
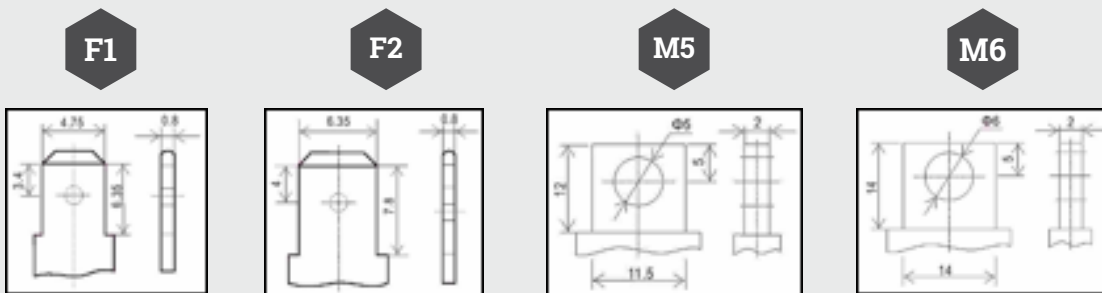
10-12 YEARS LIFETIME



BATTERY DIMENSIONS



TERMINAL TYPES - LAYOUTS



TERMINAL TYPE

TERMINAL LAYOUT

NorthBa

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