

General Use AGM

40-12

NorthBa 
Power for Life

SPECIFICATIONS

Nominal Voltage	12V
Dimensions	
Length	197 mm
Width	165 mm
Container Height	172 mm
Total Height	172 mm
Weight	12,5 Kg
Terminal	M6
Max Charging Current	10,0 A
Operating Temperature	Charge : -20 to +50 °C Discharge : -20 to +50 °C Storage : -20 to +50 °C
Container Material	ABS UL 94 HB ABS UL 94 V-0 on request

Capacity @ 25 °C	
10 hr @ 1.75V F.V	40,90 Ah
5 hr @ 1.65V F.V	38,00 Ah
1 hr @ 1.60V F.V	25,45 Ah
Short Circuit Current	1290 A
Self Discharge	<3% per month
Internal Resistance (25 °C)	9,3 mΩ
Charging Voltage (25 °C)	
Float Charging	13,5 to 13,8 V/block (-18mV/°C/cell)
Constant Charge @ 0,1C / Cycling Charging	14,1V / 14,4 to 15,0 V per block (-30mV/°C/cell)

GENERAL INFORMATION

NORTHBATT General Use AGM series is designed for both stand-by or cyclic applications. It incorporates the latest AGM VRLA technology and excellent know-how. It is tested according to international standard IEC 60896-21, complies to defined requirements of IEC 60896-22, and classified for 7-26AH as 10 Years Lifetime & for >33AH as "Long Life" 10-12 Years Lifetime according to the EUROBAT 2015 guide.

The unique construction and sealing techniques of General Use AGM series guarantee leak proof operation in any position, with no adverse effect to capacity or service life. The positive plates are made of a grid frame of heavy duty lead-tin-calcium alloy and active material of porous lead dioxide. The negative plates are made of a grid frame of lead-tin-calcium alloy as well and with active material of spongy lead. Plate separators are made of non-woven fabric of fine glass fibers and are chemically stable in the electrolyte sulfuric acid. The high porosity fully prevents shorting between positive and negative plates. The electrode terminals are protected due to both the structure that secures long adhesive - embedded paths and the use of strong epoxy material. They utilize an electrolyte suspension system consisting a high porosity, glass fiber material, which in conjunction with plates, totally absorbs the electrolyte. The incorporated built-in design controls gas generation and induces recombination of more than 99% of gases generated during float usage. Special safety release valves, designed to operate between 2 and 5 psi automatically reseal, preventing an excessive accumulation of gas inside the battery. The battery case & lid are made of ABS material, shock & vibration resistant and can be also available as flame retardant too.

APPLICATIONS

- UPS/EPS Systems
- Security & Fire Alarm Systems
- Emergency Lighting
- Telecom Power Supply
- Back up Power Supply
- Electronics
- Electric toys
- Medical Electronics
- Weighting Scales & Cash Registers

DISCHARGE PERFORMANCE (25 °C)

A

CONSTANT CURRENT DISCHARGE DATA (Amperes @ 25 °C)											
F.V.	10min	15min	30min	45min	1h	2h	3h	5h	8h	10h	20h
1,60 V	90,91	68,69	41,41	32,12	25,45	15,76	11,31	7,60	4,99	4,20	2,16
1,65 V	88,18	65,25	40,71	31,72	25,35	15,56	11,21	7,54	4,95	4,17	2,13
1,70 V	87,47	64,55	40,00	31,31	25,15	15,35	11,01	7,45	4,91	4,12	2,10
1,75 V	84,04	63,84	39,70	31,11	24,85	15,15	10,91	7,37	4,87	4,09	2,07
1,80 V	78,08	58,38	37,98	29,90	24,14	14,85	10,81	7,16	4,83	4,04	2,04

W

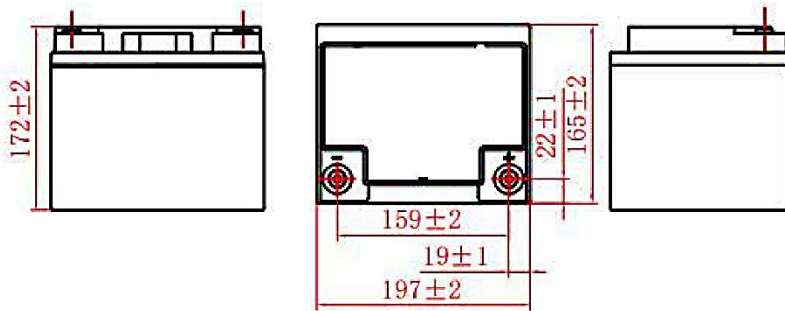
CONSTANT POWER DISCHARGE DATA (Watts per cell @ 25 °C)											
F.V.	10min	15min	30min	45min	1h	2h	3h	5h	8h	10h	20h
1,60 V	159,60	123,23	74,55	59,39	48,59	30,61	21,92	14,75	9,71	8,19	4,23
1,65 V	154,55	117,17	73,23	58,69	48,38	30,20	21,72	14,65	9,66	8,13	4,18
1,70 V	153,54	116,16	72,02	57,98	48,08	29,80	21,31	14,44	9,60	8,04	4,12
1,75 V	147,47	115,15	71,41	57,58	47,47	29,39	21,21	14,24	9,52	7,98	4,06
1.80 V	136.36	105.05	68.38	55.35	46.06	28.79	21.01	13.94	9.41	7.88	4.00

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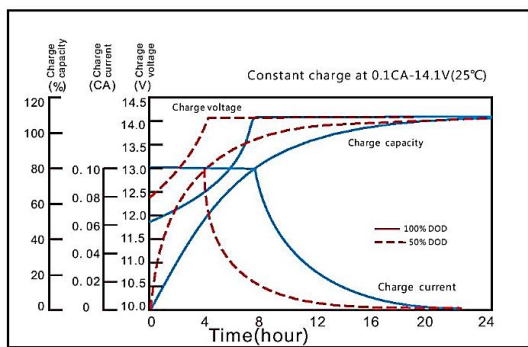
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DIMENSIONS - TERMINALS

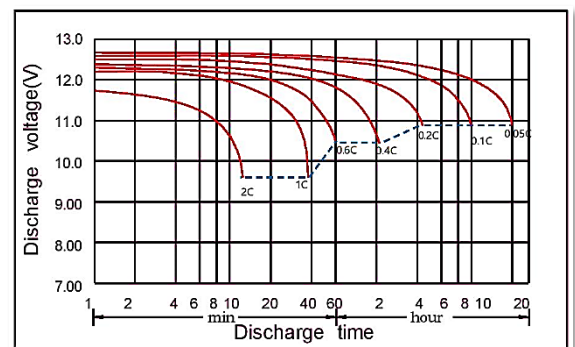


PERFORMANCE CURVES

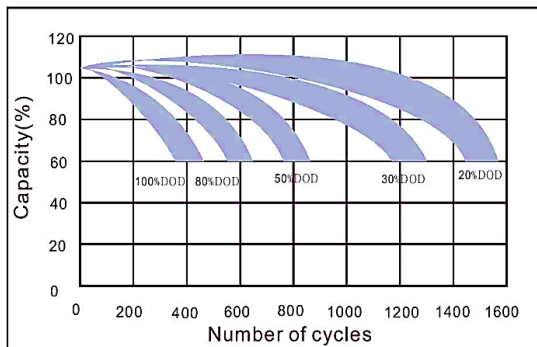
Charge characteristic Curve



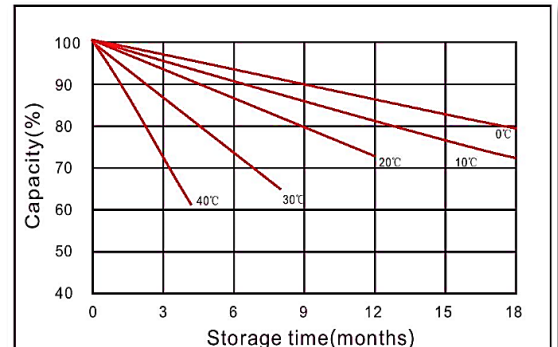
Discharge characteristic Curve



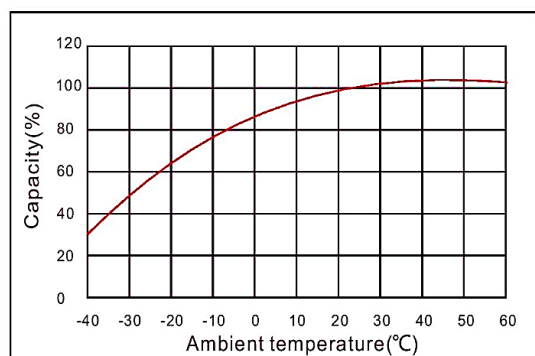
Discharge Depth vs Cycle Life



Storage characteristic



Temperature vs Capacity



O.C.V. vs Capacity

