



Durable AGM VRLA Battery

GB12 Series

12V
Voltage

AGM
Technology

VRLA
Battery

CSBattery GB series batteries are designed to have a large amount of stored current discharged between charging sessions, with very heavy non-porous battery plates to withstand repeated major discharging and charging cycle (deep cycle). The CSBattery durable AGM battery uses a different chemistry for the plates active paste material, and a slightly stronger electrolyte than normal battery electrolyte, thus the GB range features 30% higher cyclic life with 10 years of float life when compared to the standard Duration range.



COMPLIED STANDARDS



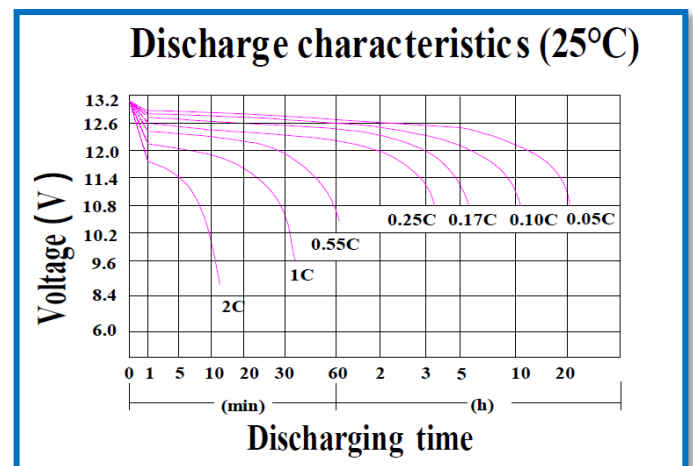
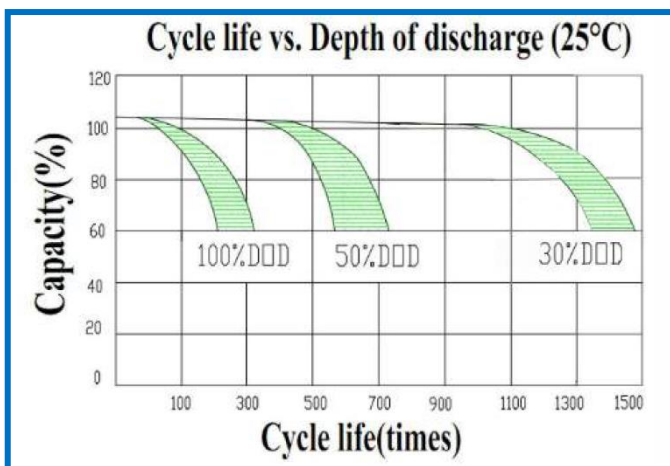
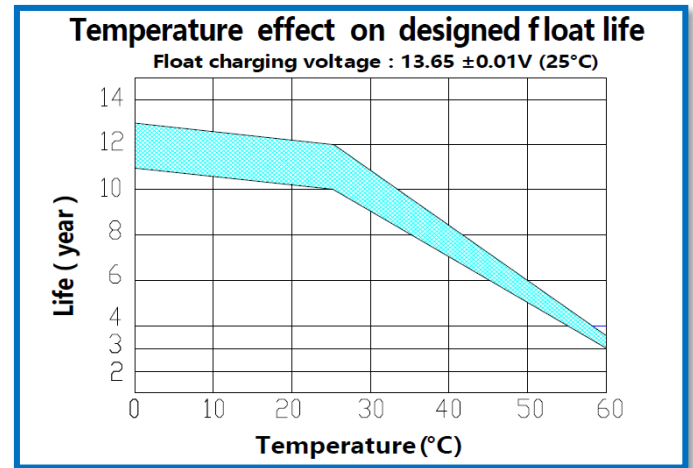
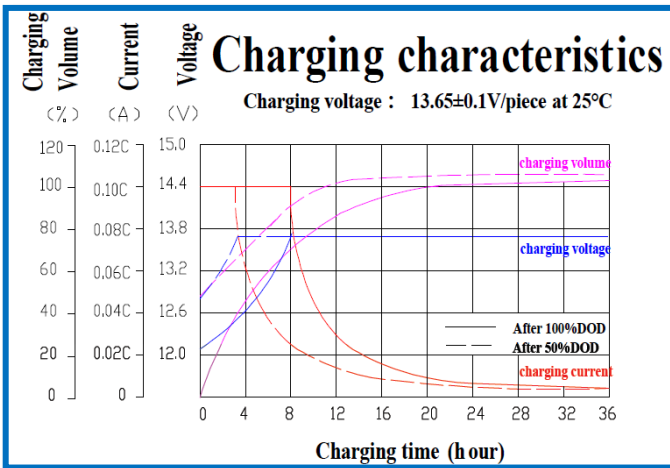
Applications

- Telecom Control Equipment
- UPS system
- Solar & Wind energy system
- Emergency Power Systems

General Features

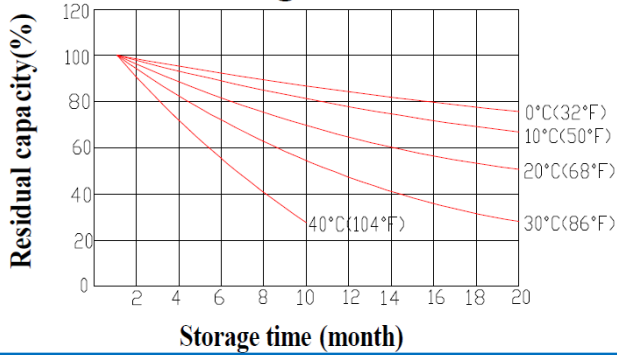
- 30% more cyclic life through innovation at the PAM additives
- Long life expectancy of 10 years in floating condition
- Thick flat plate with high Tin low Cadium alloy
- Excellent deep discharge recovery capability
- Deep cycle performance: up to 500 cycles @80% DOD

Performance Characteristics

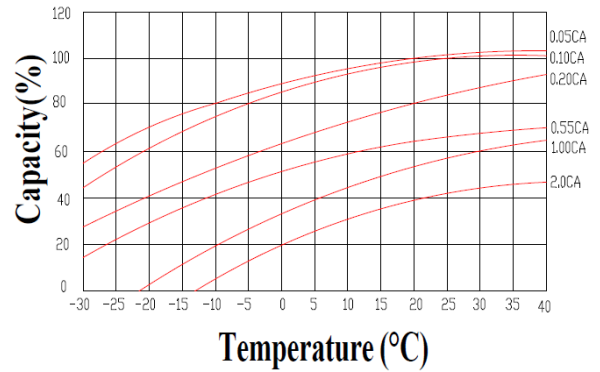




Temperature effect on battery self-discharge



Temperature effect on capacity



GB12 Parameter

Nominal Voltage		12V(6 Cells Per Unit)
Design Floating Life @25°C		10 Years
Nominal Capacity @25°C(10 hour rate@1.8V)		100%C (Ah)
Capacity @25°C	20hour rate (1.8V)	111%C (Ah)
	5 hour rate (1.8V)	91.5%C(Ah)
	1 hour rate (1.75V)	66.5%C(Ah)
Internal Resistance	Full Charged Battery@25°C	≤0.02 *C(mΩ)
Ambient Temperature	Discharge	-15°C~45°C
	Charge	--15°C~45°C
	Storage	-15°C~45°C
Max.Discharge Current@25°C		6C (5s)
Capacity affected by Temperature (10 hour)	40°C	105%
	25°C	100%
	0°C	85%
	-15°C	65%
Self-Discharge@25°C per Month		3%
Charge (Constant Voltage) @25°C	Standby Use	Initial Charging Current Less than C*0.25A Voltage 13.6-13.8V
	Cycle Use	Initial Charging Current Less thanC*0.25A Voltage 14.4-14.9V

Battery Construction

Component	Positive plate	Negative plate	Container &Cover	Safety valve	Terminal	Separator	Electrolyte	Pillar seal
Features	Thick high Sn low Ca grid with special paste	Balanced Pb-Ca grid for improved recombination efficiency	ABS (UL94-V0)	Flame Si-Rubber and aging resistance	Female Copper Insert M8	Advanced AGM separator for high pressure cell design	Dilute high purity sulfuric acid	Two layers epoxy resin seal



GB12 30 items 12V Capacity 15Ah upto 300AH

Model	Nominal Voltage (V)	Capacity (Ah)	Dimension (mm)				Net Weight kgs	Gross Weight kgs
			Length	Width	Height	Total Height		
GB12-15	12	15/10HR	152	99	96	102	3.8	4
GB12-18	12	18/10HR	181	77	167	167	5.2	5.4
GB12-20	12	20/10HR	181	77	167	167	6	6.2
GB12-24	12	24/10HR	166	126	174	174	7.7	7.9
GB12-26	12	26/10HR	166	175	126	126	8.3	8.6
GB12-33	12	33/10HR	196	130	155	167	10	10.3
GB12-38	12	38/10HR	198	166	172	172	12.3	12.6
GB12-45	12	45/10HR	198	166	174	174	13	13.3
GB12-50	12	50/10HR	229	138	208	212	15.5	16
GB12-55	12	55/10HR	229	138	208	212	16.2	16.7
GB12-65	12	65/10HR	350	167	178	178	20.5	21
GB12-70	12	70/10HR	350	167	178	178	21.5	22
GB12-75	12	75/10HR	260	169	211	215	22	22.5
GB12-80	12	80/10HR	260	169	211	215	23.5	24
GB12-85A	12	85/10HR	331	174	214	219	25	25.5
GB12-90	12	90/10HR	307	169	211	216	26.5	27
GB12-100	12	100/20HR	307	169	211	216	27	27.5
GB12-100A	12	100/10HR	331	174	214	219	29	29.5
GB12-120	12	120/20HR	407	173	210	233	33	33.5
GB12-120A	12	120/10HR	407	173	210	233	34	34.5
GB12-135	12	135/10HR	341	173	283	288	41	41.5
GB12-150A	12	150/20HR	484	171	241	241	41	41.5
GB12-150	12	150/10HR	484	171	241	241	44	44.5
GB12-160	12	160/10HR	532	206	216	222	48.5	49
GB12-180	12	180/10HR	532	206	216	222	53	53.5
GB12-200	12	200/20HR	522	240	219	225	56	56.5
GB12-200A	12	200/10HR	522	240	219	225	58.2	58.7
GB12-230	12	230/10HR	522	240	219	225	61	61.5
GB12-250	12	250/10HR	520	268	220	225	70	70.5





GB12 23 items 12V 6V small Capacity

Model	Nominal Voltage (V)	Capacity (Ah)	Dimension (mm)				Net Weight kgs	Gross Weight kgs
			Length	Width	Height	Total Height		
GB6-4.0	6	4/20HR	70	47	101	107	0.7	0.8
GB6-4.5	6	4.5/20HR	70	47	101	107	0.75	0.85
GB6-5	6	5/20HR	70	47	101	107	0.8	0.9
GB6-7.0	6	7.0/20HR	151	34	95	101	1.15	1.25
GB6-10	6	10/20HR	151	50	94	100	1.6	1.7
GB6-12	6	12/20HR	151	50	94	100	1.75	1.85
GB12-4	12	4/20HR	90	70	101	107	1.35	1.45
GB12-4.5	12	4.5/20HR	90	70	101	107	1.48	1.58
GB12-5	12	5/20HR	90	70	101	107	1.58	1.68
GB12-6.5	12	6.5/20HR	151	65	94	100	1.9	2
GB12-7.0	12	7.0/20HR	151	65	94	100	2.05	2.15
GB12-7.2	12	7.2/20HR	151	65	94	100	2.15	2.25
GB12-7.5	12	7.5/20HR	151	65	94	100	2.2	2.3
GB12-9	12	9/20HR	151	65	94	100	2.4	2.5
GB12-10	12	10/20HR	152	99	96	102	3.2	3.3
GB12-12	12	12/20HR	152	99	96	102	3.5	3.6
GB12-15	12	15/20HR	152	99	96	102	3.8	3.9
GB12-18	12	18/20HR	181	77	167	167	5.2	5.4
GB12-20	12	20/20HR	181	77	167	167	6	6.2
GB12-24	12	24/10HR	166	126	174	174	7.7	7.9
GB12-26	12	26/10HR	166	175	126	126	8.3	8.5
GB12-1.3	12	1.3/20hr	97	43	52	58	0.56	0.66
GB12-2.3	12	2.3/20hr	178	35	61	67	0.9	1

