

Valve Regulated Long Life GEL Battery

GB12-50G

CSBattery GBG series pure GEL battery is with 12-15 years floating design life, it is ideal for standby or frequent cyclic discharge applications under extreme environments. By adopting thicker grids, high purity 99.997% lead and patented Silicon Gel electrolyte, GBG series offers excellent recovery performance after deep discharge under frequent cyclic discharge use, and can deliver 1200 cycles at 50% DOD even work in hot or cold area. Suitable for Solar, CATV, marine, RV and deep discharge UPS, communication, and tele communication, etc.

12V
50Ah

GEL
Technology

Loge Life
Battery



Applications

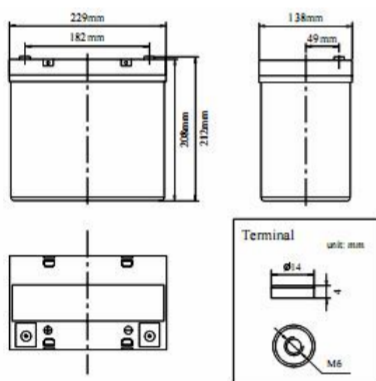
- Telecom Control Equipment
- UPS systems, Inverter
- Power Equipment
- Solar & Wind
- Emergency Power Systems

General Features

- ✓ 30% more cyclic life through innovation at the PAM additives
- ✓ Long life expectancy of 15 years in floating condition
- ✓ Adopts quality silicon nano gel electrolyte
- ✓ Excellent deep discharge recovery capability
- ✓ Deep cycle performance: up to 1200 cycles@50%DOD

Dimensions & Weight

Length(mm/inch)	229/9.02
Width(mm/inch)	138/5.43
Height(mm/inch)	208/8.19
Total Height(mm/inch)	212/8.35
Weight(kg/lbs)(±3%)	16.1/35.5



Technical Specifications

Nominal Voltage		12V(6 cells per unit)
Design Floating Life @25°C		12 Years
Nominal Capacity @25°C(10 hour rate@5.00A,10.8V)		50Ah
Capacity @25°C	20hour rate (2.78A,10.8V)	55.6Ah
	5 hour rate (9.1A,10.5V)	45.5Ah
	1 hour rate (33.3A,9.6V)	33.3Ah
Internal Resistance	Full Charged Battery@25°C	≤8.4mΩ
Ambient Temperature	Discharge	-20°C~60°C
	Charge	-10°C~60°C
	Storage	-10°C~60°C
Max.Discharge Current@25°C		300A (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 12.5A Voltage 13.6-13.8V
	Cycle Use	Initial Charging Current Less than 12.5A Voltage 14.4-14.9V

COMPLIED STANDARDS



Battery Discharge Table

Discharge Constant Current per Cell (Amperes at 25°C)

F.V/Time	15min	30min	45min	1h	2h	3h	5h	8h	10h	20h
1.60V	84.4	52.5	37.7	33.3	20.3	14.8	9.5	5.8	5.20	2.89
1.65V	80.9	51.1	36.7	32.4	19.9	14.6	9.4	5.8	5.15	2.86
1.70V	77.4	49.7	35.7	31.5	19.5	14.3	9.3	5.7	5.10	2.83
1.75V	73.9	48.3	34.7	30.6	19.1	13.9	9.1	5.7	5.05	2.80
1.80V	70.4	46.9	33.7	29.7	18.6	13.6	9.0	5.6	5.00	2.78

Discharge Constant Power per Cell (Watts at 25°C)

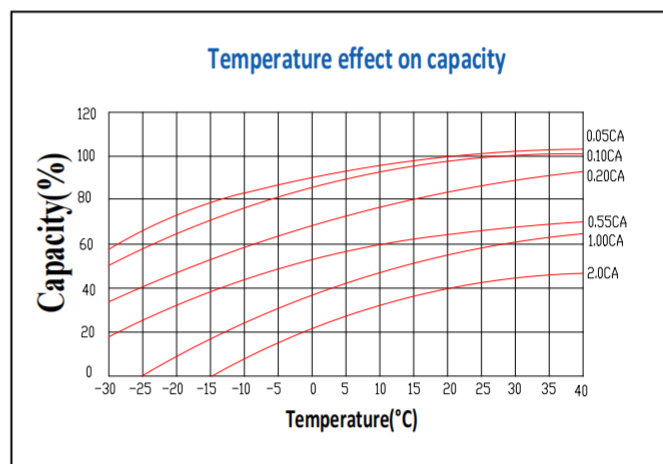
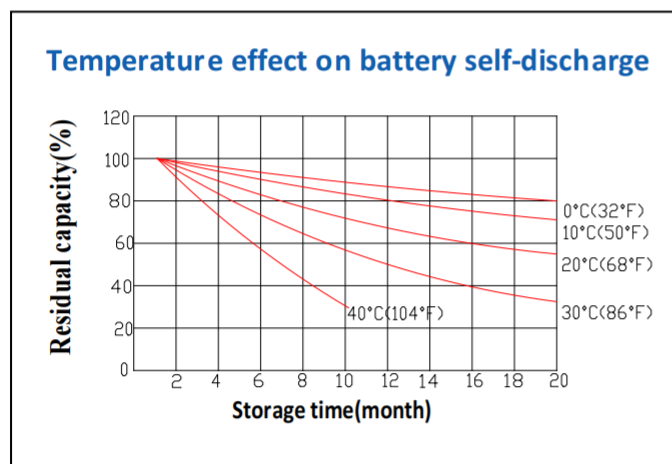
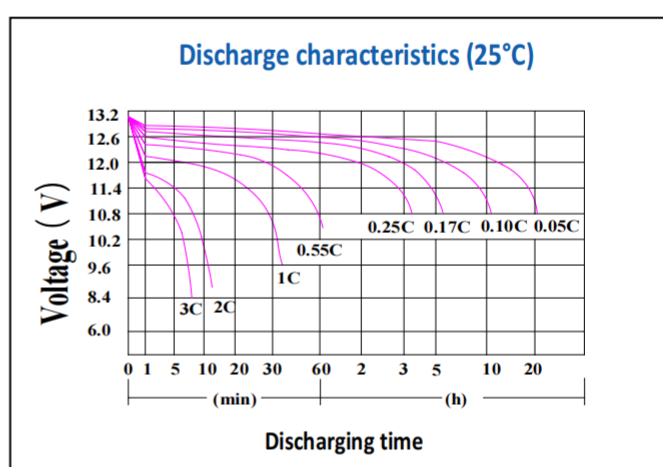
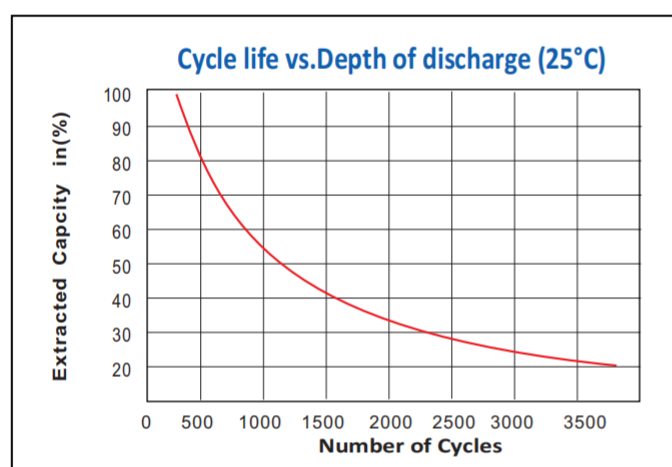
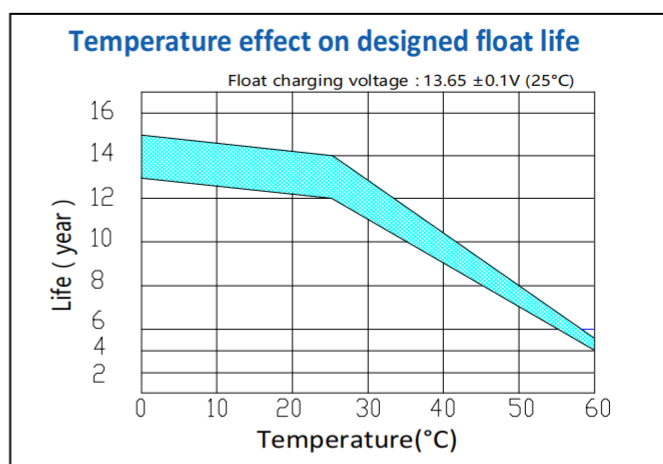
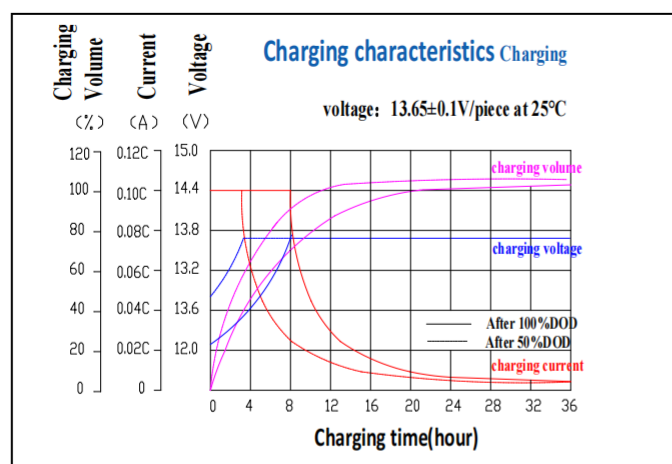
F.V/Time	15min	30min	45min	1h	2h	3h	5h	8h	10h	20h
1.60V	157.4	98.0	70.3	62.0	37.8	27.6	17.8	10.9	9.7	5.4
1.65V	150.9	95.3	68.4	60.4	37.1	27.1	17.5	10.8	9.6	5.3
1.70V	144.3	92.7	66.5	58.7	36.4	26.6	17.3	10.7	9.5	5.3
1.75V	137.8	90.1	64.6	57.1	35.6	26.0	17.0	10.5	9.4	5.2
1.80V	131.2	87.5	62.8	55.4	34.7	25.4	16.8	10.4	9.3	5.2

Note: The above data are average values, and can be obtained within 3 charge/discharge cycles. These are not minimum values. Cell and battery designs/specifications are subject to modification without notice. Contact **CSBattery** for the latest information.

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Performance Characteristics



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	Fire resistance ABS (UL94-V0)	Flame Si-Rubber and aging resistance	Female Copper Insert M8	Advanced PVC /AGM separator for high pressure cell design	Silicon Gel	Two layers epoxy resin seal

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