

Valve Regulated Long Life GEL Battery

GB12-80G

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
80Ah

GEL
Technology

Loge Life
Battery



Applications

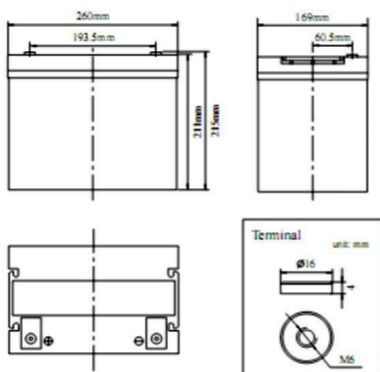
- Telecom Control Equipment
- UPS systems, Inverter
- Power Equipment
- Solar & Wind
- Emergency Power Systems

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) | 260/10.23 |
| Width(mm/inch) | 169/6.65 |
| Height(mm/inch) | 211/8.31 |
| Total Height(mm/inch) | 215/8.46 |
| Weight(kg/lbs)(±3%) | 24/53 |



Technical Specifications

| | | |
|--|----------------------------|--|
| Nominal Voltage | | 12V(6 cells per unit) |
| Design Floating Life @25°C | | 12 Years |
| Nominal Capacity @25°C (10 hour rate@8.00A, 10.8V) | | 80Ah |
| Capacity @25°C | 20hour rate (4.44A, 10.8V) | 88.8Ah |
| | 5 hour rate (14.6A, 10.5V) | 73Ah |
| | 1 hour rate (53.2A, 9.6V) | 53.2Ah |
| Internal Resistance | Full Charged Battery@25°C | ≤6.0mΩ |
| Ambient Temperature | Discharge | -20°C~60°C |
| | Charge | -10°C~60°C |
| | Storage | -20°C~60°C |
| Max.Discharge Current@25°C | | 480A (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 20A Voltage 13.6-13.8V |
| | Cycle Use | Initial Charging Current Less than 20A Voltage 14.4-14.9V |

COMPLIED STANDARDS



Battery Discharge Table

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

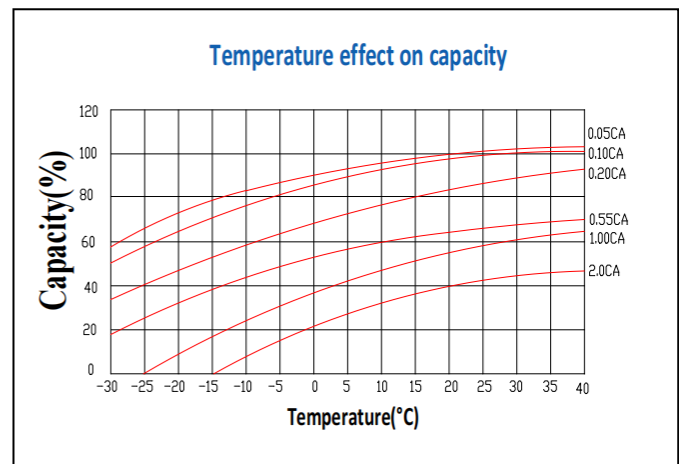
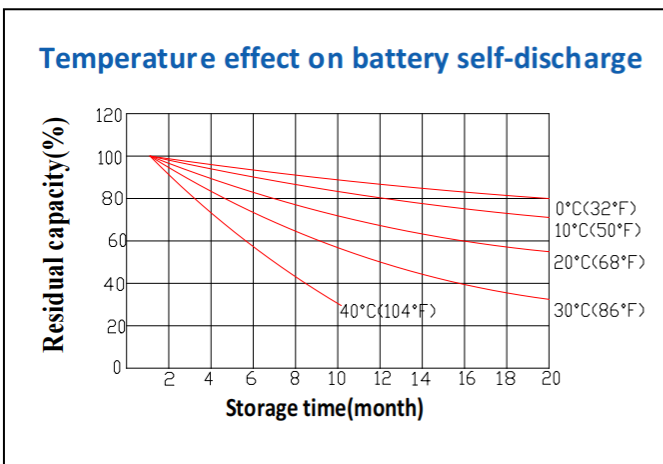
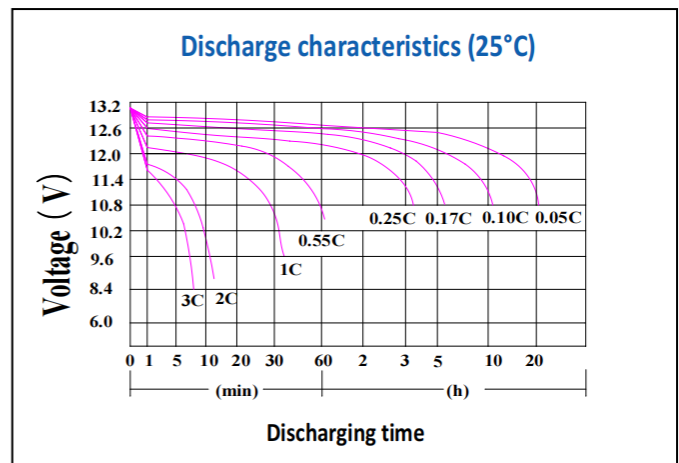
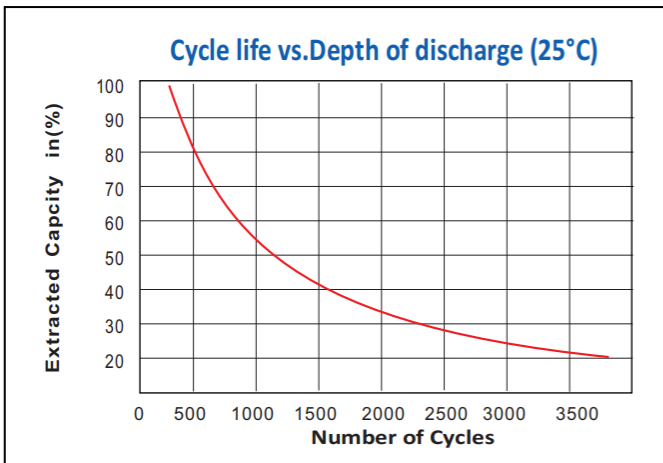
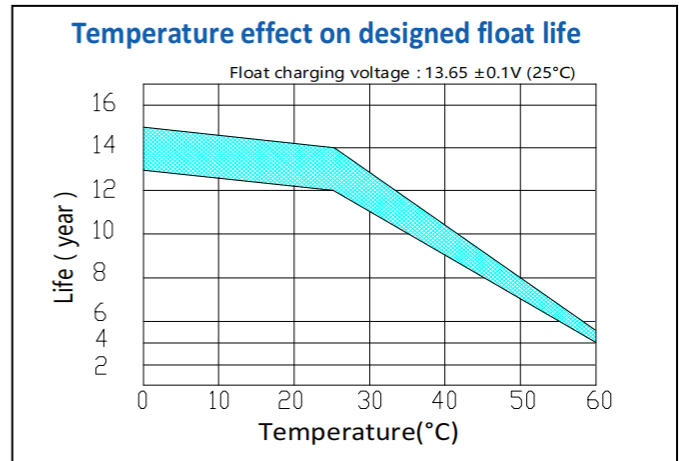
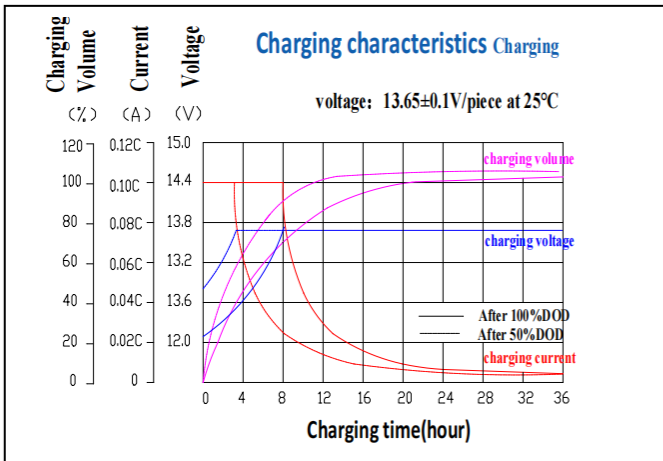
| F.V/Time | 15min | 30min | 45min | 1h | 2h | 3h | 5h | 8h | 10h | 20h |
|----------|-------|-------|-------|------|------|------|------|-----|------|------|
| 1.60V | 135.1 | 84.0 | 60.3 | 53.2 | 32.4 | 23.7 | 15.3 | 9.3 | 8.32 | 4.62 |
| 1.65V | 129.4 | 81.8 | 58.7 | 51.8 | 31.8 | 23.3 | 15.0 | 9.2 | 8.24 | 4.57 |
| 1.70V | 123.8 | 79.5 | 57.1 | 50.4 | 31.2 | 22.8 | 14.8 | 9.1 | 8.16 | 4.53 |
| 1.75V | 118.2 | 77.3 | 55.5 | 48.9 | 30.5 | 22.3 | 14.6 | 9.0 | 8.08 | 4.48 |
| 1.80V | 112.6 | 75.0 | 53.8 | 47.5 | 29.8 | 21.8 | 14.4 | 9.0 | 8.00 | 4.44 |

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

| F.V/Time | 15min | 30min | 45min | 1h | 2h | 3h | 5h | 8h | 10h | 20h |
|----------|-------|-------|-------|------|------|------|------|------|------|-----|
| 1.60V | 251.9 | 156.7 | 112.5 | 99.3 | 60.5 | 44.2 | 28.5 | 17.4 | 15.5 | 8.6 |
| 1.65V | 241.4 | 152.5 | 109.4 | 96.6 | 59.4 | 43.4 | 28.1 | 17.2 | 15.4 | 8.5 |
| 1.70V | 230.9 | 148.3 | 106.4 | 93.9 | 58.3 | 42.6 | 27.7 | 17.0 | 15.2 | 8.4 |
| 1.75V | 220.4 | 144.1 | 103.4 | 91.3 | 56.9 | 41.6 | 27.3 | 16.9 | 15.1 | 8.4 |
| 1.80V | 209.9 | 139.9 | 100.4 | 88.6 | 55.5 | 40.6 | 26.9 | 16.7 | 14.9 | 8.3 |

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.

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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