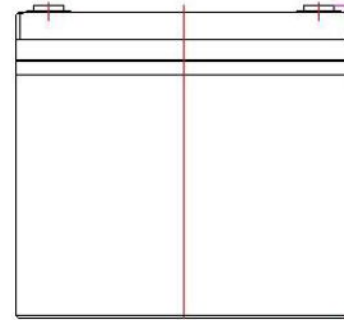


GHL Series GEL Battery

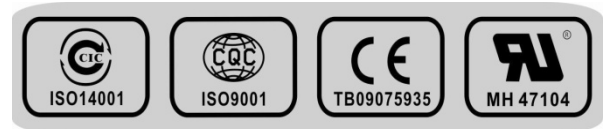
GHL Series – Storage – type Gelled Battery

- Completely sealed and maintenance-free, low self-discharge
- 100% precise quality testing, stable quality and high reliable performance
- Unique grid alloy formula, Gelled electrolyte formula and updated manufacturing technique
- Floating & standby use : up to 12 years
- Cycle use 1 : More than 350 cycles at 100% DOD
- Cycle use 2 : More than 750 cycles at 50% DOD
- Cycle use 3 : More than 1800 cycles at 30% DOD



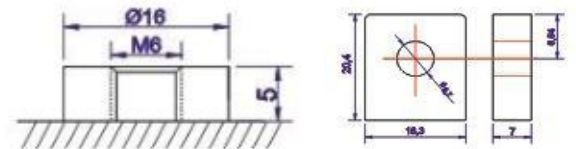
Application :

- Telecommunications
- UPS / EPS
- DC Power Supply
- Solar system
- Wind Power System
- Auto Control System



Construction :

- ComponentRaw material
- PositiveLead dioxide
- NegativeLead
- Container ABS "UL 94 V0"
- Cover ABS "UL 94 V0"
- SealantEpoxy
- Safety valveRubber
- TerminalCopper/Pb
- SeparatorFiber glass
- ElectrolyteGelled acid

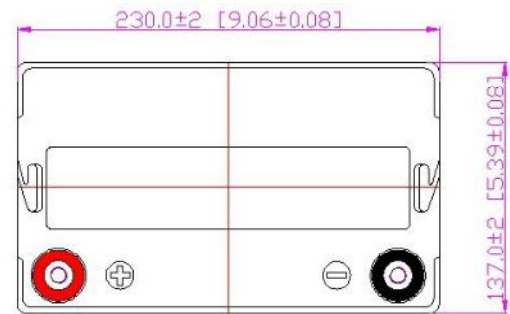
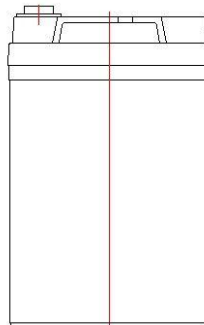
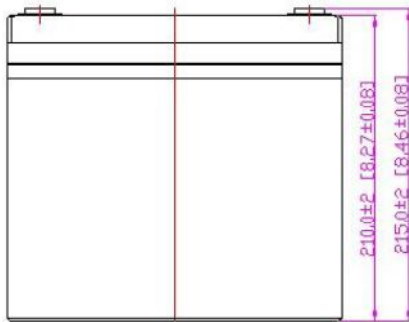


M6 Bolt

B4 Terminal

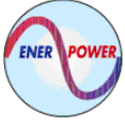
M6 Bolt & Nut

T11 Terminal



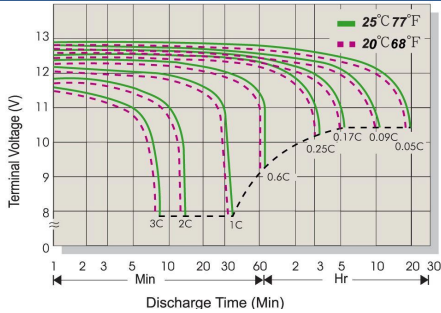
Construction :

| Battery Model | GHL 55-12A 12 V 55 Ah | | | |
|------------------------------------|---|--------------------|----------------------|---------------------|
| Designed Floating Life | Up to 12 Years | | | |
| Capacity (25°C) | 20 hr (2.81A 10,8V) | 10 hr (5.5A 10,8V) | 5 hr (9.05A 10,5V) | 3 hr (13,31A 10,5V) |
| | 60 Ah | 55 Ah | 45.25 Ah | 39.93 Ah |
| Dimensions | Length | Width | Height | Total Height |
| | 230 mm | 137 mm | 210 mm | 215 mm |
| Approx. Weight | 17.5 kg | | | |
| Internal Resistance | Full charged at 25°C : ≤ 9.1 mΩ | | | |
| Self Discharge | 2% of capacity declined per month at 25°C | | | |
| Capacity Affected by Temp. (20 hr) | 40°C | 25°C | 0°C | -15°C |
| | 102% | 100% | 85% | 65% |
| Charge Voltage (25°C) | Cycle Use | | Float Use | |
| | 14,4-14,6V(-30mV/°C) max current 11A | | 13,6-13,8 (-20mV/°C) | |

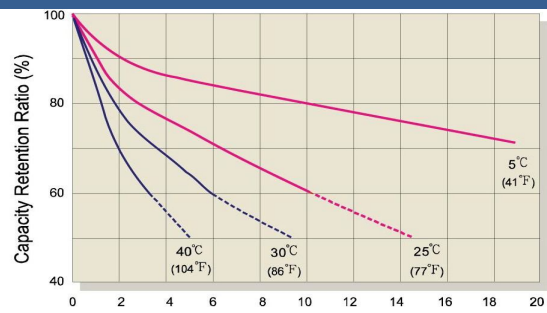


GHL Series GEL Battery

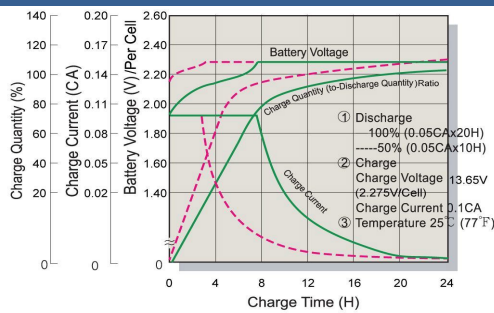
Terminal Voltage(V) and Discharge Time



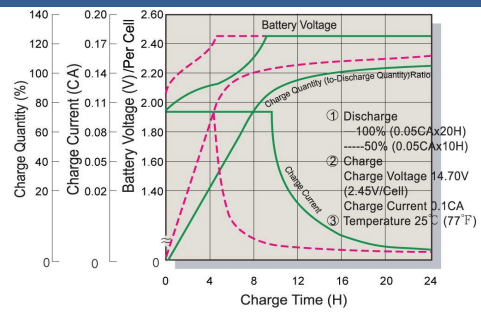
Capacity Retention Characteristic



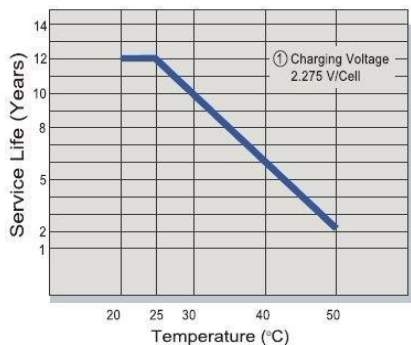
Battery Voltage and Charge Time for Standby Use



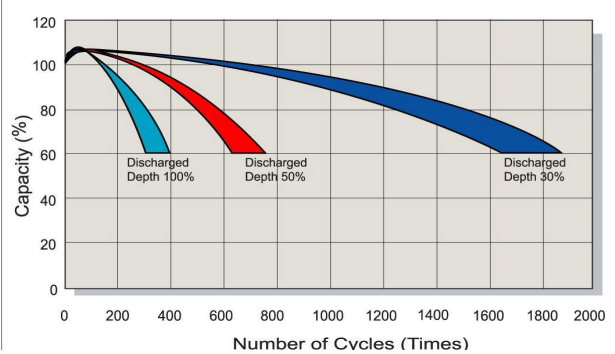
Battery Voltage and Charge Time for Cycle Use



Tickle (or Float) Service Life



Cycle Service Life



Constant Current Discharge (CC, Unit : A) at 25°C

| F.V/Time | 5 min | 10 min | 15 min | 30 min | 1 hr | 2 hr | 3 hr | 4 hr | 5 hr | 6 hr | 8 hr | 10 hr | 20 hr |
|------------|-------|--------|--------|--------|------|-------|-------|-------|------|------|------|-------|-------|
| 1,85V/Cell | 124,3 | 91,6 | 79,5 | 48,0 | 28,2 | 16,64 | 12,39 | 10,45 | 8,60 | 7,92 | 6,34 | 5,28 | 2,69 |
| 1,80V/Cell | 129,0 | 95,0 | 82,5 | 49,8 | 29,4 | 17,34 | 12,94 | 10,89 | 8,96 | 8,25 | 6,60 | 5,50 | 2,81 |
| 1,75V/Cell | 141,9 | 99,8 | 86,6 | 51,8 | 30,6 | 17,86 | 13,31 | 11,00 | 9,05 | 8,33 | 6,66 | 5,56 | 2,83 |
| 1,70V/Cell | 158,7 | 104,5 | 90,7 | 54,3 | 31,2 | 18,19 | 13,57 | 11,11 | 9,14 | 8,41 | 6,73 | 5,61 | 2,86 |
| 1,67V/Cell | 175,5 | 109,3 | 94,9 | 55,7 | 32,4 | 18,70 | 13,97 | 11,22 | 9,23 | 8,50 | 6,80 | 5,66 | 2,89 |
| 1,60V/Cell | 190,1 | 115,0 | 99,8 | 58,1 | 32,7 | 18,90 | 14,13 | 11,34 | 9,34 | 8,59 | 6,88 | 5,72 | 2,92 |

Constant Power Discharge (CP, Unit : W) at 25°C

| F.V/Time | 5 min | 10 min | 15 min | 30 min | 1 hr | 2 hr | 3 hr | 4 hr | 5 hr | 6 hr | 8 hr | 10 hr | 20 hr |
|------------|-------|--------|--------|--------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1,85V/Cell | 236,1 | 173,9 | 151,0 | 91,1 | 53,6 | 31,60 | 23,55 | 19,86 | 16,34 | 15,05 | 12,12 | 10,03 | 5,02 |
| 1,80V/Cell | 245,1 | 180,6 | 156,7 | 94,6 | 55,9 | 33,00 | 24,59 | 20,69 | 17,03 | 15,67 | 12,61 | 10,45 | 5,22 |
| 1,75V/Cell | 269,7 | 189,6 | 164,6 | 98,4 | 58,2 | 33,90 | 25,29 | 20,90 | 17,20 | 15,83 | 12,74 | 10,55 | 5,28 |
| 1,70V/Cell | 301,5 | 198,6 | 172,4 | 103,1 | 59,3 | 34,60 | 25,78 | 21,10 | 17,37 | 15,99 | 12,87 | 10,66 | 5,33 |
| 1,67V/Cell | 333,4 | 207,7 | 180,3 | 105,9 | 61,5 | 35,50 | 26,54 | 21,31 | 17,54 | 16,15 | 13,00 | 10,76 | 5,38 |
| 1,60V/Cell | 361,2 | 218,5 | 189,7 | 110,4 | 62,2 | 35,88 | 26,83 | 21,54 | 17,73 | 16,32 | 13,13 | 10,87 | 5,43 |