

GEL Series Battery

GEL series batteries are designed with AGM separator and GEL deep cycle technology to give Extra-durable cyclic performance at extreme temperature.

GEL series Batteries are designed for 12 years life time floating design life at 25°C.

Meet with IEC, BS, JIS and Eurobat standard.

Application

- * Emergency Power System
- * Communication equipment
- * Telecommunication systems
- * Uninterruptible power supplies
- * Electric toy car and wheelchairs, etc.
- * Power tools
- * Golf cars and buggies
- * Marine equipment
- * Medical equipment
- * Solar and wind power system



General Features

- * Safety Sealing
- * Non-spillable construction
- * High Reliability and Stability
- * Sealed and Maintenance-free
- * Safety and Quality certification
- * Long Life and low self-discharge design

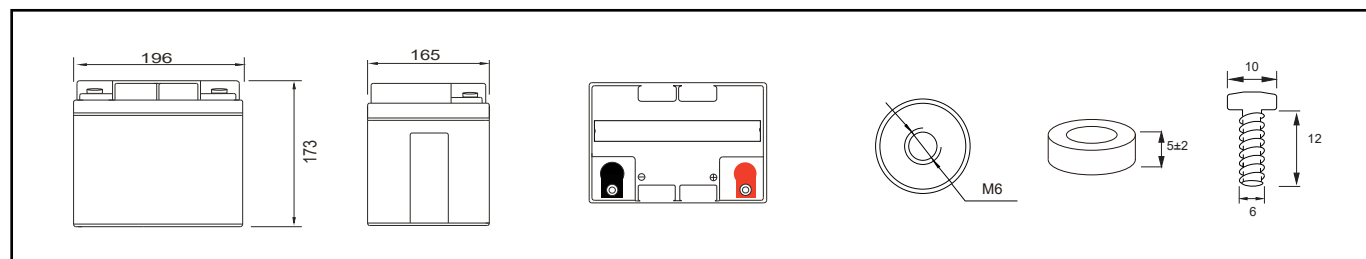
Construction

- * Positive Lead dioxide
- * Electrolyte Silicon dioxide
- * Separator AGM
- * Container ABS(UL94-HB), Flammability Resistance of UL94-V2 can be available upon request
- * Negative Lead
- * Safety Valve EPDR
- * Terminal Copper

Specification

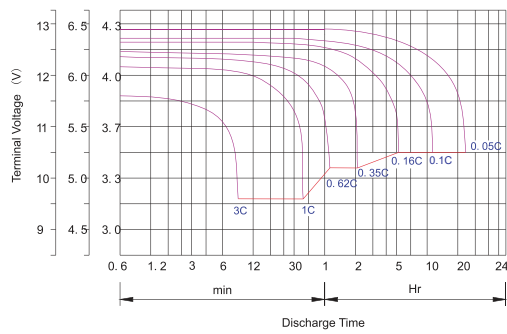
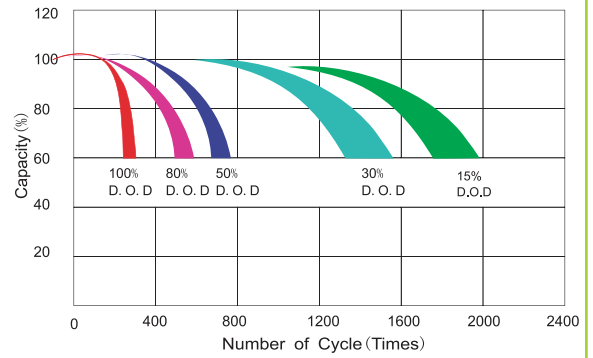
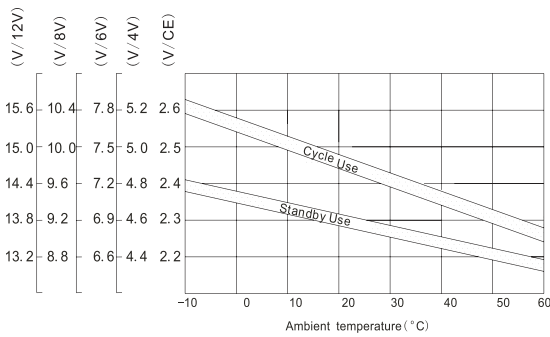
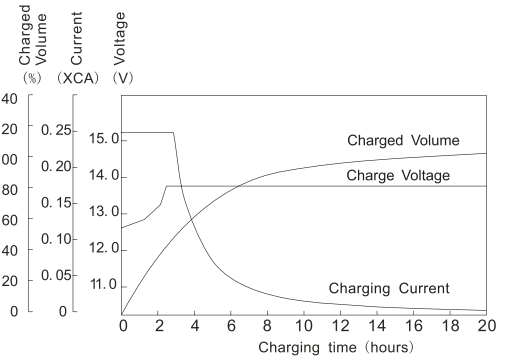
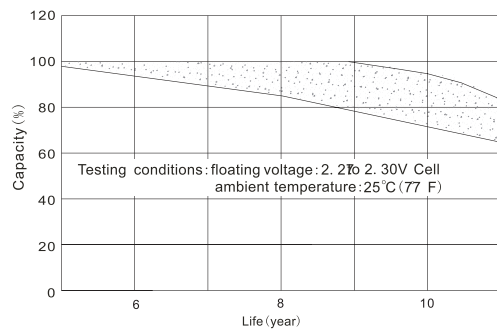
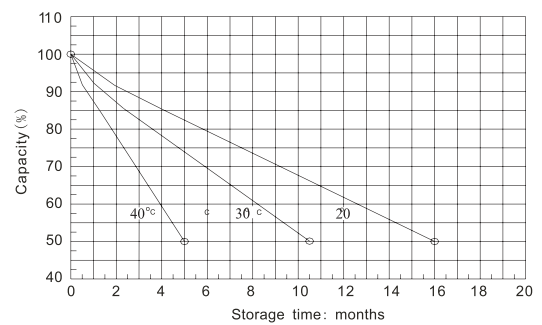
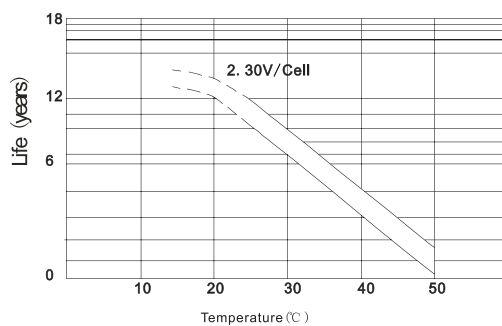
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|-----------------------------------|-------------------------------------------------------|-------------------------|--------------------------|-------------------------|
| Battery Model | Nominal Voltage | | 12V | |
| | Rated capacity (10 Hour rate) | | 40Ah | |
| | Cells Per battery | | 6 | |
| Dimension | Length | Width | Height | Total Height |
| | 196mm (7.71 inches) | 165mm (6.49 inches) | 173mm (6.81 inches) | 173mm (6.81 inches) |
| Approx Weight | 11.80kg(26.01lbs) ± 3% | | | |
| Capacity @ 25°C (77°F) | 10 hour rate(4.0A,10.5V) | 5 hour rate(7.1A,10.5V) | 3 hour rate(10.3A,10.8V) | 1 hour rate(24A,9.6V) |
| | 40Ah | 35.5Ah | 30.9Ah | 24Ah |
| Max.discharge current | 400A (5 Sec.) | | | |
| Internal Resistance | Full charged at 25°C (77°F) : Approx 7.3mΩ | | | |
| Capacity affected by Temp.(10 HR) | 40°C (104°F) | 25°C (77°F) | 0°C (32°F) | -15°C (5°F) |
| | 102% | 100% | 85% | 65% |
| Self Discharge @25°C (77°F) | After 3 months storage | | After 6 months storage | After 12 months storage |
| | 91% | | 82% | 64% |
| Charge method @25°C (77°F) | Cycle Use | | Float Use | |
| | 14.40-15.00V (Initial charging current less than 12A) | | 13.60-13.80V | |

Outer dimension (mm)



Terminal Type (mm)

| Constant Current(Amp) and Constant Power(Watt) Discharge Table at 25°C (77°F) | | | | | | | | | | | | |
|-------------------------------------------------------------------------------|---------|---------|---------|--------|--------|--------|--------|--------|--------|--------|-------|-------|
| F.V/time | 5MIN | 10MIN | 15MIN | 30MIN | 60MIN | 90MIN | 2HR | 3HR | 5HR | 8HR | 10HR | 20HR |
| 1.60V | 128.200 | 96.644 | 73.100 | 47.500 | 24.000 | 17.565 | 14.807 | 10.548 | 7.198 | 5.097 | 4.151 | 2.308 |
| | 237.111 | 184.490 | 141.083 | 94.620 | 47.880 | 35.072 | 29.626 | 21.104 | 14.402 | 10.198 | 8.305 | 4.617 |
| 1.67V | 113.813 | 90.188 | 69.303 | 46.485 | 23.826 | 17.391 | 14.733 | 10.492 | 7.158 | 5.054 | 4.086 | 2.192 |
| | 210.470 | 172.149 | 133.858 | 92.645 | 47.536 | 34.734 | 29.504 | 21.031 | 14.349 | 10.133 | 8.192 | 4.396 |
| 1.70V | 107.739 | 86.961 | 67.594 | 46.079 | 23.652 | 17.374 | 14.696 | 10.466 | 7.157 | 5.003 | 4.034 | 2.134 |
| | 199.280 | 166.095 | 130.659 | 91.838 | 47.246 | 34.713 | 29.442 | 20.984 | 14.349 | 10.036 | 8.093 | 4.281 |
| 1.75V | 97.509 | 81.834 | 64.746 | 45.267 | 23.304 | 17.148 | 14.604 | 10.400 | 7.119 | 4.989 | 4.000 | 2.100 |
| | 180.365 | 156.337 | 125.283 | 90.286 | 46.667 | 34.296 | 29.252 | 20.862 | 14.280 | 10.016 | 8.030 | 4.216 |
| 1.80V | 87.118 | 76.328 | 62.088 | 44.252 | 23.130 | 17.026 | 14.512 | 10.345 | 7.099 | 4.946 | 3.935 | 2.031 |
| | 161.182 | 145.872 | 120.326 | 88.301 | 46.377 | 34.137 | 29.073 | 20.762 | 14.248 | 9.937 | 7.906 | 4.080 |
| 1.85V | 76.728 | 70.822 | 58.860 | 43.034 | 22.783 | 16.835 | 14.383 | 10.252 | 7.059 | 4.882 | 3.871 | 1.962 |
| | 142.000 | 135.408 | 114.188 | 85.933 | 45.747 | 33.838 | 28.827 | 20.597 | 14.182 | 9.817 | 7.785 | 3.945 |

Discharge characteristic Curve

Cycle service life in relation to depth of discharge

Relationship between charging voltage and temperature

Constant voltage charging characteristic (0.25CA, at 25°C)

Life characteristics of standby use

Self-discharge characteristic

Temperature effects on float life

Charge characteristic Curve for standby use
