

General Series Battery

General (GP) Series VRLA batteries are designed with AGM (Absorbent Glass Mat) technology, High performance plates and electrolyte to give extra power output for common power backup system. GP Series Batteries are the general purpose batteries with 5 years floating design life at 25 °C Meet with IEC, BS, JIS and Eurobat standard. UL(MH62092), CE approved.

Application

- * Emergency Power System
- * Communication equipment
- * Telecommunication systems
- * Uninterruptible power supplies
- * Electric toy car and wheelchairs, etc.
- * Power tools
- * Alarm system
- * Marine equipment
- * Medical equipment
- * Fire and Security System



General Features

- * Heavy Duty Grid
- * Mechanized assembly
- * Non-spillable construction
- * High Reliability and Stability
- * Sealed and Maintenance-free
- * Long Life and low self-discharge design

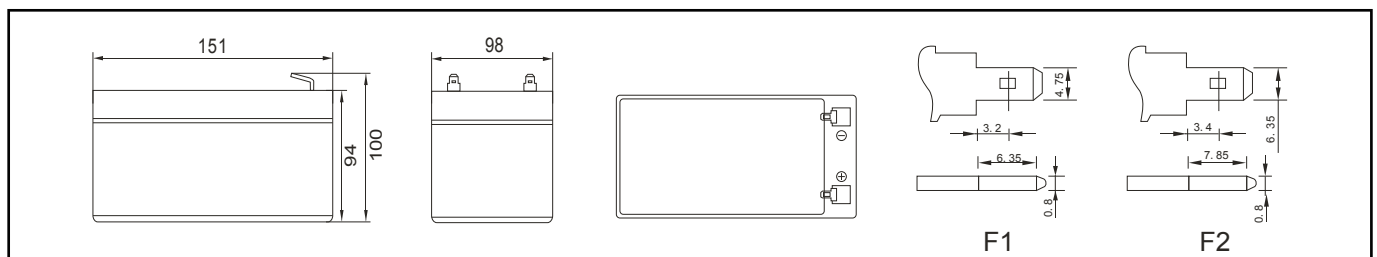
Construction

- * Positive Lead dioxide
- * Electrolyte Sulfuric acid
- * Separator Fiber glass
- * Container ABS(UL94-HB) / Flame Retardant ABS (UL94-V0)
- * Negative Lead
- * Safety Valve EPDR
- * Terminal Copper

Specification

| | | | | |
|-----------------------------------|--|---------------------------|--------------------------|-------------------------|
| Battery Model | Nominal Voltage | | | 12V |
| | Rated capacity (20 Hour rate) | | | 12Ah |
| | Cells Per battery | | | 6 |
| Dimension | Length | Width | Height | Total Height |
| | 152mm (5.98 inches) | 99mm (3.89 inches) | 95mm (3.74 inches) | 100mm (3.94 inches) |
| Approx Weight | 3.30kg (7.28lbs) ± 3% | | | |
| Capacity @ 25°C (77°F) | 20 hour rate(0.62A,10.5V) | 10 hour rate(1.18A,10.8V) | 5 hour rate(2.20A,10.5V) | 1 hour rate(7.45A,9.6V) |
| | 12.4Ah | 11.8Ah | 11.0Ah | 7.45Ah |
| Max.discharge current | 180A (5 Sec.) | | | |
| Internal Resistance | Full charged at 25°C: Approx 18mΩ | | | |
| Capacity affected by Temp.(20 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 | |
| | 14.4-14.7V (Initial charging current less than 3.6A) | | 13.50-13.80V | |

Outer dimension (mm)

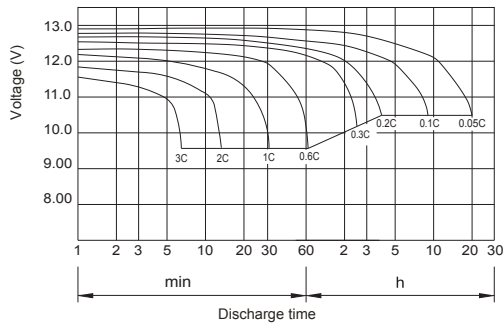


Terminal Type (mm)

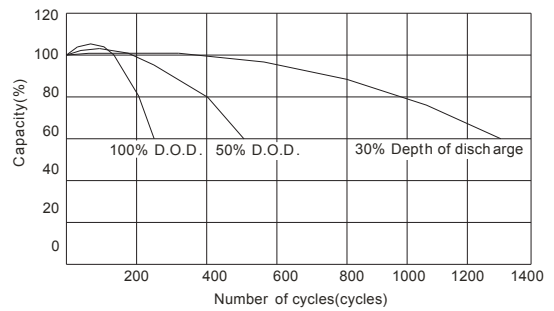
| Constant Current(Amp) and Constant Power(Watt) Discharge Table at 25°C (77°F) | | | | | | | | | | | | |
|---|--------|--------|--------|--------|--------|--------|-------|-------|-------|-------|-------|-------|
| F.V/time | 5MIN | 10MIN | 15MIN | 30MIN | 60MIN | 90MIN | 2HR | 3HR | 5HR | 8HR | 10HR | 20HR |
| 1.60V | 43.700 | 28.425 | 21.500 | 12.800 | 7.450 | 5.453 | 4.585 | 3.266 | 2.229 | 1.529 | 1.245 | 0.681 |
| | 80.825 | 54.262 | 41.495 | 25.498 | 14.863 | 10.887 | 9.173 | 6.534 | 4.459 | 3.059 | 2.491 | 1.363 |
| 1.67V | 38.796 | 26.526 | 20.383 | 12.526 | 7.396 | 5.399 | 4.562 | 3.249 | 2.216 | 1.516 | 1.226 | 0.647 |
| | 71.744 | 50.632 | 39.370 | 24.965 | 14.756 | 10.782 | 9.135 | 6.512 | 4.443 | 3.040 | 2.458 | 1.298 |
| 1.70V | 36.725 | 25.577 | 19.881 | 12.417 | 7.342 | 5.393 | 4.550 | 3.240 | 2.216 | 1.501 | 1.210 | 0.630 |
| | 67.929 | 48.851 | 38.429 | 24.748 | 14.666 | 10.776 | 9.116 | 6.497 | 4.443 | 3.011 | 2.428 | 1.264 |
| 1.75V | 33.238 | 24.069 | 19.043 | 12.198 | 7.234 | 5.323 | 4.522 | 3.220 | 2.204 | 1.497 | 1.200 | 0.620 |
| | 61.482 | 45.982 | 36.848 | 24.330 | 14.486 | 10.646 | 9.057 | 6.459 | 4.421 | 3.005 | 2.409 | 1.245 |
| 1.80V | 29.696 | 22.449 | 18.261 | 11.925 | 7.180 | 5.285 | 4.493 | 3.203 | 2.198 | 1.484 | 1.181 | 0.600 |
| | 54.943 | 42.904 | 35.390 | 23.795 | 14.396 | 10.597 | 9.002 | 6.428 | 4.411 | 2.981 | 2.372 | 1.205 |
| 1.85V | 26.155 | 20.830 | 17.312 | 11.597 | 7.072 | 5.226 | 4.453 | 3.174 | 2.186 | 1.465 | 1.161 | 0.579 |
| | 48.404 | 39.826 | 33.585 | 23.157 | 14.201 | 10.504 | 8.925 | 6.377 | 4.391 | 2.945 | 2.335 | 1.165 |

Note: The above data are average values. (Edition 2020-05)

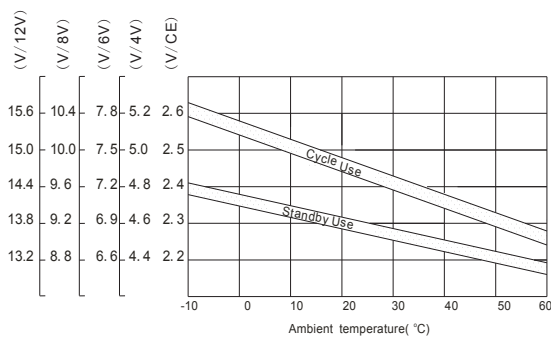
Discharge characteristic Curve



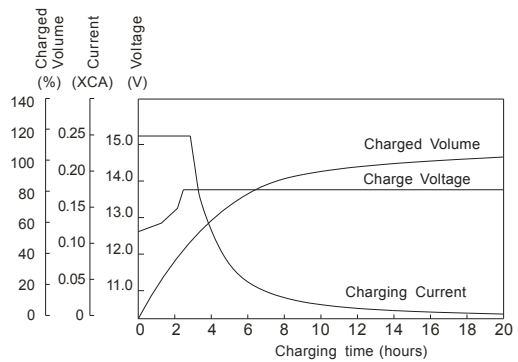
Cycle service life in relation to depth of discharge



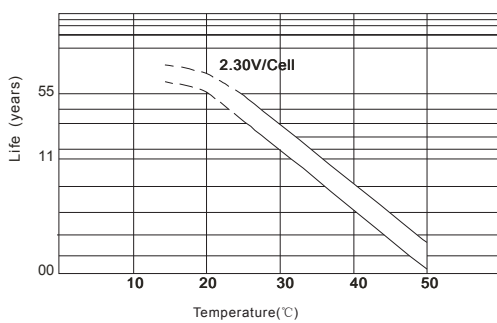
Relationship between charging voltage and temperature



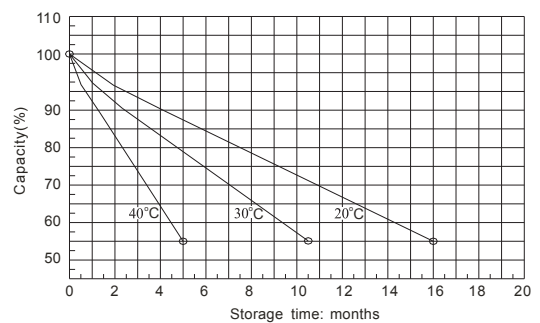
Constant voltage charging characteristic (0.25CA, at 25°C)



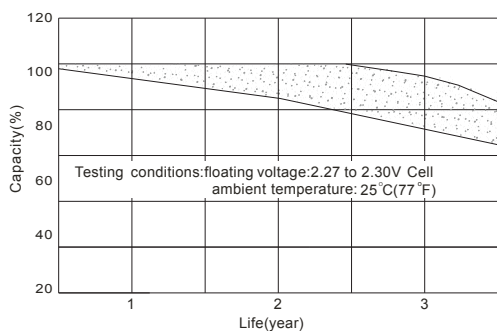
Temperature effects on float life



Self-discharge characteristic



Life characteristics of standby use



Charge characteristic Curve for standby use

