VRLA BATTERY | 6-GFM-200AJ | 12V200Ah

# SLA BATTERY—GEL TECHNOLOGY

## Specification

| | |
|---|---|
| Nominal Voltage | 12V |
| Number of cell | 6 |
| Nominal Capacity | 200Ah@10hr-rate (20.0A to 1.80V/cell @25℃) |
| Weight | Approx.57.50Kg |
| Terminal | M8,Φ=16&18 |
| Container Material | ABS (UL94-HB), Flammability resistance of UL94-V1 can be available upon request. |
| Rated Capacity | 205.0Ah 20hr-rate (10.25A to 1.80V/cell @25℃)<br>200.0Ah 10hr-rate (20.0A to 1.80V/cell @25℃)<br>167.0Ah 5hr-rate (33.4A to 1.75V/cell @25℃)<br>122.0Ah 1hr-rate (122A to 1.60V/cell @25℃) |
| Max. Discharge Current | 1000A(5sec) |
| Internal Resistance | Approx.2.6mΩ(Fully charged) |
| Operating Temp. Range | Discharge: -40 ℃~60℃<br>Charge : -20℃~50℃<br>Storage : -40℃~60℃ |
| Cycle Use | Charging Current: ≤40.0A<br>Voltage:14.2V ~14.4V<br>Temperature compensation:-30mV/℃ |
| Standby Use | Charging Current:No limit<br>Voltage:13.6V ~13.8V<br>Temperature compensation:-20mV/℃ |
| Self-Discharge | less than 1% at 25℃ |
| Design Life | 15 years (floating charge) |

## Introduction

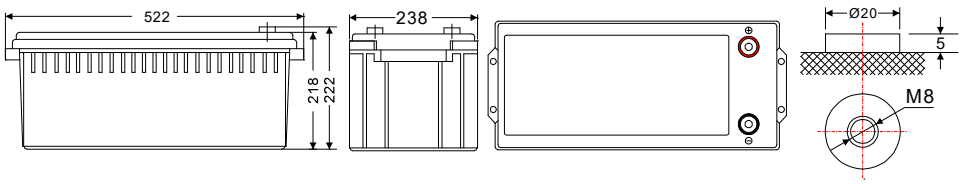
The GEL-TECH batteries designed with 15+ years service life. The SOLID-GEL system can avoid corrosion and stratification. The special separator can properly prevent short-circuit. It can offer high deep discharge ability, super thermal stability, good recovery-ability after deep discharging. The deep dis-charge cycles of GEL-TECH batteries can be more than 30% compared with other normal AGM batteries.

## Applications

- Auto control system &ATM machine
- Electronic apparatus and equipment
- Emergency light & Emergency backup power supply & Alarm/Security system
- Power generation system (solar and wind power system,etc.)
- Communication power & DC power
- Electric Power System(EPS)
- Uninterruptable Power System (UPS)
- ……

## Dimensions

| | |
|---|---|
| Length | 522±1mm (20.47 inches) |
| Width | 238±1mm (9.45 inches) |
| Heigth | 218±1mm (8.62 inches) |
| Total Heigth | 222±1mm (8.82 inches) |




Unit: mm

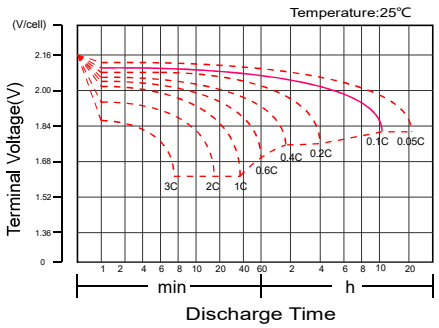
## Constant Current Discharge Characteristics: A (25℃)

| F. V/Time | 5min | 10min | 15min | 30min | 1h | 2h | 3h | 4h | 5h | 8h | 10h | 20h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.60V/cell | 662.3 | 474.6 | 345.3 | 216.8 | 122.5 | 69.95 | 49.20 | 40.72 | 34.29 | 24.34 | 20.96 | 11.09 |
| 1.65V/cell | 644.6 | 451.6 | 338.2 | 213.2 | 122 | 69.42 | 49.01 | 40.53 | 34.09 | 24.14 | 20.76 | 10.88 |
| 1.70V/cell | 607.4 | 435.6 | 332.9 | 211.3 | 120.8 | 68.89 | 48.63 | 40.34 | 33.88 | 23.95 | 20.56 | 10.68 |
| 1.75V/cell | 545.4 | 402 | 317 | 206 | 119.7 | 68.37 | 48.44 | 39.96 | 33.48 | 23.75 | 20.36 | 10.48 |
| 1.80V/cell | 492.3 | 366.6 | 292.2 | 197 | 116.9 | 67.14 | 47.12 | 39.02 | 32.88 | 23.35 | 20.16 | 10.28 |
| 1.85V/cell | 428.5 | 327.6 | 262.1 | 184.5 | 111 | 64.16 | 45.05 | 37.13 | 31.46 | 22.36 | 19.55 | 9.67 |

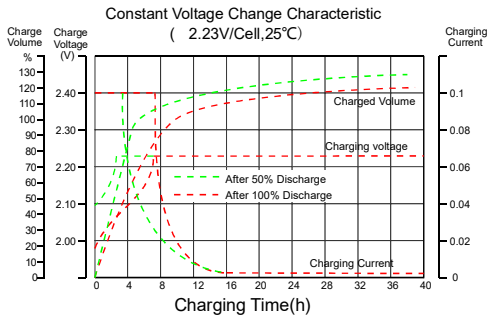
## Constant Power Discharge Characteristics: W (25℃)

| F. V/Time | 5min | 10min | 15min | 30min | 1h | 2h | 3h | 4h | 5h | 8h | 10h | 20h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.60V/cell | 6308 | 4613 | 3396 | 2446 | 1401 | 804.6 | 567.7 | 470.5 | 396.9 | 282.5 | 235.7 | 124.5 |
| 1.65V/cell | 6179 | 4406 | 3326 | 2416 | 1394 | 801.5 | 566.6 | 469.4 | 394.5 | 281.3 | 233.3 | 123.3 |
| 1.70V/cell | 5833 | 4259 | 3280 | 2387 | 1384 | 794.1 | 563.2 | 467.1 | 393.3 | 278.9 | 232.1 | 122.1 |
| 1.75V/cell | 5252 | 3935 | 3128 | 2333 | 1371 | 786.8 | 559.8 | 463.7 | 389.7 | 276.5 | 229.7 | 120.9 |
| 1.80V/cell | 4725 | 3573 | 2874 | 2227 | 1337 | 775.2 | 546.3 | 451.3 | 383.6 | 270.6 | 227.2 | 119.7 |
| 1.85V/cell | 4078 | 3173 | 2566 | 2087 | 1267 | 739.4 | 519.1 | 429.8 | 364.3 | 261.1 | 220.0 | 114.8 |

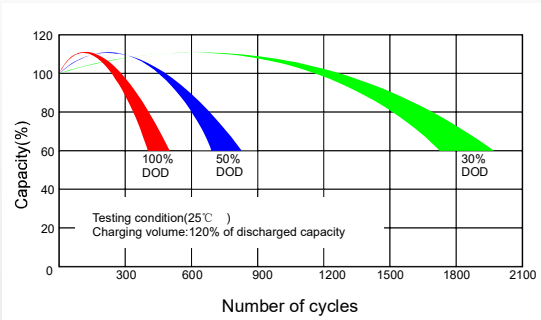
## Discharge Characteristics Curve



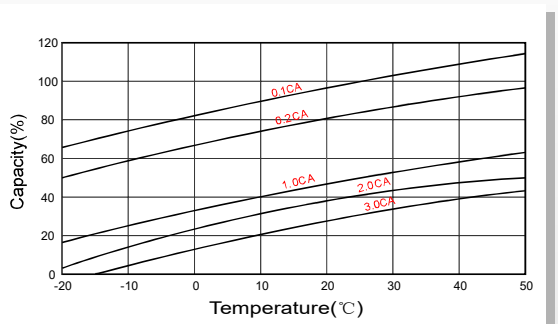

## Charging Characteristics Curve



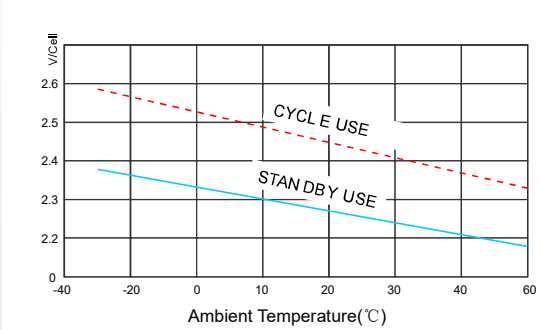

## Cycle life in relation to depth of Discharge



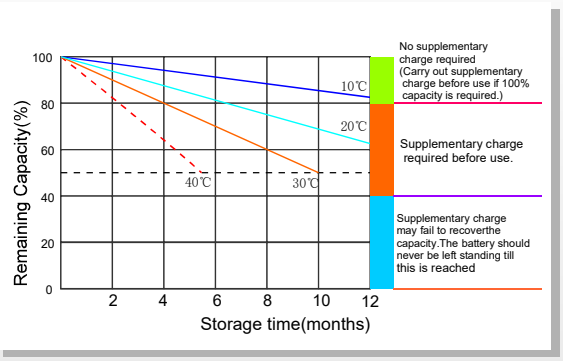

## Temperature effects on Capacity



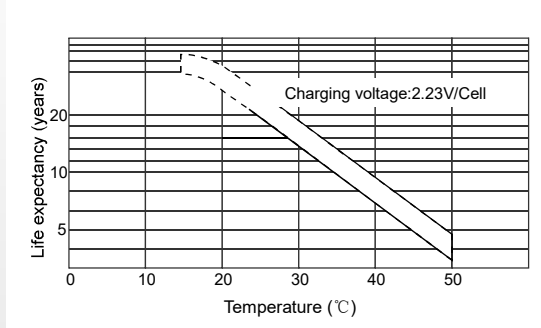

## Relationship between charging voltage and temperature




## Self-discharge Characteristics




## Temperature effects on Float life




## Life Characteristics of Standby use