

6-GFM Series

6-GFM-40



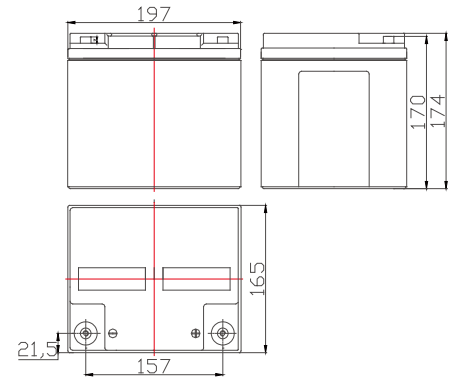
Main Applications

- ▶ Backup power for telecom and signal system
- ▶ Military field, railway system, power system
- ▶ UPS & emergency lighting system
- ▶ Fire alarm and security system

Benefits

- ▶ 10 years design life
- ▶ Safely and reliably sealed
- ▶ High energy density, low internal resistance and low discharge rate
- ▶ Excellent charging acceptability and high sealed reaction efficiency

Dimensions :



Technical Parameters

| | |
|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Normal Voltage | 12V |
| Capacity | 40Ah @ 10hr to 1.80V per cell @ 25 °C (77 °F) |
| Weight | Approx. 13.2kg (29.04 lbs) |
| Dimensions | Length: 197mm Width: 165mm Height: 170mm Total Height: 174mm |
| Internal Resistance (full charged) | Approx. 8.0mΩ@ 25 °C (77 °F) |
| Maximum Discharge Current | 235A (5sec) |
| Self Discharge @ 25 °C (77 °F) | Less than 8 % after 90 days storage |
| Operating Temperature Range | Discharge: -40 °C ~ 50 °C (-40 °F ~ 122 °F) Charge: -20 °C ~ 45 °C (-4 °F ~ 113 °F) Storage: -20 °C ~ 40 °C (4 °F ~ 104 °F) |
| Recommended Operating Temperature | 15 °C ~ 25 °C (59 °F ~ 77 °F) |
| Maximum Charging Current Limited | 8A |
| Charging Voltage @25°C(77°F) | Float: 2.25 V/cell, Temps coefficient -3 mV/ °C Equalize: 2.35 V/cell |
| Terminal | M6 |
| Container Materials | ABS V0 |
| Capacity Affected by Temperature | 105 % @ 40 °C 85 % @ 0 °C 60 % @ -20 °C |
| Design Life @25°C(77°F) | 10 years |

Attain Certificate :

- ISO 9001
- ISO 14001
- GB/T 28001
- UL
- CE

Technical Features

- ▶ Adopt high strength ABS plastic, compact structure for battery container and valve, good impact resistance, and shock resistant performance
- ▶ Adopt multi-element alloy grids, low internal resistance, good corrosion resistance ability and charging acceptability.
- ▶ New production process for plate, improve the utilization of active material
- ▶ High-purity electrolyte and special additives, low self-discharge
- ▶ Multi-layer seal technology and special seal glue, no leakage and no acid mist escape, safe and reliable

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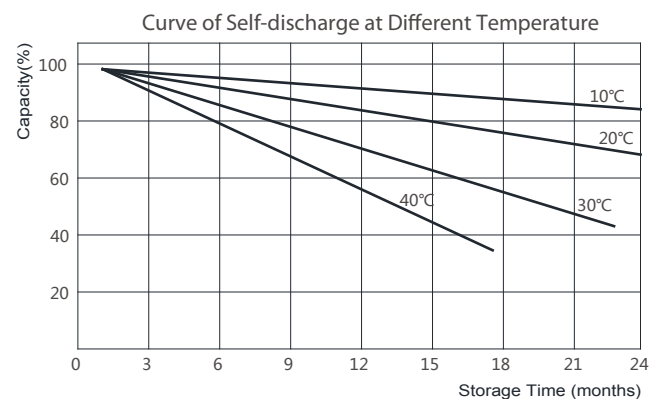
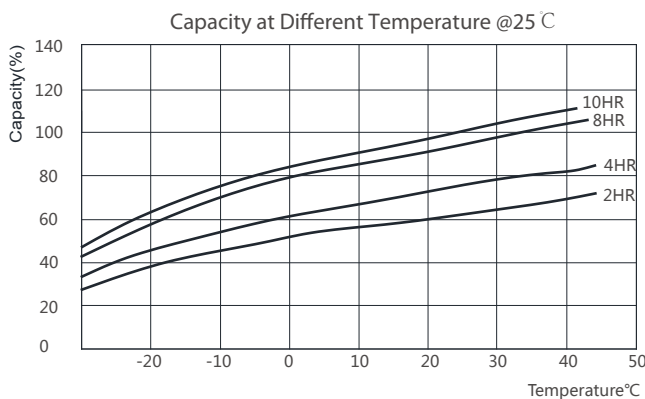
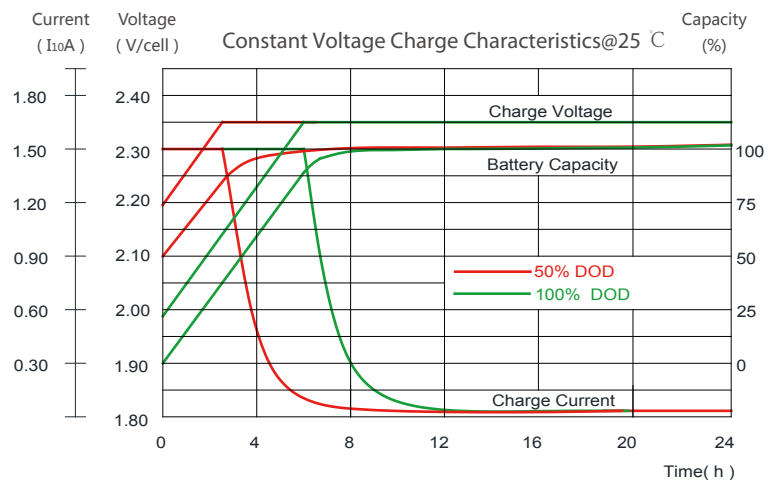
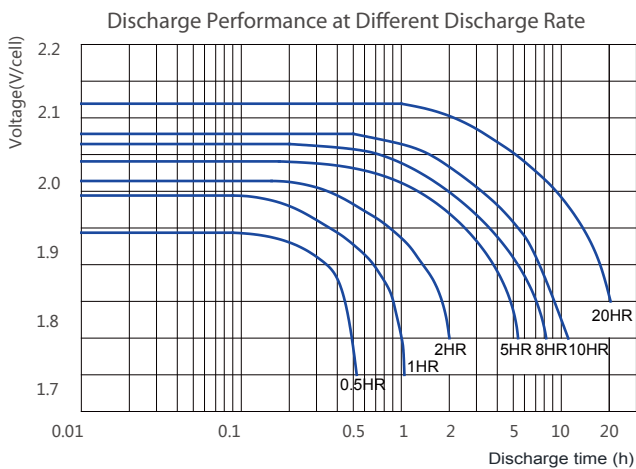
Constant Current Discharge Characteristics Unit: A (25°C, 77°F)

| F.V/Time | 5min | 10min | 15min | 30min | 1hr | 1.5hr | 2hr | 2.5hr | 3hr | 4hr | 6hr | 8hr | 10hr | 20hr |
|------------|------|-------|-------|-------|------|-------|------|-------|------|------|------|------|------|------|
| 1.60V/cell | 143 | 106 | 82.0 | 50.9 | 25.0 | 17.2 | 14.7 | 12.6 | 11.4 | 8.41 | 6.25 | 4.95 | 4.36 | 2.19 |
| 1.67V/cell | 140 | 103 | 80.9 | 50.3 | 24.6 | 16.9 | 14.5 | 12.4 | 11.2 | 8.34 | 6.16 | 4.92 | 4.33 | 2.17 |
| 1.70V/cell | 134 | 100 | 78.2 | 48.9 | 24.1 | 16.5 | 14.2 | 12.0 | 10.8 | 8.26 | 6.02 | 4.85 | 4.27 | 2.14 |
| 1.75V/cell | 122 | 91.2 | 71.2 | 46.7 | 23.5 | 16.0 | 14.0 | 11.8 | 10.6 | 8.25 | 6.00 | 4.76 | 4.15 | 2.11 |
| 1.80V/cell | 107 | 80.2 | 67.2 | 44.8 | 22.7 | 15.7 | 13.8 | 11.7 | 10.5 | 8.15 | 5.95 | 4.62 | 4.09 | 2.08 |
| 1.85V/cell | 93.5 | 75.3 | 58.5 | 42.1 | 21.8 | 14.8 | 13.5 | 11.4 | 10.3 | 7.96 | 5.83 | 4.53 | 3.94 | 2.04 |

Constant Power Discharge Characteristics Unit: W/cell (25°C, 77°F)

| F.V/Time | 5min | 10min | 15min | 30min | 1hr | 1.5hr | 2hr | 2.5hr | 3hr | 4hr | 6hr | 8hr | 10hr | 20hr |
|------------|------|-------|-------|-------|------|-------|------|-------|------|------|------|------|------|------|
| 1.60V/cell | 247 | 183 | 142 | 88.1 | 45.0 | 34.5 | 27.8 | 24.7 | 21.5 | 16.5 | 12.7 | 9.92 | 8.71 | 4.78 |
| 1.67V/cell | 242 | 179 | 141 | 87.5 | 44.6 | 34.3 | 27.6 | 24.5 | 21.3 | 16.4 | 12.5 | 9.81 | 8.63 | 4.76 |
| 1.70V/cell | 237 | 177 | 138 | 86.6 | 44.2 | 33.7 | 27.1 | 24.1 | 21.0 | 16.3 | 12.1 | 9.57 | 8.43 | 4.74 |
| 1.75V/cell | 221 | 165 | 129 | 84.5 | 43.6 | 33.3 | 27.0 | 23.9 | 20.7 | 16.2 | 11.9 | 9.49 | 8.16 | 4.70 |
| 1.80V/cell | 198 | 148 | 124 | 82.9 | 43.0 | 33.0 | 26.8 | 23.7 | 20.6 | 16.0 | 11.8 | 9.27 | 8.02 | 4.62 |
| 1.85V/cell | 178 | 143 | 111 | 80.0 | 42.4 | 31.7 | 26.5 | 23.5 | 20.4 | 15.8 | 11.7 | 8.94 | 7.93 | 4.57 |

Performance Curve:



Declaration: This information is generally descriptive only and is not intended to make or imply any representation, guarantee or warranty with respect to any cells and batteries. Cell and battery designs/specifications are subject to modification without notice. Contact CHINASHOTO for the latest information.

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