6-GFMJ Series

12V Gel Battery 6-GFMJ-100







- ▶ Telecom, energy storage
- ▶ High-precision equipment backup power supply
- Data center
- UPS

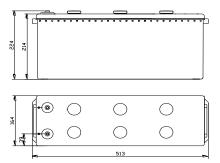


Benefits

- Designed life of 15 years
- High cycle service life
- Adapt to a wider temperature range
- ▶ Excellent deep cycle performance and high rate discharge performance
- ▶ Better charging acceptance
- Better safety and reliability
- Environmental protection and energy saving

| Nominal Voltage | 12 V | | | | |
|------------------------------------|--|--|--|--|--|
| Capacity | 100Ah @ 10hr to 1.80V per cell @ 25°C(77°F) | | | | |
| Weight | 42 kg(92.6 lbs) | | | | |
| | Length:513 mm (20.20 in) | | | | |
| Dimensions | Width: 164 mm (6.46 in) | | | | |
| | Height: 224mm (8.82 in) | | | | |
| Internal Resistance (full charged) | 4.1mΩ | | | | |
| Short- circuit current | 2927A | | | | |
| Self Discharge @ 25°C (77°F) | Less than 20% after 180 days storage | | | | |
| | Discharge: -20°C ~ 50°C(-4°F ~ 122°F) | | | | |
| Operating Temperature Range | Charge: 5°C~40°C(41°F~104°F) | | | | |
| | Storage: 20°C~30°C(68°F~86°F) | | | | |
| Recommended Operating Temperature | 15°C ~ 25°C(59°F ~ 77°F) | | | | |
| Recommended Charging Current | 15A | | | | |
| | Float: 2.25 V/cell | | | | |
| Charging Voltage @25°C(77°F) | Equalize: 2.35 V/cell | | | | |
| | Temperature compensation coefficient: -3mV/cell•°C | | | | |
| Terminal | M8 | | | | |
| Container Material | ABS/ABS V0 (Optional) | | | | |
| Compaint Affactad by | 106% @ 40°C(104°F) | | | | |
| Capacity Affected by | 80% @ 0°C(32°F) | | | | |
| Temperature(C10) | 60% @ -20°C(-4°F) | | | | |
| Design life @ 25°C (77°F) | 15 years | | | | |

Dimensions



Certification

- ☑ ISO 9001:2008
- ☑ ISO 14001:2004
- ☑ GB/T 28001-2014
- ☑ UL
- ☑ CE

Technical Features

- Electrolyte: The main material is made of fumed silica and made by special process.
- Battery cover: ABS material, corrosion-resistant, high-strength, hotmelt sealing of the groove cover, no potential leakage risk, structural design resistant to high temperature deformation.
- Separator: Special microporous separator, high porosity, low electrical resistance, and greater electrolyte storage space.
- Terminal seal: The embedded copper core lead-based pole has greater current carrying capacity and corrosion resistance. The unique double seal structure effectively prevents leakage.
- Safety valve: The opening and closing valve has a constant pressure and high reliability, avoiding the expansion and rupture of the battery casing and the drying of the electrolyte.

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

| F.V/Time | 1hr | 1.5hr | 2hr | 3hr | 4hr | 5hr | 8 hr | 10 hr | 20hr | 100 hr | 120hr |
|----------|------|-------|------|------|------|------|------|-------|------|--------|-------|
| 1.9 | 50 | 35.1 | 29.1 | 23 | 16.2 | 13.7 | 10.5 | 9.5 | 4.54 | 1.19 | 1.02 |
| 1.85 | 53.7 | 39 | 32.3 | 24.5 | 18.1 | 15.2 | 11.0 | 10.0 | 4.99 | 1.26 | 1.08 |
| 1.8 | 56.5 | 41 | 34 | 24.9 | 19 | 16 | 11.5 | 10.1 | 5.23 | 1.3 | 1.11 |
| 1.75 | 59.3 | 43.1 | 35.7 | 25.4 | 20 | 16.8 | 12.1 | 10.6 | 5.43 | 1.33 | 1.14 |

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

| F.V/Time | 1hr | 1.5hr | 2hr | 3hr | 4hr | 5hr | 8 hr | 10 hr | 20hr | 100 hr | 120hr |
|----------|-------|-------|------|------|------|------|------|-------|------|--------|-------|
| 1.9 | 71.2 | 69.0 | 57.2 | 44.3 | 31.8 | 27.0 | 21.7 | 18.0 | 9.0 | 2.34 | 2.01 |
| 1.85 | 90.8 | 75.3 | 62.5 | 45.0 | 35.0 | 29.3 | 22.3 | 18.7 | 9.5 | 2.39 | 2.05 |
| 1.8 | 109.5 | 76.5 | 63.5 | 45.8 | 35.5 | 29.8 | 22.7 | 19.0 | 9.7 | 2.43 | 2.07 |
| 1.75 | 112.3 | 77.5 | 64.3 | 47.5 | 36.0 | 30.2 | 23.2 | 19.3 | 9.8 | 2.44 | 2.09 |

Performance Curve

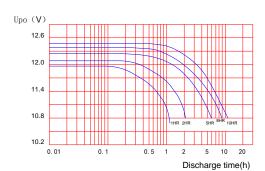


Figure 1 Discharge characteristic curve (20°C)

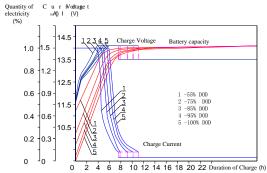


Figure 2 Constant voltage charge characteristic curve

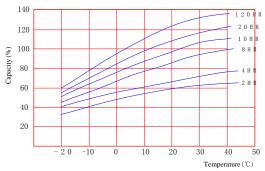


Figure 3 Relation curves between capacity and temperature

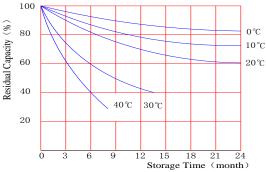


Figure 4 Self-discharge characteristic curve