

Valve-regulated Lead Acid Batteries GFM series are widely utilized as standby power supply for communication and signal systems such as telecommunication, mobile station, railway and vessels etc., for the energy storage system of solar and wind power generation, and for the backup power supply of UPS and emergency illumination. Their designed life for standby usage is 15 years

| | |
|------------------------------------|---|
| Normal Voltage | 2V |
| Capacity | 200 Ah @ 10hr to 1.80V per cell @ 25°C(77°F) |
| Weight | Approx. 13.7 kg (30.14 lbs) |
| Internal Resistance (full charged) | Approx. 0.69m Ω @ 25°C(77°F) |
| Maximum Discharge Current | 1240A (5sec) |
| Self Discharge @ 25°C (77°F) | No more than 3 % after 30 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 | 20A |
| Charging Voltage @ 25°C(77°F) | Float: 2.23 V, Temps coefficient -3 mV/°C Cycle: 2.30 V |
| Contain Materials | ABS |
| Terminal | M8 and HPb59-1 |
| Capacity Affected by Temperature | 105 % @ 40°C 85 % @ 0°C 60 % @ -20°C |

Attain certificate:

ISO9001(03006Q10084R1M)
ISO14001(03004E1009R0M)
ISO18001(03004E1009R0M)
Underwriters Laboratories
Inc.(MH28466)
Russia telecom

Conforms to the standard:

GB/T 19638.2-2005
YD/T799-2002
JISC8704-2:1999
IEC60896-2,2004

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

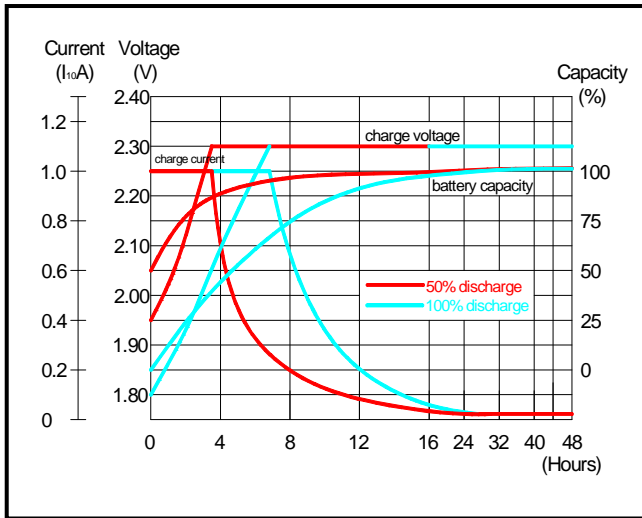
| F.V/Time | 15min | 30min | 1h | 1.5h | 2h | 3h | 4h | 5h | 6h | 8h | 10h |
|----------|-------|-------|-----|------|----|------|------|------|------|------|------|
| 1.90V | 142 | 126 | 93 | 77 | 59 | 45.6 | 37.7 | 30.9 | 26.1 | 22.1 | 18.4 |
| 1.85V | 176 | 140 | 111 | 88 | 64 | 50.3 | 40.3 | 33.6 | 28.1 | 23.5 | 19.9 |
| 1.80V | 219 | 154 | 119 | 91 | 67 | 53.4 | 41.9 | 35.5 | 30.7 | 24.2 | 20.7 |
| 1.75V | 243 | 179 | 126 | 95 | 70 | 54.8 | 42.8 | 36.2 | 31.3 | 24.7 | 21.0 |
| 1.70V | 253 | 193 | 131 | 99 | 73 | 55.9 | 43.4 | 36.7 | 31.7 | 24.8 | 21.2 |
| 1.65V | 261 | 203 | 135 | 101 | 74 | 56.3 | 43.8 | 36.9 | 31.9 | 24.9 | 21.3 |

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

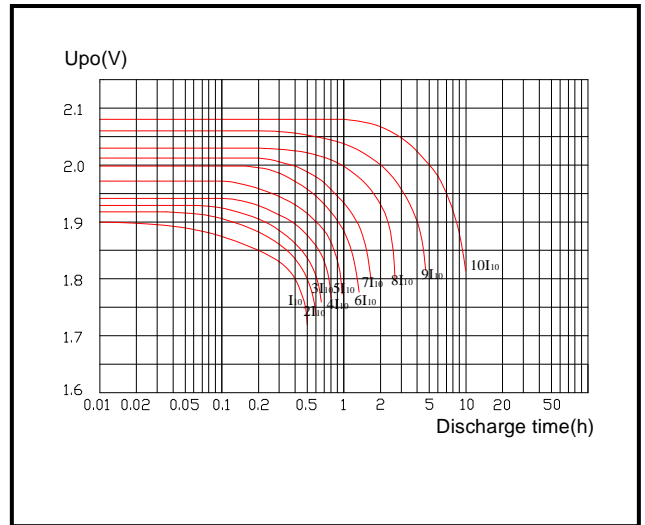
| F.V/Time | 15min | 30min | 1h | 1.5h | 2h | 3h | 4h | 5h | 6h | 8h | 10h |
|----------|-------|-------|-----|------|-----|-------|------|------|------|------|------|
| 1.90V | 273 | 244 | 183 | 153 | 118 | 91.6 | 76.1 | 62.5 | 52.8 | 44.8 | 37.4 |
| 1.85V | 332 | 266 | 215 | 171 | 124 | 99.8 | 80.7 | 67.4 | 56.5 | 47.3 | 40.2 |
| 1.80V | 406 | 286 | 226 | 175 | 131 | 104.9 | 83.3 | 71.0 | 61.5 | 48.4 | 41.5 |
| 1.75V | 442 | 329 | 237 | 182 | 136 | 107.2 | 84.7 | 72.1 | 62.5 | 49.3 | 42.0 |
| 1.70V | 449 | 349 | 244 | 188 | 139 | 108.9 | 85.9 | 72.9 | 63.1 | 49.6 | 42.4 |
| 1.65V | 450 | 364 | 247 | 190 | 142 | 109.5 | 86.4 | 73.2 | 63.5 | 49.7 | 42.5 |

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.

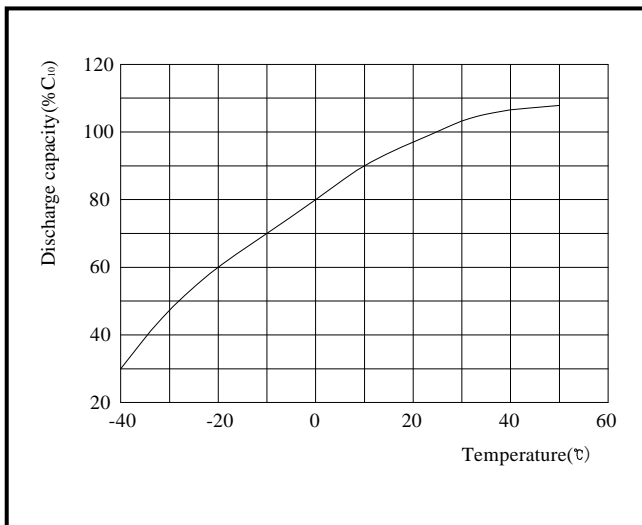
Constant Voltage Charge Characteristics



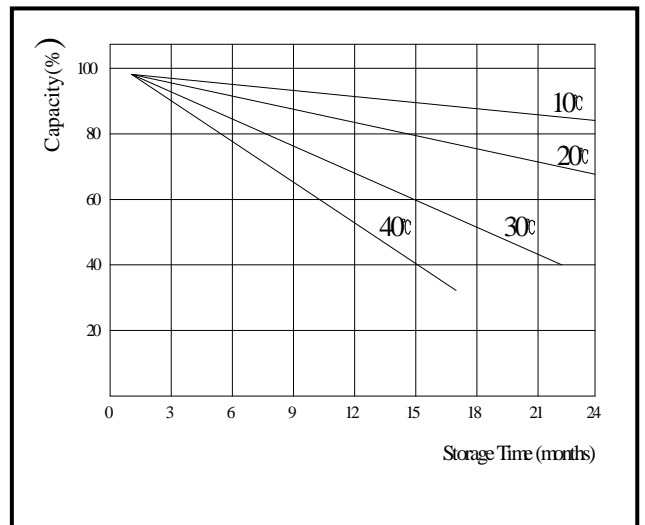
Discharge Performance at Different Discharge Rate



Capacity at Different Temperature



Curve of Storage Time and Self-discharge at Different Temperature



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