

# 6-GFM Series

## 6-GFM-50



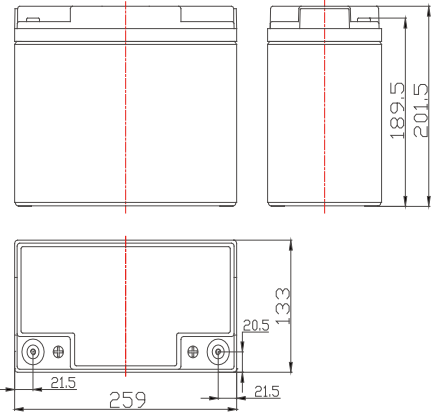
### Main Applications

- ▶ 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	50Ah @ 10hr to 1.80V per cell @ 25 °C (77 °F)
Weight	Approx. 16kg (35.2 lbs)
Dimensions	Length: 259mm Width: 133mm Height: 190mm Total Height: 202mm
Internal Resistance (full charged)	Approx. 7.0mΩ@ 25 °C (77 °F)
Maximum Discharge Current	310A (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	10A
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/ABS V0 (Optional)
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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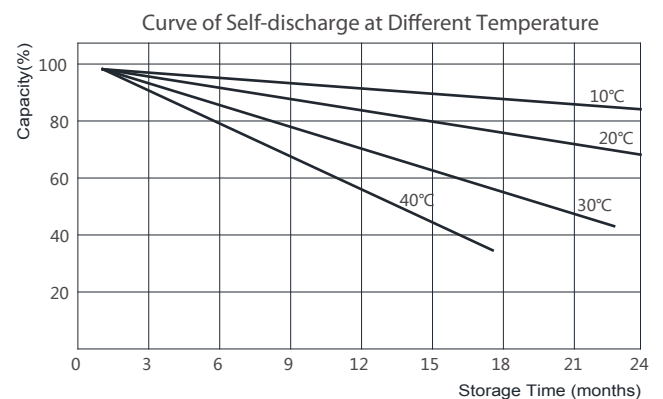
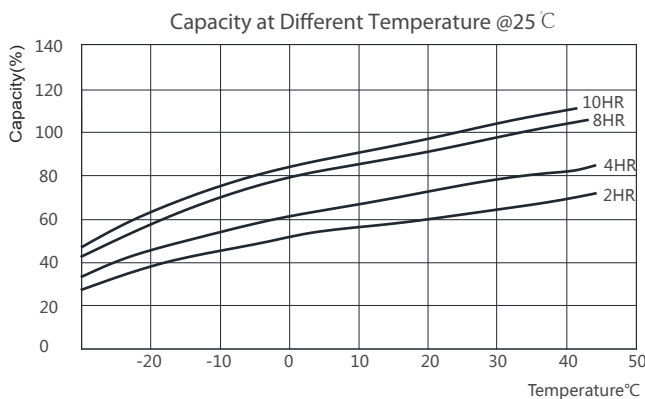
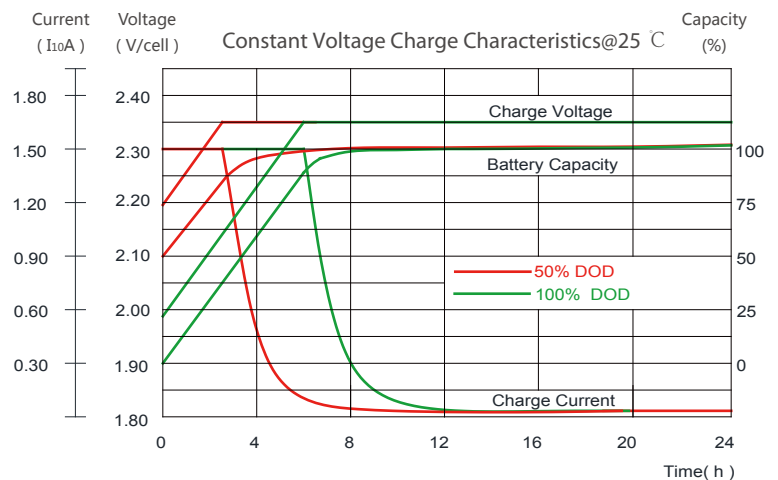
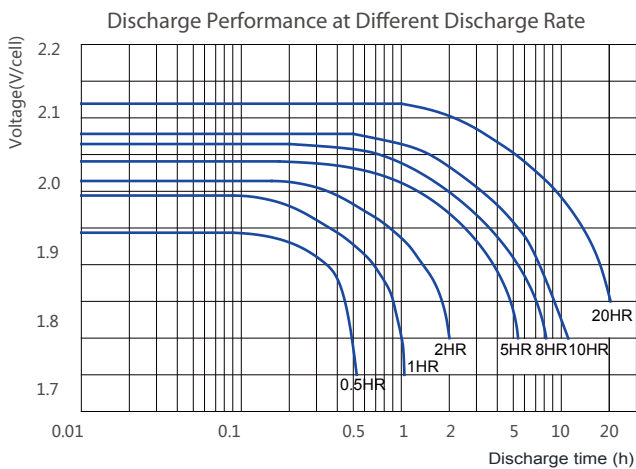
## Constant Current Discharge Characteristics Unit: A (25°C, 77°F)

F.V/Time	15min	30min	1hr	2hr	3hr	4hr	5hr	6hr	8hr	10hr
1.90V /cell	47.8	37.2	23.7	16.8	13.1	10.3	8.8	7.3	5.7	5.1
1.85V /cell	57.9	42.2	25.1	17.8	13.5	10.4	8.9	7.6	5.9	5.2
1.80V /cell	67.4	45.8	27.0	18.2	13.8	10.6	9.0	7.8	6.1	5.3
1.75V /cell	72.7	48.4	27.6	18.4	13.9	10.8	9.1	7.8	6.2	5.4
1.70V /cell	76.6	51.2	28.5	18.6	14.1	10.8	9.2	7.9	6.3	5.5
1.65V /cell	80.1	53.0	29.4	19.1	14.4	10.9	9.4	8.0	6.3	5.6

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

F.V/Time	15min	30min	1hr	2hr	3hr	4hr	5hr	6hr	8hr	10hr
1.90V /cell	91.9	71.9	46.6	33.4	26.3	20.7	17.8	14.8	11.6	10.3
1.85V /cell	108.9	80.4	48.5	34.9	26.9	20.8	18.0	15.4	11.8	10.5
1.80V /cell	124.7	85.0	51.4	35.3	27.1	21.1	18.0	15.5	12.2	10.6
1.75V /cell	132.3	88.9	52.0	35.5	27.3	21.3	18.1	15.6	12.4	10.7
1.70V /cell	136.1	92.7	52.9	35.7	27.6	21.4	18.3	15.8	12.5	11.0
1.65V /cell	138.0	94.9	53.9	36.4	28.1	21.5	18.6	15.9	12.6	11.2

## 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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