

# 6-GFM Series

Valve-Regulated Lead-Acid Battery  
6-GFM-85



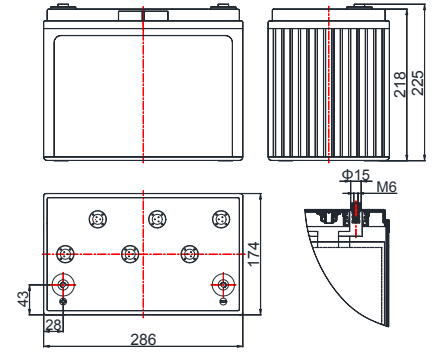
## Main Applications

- ▶ 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

Nominal Voltage	12 V
Capacity	85Ah @ 10hr to 1.80V per cell @ 25°C(77°F)
Weight	Approx. 26 kg (57.32 lbs)
Dimensions	Length : 286 mm Width : 174 mm Height : 218 mm Total Height : 225 mm
Internal Resistance (full charged)	Approx. 4.6 mΩ@ 25°C(77°F)
Maximum Discharge Current	527 A (5sec)
Self Discharge @25°C(77°F)	Less than 4% 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	17 A
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

- ISO9001
- ISO14001
- ISO18001
- 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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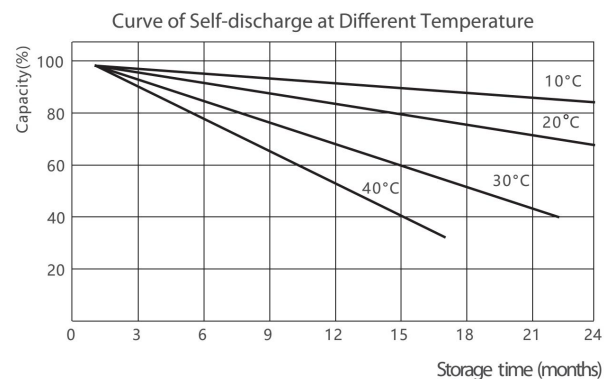
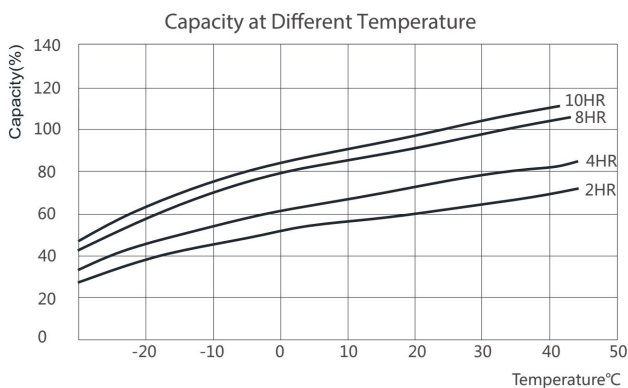
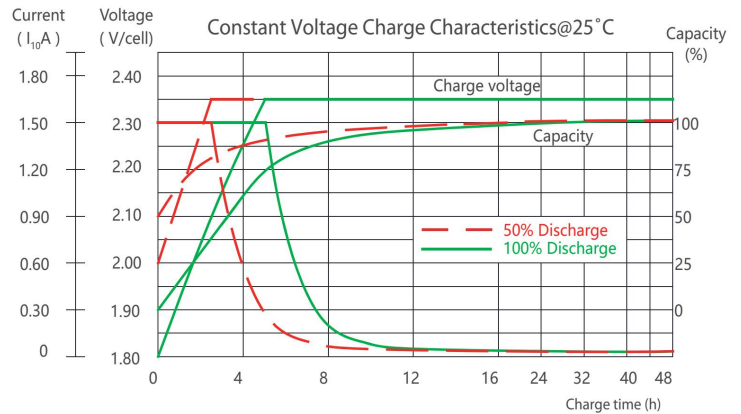
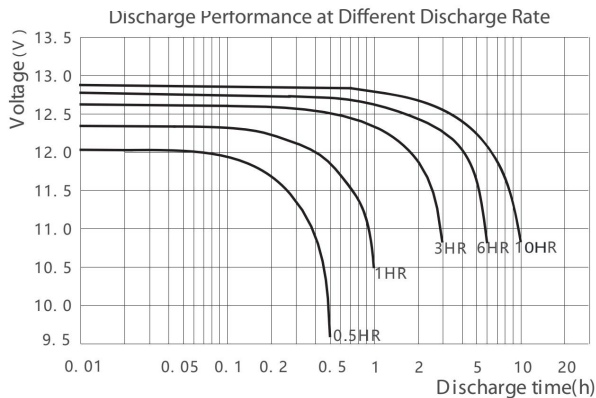
## Constant Current Discharge Characteristics Unit: A (25°C, 77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1hr	2hr	3hr	4hr	5hr	6hr	8hr	10hr	20hr
1.85V/cell	158	130	116	99.0	74.2	55.3	45.9	27.5	20.5	16.5	13.8	12.2	9.90	8.40	4.41
1.80V/cell	189	146	126	106	78.7	57.7	47.2	28.6	21.3	17.0	14.2	12.5	10.1	8.59	4.49
1.75V/cell	204	154	132	111	82.7	60.1	48.9	29.4	21.7	17.4	14.5	12.7	10.3	8.73	4.55
1.70V/cell	219	163	138	116	86.1	62.3	50.4	30.2	22.2	17.7	14.8	12.9	10.4	8.78	4.61
1.67V/cell	227	167	140	119	89.1	64.2	51.7	30.8	22.6	18.0	15.0	13.1	10.5	8.83	4.65
1.60V/cell	243	175	146	124	92.2	65.9	52.8	31.4	23.0	18.2	15.2	13.3	10.6	8.88	4.68

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

F.V/Time	5min	10min	15min	20min	30min	45min	1hr	2hr	3hr	4hr	5hr	6hr	8hr	10hr	20hr
1.85V/cell	298	245	218	188	142	106	88.7	54.2	40.6	32.7	27.6	24.3	19.8	16.8	8.82
1.80V/cell	346	270	236	201	150	110	90.8	56.1	41.9	33.6	28.2	24.9	20.1	17.1	8.94
1.75V/cell	370	284	247	210	157	115	93.9	57.7	42.7	34.2	28.7	25.2	20.4	17.3	9.01
1.70V/cell	390	297	257	218	163	119	96.5	58.9	43.5	34.8	29.1	25.6	20.6	17.4	9.13
1.67V/cell	400	301	260	222	167	122	98.6	60.0	44.2	35.3	29.5	25.9	20.8	17.5	9.21
1.60V/cell	420	313	269	228	172	124	100	60.8	44.7	35.6	29.7	26.1	21.0	17.6	9.27

## 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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