

# 6-GFMJ Series

Gel Valve Regulated Sealed Battery

6-GFMJ-50



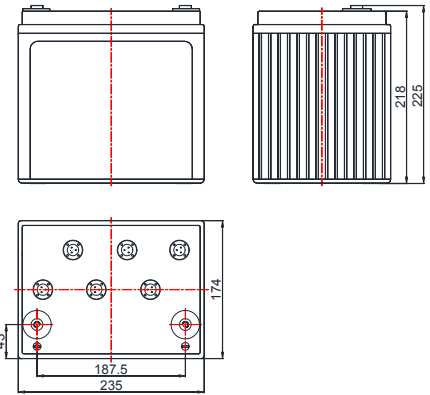
## Main Applications

- ▶ Floating applications for telecom sites
- ▶ UPS & EPS & emergency lighting system
- ▶ Military field, railway system
- ▶ Power system
- ▶ Fire alarm and security system

## Benefits

- ▶ Designed life of 12 years
- ▶ Excellent charging acceptability
- ▶ Lifetime maintenance free, Low annual operating cost, reduced TCO
- ▶ High security, reliability and stability

## Dimensions



## Technical Parameters

Nominal Voltage	12 V
Capacity	50 Ah @ 10hr to 1.80V per cell @ 25°C (77°F)
Weight	18.7 kg (41.2 lbs)
Dimensions	Length: 235 mm Width: 174 mm Height: 218 mm Total height: 225 mm
Internal Resistance (full charged)	Approx. 9.5 mΩ @ 25°C(77°F)
Short-circuit Current	310 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	10.0 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(C <sub>10</sub> )	105% @ 40°C(104°F) 85% @ 0°C(32°F) 60% @ -20°C(-4°F)
Designed Life @25°C(77°F)	12 years

## Attain Certificate

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

## Technical Features

- ▶ The separator adopts microporous PVC-SiO<sub>2</sub> separator for colloidal battery, which has large porosity, small impedance
- ▶ Special gel electrolyte without flowing to avoid acid stratification and can prolong service life
- ▶ Excellent charging and discharging ability in low current
- ▶ High-purity electrolyte and special additives, low self-discharge

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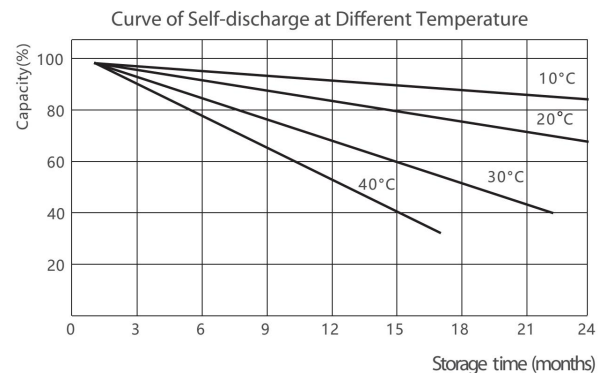
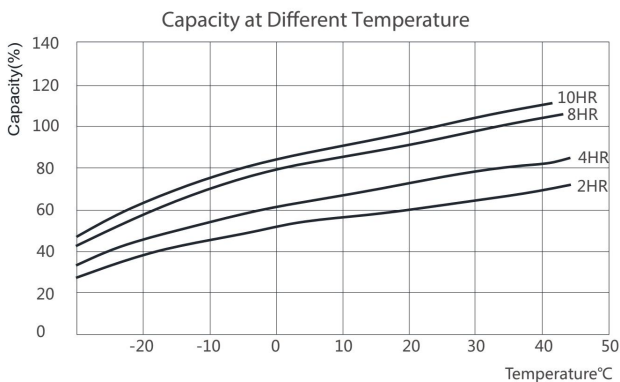
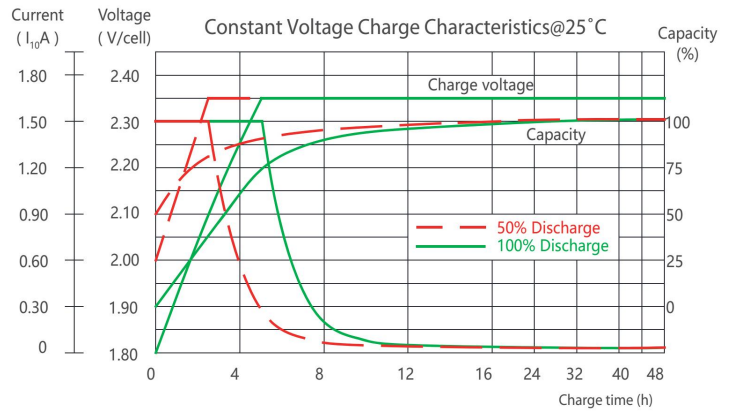
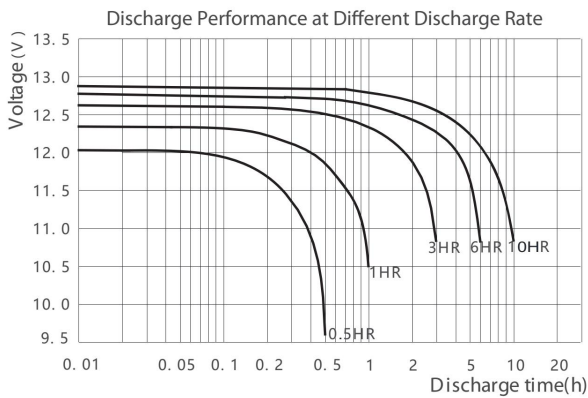
## Constant Current Discharge Characteristics Unit: A (25°C, 77°F)

F.V/Time	30min	1hr	2hr	3hr	4hr	5hr	6hr	8hr	10hr	20hr
1.85V/cell	42.8	26.5	15.9	11.9	9.53	8.01	7.06	5.71	4.98	2.61
1.80V/cell	45.6	27.3	16.5	12.3	9.83	8.25	7.23	5.83	5.08	2.67
1.75V/cell	47.8	28.3	17.0	12.6	10.1	8.40	7.37	5.94	5.14	2.70
1.70V/cell	49.8	29.1	17.4	12.9	10.2	8.55	7.49	6.02	5.20	2.73
1.67V/cell	51.5	29.8	17.8	13.1	10.4	8.70	7.56	6.10	5.25	2.76
1.60V/cell	53.3	30.5	18.1	13.3	10.5	8.77	7.64	6.15	5.29	2.77

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

F.V/Time	30min	1hr	2hr	3hr	4hr	5hr	6hr	8hr	10hr	20hr
1.85V/cell	81.6	51.3	31.3	23.5	19.0	15.9	14.1	11.4	10.0	5.25
1.80V/cell	87.0	52.5	32.5	24.3	19.5	16.3	14.4	11.7	10.1	5.33
1.75V/cell	90.7	54.3	33.4	24.7	19.9	16.5	14.6	11.8	10.2	5.39
1.70V/cell	93.7	55.8	34.1	25.2	20.2	16.8	14.8	11.9	10.3	5.43
1.67V/cell	96.8	57.1	34.7	25.6	20.5	17.0	14.9	12.0	10.4	5.47
1.60V/cell	99.1	58.0	35.2	25.9	20.6	17.1	15.0	12.1	10.5	5.49

## 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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