

# 6-GFMJ Series

Gel Valve Regulated Sealed Battery

6-GFMJ-90



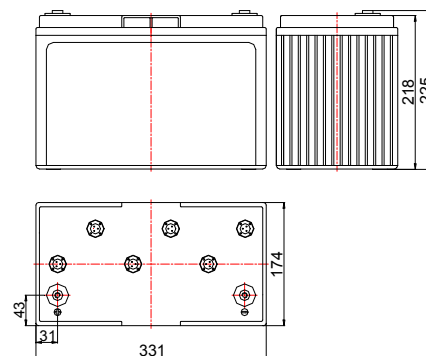
## Main Applications

- ▶ 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	90 Ah @ 10hr to 1.80V per cell @ 25°C (77°F)
Weight	29.0 kg (63.9 lbs)
Dimensions	Length: 331 mm Width: 174 mm Height: 218 mm Total height: 225 mm
Internal Resistance (full charged)	Approx. 5.5 mΩ @ 25°C(77°F)
Short-circuit Current	558 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	18.0 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

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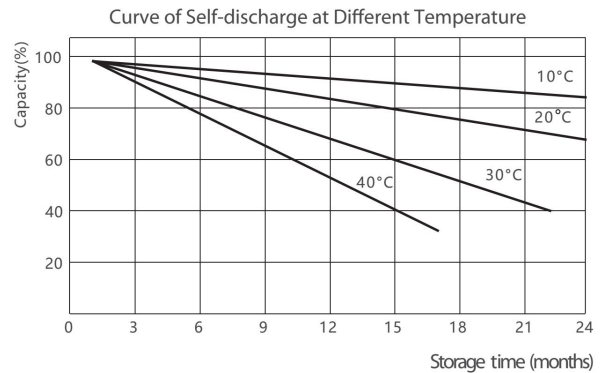
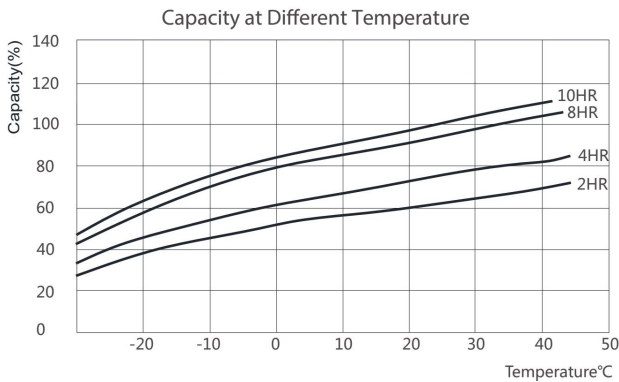
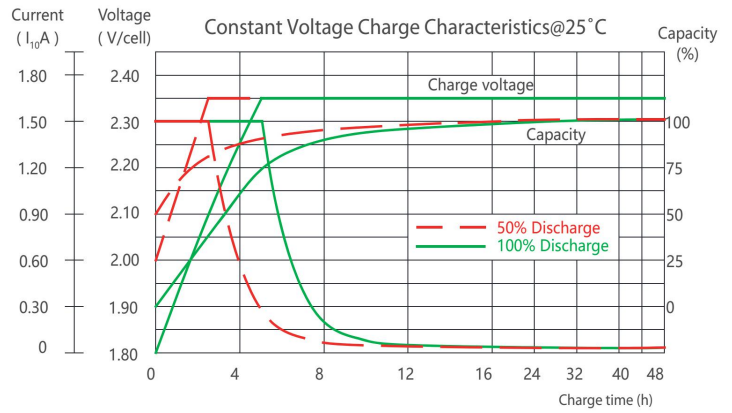
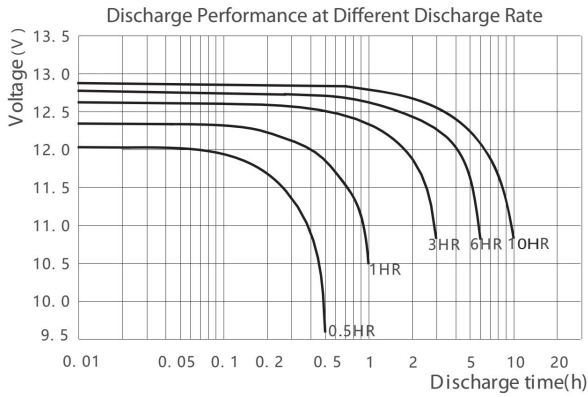
## Constant Current Discharge Characteristics Unit: A (25°C, 77°F)

F.V/Time	30min	1hr	2hr	3hr	4hr	5hr	6hr	8hr	10hr	20hr
1.85V/cell	78.6	48.6	29.1	21.7	17.5	14.6	12.9	10.5	8.89	4.67
1.80V/cell	83.3	50.0	30.3	22.6	18.0	15.0	13.2	10.7	9.10	4.75
1.75V/cell	87.6	51.8	31.1	23.0	18.4	15.4	13.4	10.9	9.24	4.82
1.70V/cell	91.2	53.4	32.0	23.5	18.7	15.7	13.7	11.0	9.30	4.88
1.67V/cell	94.3	54.7	32.6	23.9	19.1	15.9	13.9	11.1	9.35	4.92
1.60V/cell	97.6	55.9	33.2	24.4	19.3	16.1	14.1	11.2	9.40	4.96

## 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	150	93.9	57.4	43.0	34.6	29.2	25.7	21.0	17.8	9.34
1.80V/cell	159	96.1	59.4	44.4	35.6	29.9	26.4	21.3	18.1	9.47
1.75V/cell	166	99.4	61.1	45.2	36.2	30.4	26.7	21.6	18.3	9.54
1.70V/cell	173	102	62.4	46.1	36.8	30.8	27.1	21.8	18.4	9.67
1.67V/cell	177	104	63.5	46.8	37.4	31.2	27.4	22.0	18.5	9.75
1.60V/cell	182	106	64.4	47.3	37.7	31.4	27.6	22.2	18.6	9.82

## 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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