



# 6GFM150 (12V150Ah)



6GFM150 is a general purpose battery with 10 years floating design life, meet with IEC, JIS .BS and Eurobat standard. With heavy duty grid, thickness plates, special additives, GFM series battery have long and reliable standby service life. Our GFM Series batteries keep high consistent for better performance in series usage.

## Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	150Ah@10hr-rate to 1.75V per cell @25.0C
Weight	Approx. 44.5 Kg
Max. Discharge Current	1500A (5 sec)
Internal Resistance	Approx. 4 mΩ
Operating Temperature Range	Discharge: -20 C~60 C ° Charge: 0 C~50 C Storage: -20 C~60 C
Normal Operating Temperature Range	25.0C±5.0C
Float charging Voltage	13.6 to 13.8 VDC/unit Average at 25.0C
Recommended Maximum Charging Current Limit	45A
Equalization and Cycle Service	14.6 to 14.8 VDC/unit Average at 25.0C
Self Discharge	QIANGJUN batteries can be stored for more than 6 months at 25.0C. Self-discharge ratio less than 3% per month at 25.0C. Please charge batteries before using.
Terminal	Terminal F5/F12
Container Material	A.B.S. (UL94-HB), Flammability resistance of UL94-V1 can be available upon request.



MH28539



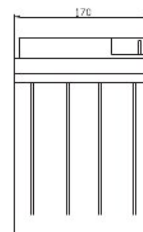
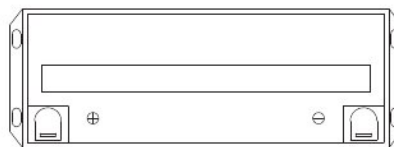
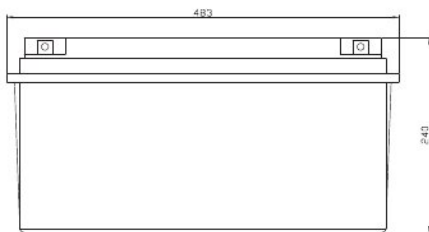
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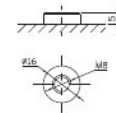
ISO9001:2000 Certificate

## Dimensions

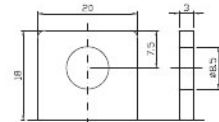
Unit: mm Dimension: 483(L)×170(W)×240 (H)



Terminal F12



Terminal F5



## Constant Current Discharge Characteristics: A (25.0C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	4 70.16	3 36.91	266.76	167.33	97.500	54.464	39.150	32.400	26.5 20	18.633	15.754	8 .3317
10.0V	4 57.59	3 20.57	261.29	164.56	97.050	54.054	39.000	32 .250	26.3 64	18.481	15.603	8 .1802
10.2V	4 31.19	3 09.25	257.18	163.11	96.150	53.645	38.700	32 .100	26.2 08	18.330	15.451	8 .0287
10.5V	3 87.19	2 85.37	244.87	159.03	95.250	53.235	38.550	31 .800	25.8 96	18.178	15.300	7 .8772
10.8V	3 60.29	2 60.22	225.72	152.05	93.000	52.280	37.500	31 .050	25.4 28	17.875	15.149	7 .7257
11.1V	3 13.63	2 32.57	202.46	142.44	88.350	49.959	35.850	29 .550	24.3 36	17.118	14.694	7 .2713

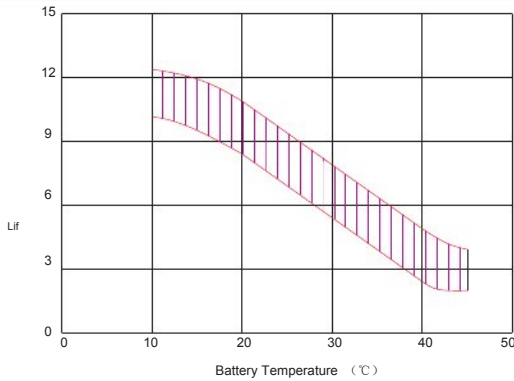
## Constant Power Discharge Characteristics: W(25.0C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.6V	4 477.9	3 375.7	2813.1	1849.4	1115.1	626.54	451.80	37 4.40	307.01	216 .21	177 .15	9 3.571
10.0V	4 386.4	3 224.2	2754.6	1826.3	1109.7	624.08	450.90	37 3.50	305.14	215 .31	175 .33	9 2.663
10.2V	4 140.6	3 116.8	2717.2	1804.9	1101.6	618.35	448.20	37 1.70	304.20	213 .49	174 .42	9 1.754
10.5V	3 728.6	2 880.0	2591.0	1763.9	1090.8	612.61	445.50	36 9.00	301.39	211 .67	172 .61	9 0.846
10.8V	3 457.6	2 614.9	2380.6	1683.5	1063.8	603.60	434.70	35 9.10	296.71	207 .13	170 .79	8 9.938
11.1V	2 984.6	2 322.3	2125.8	1577.5	1008.0	575.76	413.10	34 2.00	281.74	199 .86	165 .34	8 6.304

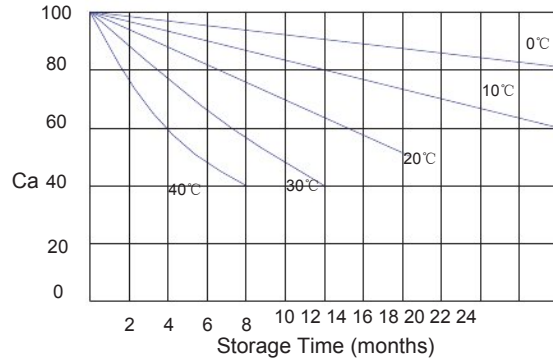
All mentioned values are average values.



### Effect of temperature on long term float life



### Storage characteristic



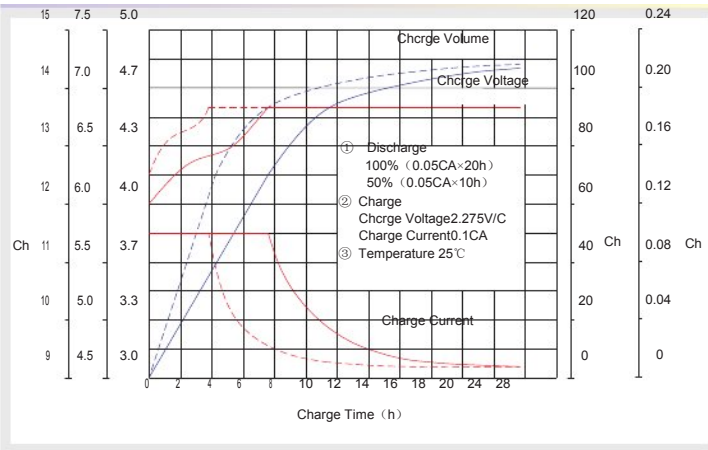
Supplementary charge required before use if 100% capacity is required

Supplementary charge required before use. This supplementary charge will help to recover the capacity and should be made as early as possible.

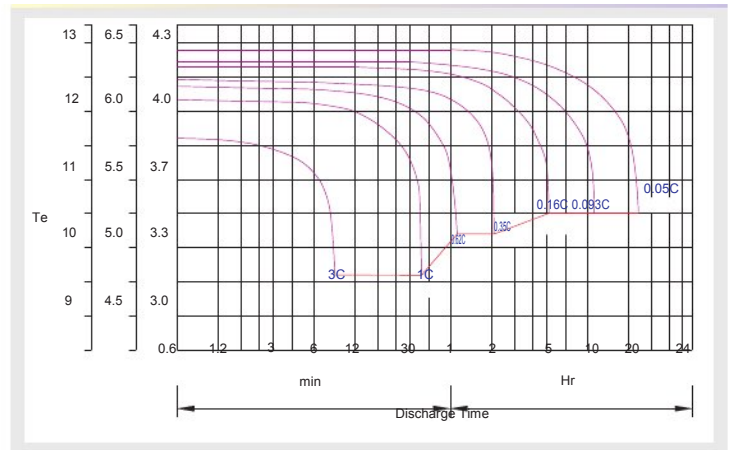
Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this state is reached

Supplementary charge and storage guidelines

### Charge characteristic Curve for standby use



### Discharge characteristic Curve



### Capacity Factors With Different Temperature

Battery Type		-20°C	-10°C	0°C	5°C	10°C	20°C	25°C	30°C	40°C	45°C
Battery	GEL 6V&12V	50%	70%	83%	85%	90%	98%	100%	102%	104%	105%
	2V	60%	75%	85%	88%	92%	99%	100%	103%	105%	106%
Battery	AGM 6V&12V	46%	66%	76%	83%	90%	98%	100%	103%	107%	109%
	2V	55%	70%	80%	85%	92%	99%	100%	104%	108%	110%

### Discharge Current VS. Discharge Voltage

Final Discharge Voltage V/cell	1.75V	1.70V	1.60V
Discharge Current (A)	(A) ≤ 0.2C	0.2C < (A) < 1.0C	(A) ≥ 1.0C

Charge the batteries at least once every six months, if they are stored at 25°C.

Charging Method:

Constant Voltage	-0.2Cx2h+2.4-2.45V/cellx24h, Max. Current 0.3CA
Constant Current	-0.2Cx2h+0.1CAx12h
Fast	-0.2Cx2h+0.3CAx4.0h

### Maintenance & Cautions

#### Float Service:

- ※ Every month, recommend inspection every battery voltage.
- ※ Every three months, recommend equalization charge for one time.

#### Equalization charge method:

Discharge: 100% rate capacity discharge.

Charge: Max. current 0.3CA, constant voltage 2.4-2.45V/Cell charge 24h.

- ※ Effect of temperature on float charge voltage: -3mV/°C/Cell.

- ※ Length of service life will be directly affected by the number of discharge cycles, depth of discharge, ambient temperature and charging voltage.

