



6GFM38 (12V38Ah)



6GFM38 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.

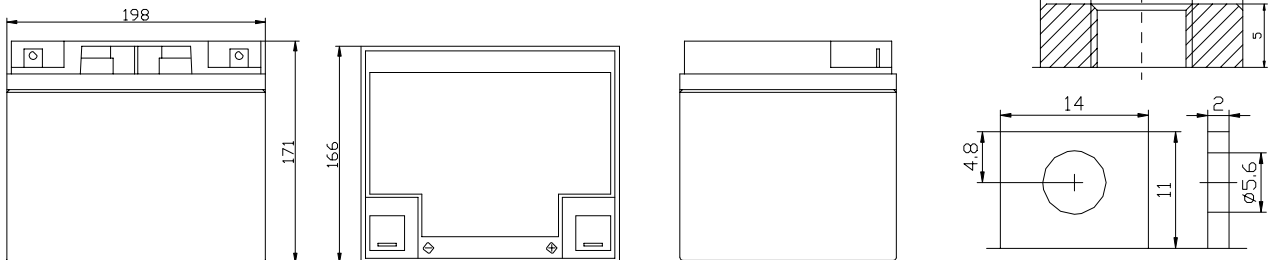
Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	38Ah@10hr-rate to 1.75V per cell @25°C
Weight	Approx. 12.8 Kg
Max. Discharge Current	380A (5 sec)
Internal Resistance	Approx. 8 mΩ
Operating Temperature Range	Discharge: -20°C~60°C Charge: 0°C~50°C Storage: -20°C~60°C
Normal Operating Temperature Range	25°C±5°C
Float charging Voltage	13.6 to 13.8 VDC/unit Average at 25°C
Recommended Maximum Charging Current Limit	11.4 A
Equalization and Cycle Service	14.6 to 14.8 VDC/unit Average at 25°C
Self Discharge	QIANGJUN batteries can be stored for more than 6 months at 25°C. Self-discharge ratio less than 3% per month at 25°C. Please charge batteries before using.
Terminal	Terminal F4/F11
Container Material	A.B.S. (UL94-HB), Flammability resistance of UL94-V1 can be available upon request.



Dimensions

Unit: mm Dimension: 198(L)×166(W)×171(H)



Constant Current Discharge Characteristics: A (25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	119.51	87.990	67.579	43.700	24.700	13.797	9.9180	8.2080	6.7184	4.7203	3.9911	2.1107
10.0V	116.05	83.722	66.193	42.978	24.586	13.694	9.8800	8.1700	6.6789	4.6819	3.9528	2.0723
10.2V	112.61	80.767	65.153	42.598	24.358	13.590	9.8040	8.1320	6.6394	4.6435	3.9144	2.0339
10.5V	101.12	74.529	62.034	41.534	24.130	13.486	9.7660	8.0560	6.5603	4.6051	3.8760	1.9956
10.8V	91.27	67.962	57.182	39.710	23.560	13.244	9.5000	7.8660	6.4418	4.5284	3.8376	1.9572
11.1V	79.453	60.739	51.291	37.202	22.382	12.656	9.0820	7.4860	6.1651	4.3365	3.7225	1.8421

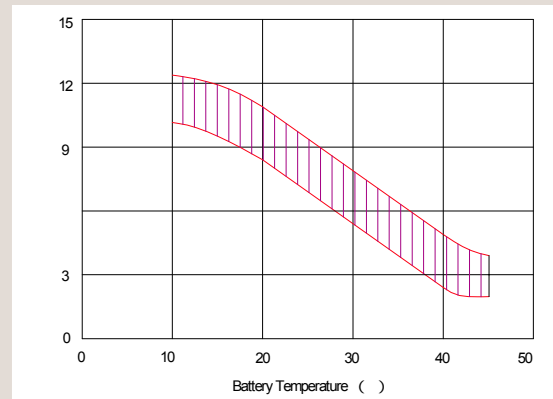
Constant Power Discharge Characteristics: W(25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	1165.7	870.2	727.19	468.51	282.49	158.72	114.46	94.848	77.775	54.774	44.878	23.705
10.0V	1134.5	831.13	712.08	462.66	281.12	158.10	114.23	94.620	77.301	54.544	44.418	23.475
10.2V	1100.4	803.44	702.41	457.24	279.07	156.65	113.54	94.164	77.064	54.084	44.187	23.244
10.5V	990.9	742.39	669.78	446.85	276.34	155.20	112.86	93.480	76.353	53.623	43.727	23.014
10.8V	891.3	674.06	615.39	426.49	269.50	152.91	110.12	90.972	75.167	52.473	43.267	22.784
11.1V	769.36	598.63	549.52	399.63	255.36	145.86	104.65	86.640	71.373	50.632	41.886	21.864

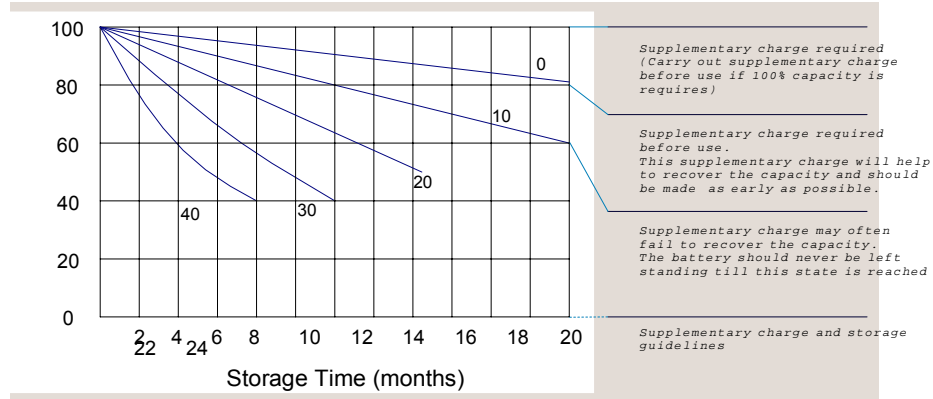
All mentioned values are average values.



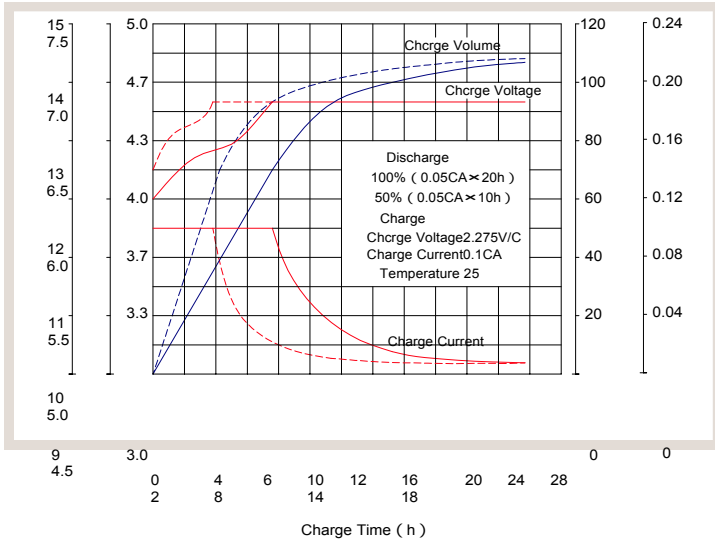
Effect of temperature on long term float life



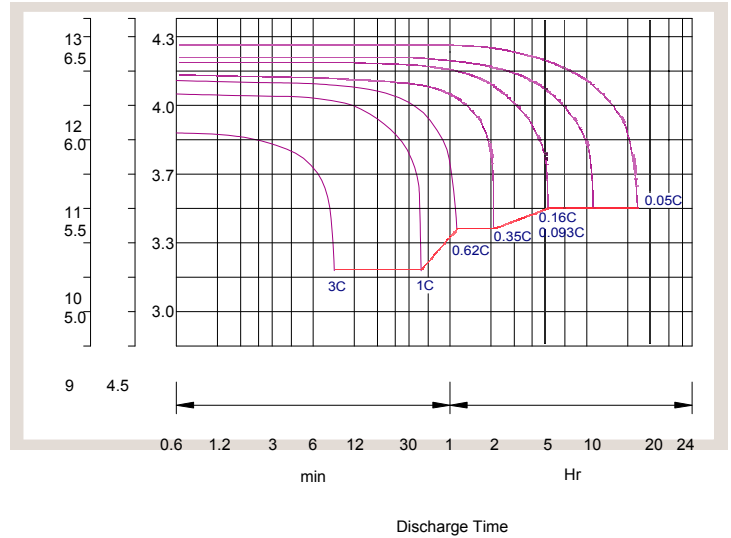
Storage characteristic



Charge characteristic Curve for standby use



Discharge characteristic Curve



Capacity Factors With Different Temperature

Battery Type		-20	-10	0	5	10	20	25	30	40	45
GEL Battery	6V&12V	50%	70%	83%	85%	90%	98%	100%	102%	104%	105%
	2V	60%	75%	85%	88%	92%	99%	100%	103%	105%	106%
AGM Battery	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

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

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