



# 6GFM65 (12V65Ah)



6GFM65 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.

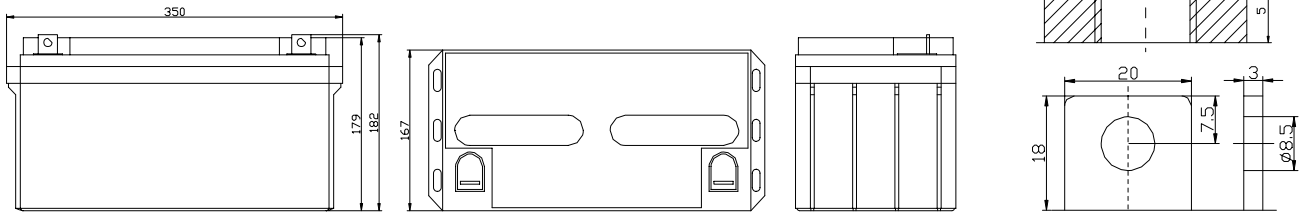
## Cells Per Unit

Cells Per Unit	
Voltage Per Unit	6
Capacity	12
Weight	65Ah@10hr-rate to 1.75V per cell @25°C
Max. Discharge Current	Approx. 21.0 Kg
Internal Resistance	650A (5 sec) Approx. 6 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	19.5 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 F5/F11
Container Material	A.B.S. (UL94-HB), Flammability resistance of UL94-V1 can be available upon request.



## Dimensions

Unit: mm Dimension: 350(L)×167(W)×180(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	204.42	150.51	115.60	74.750	42.250	23.601	16.965	14.040	11.492	8.0742	6.8269	3.6104
10.0V	198.51	143.21	113.22	73.515	42.055	23.423	16.900	13.975	11.424	8.0085	6.7613	3.5448
10.2V	192.63	138.15	111.45	72.865	41.665	23.246	16.770	13.910	11.357	7.9429	6.6956	3.4791
10.5V	172.97	127.48	106.11	71.045	41.275	23.069	16.705	13.780	11.222	7.8772	6.6300	3.4135
10.8V	156.12	116.25	97.81	67.925	40.300	22.654	16.250	13.455	11.019	7.7459	6.5644	3.3478
11.1V	135.91	103.90	87.734	63.635	38.285	21.649	15.535	12.805	10.546	7.4177	6.3674	3.1509

## Constant Power Discharge Characteristics: W(25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	1993.9	1488.5	1243.9	801.39	483.21	271.50	195.78	162.24	133.04	93.693	76.765	40.548
10.0V	1940.6	1421.7	1218.0	791.39	480.87	270.43	195.39	161.85	132.23	93.299	75.978	40.154
10.2V	1882.2	1374.3	1201.5	782.13	477.36	267.95	194.22	161.07	131.82	92.512	75.584	39.760
10.5V	1694.9	1269.9	1145.7	764.34	472.68	265.47	193.05	159.90	130.60	91.724	74.797	39.367
10.8V	1524.6	1153.0	1052.6	729.51	460.98	261.56	188.37	155.61	128.58	89.756	74.009	38.973
11.1V	1316.0	1024.0	939.97	683.57	436.80	249.49	179.01	148.20	122.09	86.607	71.647	37.398

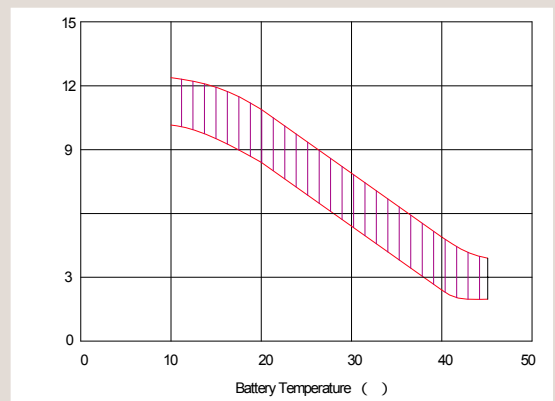
All mentioned values are average values.

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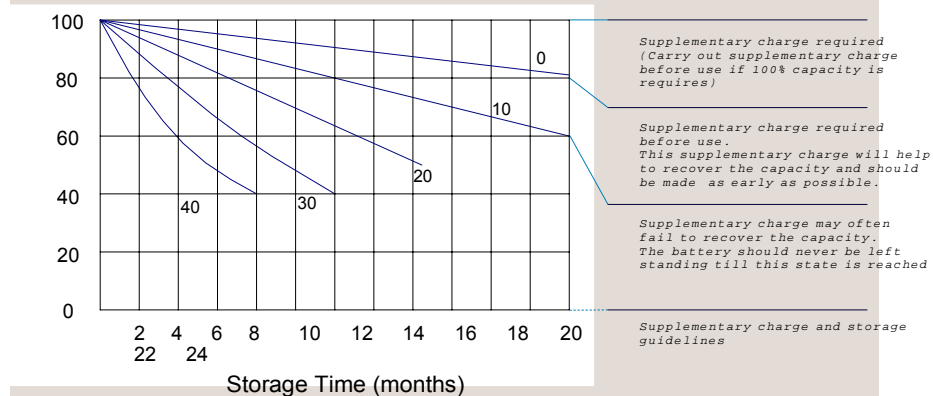
12V65Ah



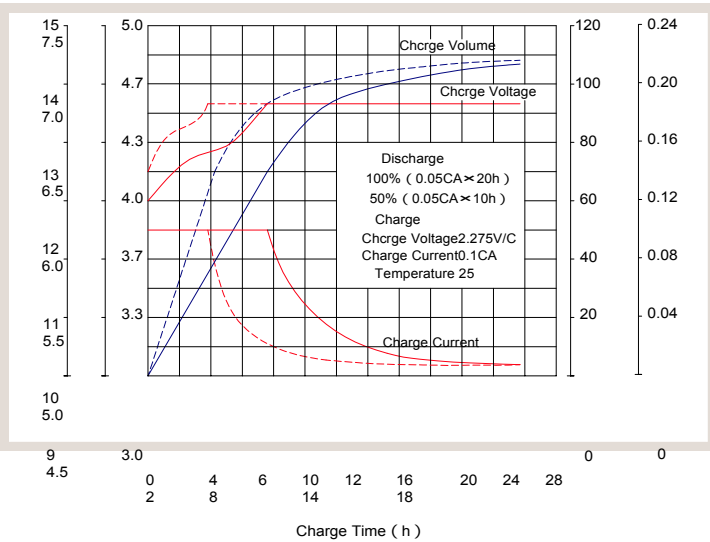
## Effect of temperature on long term float life



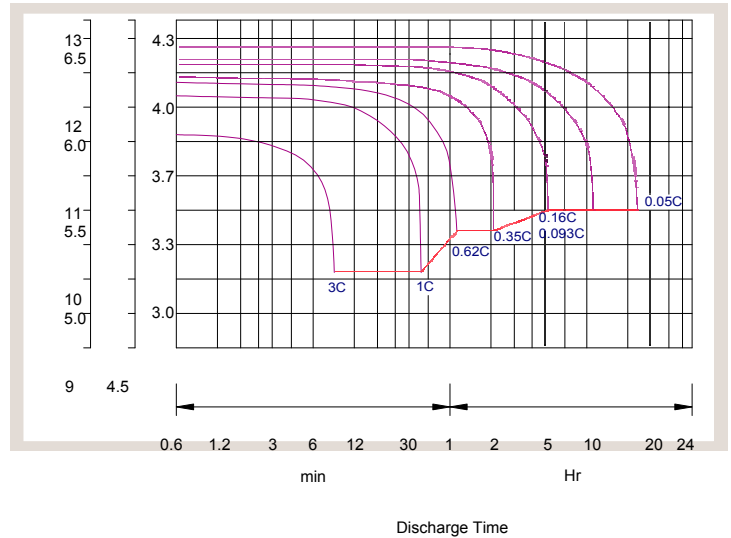
## Storage characteristic



## 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

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

<b>Float Service:</b>
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.