



# FUJIAN YAHENG POWER TECHNOLOGY GROUP CO.,LTD

## GEL 6GFM90D 12V90AH



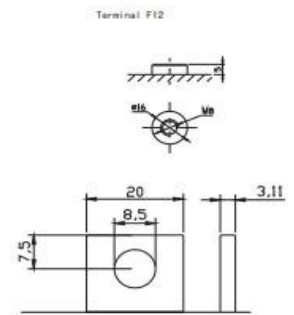
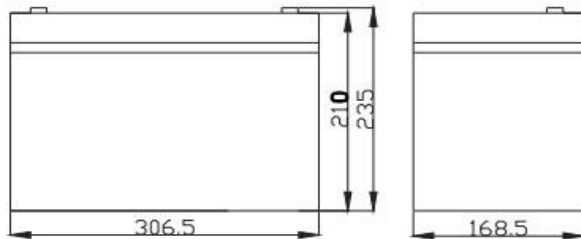
6GFM90D is a deep cycle purpose GEL battery . with specially designed for frequent cyclic discharge usage. By using strong grid and specific paste plate, the battery offers 50% more cyclic life than the standby series. It is applicable for power tools, solar & wind energy, telecom system, etc..

### Specification

Cells Per Unit	6
Voltage Per Unit	12V
Capacity	90AH@10hr-rate to 1.75V per cell @ 25°C
Weight	Approx. 28.0kg (Tolerance±3%)
Max. Discharge Current	900A(5sec)
Internal Temperature Range	Discharge: -20°C~60°C Charge: 0°C~50°C Storage: -20°C~60°C
Normal Operating Temperature Range	25±5°C
Float Charging Voltage	13.6 to 13.8 VDC/unit Average at 25°C
Recommended Maximum Charging	29.0A
Equalization and Cycle service	14.4 to 14.8 VDC /unit Average at 25°C
Self Discharge	YAHENG Vale Regulated Lead Acid(VRLA) Can be stored for more than 6 months at 25°C. Self-discharge ratio less than 3% per month at25°C. Please charge batteries before using.
Terminal	Terminal F12/ L20
Container Material	A.B.S. UL94-HB, Flammability resistance of UL94-V2 can be avail upon request

### Dimensions

Unit: mm Dimension: 306.5(L)×168.5(W)×235(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	301.6	222.0	173.1	105.5	58.50	34.98	24.16	20.01	16.85	11.51	9.55	5.09
10.0V	292.8	211.3	169.5	103.7	58.23	34.72	24.07	19.92	16.75	11.41	9.45	5.00
10.2V	284.2	203.8	166.9	101.7	57.69	34.46	23.88	19.83	16.65	11.32	9.36	4.91
10.5V	255.2	188.1	158.9	101.0	57.15	34.20	23.79	19.64	16.45	11.23	9.27	4.82
10.8V	230.3	171.5	146.5	99.2	55.80	33.58	23.14	19.18	16.15	11.04	9.18	4.72
11.1V	196.6	153.3	131.4	92.9	53.01	32.09	22.12	18.25	15.46	10.57	8.90	4.44

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

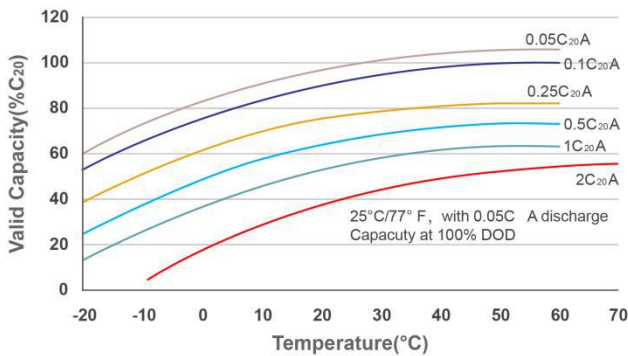
F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	3181	2365	1887	1184	676	412.4	287.5	238.5	201.0	137.4	114.1	61.07
10.0V	3119	2292	1857	1169	674	410.2	287.6	238.2	200.5	136.7	113.3	60.01
10.2V	3083	2232	1836	1161	669	407.7	286.3	237.7	199.8	135.9	112.2	58.90
10.5V	2807	2078	1751	1153	663	404.7	285.2	235.5	197.4	134.7	111.2	57.78
10.8V	2556	1916	1618	1134	651	399.6	277.5	230.1	193.9	132.5	110.1	56.67
11.1V	2245	1732	1457	1068	623	384.7	265.5	219.0	185.5	126.9	106.8	53.34

All mentioned values are average values.



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## Temperature and Valid Capacity



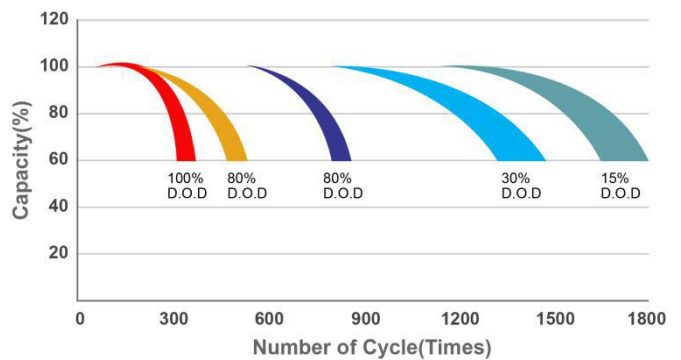
## Discharge Characteristics at Various Rates @25°C/77



## Charge characteristic curve for standby use



## Life characteristics of cyclic use



## Discharge Current VS. Discharge Voltage

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

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

Charging Method:

Constant Voltage	-0.2C*2h+2.4-2.45V/cell*24h, Max.Current 0.3CA
Constant Current	-0.2C*2h+0.1CA*12h
Fast	-0.2C*2h+0.3CA*4.0h

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

## Contact us:

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