



# FUJIAN YAHENG POWER TECHNOLOGY GROUP CO.,LTD

## GEL 6FM50D 12V50AH



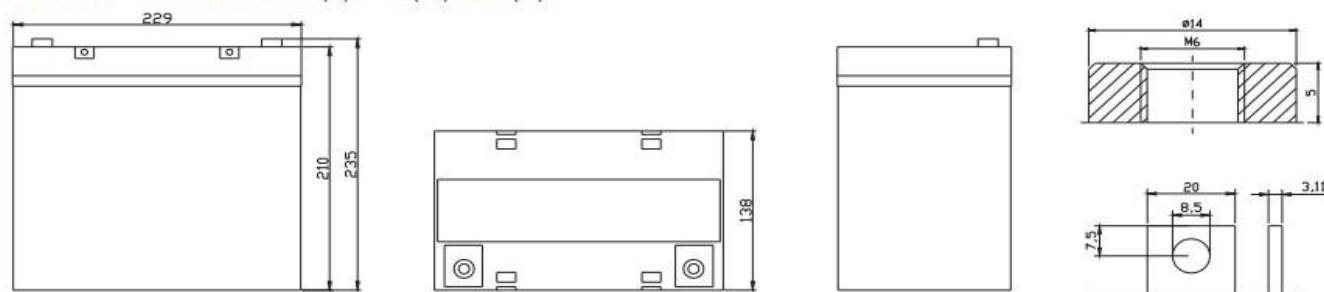
6FM50D is a deep cycle purpose GEL battery . with specially designed for frequent cyclic discharge usage. By using strong grid and specific paste plate, the battery offers 50% more cyclic life than the standby series. It is applicable for power tools, solar & wind energy, telecom system, etc..

### Specification

Cells Per Unit	6
Voltage Per Unit	12V
Capacity	50AH@20hr-rate to 1.75V per cell @ 25°C
Weight	Approx. 16.5kg (Tolerance±3%)
Max. Discharge Current	500A(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	15.0A
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 F14/ L20
Container Material	A.B.S. UL94-HB, Flammability resistance of UL94-V2 can be avail upon request

### Dimensions

Unit: mm Dimension: 229(L)×138(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	184.3	135.7	105.8	64.46	35.75	21.38	14.76	12.23	10.30	7.033	5.333	2.813
10.0V	179.0	129.1	103.6	63.34	35.59	21.22	14.71	12.17	10.24	6.976	5.277	2.756
10.2V	173.7	124.5	101.97	62.17	35.26	21.06	14.59	12.12	10.17	6.919	5.221	2.699
10.5V	155.9	114.9	97.09	61.70	34.93	20.90	14.54	12.00	10.05	6.861	5.165	2.643
10.8V	140.7	104.8	89.50	60.65	34.10	20.52	14.14	11.72	9.872	6.747	5.109	2.586
11.1V	120.2	93.7	80.28	56.78	32.40	19.61	13.52	11.15	9.448	6.461	4.941	2.416

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

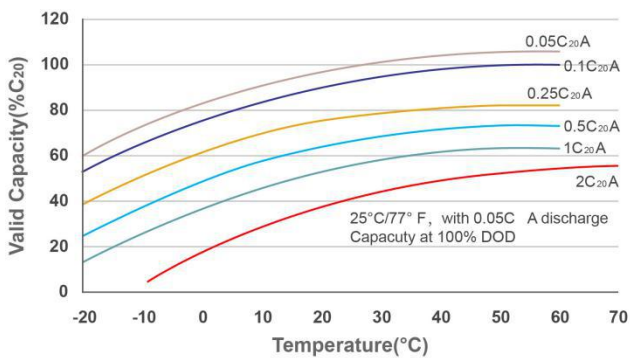
F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	1944	1445	1153	723.3	413.1	252.0	175.7	145.8	122.8	83.97	69.71	37.32
10.0V	1906	1401	1135	714.4	412.1	250.7	175.7	145.6	122.5	83.57	69.27	36.67
10.2V	1884	1364	1122	709.4	408.9	249.1	175.0	145.3	122.1	83.02	68.65	35.99
10.5V	1715	1270	1070	704.5	405.3	247.3	174.3	143.9	120.6	82.34	67.98	35.31
10.8V	1562	1171	989.0	693.2	397.8	244.2	169.6	140.6	118.5	80.96	67.31	34.63
11.1V	1372	1058	890.3	652.9	380.8	235.1	162.2	133.8	113.4	77.53	65.29	32.60

All mentioned values are average values.

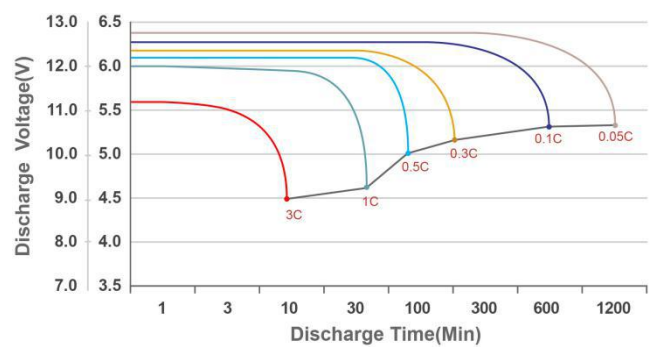


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## Temperature and Valid Capacity



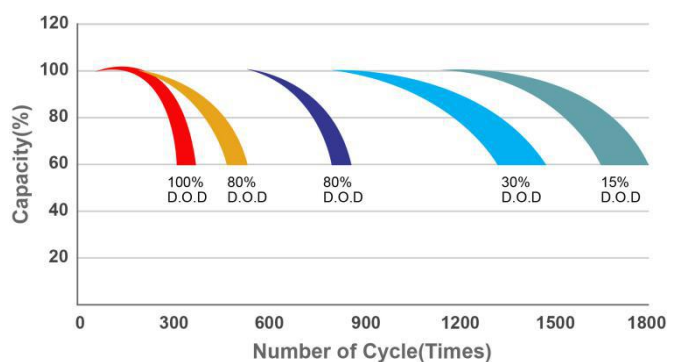
## Discharge Characteristics at Various Rates @25°C/77



## 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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