



# FUJIAN YAHENG POWER TECHNOLOGY GROUP CO.,LTD

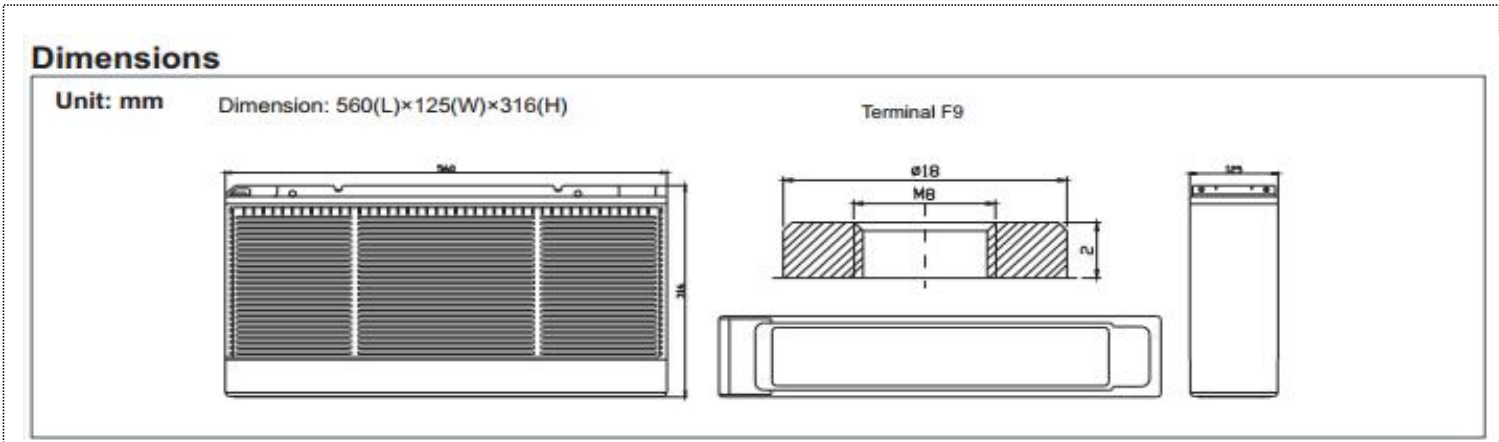


## GEL 6GFM180T 12V180AH

6GFM180T 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                           | 180AH@10hr-rate to 1.75V per cell @ 25°C  |
| Weight                             | Approx. 55.0kg (Tolerance±3%)   |
| Max. Discharge Current             | 1800A(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       | 54.0A   |
| 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 F9   |
| Container Material                 | A.B.S. UL94-HB, Flammability resistance of UL94-V2 can be avail upon request  |



### Constant Current Discharge Characteristics: A(25°C)

| F.V/Time | 5MIN  | 10MIN | 15MIN | 30MIN | 1HR   | 2HR   | 3HR   | 4HR   | 5HR   | 8HR   | 10HR  | 20HR  |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 9.60V    | 519.5 | 387.9 | 320.0 | 202.8 | 117.0 | 70.01 | 48.39 | 39.66 | 32.46 | 22.36 | 18.91 | 10.40 |
| 10.0V    | 504.5 | 369.1 | 313.5 | 199.4 | 116.5 | 69.48 | 48.20 | 39.47 | 32.27 | 22.18 | 18.72 | 10.21 |
| 10.2V    | 494.9 | 356.1 | 308.5 | 197.7 | 115.4 | 68.96 | 47.83 | 39.29 | 32.08 | 22.00 | 18.54 | 10.02 |
| 10.5V    | 454.2 | 328.6 | 293.8 | 192.7 | 114.3 | 68.43 | 47.65 | 38.92 | 31.70 | 21.81 | 18.36 | 9.83  |
| 10.8V    | 418.8 | 299.6 | 276.3 | 184.3 | 111.6 | 67.20 | 46.35 | 38.01 | 31.12 | 21.45 | 18.18 | 9.64  |
| 11.1V    | 376.4 | 267.8 | 247.8 | 172.6 | 106.0 | 65.22 | 44.31 | 36.17 | 29.79 | 20.54 | 17.63 | 9.07  |

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

| F.V/Time | 5MIN | 10MIN | 15MIN | 30MIN | 1HR  | 2HR   | 3HR   | 4HR   | 5HR   | 8HR   | 10HR  | 20HR  |
|----------|------|-------|-------|-------|------|-------|-------|-------|-------|-------|-------|-------|
| 9.60V    | 5373 | 4131  | 3520  | 2312  | 1352 | 825.2 | 575.8 | 472.7 | 387.3 | 267.0 | 225.9 | 124.7 |
| 10.0V    | 5267 | 4005  | 3464  | 2284  | 1349 | 820.8 | 576.0 | 472.1 | 386.3 | 265.7 | 224.5 | 122.5 |
| 10.2V    | 5265 | 3899  | 3425  | 2267  | 1338 | 815.9 | 573.5 | 471.1 | 384.9 | 263.9 | 222.5 | 120.2 |
| 10.5V    | 4898 | 3631  | 3267  | 2215  | 1326 | 809.9 | 571.3 | 466.7 | 380.4 | 261.8 | 220.3 | 118.0 |
| 10.8V    | 4557 | 3347  | 3081  | 2123  | 1302 | 799.6 | 555.7 | 456.1 | 373.5 | 257.4 | 218.1 | 115.7 |
| 11.1V    | 4214 | 3026  | 2773  | 1994  | 1246 | 769.9 | 531.7 | 434.0 | 357.4 | 246.5 | 211.6 | 108.9 |

All mentioned values are average values.



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## Temperature and Valid Capacity



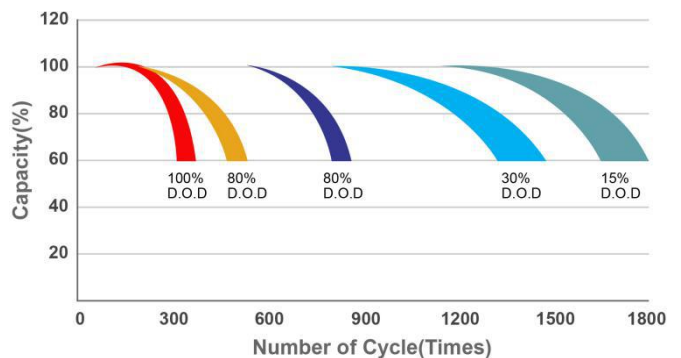
## Discharge Characteristics at Various Rates @25°C/77



## 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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