



# FUJIAN YAHENG POWER TECHNOLOGY GROUP CO.,LTD

## GEL 6GFM160D 12V160AH



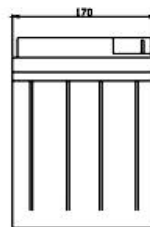
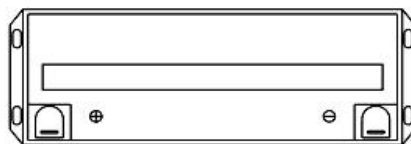
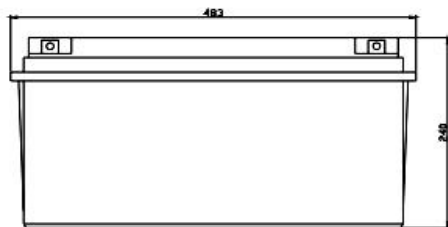
6GFM160D is a deep cycle purpose GEL battery . with specially designed for frequent cyclic discharge usage. By using strong grid and specific paste plate, the battery offers 50% more cyclic life than the standby series. It is applicable for power tools, solar & wind energy, telecom system, etc..

### Specification

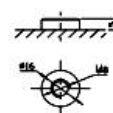
|                                    |                                                                                                                                                                               |
|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cells Per Unit                     | 6                                                                                                                                                                             |
| Voltage Per Unit                   | 12V                                                                                                                                                                           |
| Capacity                           | 160AH@10hr-rate to 1.75V per cell @ 25°C                                                                                                                                      |
| Weight                             | Approx. 48.0kg (Tolerance±3%)                                                                                                                                                 |
| Max. Discharge Current             | 1600A(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       | 48.0A                                                                                                                                                                         |
| 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

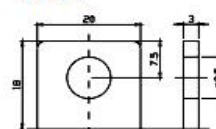
Unit: mm Dimension: 483(L)×170(W)×240(H)



Terminal F12



Terminal F5



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

| F.V/Time | 5MIN  | 10MIN | 15MIN | 30MIN | 1HR   | 2HR   | 3HR   | 4HR   | 5HR   | 8HR   | 10HR  | 20HR  |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 9.60V    | 461.7 | 344.8 | 290.3 | 180.3 | 104.0 | 62.23 | 43.01 | 35.25 | 28.85 | 19.87 | 16.80 | 9.243 |
| 10.0V    | 448.4 | 328.1 | 284.3 | 177.3 | 103.5 | 61.76 | 42.85 | 35.09 | 28.68 | 19.71 | 16.64 | 9.075 |
| 10.2V    | 435.1 | 316.5 | 279.8 | 175.7 | 102.6 | 61.29 | 42.52 | 34.92 | 28.51 | 19.55 | 16.48 | 8.907 |
| 10.5V    | 190.7 | 292.1 | 266.4 | 171.3 | 101.6 | 60.83 | 42.35 | 34.60 | 28.17 | 19.39 | 16.32 | 8.738 |
| 10.8V    | 352.7 | 266.3 | 245.6 | 163.8 | 99.20 | 59.74 | 41.20 | 33.78 | 27.67 | 19.07 | 16.16 | 8.570 |
| 11.1V    | 301.1 | 238.0 | 220.3 | 153.5 | 94.24 | 57.08 | 39.39 | 32.15 | 26.48 | 18.26 | 15.67 | 8.066 |

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

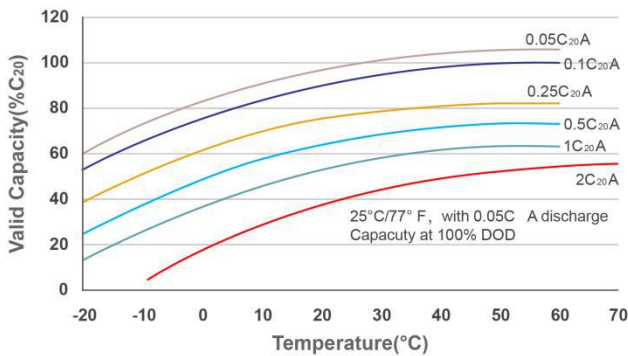
| F.V/Time | 5MIN | 10MIN | 15MIN | 30MIN | 1HR  | 2HR   | 3HR   | 4HR   | 5HR   | 8HR   | 10HR  | 20HR  |
|----------|------|-------|-------|-------|------|-------|-------|-------|-------|-------|-------|-------|
| 9.60V    | 4776 | 3672  | 3193  | 2065  | 1202 | 733.5 | 511.9 | 420.2 | 344.2 | 237.3 | 200.8 | 110.8 |
| 10.0V    | 4682 | 3560  | 3142  | 2030  | 1199 | 729.6 | 512.0 | 419.7 | 343.3 | 236.2 | 199.6 | 108.9 |
| 10.2V    | 4628 | 3466  | 3106  | 2015  | 1190 | 725.2 | 509.8 | 418.7 | 342.2 | 234.6 | 197.8 | 106.9 |
| 10.5V    | 4214 | 3227  | 2963  | 1969  | 1179 | 719.9 | 507.8 | 414.8 | 338.1 | 232.7 | 195.8 | 104.9 |
| 10.8V    | 3838 | 2975  | 2739  | 1887  | 1157 | 710.8 | 494.0 | 405.4 | 332.0 | 228.8 | 193.9 | 102.8 |
| 11.1V    | 3371 | 2690  | 2465  | 1772  | 1108 | 684.4 | 472.6 | 385.8 | 317.7 | 219.1 | 188.1 | 96.8  |

All mentioned values are average values.



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## Temperature and Valid Capacity



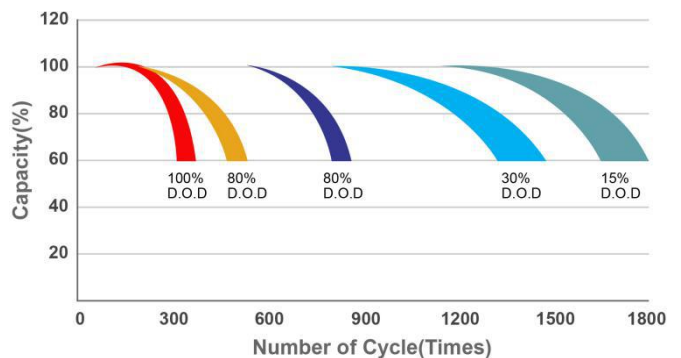
## Discharge Characteristics at Various Rates @25°C/77



## 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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