



# FUJIAN YAHENG POWER TECHNOLOGY GROUP CO.,LTD

## GEL 6FM33D 12V33AH

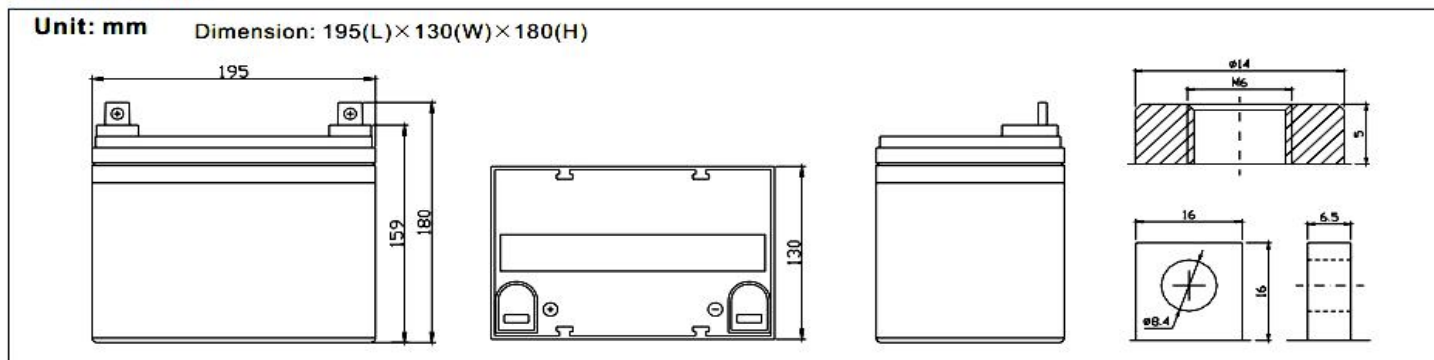


6FM33D is a deep cycle purpose GEL battery . with specially designed for frequent cyclic discharge usage. By using strong grid and specific paste plate, the battery offers 50% more cyclic life than the standby series. It is applicable for power tools, solar & wind energy, telecom system, etc..

### Specification

Cells Per Unit	6
Voltage Per Unit	12V
Capacity	33AH@20hr-rate to 1.75V per cell @ 25°C
Weight	Approx. 10.5kg (Tolerance±3%)
Max. Discharge Current	330A(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	9.9A
Equalization and Cycle service	14.6 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 at 25°C. Please charge batteries before using.
Terminal	Terminal F14/ L16
Container Material	A.B.S. UL94-HB, Flammability resistance of UL94-V2 can be avail upon request

### Dimensions



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

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	110.6	81.41	63.46	38.67	21.45	12.83	8.858	7.338	6.178	4.220	3.500	1.868
10.0V	107.4	77.46	62.16	38.01	21.35	12.73	8.824	7.304	6.141	4.185	3.466	1.834
10.2V	104.2	74.73	61.18	37.30	21.15	12.63	8.756	7.270	6.105	4.151	3.433	1.800
10.5V	93.56	68.95	58.26	37.02	20.96	12.54	8.722	7.202	6.032	4.117	3.399	1.766
10.8V	84.45	62.88	53.70	36.39	20.46	12.31	8.485	7.032	5.923	4.048	3.365	1.732
11.1V	72.10	56.20	48.17	34.07	19.44	11.77	8.111	6.692	5.669	3.877	3.264	1.630

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

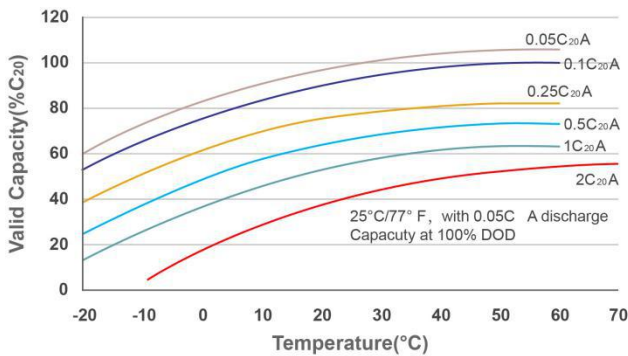
F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	1167	867.0	691.8	434.0	247.9	151.2	105.41	87.46	73.70	50.38	41.82	22.39
10.0V	1144	840.4	680.7	428.7	247.3	150.4	105.45	87.35	73.51	50.14	41.56	22.00
10.2V	1130	818.2	673.1	425.6	245.4	149.5	104.99	87.16	73.26	49.81	41.19	21.60
10.5V	1029	761.9	642.0	422.7	243.2	148.4	104.58	86.35	72.39	49.40	40.79	21.19
10.8V	937.4	702.4	593.4	415.9	238.7	146.5	101.73	84.38	71.08	48.58	40.38	20.78
11.1V	823.3	635.0	534.2	391.7	228.5	141.1	97.34	80.31	68.03	46.52	39.17	19.56

All mentioned values are average values.

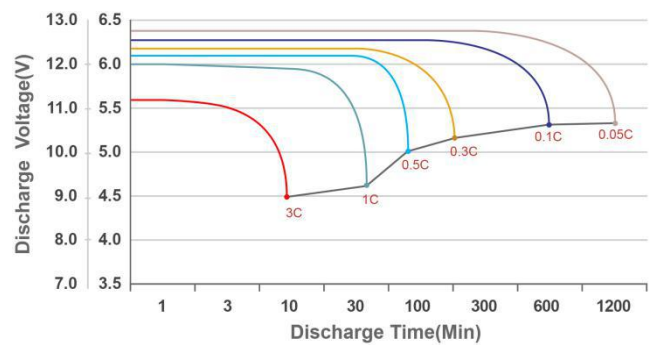


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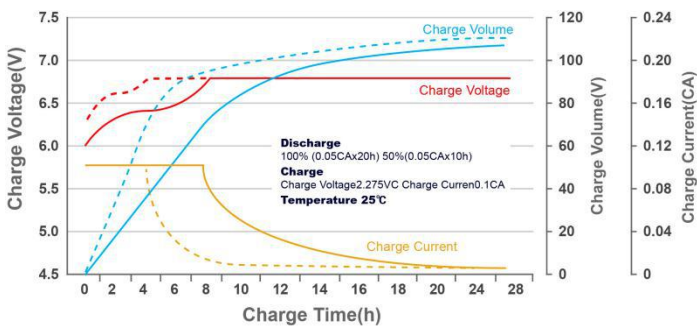
## Temperature and Valid Capacity



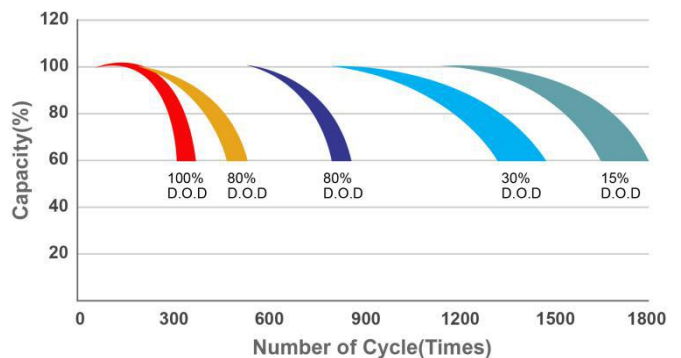
## Discharge Characteristics at Various Rates @25°C/77



## 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)	$A \leq 0.2C$	$0.2C \leq A \leq 1.0C$	$\geq 1.0C$

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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