

6-FM(G)-50Ah Gel Battery Specification

We are an ISO9001 certified organization. And the products are approved by CE & UL. The nominal voltage of this series is 12V. And the capacity ranges from 33Ah to 250Ah. Their typical applications include: emergency lighting systems, electricity power supply systems, communication systems, UPS systems, starting systems, solar systems etc.

Battery Construction

Component	Material
Positive plate	Lead dioxide
Negative plate	Lead
Container	ABS
Cover	ABS
Safety valve	Rubber
Terminal	Copper
Electrolyte	Gelled acid

General Features

Maintenance free
Convenient for installation
Safety and no leakage
Excellent recharge and discharge performance
Low self-discharge rate, charge each standby 6 months, temperature 25°C
Adapt to high or low temperature
Good deep discharge performance
Longer cycle life
UL approval

Performance Characteristics

1.Dimension and weight

Length	230mm
Width	137mm
Height	210mm
Total Height	215mm
Reference Weight	18kg

5.Charge Method: constant-voltage charging at 25°C (77° F)

Cyclic use	14.4~14.9V
Maximum charging current	12.5A
Temperature Compensation	-30mV/°C
Float Use	13.6~13.8V
Temperature Compensation	-20mV/°C

2.Functional Parameter

Rated Voltage	12V
Numbers of cells	6 Cells
Designed Life	10~12 Years

6.Environment Temperature Requirements

Discharge Temperature	-20~60°C
Charge Temperature	0~50°C
Storage Temperature	-20~60°C

3.Rated Capacity at 25°C (77° F)

10 hr rate (0.1C, 10.8V)	50Ah
3 hr rate (0.25C, 10.8V)	43.4Ah
1 hr rate (0.55C, 10.5V)	33Ah

7.Inner Resistance&Max. Discharge Current

A fully charged battery at 25°C (77° F)	7.5mΩ
Max. Discharge Current	750A (5s)
Short Circuit Current	2500A

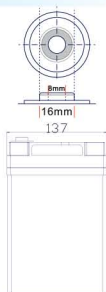
4.Capacity affected by Temperature (10hour rate)

40 °C (104° F)	103%
25 °C (77° F)	100%
0 °C (32° F)	85%
-15°C (5° F)	65%

8.Self-discharge

3% Of the capacity per month at 25°C (77° F)	
Capacity after 3 month storage	91%
Capacity after 6 month storage	82%
Capacity after 12 month storage	64%

Dimensions (mm)



3D Model Review



Constant-current discharge parameter Unit: A (25°C)

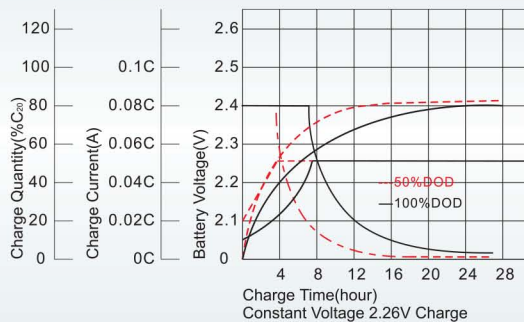
F.V/Time	20min	30min	45min	1h	2h	3h	5h	6h	8h	10h	20h
1.80V/cell	63.73	48.81	36.75	30.82	19.20	14.48	10.14	8.74	6.97	6.00	3.29
1.75V/cell	71.63	53.75	39.71	33.02	20.29	15.25	10.53	9.05	7.20	6.12	3.36
1.70V/cell	77.22	57.48	42.23	34.88	21.50	15.90	10.86	9.37	7.40	6.26	3.40
1.65V/cell	80.40	59.78	43.66	36.20	22.05	16.45	11.08	9.52	7.52	6.34	3.43
1.60V/cell	87.09	63.95	46.95	38.39	22.93	17.11	11.41	9.75	7.66	6.46	3.48

Constant-current discharge parameter Unit: W (25°C)

F.V/Time	20min	30min	45min	1h	2h	3h	5h	6h	8h	10h	20h
1.80V/cell	120.44	93.24	70.75	59.67	37.29	28.19	19.96	17.22	13.82	11.96	6.56
1.75V/cell	133.93	101.57	76.01	63.51	39.38	29.73	20.62	17.77	14.26	12.18	6.68
1.70V/cell	142.71	107.82	80.07	66.80	41.57	30.93	21.28	18.43	14.59	12.39	6.76
1.65V/cell	146.76	110.90	82.38	68.99	42.34	31.70	21.61	18.65	14.81	12.61	6.82
1.60V/cell	157.29	117.59	87.75	72.83	43.88	32.91	22.27	19.09	15.03	12.83	6.91

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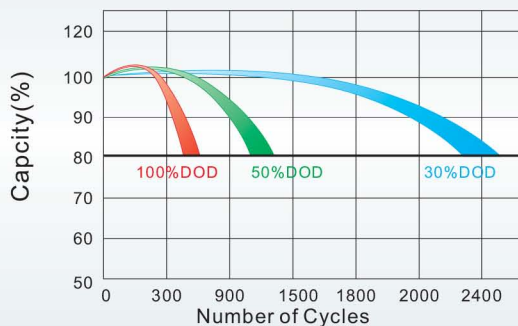
Charge Characteristics for Float Use @ 25°C/77°F



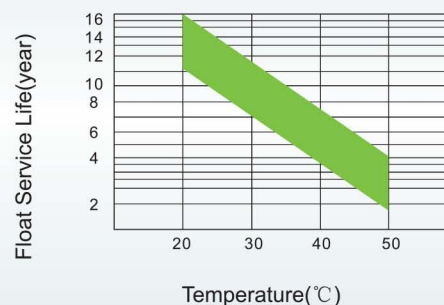
Discharge Characteristics at Various Rates @ 25°C/77°F



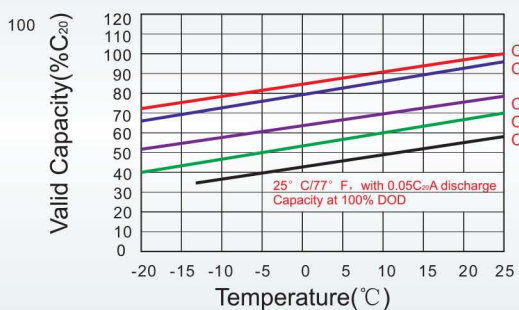
Cycle Life in Relation to Depth of Discharge



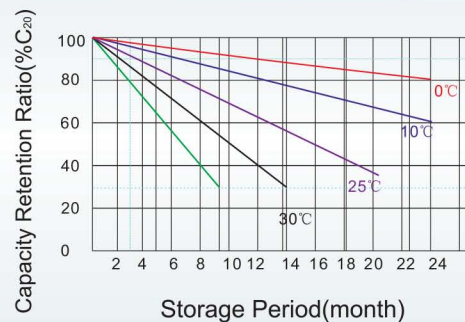
Float Service Life



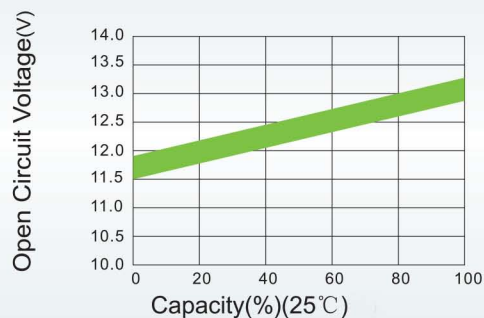
Temperature and Valid Capacity



Self Discharge Characteristics



Capacity and Open Circuit Voltage



Relationship between Charging Voltage and Temperature

