

6-GFM-180Ah Valve-regulated Lead Acid 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
Separator	-----	AGM glass
Electrolyte	-----	Sulfuric 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	-----	522mm
Width	-----	240mm
Height	-----	219mm
Total Height	-----	223mm
Reference Weight	-----	54.3kg

2. Functional Parameter

Rated Voltage	-----	12V
Numbers of cells	-----	6 Cells
Designed Life	-----	3~5 Years

3. Rated Capacity at 25°C(77°F)

10 hours rate (0.1C, 10.8V)	-----	180Ah
3 hours rate (0.25C, 10.8V)	-----	138Ah
1 hours rate (0.55C, 10.5V)	-----	99.4Ah

4. Capacity Affected by Temperature(10 hours rate)

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

5. Charge Method: Constant-Voltage Charging at 25°C(77°F)

Cyclic Use	-----	14.4~14.9V
Maximum Charging Current	-----	45A
Temperature Compensation	-----	-30mV/°C
Float Use	-----	13.6~13.8V
Temperature Compensation	-----	-20mV/°C

6. Environment Temperature Requirements

Discharge Temperature	-----	-15~50°C
Charge Temperature	-----	0~40°C
Storage Temperature	-----	-15~40°C

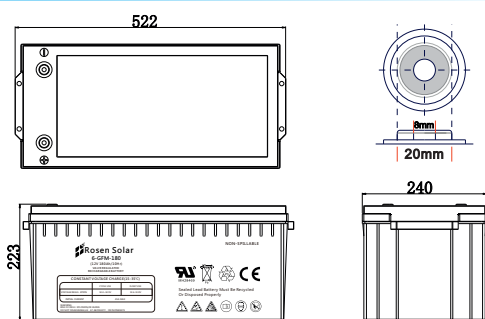
7. Inner Resistance & Max. Discharge Current

A fully charge battery at 25°C(77°F)	-----	3.3mΩ
Max. Discharge Current	-----	2700A(5S)
Short Circuit Current	-----	9000A

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	5min	10min	15min	20min	30min	45min	1h	3h	5h	10h	20h
1.80V/Cell	413.6	309.4	248.8	203.6	161.6	120.6	95.0	46.0	30.2	18.0	9.4
1.75V/Cell	466.2	340.0	271.8	219.0	167.8	125.0	99.4	46.8	31.0	18.2	9.5
1.70V/Cell	513.4	370.6	290.2	230.2	174.6	130.0	102.6	48.2	31.8	18.4	9.6
1.65V/Cell	566.2	400.0	308.6	244.6	184.2	133.4	106.0	50.2	32.6	18.7	9.8
1.60V/Cell	624.4	434.2	330.0	260.6	194.4	139.0	109.8	51.8	33.8	18.9	9.8

Constant-Power Discharge Parameter Unit: W(25°C)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	3h	5h	10h	20h
1.80V/Cell	748.0	565.0	458.2	378.2	303.2	229.8	182.4	89.2	59.0	35.6	18.5
1.75V/Cell	825.4	610.8	494.2	403.0	312.2	236.2	190.0	90.4	60.4	35.8	18.7
1.70V/Cell	883.8	650.6	520.4	420.4	323.2	244.8	195.2	92.8	61.8	36.2	19.0
1.65V/Cell	960.8	695.8	549.0	443.2	338.2	248.6	200.4	96.2	63.2	36.8	19.2
1.60V/Cell	1035.2	738.2	577.4	467.0	354.4	257.8	206.4	98.8	65.0	37.2	19.3

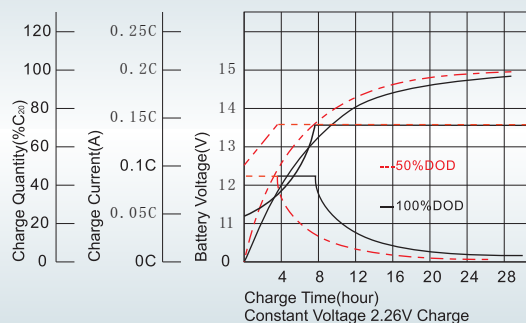


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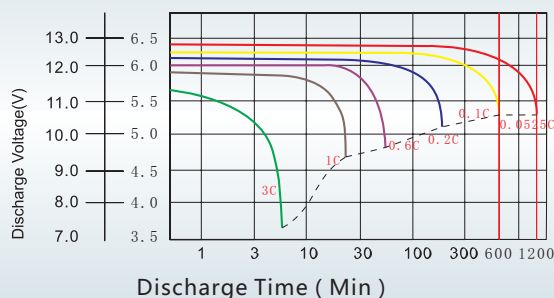
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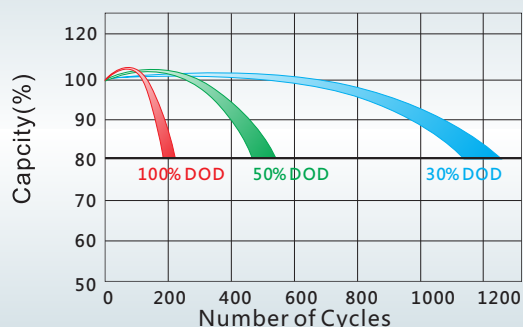
Charge Characteristics for Float Use @25°C/77°F



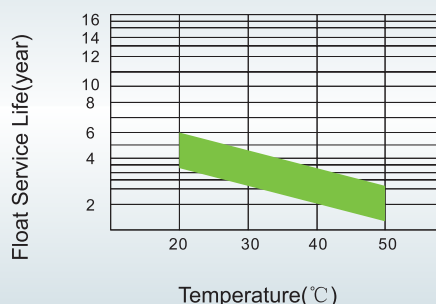
Discharge Characteristics at Various Rates @25°C/77°F



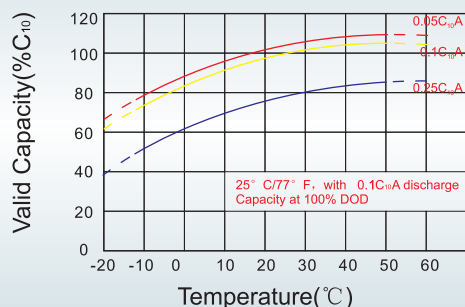
Cycle Life in Relation to Depth of Discharge



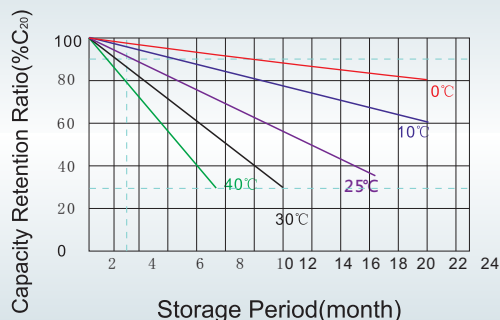
Float Service Life



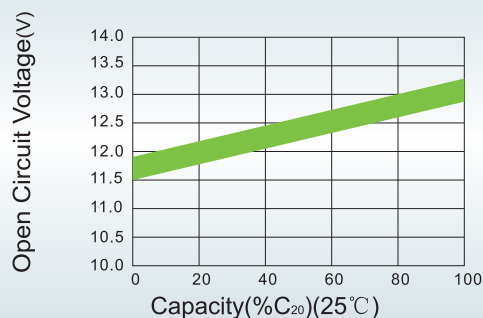
Temperature and Valid Capacity



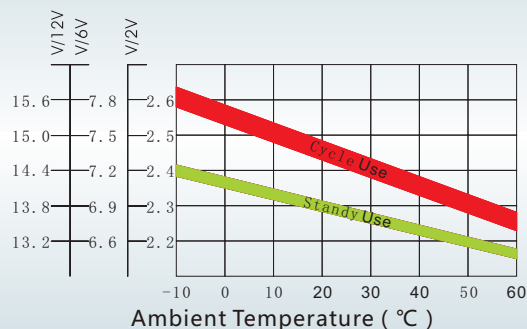
Self Discharge Characteristics



Capacity and Open Circuit Voltage



Relationship between Charging Voltage and Temperature



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