



# 6-GFM-150Ah 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	-----	486mm
Width	-----	171mm
Height	-----	241mm
Total Height	-----	241mm
Reference Weight	-----	43kg

### 2. Functional Parameter

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

### 3. Rated Capacity at 25°C(77°F)

10 hours rate (0.1C, 10.8V)	-----	150Ah
3 hours rate (0.25C, 10.8V)	-----	115Ah
1 hours rate (0.55C, 10.5V)	-----	82.8Ah

### 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	-----	37.5A
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

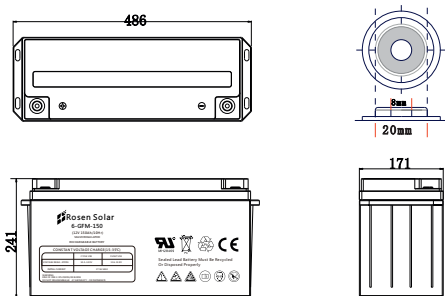
### 7. Inner Resistance & Max. Discharge Current

A fully charge battery at 25°C(77°F)	-----	3.5mΩ
Max. Discharge Current	-----	2250A(5S)
Short Circuit Current	-----	7500A

### 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)

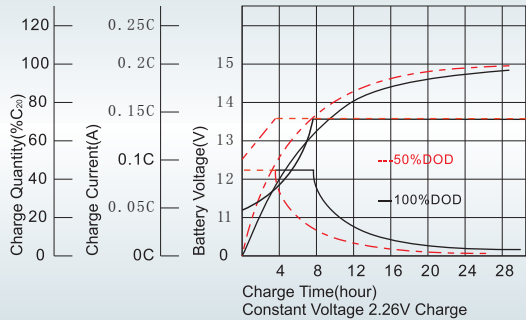
F.V/Time	5min	10min	15min	20min	30min	45min	1h	3h	5h	10h	20h
1.80V/Cell	344.7	257.8	207.3	169.7	134.7	100.5	79.2	38.3	25.2	15.0	7.8
1.75V/Cell	388.5	283.3	226.5	182.5	139.8	104.2	82.8	39.0	25.8	15.2	7.9
1.70V/Cell	427.8	308.8	241.8	191.8	145.5	108.3	85.5	40.2	26.5	15.3	8.0
1.65V/Cell	471.8	333.3	257.2	203.8	153.5	111.2	88.3	41.8	27.2	15.6	8.1
1.60V/Cell	520.3	361.8	275.0	217.2	162.0	115.8	91.5	43.2	28.2	15.8	8.2

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

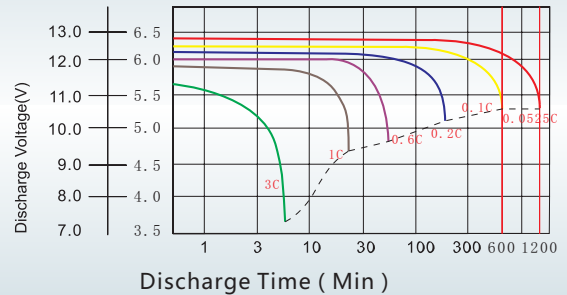
F.V/Time	5min	10min	15min	20min	30min	45min	1h	3h	5h	10h	20h
1.80V/Cell	623.3	470.8	381.8	315.2	252.7	191.5	152.0	74.3	49.2	29.7	15.4
1.75V/Cell	687.8	509.0	411.8	335.8	260.2	196.8	158.3	75.3	50.3	29.8	15.6
1.70V/Cell	736.5	542.2	433.7	350.3	269.3	204.0	162.7	77.3	51.5	30.2	15.9
1.65V/Cell	800.7	579.8	457.5	369.3	281.8	207.2	167.0	80.2	52.7	30.7	16.0
1.60V/Cell	862.7	615.2	481.2	389.2	295.3	214.8	172.0	82.3	54.2	31.0	16.1

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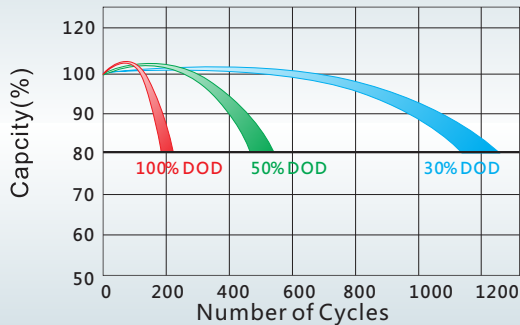
Charge Characteristics for Float Use @25°C/77°F



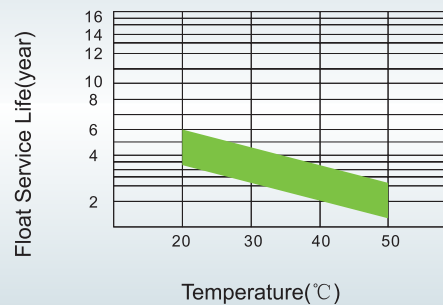
Discharge Characteristics at Various Rates @25°C/77°F



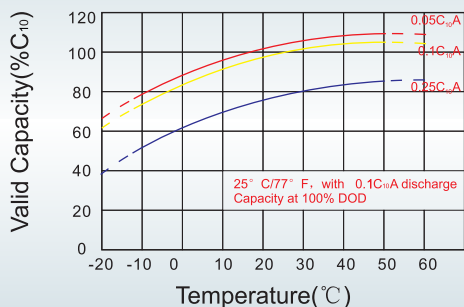
Cycle Life in Relation to Depth of Discharge



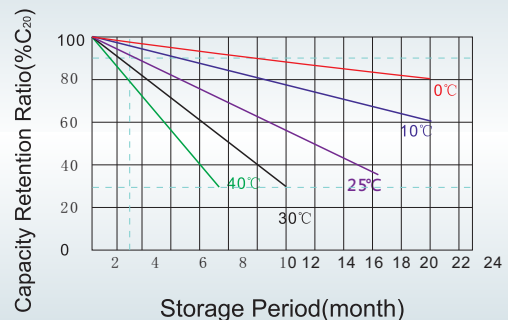
Float Service Life



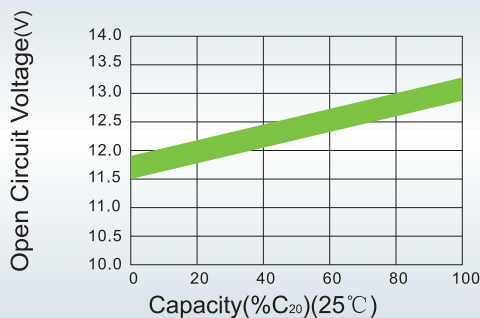
Temperature and Valid Capacity



Self Discharge Characteristics



Capacity and Open Circuit Voltage



Relationship between Charging Voltage and Temperature

