



# 6-GFM-38Ah 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	-----	196mm
Width	-----	165mm
Height	-----	170mm
Total Height	-----	170mm
Reference Weight	-----	11.8kg

### 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)	-----	38Ah
3 hours rate (0.25C, 10.8V)	-----	29.1Ah
1 hours rate (0.55C, 10.5V)	-----	21Ah

### 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	-----	9.5A
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

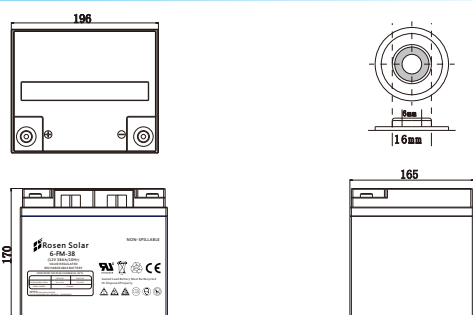
### 7. Inner Resistance & Max. Discharge Current

A fully charge battery at 25°C(77°F)	-----	9.6mΩ
Max. Discharge Current	-----	570A(5S)
Short Circuit Current	-----	1900A

### 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)

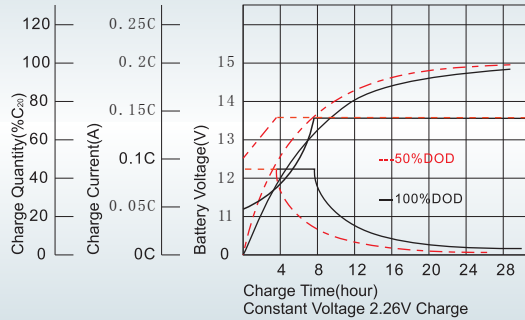
F.V/Time	5min	10min	15min	20min	30min	45min	1h	3h	5h	10h	20h
1.80V/Cell	87.31	65.36	52.54	43.04	34.11	25.46	20.05	9.69	6.38	3.80	1.98
1.75V/Cell	98.42	71.82	57.38	46.27	35.44	26.41	21.00	9.88	6.54	3.84	2.00
1.70V/Cell	108.40	78.28	61.28	48.64	36.86	27.46	21.66	10.17	6.71	3.88	2.03
1.65V/Cell	119.51	84.46	65.17	51.68	38.86	28.12	22.42	10.64	6.90	3.95	2.06
1.60V/Cell	131.86	91.68	69.64	55.01	41.04	29.36	23.18	10.93	7.13	4.00	2.07

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

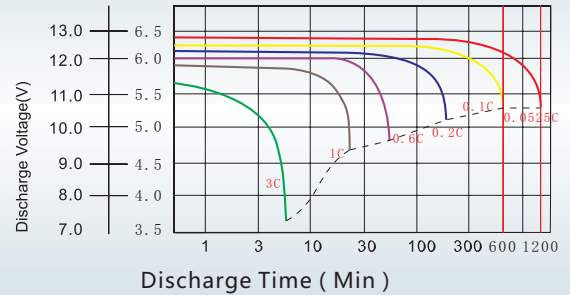
F.V/Time	5min	10min	15min	20min	30min	45min	1h	3h	5h	10h	20h
1.80V/Cell	157.89	119.23	96.71	79.90	64.03	48.55	38.48	18.81	12.45	7.51	3.90
1.75V/Cell	174.23	128.92	104.31	85.12	65.93	49.88	40.09	19.10	12.73	7.57	3.94
1.70V/Cell	186.58	137.37	109.82	88.73	68.21	51.68	41.23	19.57	13.02	7.65	4.02
1.65V/Cell	202.83	146.87	115.90	93.58	71.35	52.54	42.28	20.33	13.30	7.79	4.07
1.60V/Cell	218.50	155.80	121.89	98.61	74.86	54.44	43.61	20.90	13.78	7.86	4.08

# 6-GFM-38Ah Valve-regulated Lead Acid Battery Specification

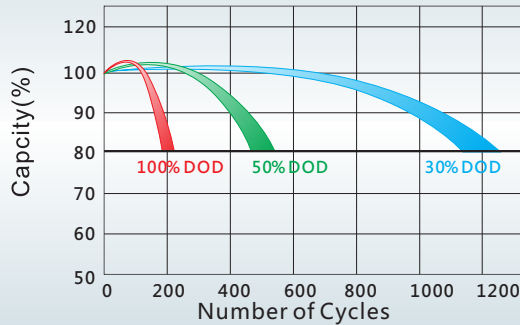
Charge Characteristics for Float Use @25°C/77°F



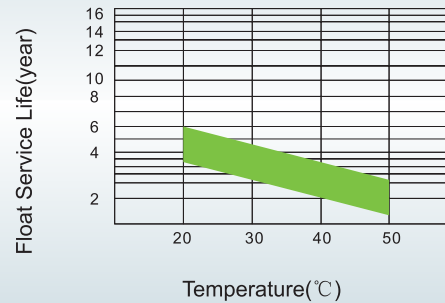
Discharge Characteristics at Various Rates @25°C/77°F



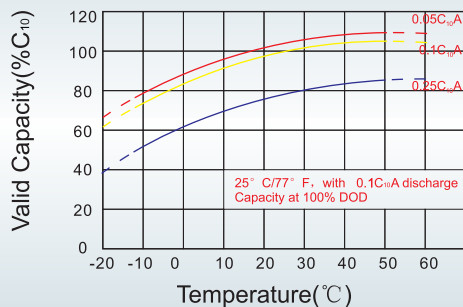
Cycle Life in Relation to Depth of Discharge



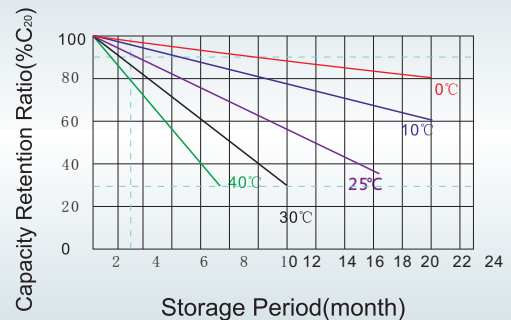
Float Service Life



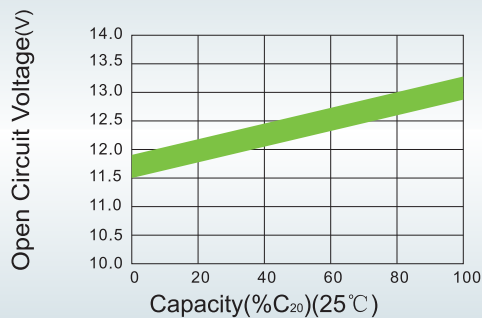
Temperature and Valid Capacity



Self Discharge Characteristics



Capacity and Open Circuit Voltage



Relationship between Charging Voltage and Temperature

