



## 6-GFM-80Ah 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	-----	330mm
Width	-----	173mm
Height	-----	217mm
Total Height	-----	222mm
Reference Weight	-----	25.5kg

#### 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)	-----	80Ah
3 hours rate (0.25C, 10.8V)	-----	61.2Ah
1 hours rate (0.55C, 10.5V)	-----	44.2Ah

#### 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	-----	20A
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

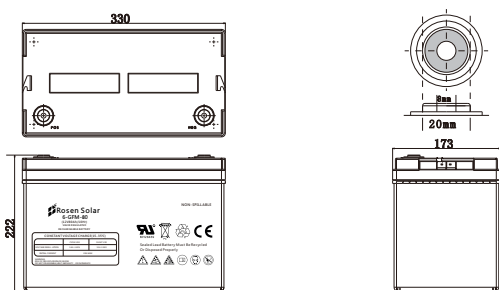
#### 7. Inner Resistance & Max. Discharge Current

A fully charge battery at 25°C(77°F)	-----	5.8mΩ
Max. Discharge Current	-----	1200A(5S)
Short Circuit Current	-----	4000A

#### 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)

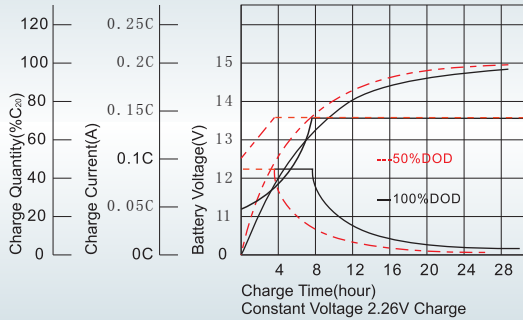
F.V/Time	5min	10min	15min	20min	30min	45min	1h	3h	5h	10h	20h
1.80V/Cell	183.8	137.5	110.6	90.5	71.8	53.6	42.2	20.4	13.4	8.0	4.16
1.75V/Cell	207.2	151.1	120.8	97.4	74.6	55.6	44.2	20.8	13.8	8.1	4.20
1.70V/Cell	228.2	164.7	129.0	102.3	77.6	57.8	45.6	21.4	14.1	8.2	4.28
1.65V/Cell	251.6	177.8	137.2	108.7	81.9	59.3	47.1	22.3	14.5	8.3	4.34
1.60V/Cell	277.5	193.0	146.7	115.8	86.4	61.8	48.8	23.0	15.0	8.4	4.36

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

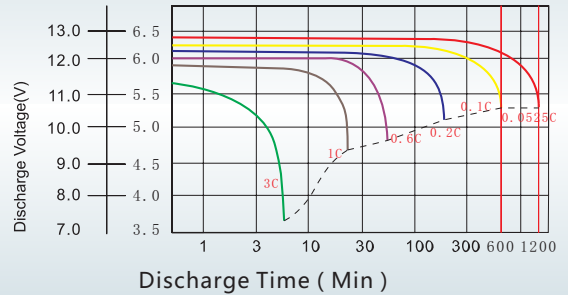
F.V/Time	5min	10min	15min	20min	30min	45min	1h	3h	5h	10h	20h
1.80V/Cell	332.5	251.1	203.6	168.1	134.8	102.2	81.1	39.6	26.2	15.8	8.23
1.75V/Cell	366.9	271.5	219.7	179.1	138.8	105.0	84.4	40.2	26.8	15.9	8.30
1.70V/Cell	392.8	289.2	231.3	186.8	143.6	108.8	86.8	41.2	27.4	16.1	8.45
1.65V/Cell	427.0	309.2	244.0	197.0	150.3	110.5	89.1	42.8	28.1	16.4	8.55
1.60V/Cell	460.1	328.1	256.7	207.5	157.5	114.6	91.7	43.9	28.9	16.5	8.58

# 6-GFM-80Ah Valve-regulated Lead Acid Battery Specification

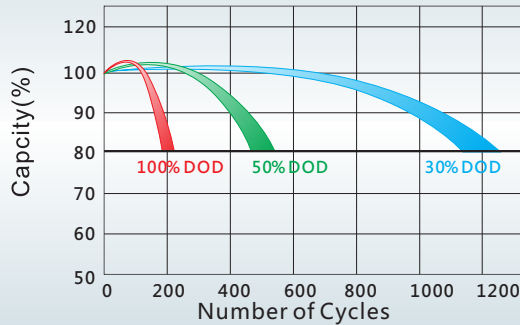
Charge Characteristics for Float Use @25°C/77°F



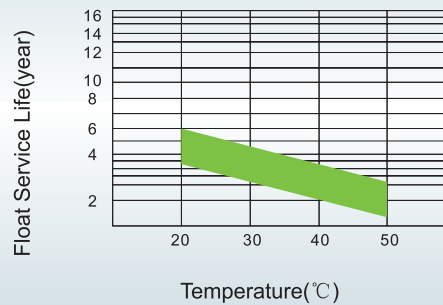
Discharge Characteristics at Various Rates @25°C/77°F



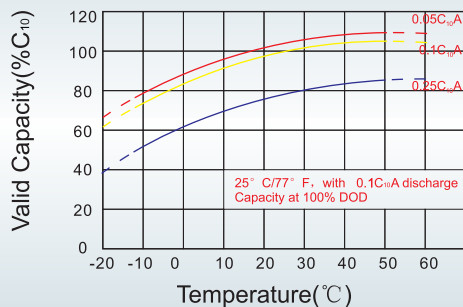
Cycle Life in Relation to Depth of Discharge



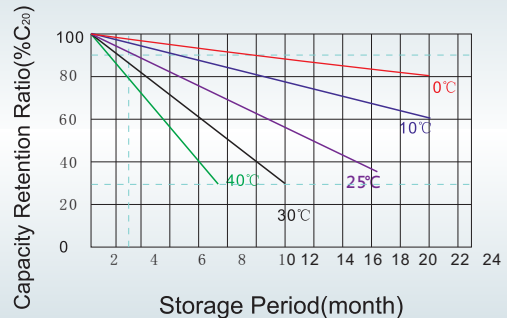
Float Service Life



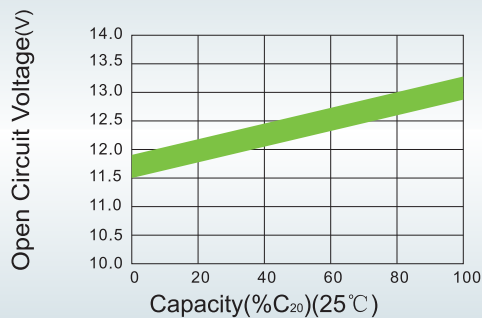
Temperature and Valid Capacity



Self Discharge Characteristics



Capacity and Open Circuit Voltage



Relationship between Charging Voltage and Temperature

