

6-GFM-85Ah 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	-----	26.5kg

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)	-----	85Ah
3 hours rate (0.25C, 10.8V)	-----	65.1Ah
1 hours rate (0.55C, 10.5V)	-----	47Ah

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	-----	21.25A
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

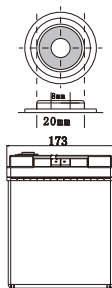
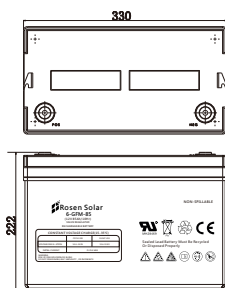
7. Inner Resistance & Max. Discharge Current

A fully charge battery at 25°C(77°F)	-----	5.5mΩ
Max. Discharge Current	-----	1275A(5S)
Short Circuit Current	-----	4250A

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	195.3	146.1	117.5	96.2	76.3	57.0	44.8	21.7	14.2	8.5	4.42
1.75V/Cell	220.2	160.5	128.4	103.5	79.3	59.1	47.0	22.1	14.7	8.6	4.46
1.70V/Cell	242.5	175.0	137.1	108.7	82.5	61.4	48.5	22.7	15.0	8.7	4.55
1.65V/Cell	267.3	188.9	145.8	115.5	87.0	63.0	50.0	23.7	15.4	8.9	4.61
1.60V/Cell	294.8	205.1	155.9	123.0	91.8	65.7	51.9	24.4	15.9	8.9	4.63

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	353.3	266.8	216.3	178.6	143.2	108.6	86.2	42.1	27.8	16.8	8.74
1.75V/Cell	389.8	288.5	233.4	190.3	147.5	111.6	89.7	42.7	28.5	16.9	8.82
1.70V/Cell	417.4	307.3	245.8	198.5	152.6	115.6	92.2	43.8	29.1	17.1	8.98
1.65V/Cell	453.7	328.5	259.3	209.3	159.7	117.4	94.7	45.5	29.9	17.4	9.08
1.60V/Cell	488.9	348.6	272.7	220.5	167.3	121.8	97.4	46.6	30.7	17.5	9.12

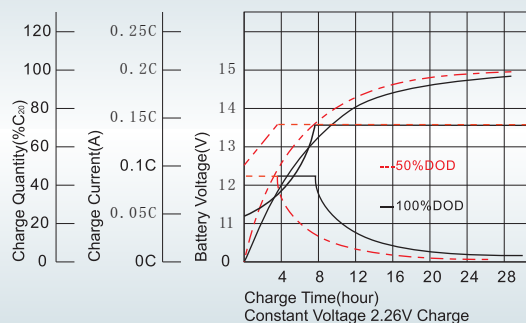


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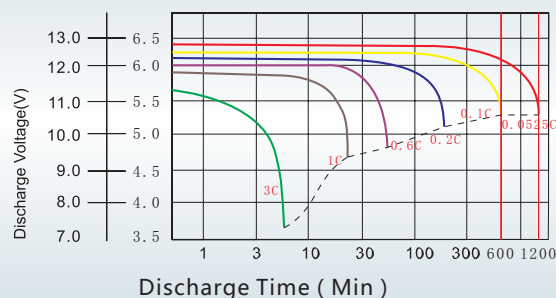
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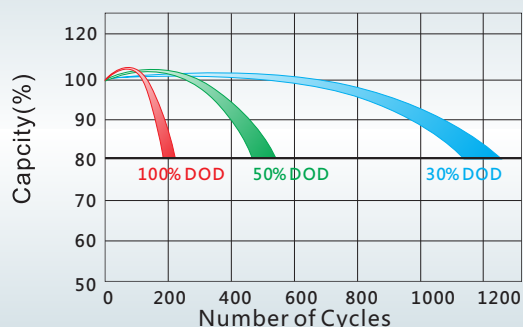
Charge Characteristics for Float Use @25°C/77°F



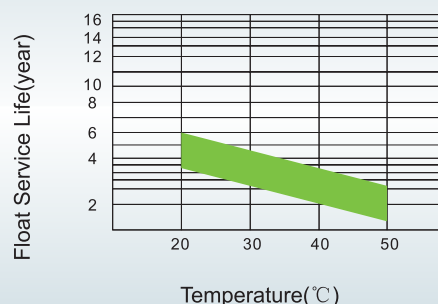
Discharge Characteristics at Various Rates @25°C/77°F



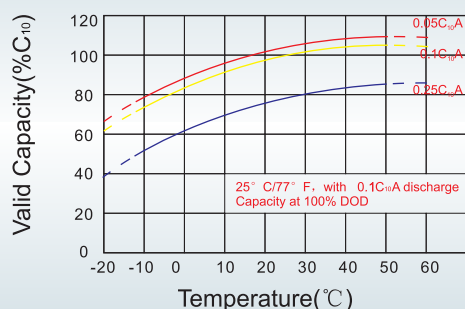
Cycle Life in Relation to Depth of Discharge



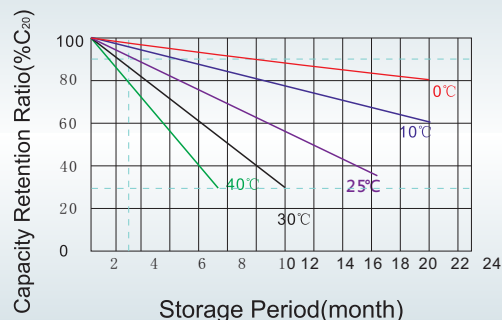
Float Service Life



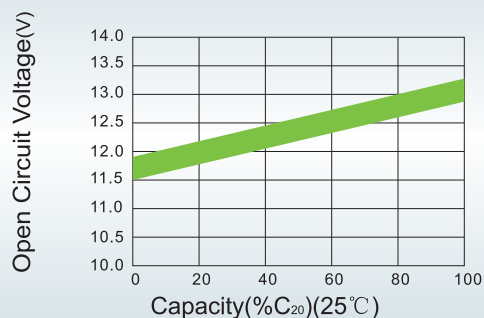
Temperature and Valid Capacity



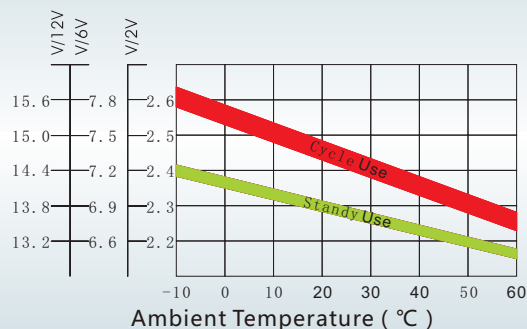
Self Discharge Characteristics



Capacity and Open Circuit Voltage



Relationship between Charging Voltage and Temperature



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CN02/0326

Rosen Solar Energy Co., Ltd.

Add: Build B, Jiaqiao International, Shushan District Hefei, Anhui China

Tel: +86 181 56448850

Fax: +86 551 63365891

Email: info@rosensolar.com

Website: www.rosensolar.com