



6-GFM-40Ah 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	-----	13.2kg

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)	-----	40Ah
3 hours rate (0.25C, 10.8V)	-----	30.6Ah
1 hours rate (0.55C, 10.5V)	-----	22.1Ah

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	-----	10A
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

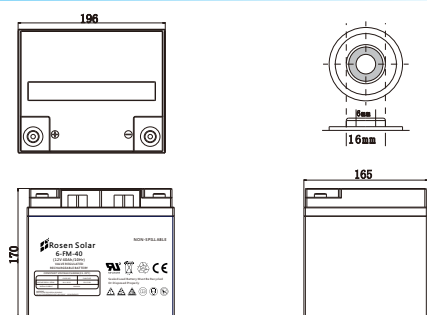
7. Inner Resistance & Max. Discharge Current

A fully charge battery at 25°C(77°F)	-----	9.5mΩ
Max. Discharge Current	-----	750A(5S)

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	91.90	68.80	55.30	45.30	35.90	26.80	21.10	10.20	6.72	4.00	2.08
1.75V/Cell	103.60	75.60	60.40	48.70	37.30	27.80	22.10	10.40	6.88	4.04	2.10
1.70V/Cell	114.10	82.40	64.50	51.20	38.80	28.90	22.80	10.70	7.06	4.08	2.14
1.65V/Cell	125.80	88.90	68.60	54.40	40.90	29.60	23.60	11.20	7.26	4.16	2.17
1.60V/Cell	138.80	96.50	73.30	57.90	43.20	30.90	24.40	11.50	7.50	4.21	2.18

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	166.20	125.50	101.80	84.10	67.40	51.10	40.50	19.80	13.10	7.90	4.11
1.75V/Cell	183.40	135.70	109.80	89.60	69.40	52.50	42.20	20.10	13.40	7.97	4.15
1.70V/Cell	196.40	144.60	115.60	93.40	71.80	54.40	43.40	20.60	13.70	8.05	4.23
1.65V/Cell	213.50	154.60	122.00	98.50	75.10	55.30	44.50	21.40	14.00	8.20	4.28
1.60V/Cell	230.00	164.00	128.30	103.80	78.80	57.30	45.90	22.00	14.50	8.27	4.29

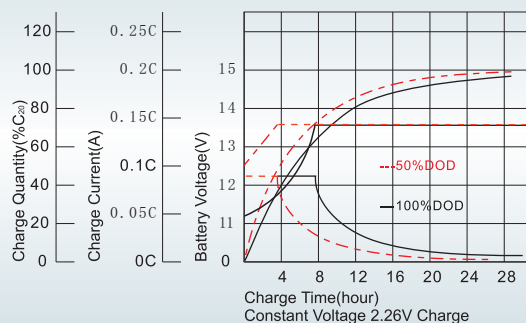


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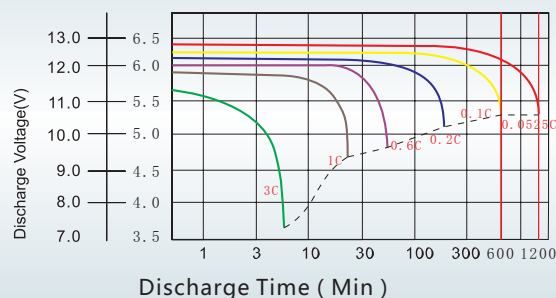
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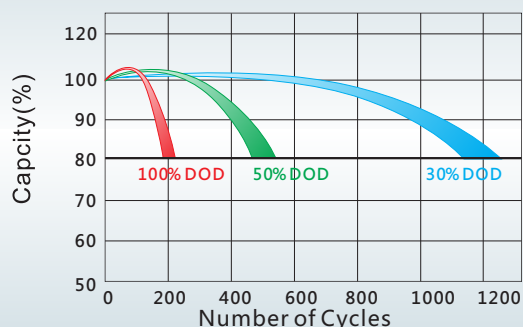
Charge Characteristics for Float Use @25°C/77°F



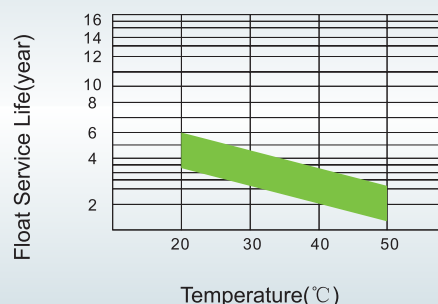
Discharge Characteristics at Various Rates @25°C/77°F



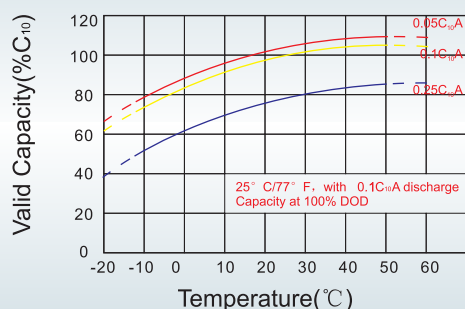
Cycle Life in Relation to Depth of Discharge



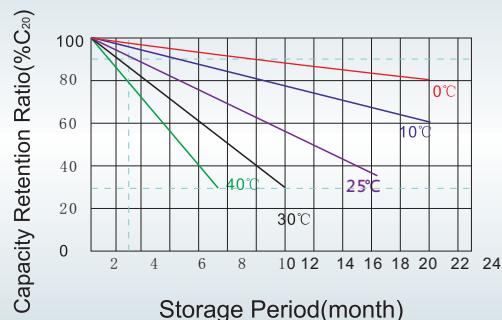
Float Service Life



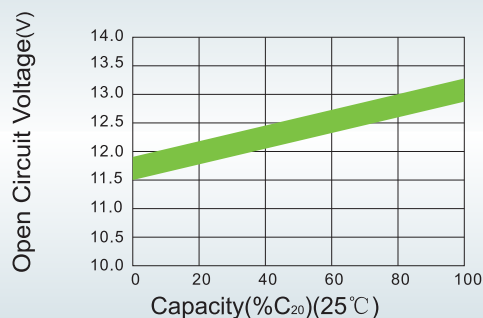
Temperature and Valid Capacity



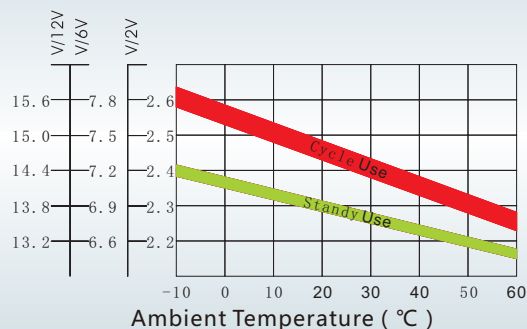
Self Discharge Characteristics



Capacity and Open Circuit Voltage



Relationship between Charging Voltage and Temperature



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