6-GFM-40G(12V40Ah)

Introduction

GFM-G series gel battery,adopts high-current lead paste formula,high corrosion-resistant alloy material,nano-silica gel electrolyte,and special exhaust structure and sealing technology,which,on the one hand,has strong high-rate discharge capability,safe and reliable use,low self-discharge rate and over-discharge recovery capability.On the other hand,the materials and special technology also enhance high and low temperature resistance,and bring flexible and convenient installation as well as simple maintenance.

Battery Features

- 12 years floating design life
- Excellent consistency
- High reliability
- Low self -discharge
- Good recovery from deep discharge

Electrical Specification

Design floating Life @ 20°C (68°F) …… …..…… 12 years

Nominal Capacity @ 25°C /77°F

10 hour rate 4.0 A to 1.80Vpc …… ….. 40 Ah

5 hour rate 6.65 A to 1.75Vpc …….. ……. 33.3Ah

1 hour rate 24.7 A to 1.60Vpc ……..…… .24.7Ah

Internal Resistance

(Fully charged battery @ 25°C /77°F) …….10 mΩ

Max. Discharge Current @ 25°C /77°F ……400A (5S)

Charge Methods: Constant voltage charge @ 25°C /77°F

Cycle Use …… 14.4 ~ 15.0V

Max. Current ……....10.0A

Standby Use …… ….. ……..... 13.5V - 13.8V

Operating Temperature Range

Discharge …….... …… .. …… .. -20 ~ 55°C

Charge …… .. 0 ~ 40°C

Storage …….... …… .. …… .. -20 ~ 55°C

Recommended Operating Temp ……..…..... 20 ~ 25°C

Self-Discharge

The capacity declines by 3% per month@ 20°C (68°F). The batteries can be stored up to 6 months @ 25°C (77°F) and then a freshening charge is required. The interval under higher temperature would be shorter.

Typical Applications

UPS

Telecom

Electric system

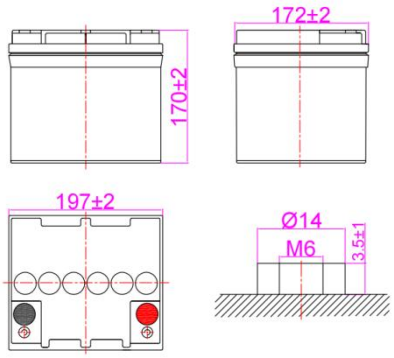
Photovoltaic energy storage

Certificates

Battery Picture



Dimensions



Dimension and Weight

Dimension				Weight	Terminal
Length	Width	Height	Total Height	(± 3%)	
197 mm	172 mm	170 mm	170 mm	11.9kg	F4
7.76inch	6.77 inch	6.69 inch	6.69 inch	35.3lbs	

Constant Current Discharge* (Amperes @25 /77°F)

V/cell	15min	30min	1hr	3hr	5hr	10hr	20hr
1.60V	70.3	44.8	24.7	9.69	6.78	3.87	2.03
1.65V	68.6	43.9	24.3	9.63	6.74	3.86	2.03
1.70V	66.1	42.6	23.7	9.57	6.70	3.85	2.02
1.75V	63.8	41.6	23.2	9.50	6.65	3.83	2.01
1.80V	60.5	40.0	22.5	9.22	6.45	3.80	2.00

Constant Power Discharge* (Watts/cell @25 /77°F)

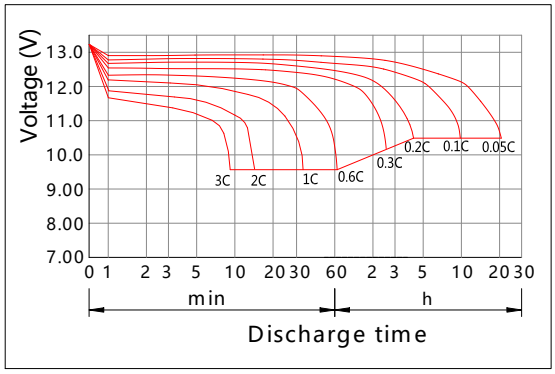
V/cell	15min	30min	1hr	3hr	5hr	10hr	20hr
1.60V	772	503	282	114	80.2	46.2	24.4
1.65V	753	493	277	113	79.7	46.1	24.3
1.70V	726	478	270	113	79.2	46.0	24.3
1.75V	701	466	265	112	78.6	45.7	24.1
1.80V	664	449	257	108	76.2	45.4	23.9

*The mentioned data are derived from of sample test result, for reference only.

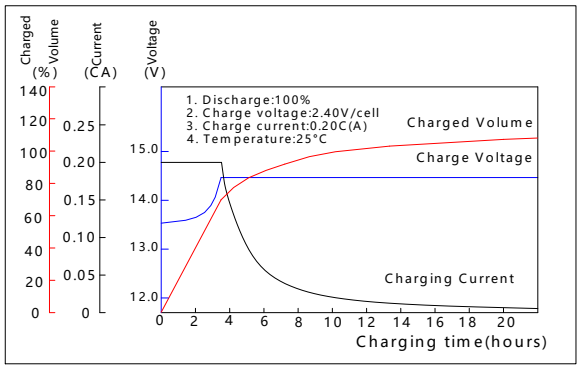
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Graphs

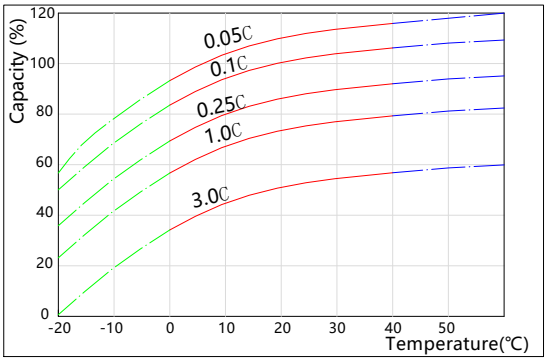
Discharge Characteristics(25℃)



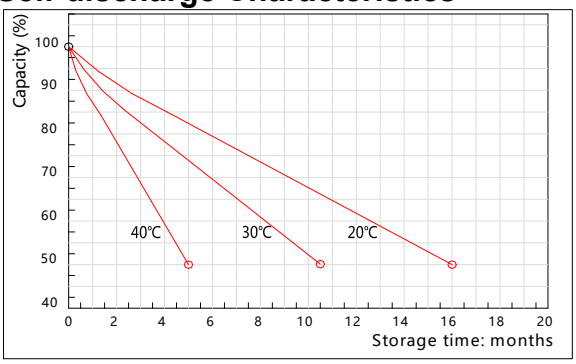
Charging Characteristics(25℃)



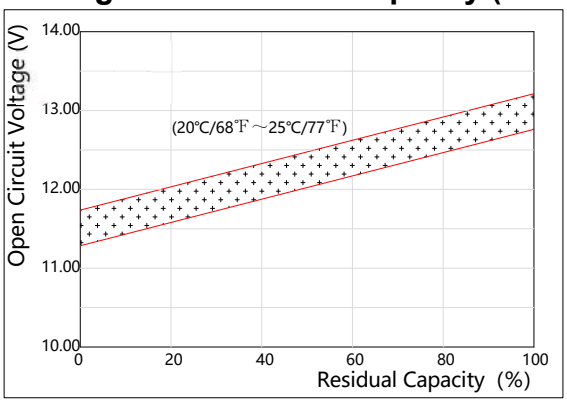
Effect of Temperature on Capacity



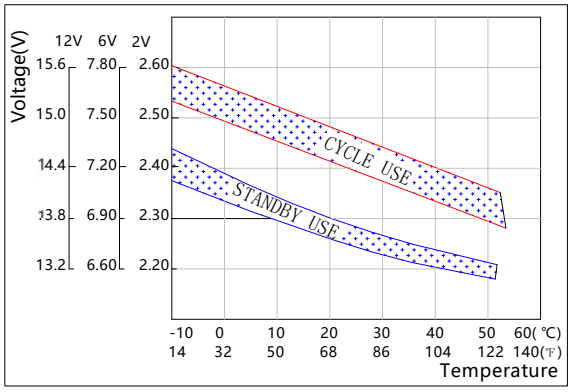
Self-discharge Characteristics



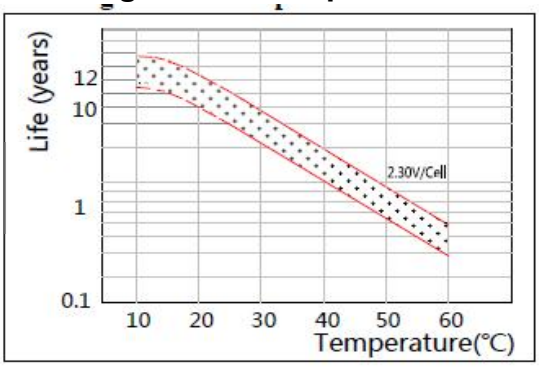
The Relationship between Open Circuit Voltage and Residual Capacity (25℃)



The Relationship between Charging Voltage and Temperature



Floating Life on Temperature



Cycle Life on D.O.D(25℃)

