



BUDDY GEL BATTERY GFM SERIES —

GFM Series Valve Regulated Sealed Lead Acid Battery Characteristics

Unique structural design, so that the current distribution is uniform, excellent conductivity, battery internal Low resistance to avoid thermal runaway, ensuring the reliability and safety of the battery.

- High tin-lead-calcium alloy, minimize grid corrosion, extend battery life
- Unique active substance formula, so that the battery has a better wide temperature adaptability.
- Excellent high and low temperature resistance and charging acceptability
- Highly efficient gas composite efficiency, avoiding water loss in the battery, making the electrolyte maintenance-free
- Strong deep discharge recovery ability, good cycle and float charging performance



Main application areas

01

**Automatic alarm,
signaling, security
systems**

02

**Instrumentation,
automatic control
systems**

03

**Power Remote and
Uninterruptible Power
Systems**

04

Fire control systems

05

**General
uninterruptible power
supply systems**

06

**Centralized Large
Server Room Power
System**

07

**Distributed Small
Server Room Power
Systems**

08

**Power supply
systems for power
tools**

Components and Material Composition

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Applicable standards

1 Components and Material Composition

- Components Materials
- Positive plate Lead dioxide
- Negative Plate Sponge lead
- Battery Cases ABS Engineering Plastic
- Safety valves Fluorinated rubber
- Terminal blocks Copper core cylindrical
- Partitions Microfiberglass
- Electrolyte Analytically pure sulfuric acid

2 Applicable standards

- GB/T 19638.1–2014
- YD/T 799–2010
- DL/T 637–2019
- IEC 60896-21&22–2004

Design standard

Design life

Greater than 15 years

Operating temperature range

Charging Temperature: $-20^{\circ}\text{C} \sim 40^{\circ}\text{C}$
Discharge Temperature: $-40^{\circ}\text{C} \sim 60^{\circ}\text{C}$
Storage Temperature: $-15^{\circ}\text{C} \sim 40^{\circ}\text{C}$

Effect of temperature on capacity

40°C 105% ; 25°C 100%; 0°C 86%;
 -15°C 70%

Float Charge Voltage

$2.20\text{V} \sim 2.27\text{V}$;
Recommended: 2.25V

Equalizing voltage

$2.30\text{V} \sim 2.40\text{V}$;
Recommended: 2.35V

Recycling Charging Voltage

$2.40\text{V} \sim 2.45\text{V}$;
Recommended: 2.40V

Temperature compensation factor for float use

$-3\text{mV}/^{\circ}\text{C}$

Temperature compensation coefficients

$-5\text{mV}/^{\circ}\text{C}$

Maximum charging current

$\leq 0.25C10A$

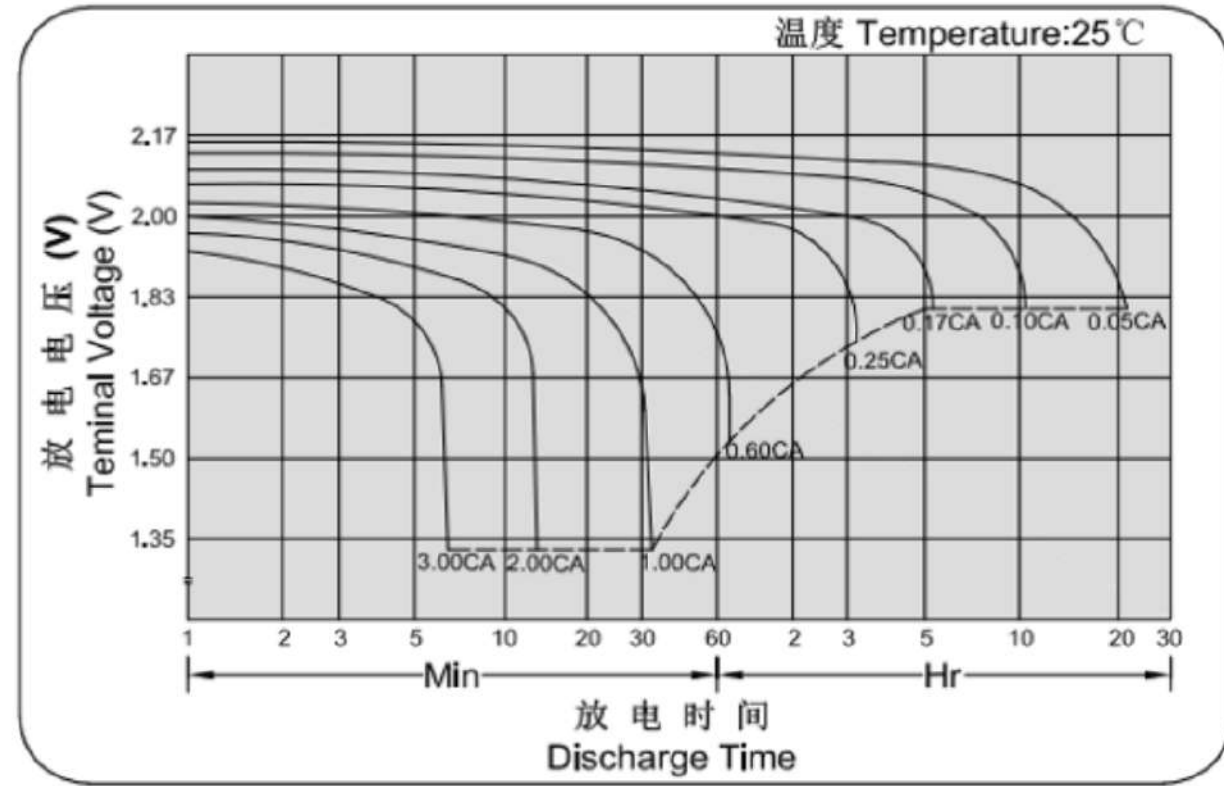
Monthly self-discharge rate

$\leq 2\%$ (20°C)

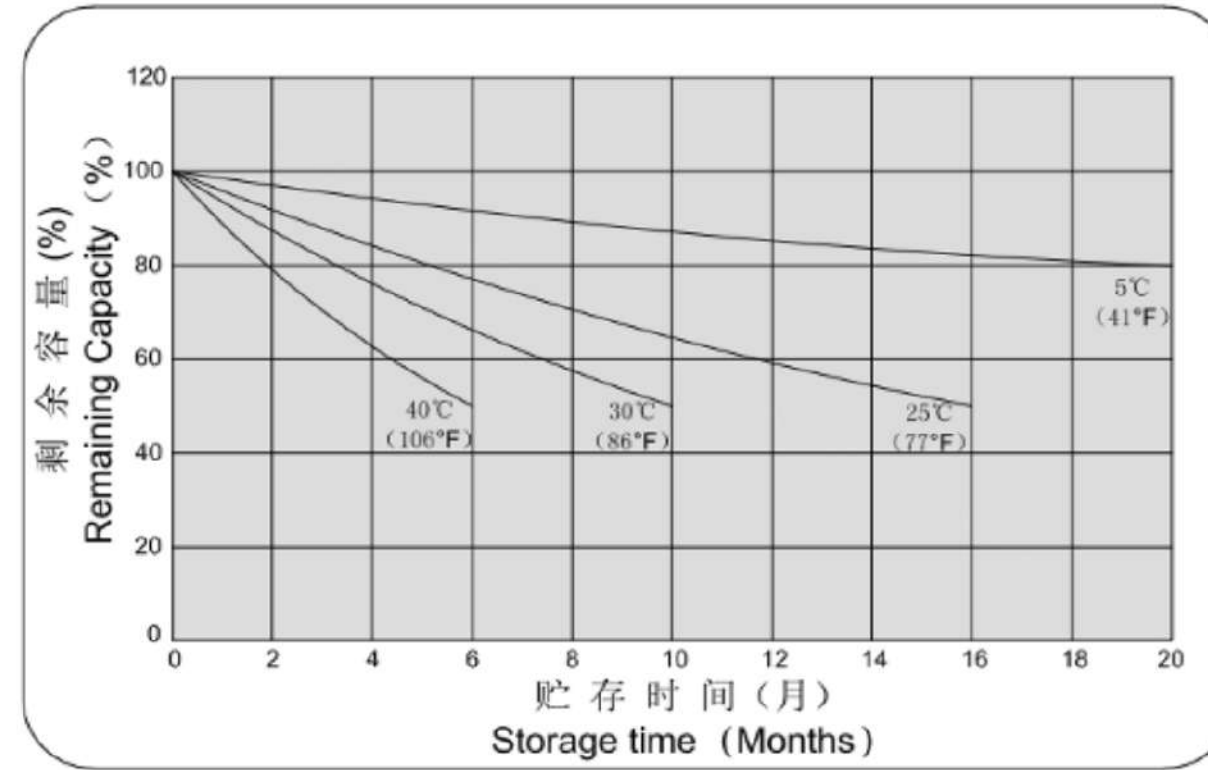
Shell material

Flame retardant ABS (V0)

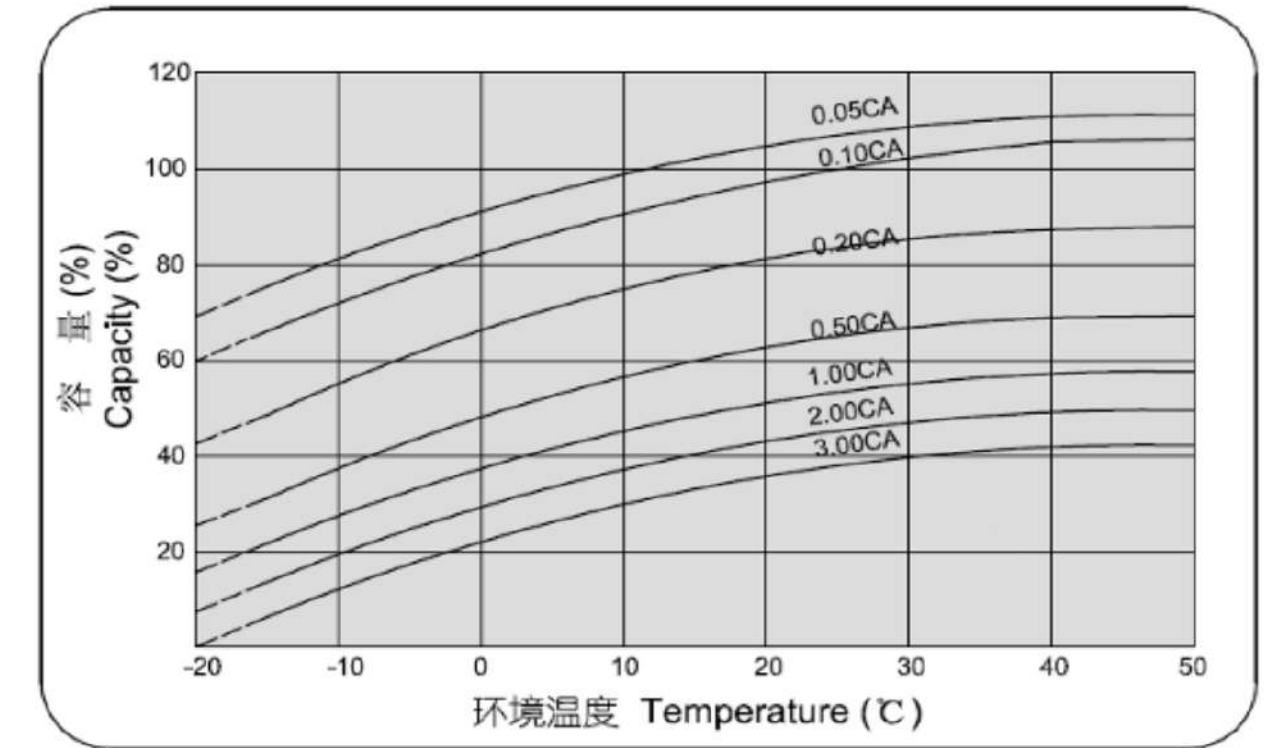
Characteristic curve



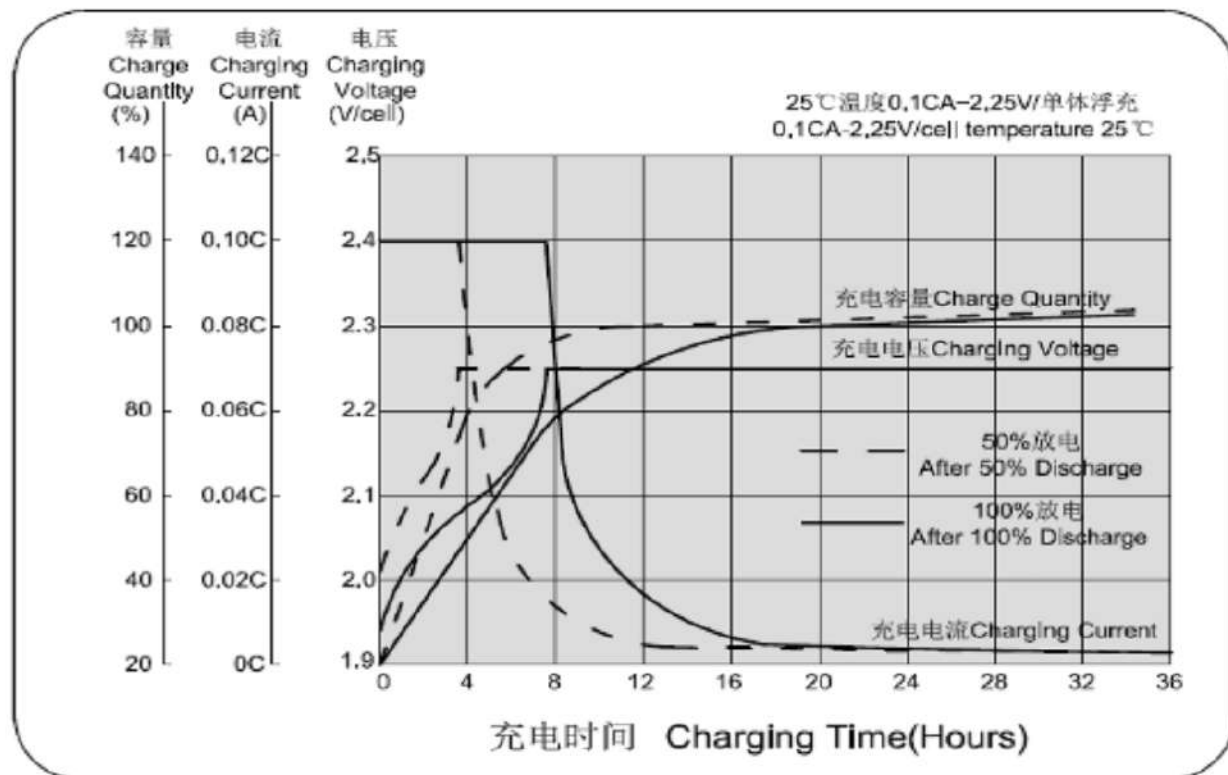
Terminal Voltage (V) and Discharge Time



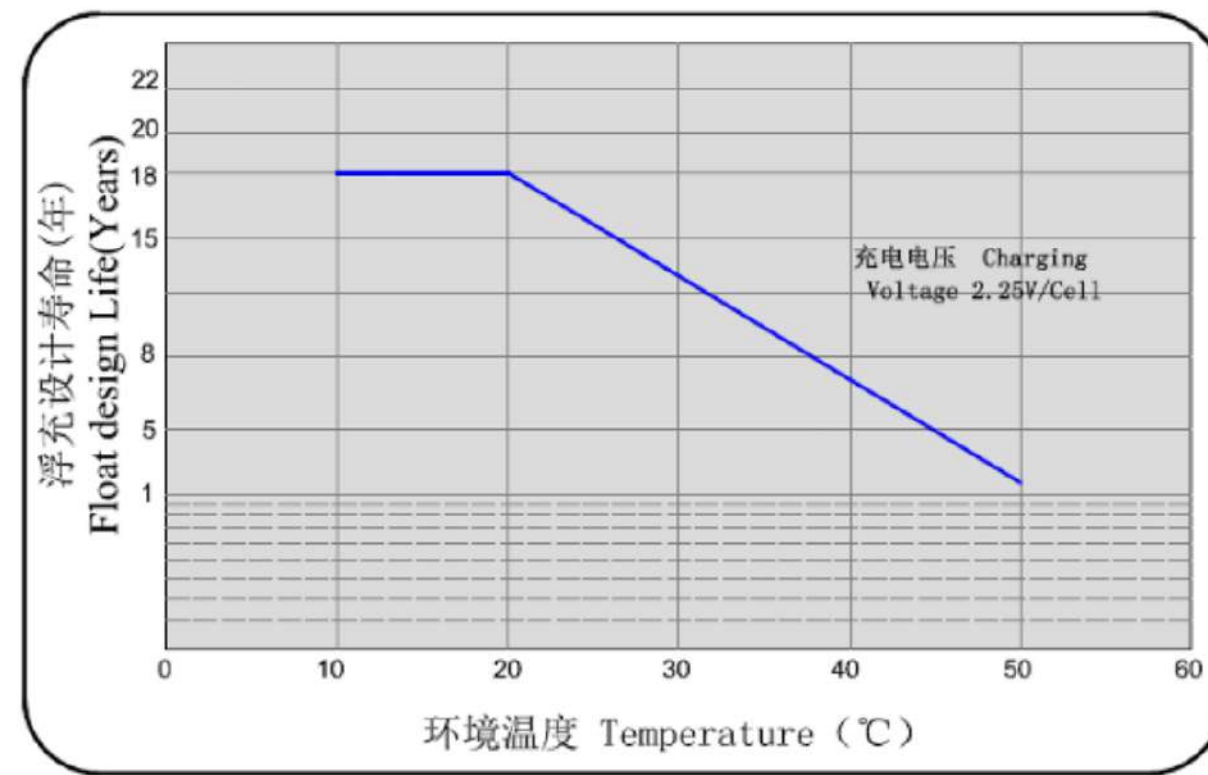
Capacity Retention Characteristic



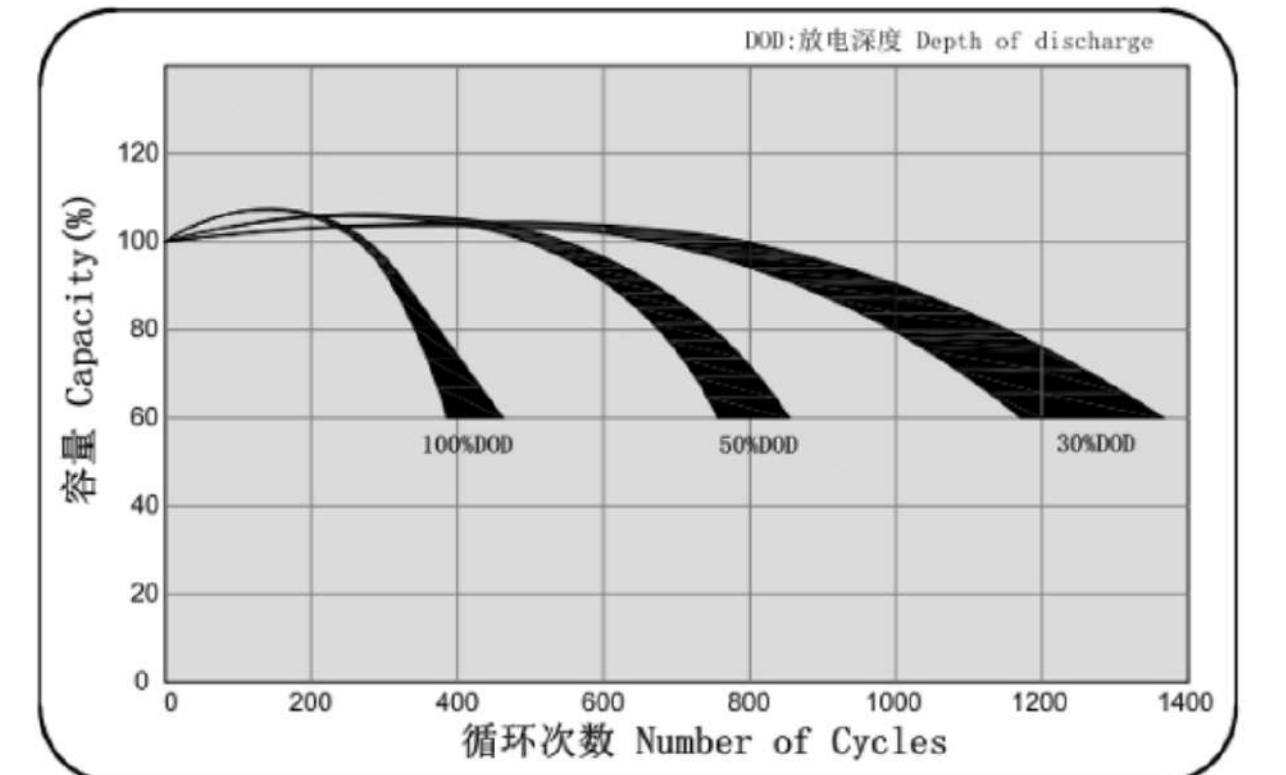
Temperature Effects in Relation to Battery Capacity



Float Charging Characteristics



Effect of Temperature on Float Life



Cycle Life Relation to Depth of Discharge

Series model technical parameters

Battery type	Rated voltage Voltage(V)	Rated Capacity C10(Ah)	Overall dimensions (mm)				Reference weight (kg)	Terminal Model
			L	W	H	LH		
GFM-100	2	100	174	80	223	252	6.0	φ16-M6
GFM-150	2	150	170	100	206	215	7.6	φ18-M8
GFM-200	2	200	174	112	335	344	12.8	φ20-M8
GFM-250	2	250	174	112	335	344	13.7	φ20-M8
GFM-300	2	300	176	156	330	339	18.0	φ20-M8
GFM-350	2	250	176	156	330	339	19.0	φ20-M8
GFM-400	2	400	211	176	330	339	24.0	φ20-M8
GFM-450	2	450	211	176	330	339	25.0	φ20-M8
GFM-500	2	500	243	174	330	339	28.7	φ20-M8
GFM-600	2	600	302	176	330	339	35.0	φ20-M8
GFM-700	2	700	302	176	330	339	37.0	φ20-M8
GFM-800	2	800	411	175	330	339	47.5	φ20-M8
GFM-1000	2	1000	479	175	330	339	57.5	φ20-M8
GFM-1200	2	1200	479	175	330	339	62.0	φ20-M8
GFM-1500	2	1500	404	355	343	352	93.0	φ20-M8
GFM-2000	2	2000	492	352	341	350	115.5	φ20-M8
GFM-2200	2	2200	492	352	341	350	124.0	φ20-M8
GFM-2500	2	2500	492	352	341	350	131.0	φ20-M8
GFM-3000	2	3000	712	353	338	356	178.0	φ20-M8

THANKS

 **Web**

www.accord-power.com

 **Mail**

info@accord-power.com

 **Tel**

0086 559 2621813

 **Address**

Weiyi Road, Shexian Recycling Economic Park, Huangshan City, Anhui Province, China





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