

The rechargeable batteries are lead-lead dioxide systems. The dilute sulfuric acid electrolyte is absorbed by separators and plates and thus immobilized. Should the battery be accidentally overcharged producing hydrogen and oxygen, special one-way valves allow the gases to escape thus avoiding excessive pressure build-up. Otherwise, the battery is completely sealed and is, therefore, maintenance-free, leak proof and usable in any position.

### GENERAL FEATURES

- I Absorbent Glass Mat (AGM) technology for efficient gas recombination of up to 99% and freedom from electrolyte maintenance or water adding.
- I Computer-aided design, Pb-Ca-Sn alloy grid, suitable for deep cycle discharging with small current.
- I Unique lead paste and technology of coated plate.
- I Long service life, float or cyclic applications.
- I Low self discharge.
- I Case and cover available in both standard and flame retardant ABS.
- I Battery with wires, suitable for solar street lamps application and other energy storage.

### Battery Construction

Component	Positive plate	Negative plate	Container	Cover	Safety valve	Terminal	Separator	Electrolyte
Raw material	Lead dioxide	Lead	ABS	ABS	Rubber	Copper	Fiberglass	Gelled acid

### TECHNOLOGY PARAMETER

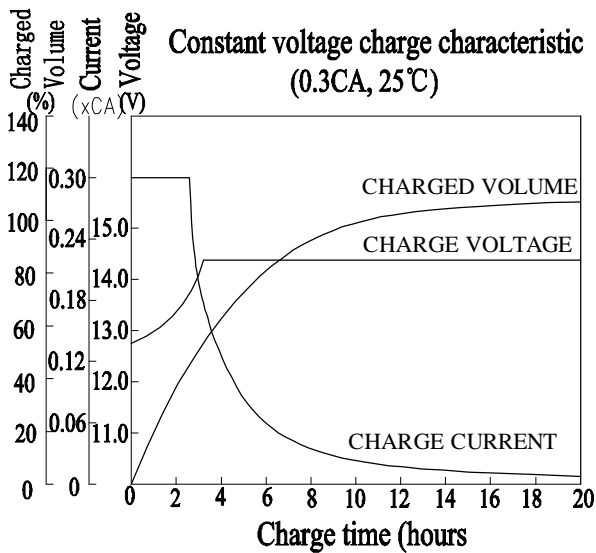
Battery model	CG12-200Z-TA			
Nominal voltage	12V			
Number of cell	6			
Capacity (25°C)	10HR (20.0A, 10.8V)	5HR(35.8A, 10.5V)	3HR(52.9A, 10.5V)	1HR (126A, 9.60V)
	200 Ah	179 Ah	158.7 Ah	126Ah
Dimensions Max.	Length	Width	Height	Total Height
	522 ± 1 mm	238 ± 1 mm	218 ± 1 mm	218 ± 1 mm
Approx. weight	63.5 Kg			
Internal resistance	Full charged at 25°C: ≤ 4.0mΩ			
Self discharge	3% of capacity declined per month at 20°C (average)			
Operating temperature range	Discharge	Charge		Storage
	-20 ~ 60 °C	-10 ~ 60 °C		-20 ~ 60 °C
Max. discharge current (25°C)	1000A (5s)			
Short circuit current	3300A			

**Constant current discharge rating-amperes at 25°C(77 °F)**

End Point Volts/Cell		1h	3h	5h	6h	8h	10h	20h
1.60V		126	57.0	38.0	32.0	25.1	20.7	10.7
1.65V		122	55.0	37.0	31.1	24.6	20.6	10.6
1.70V		118	54.5	36.4	30.5	24.3	20.5	10.5
1.75V		115	52.9	35.8	30.2	24.0	20.2	10.4
1.80V		112	50.5	35.2	29.5	23.5	20.0	10.3

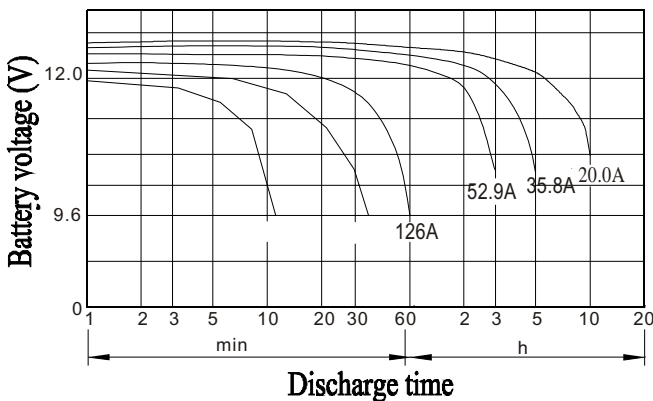
**Constant power discharge rating-watts per cell at 25°C(77 °F)**

End Point Volts/Cell		1h	2h	3h	5h	6h	8h	10h
1.60V		227	137	108	72.6	62.4	49.2	41.0
1.65V		222	135	106	71.6	60.5	48.3	40.1
1.70V		218	132	104	70.8	59.3	47.8	39.5
1.75V		214	128	100	69.9	58.7	47.3	39.1
1.80V		212	125	97.0	69.0	57.6	46.8	38.5

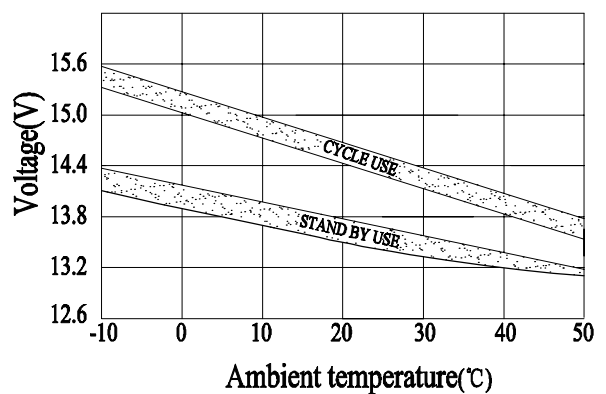


CHARGING METHODS: Constant voltage charging at 25  
 Standby use: No charging current limit is required  
 Charging voltage: 2.20-2.27VPC  
 Cyclic use: Maximum charging current: 30% of rated capacity  
 Charging voltage: 2.40-2.45VPC  
 Temperature compensation :  
 stand by -20mV/°C ; cyclic use -30mV/°C

**Discharge characteristic (25°C)**

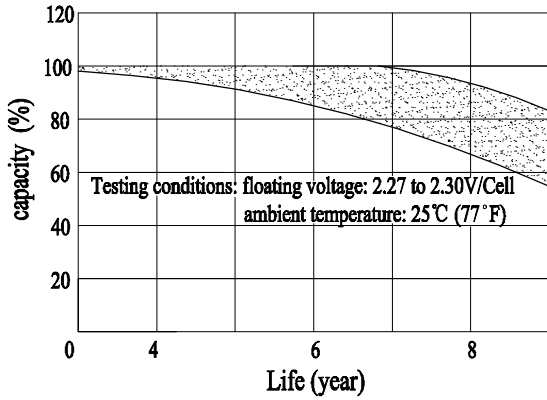


**Relationship between charge voltage and temperature**

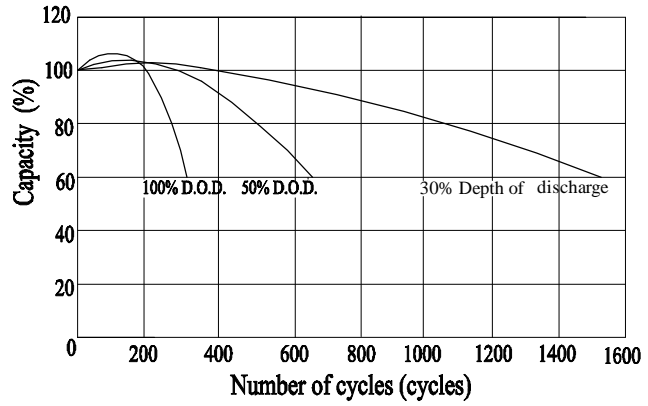


Remarks: the data of constant current/power, inner-resistance, largest discharging current and short-cut current is without wiring data.

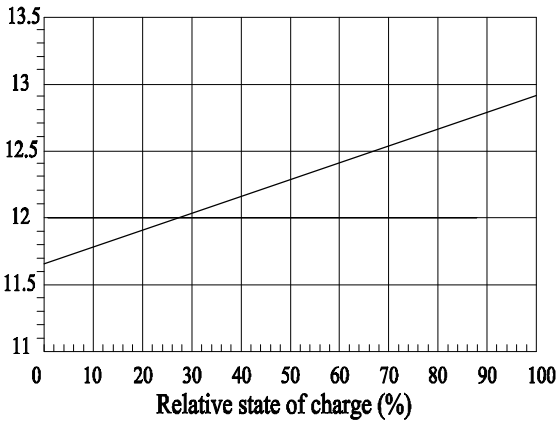
Life characteristics of standby use



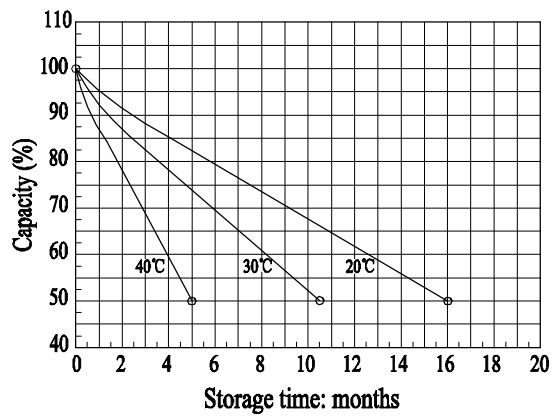
Cycle service life in relation to depth of discharge



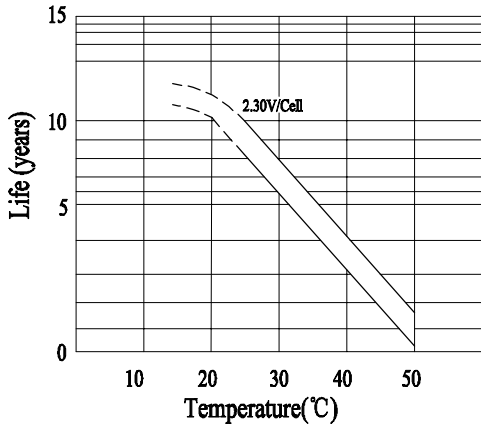
Relationship of OCV and state of charge (25°C)



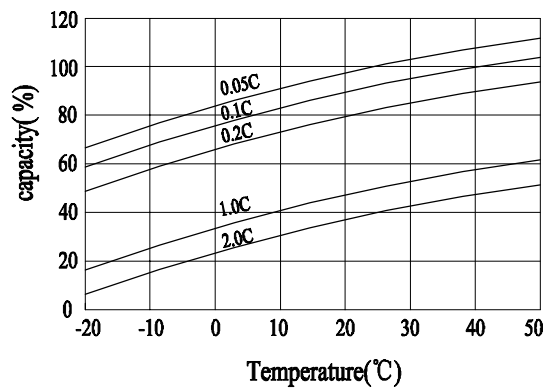
Self-discharge characteristic



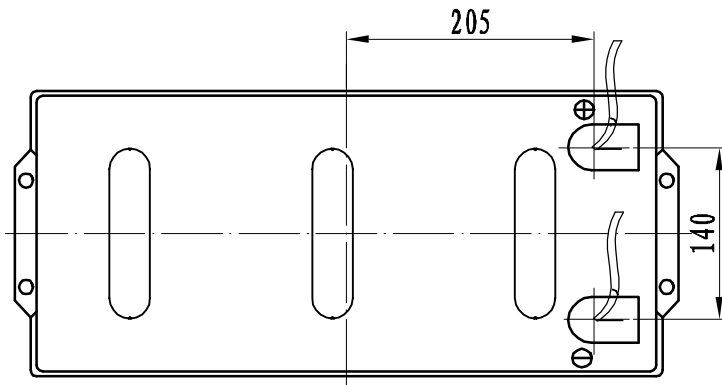
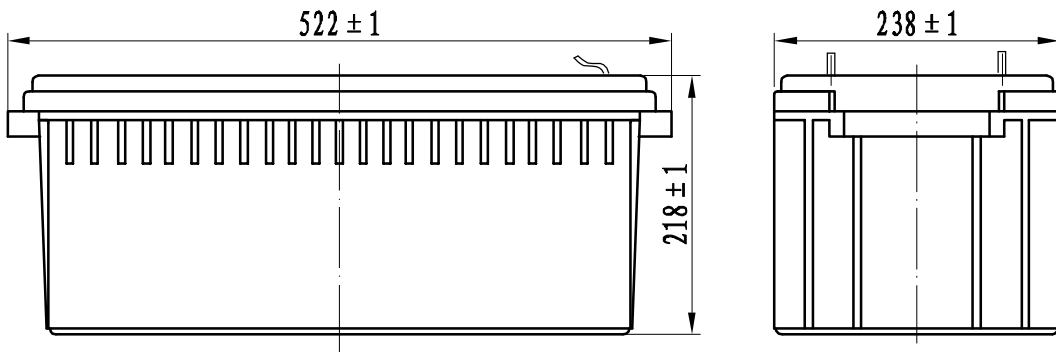
Temperature effects on float life



Temperature effects on capacity



Battery and terminal dimensions



Red ,Black wire terminal  
Cross section area:6mm<sup>2</sup>  
Length:3600mm