

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

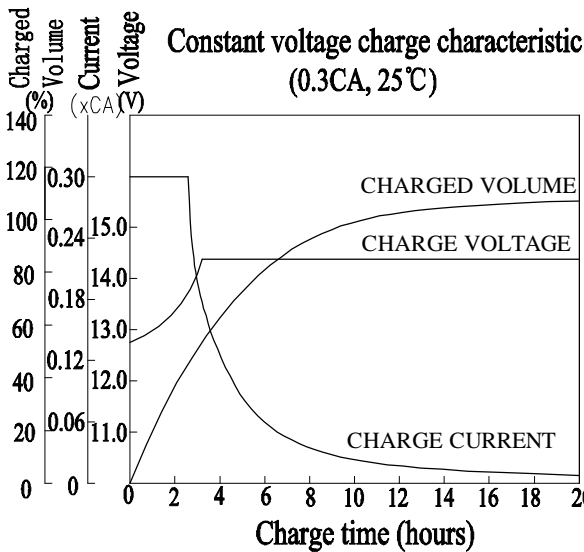
Battery model	CG12-100Z-TA			
Nominal voltage	12 V			
Number of cell	6			
Capacity (25°C)	10hR (10A , 10.8V)	5hR(17.4A , 10.5V)		1hR (65.2A , 9.60V)
	100 Ah	87.0 Ah		65.2 Ah
Dimensions Max.	Length	Width	Height	Total Height
	330 ± 1 mm	172 ± 1 mm	213.7 ± 1 mm	215.7 ± 1 mm
Approx. weight	31.0 Kg			
Internal resistance	Full charged at 25°C: ≤ 5.7mΩ			
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)	900 A (5 s)			
Short circuit current	2100 A			

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

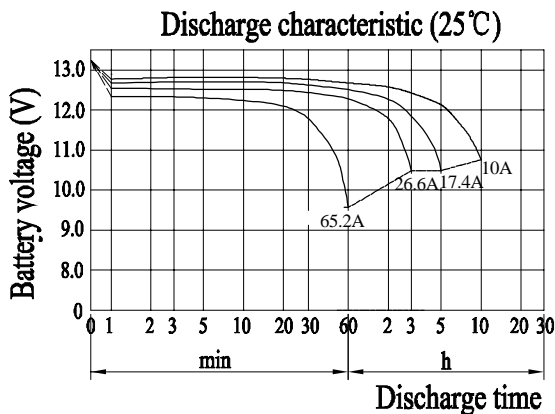
End Point Volts/Cell			1h	3h	5h	6h	8h	10h	20h
1.60V			65.2	27.6	18.9	16.1	12.6	10.4	5.50
1.65V			61.6	27.4	18.2	15.6	12.5	10.3	5.45
1.70V			60.6	26.9	17.9	15.5	12.4	10.2	5.42
1.75V			59.6	26.6	17.4	15.1	12.1	10.1	5.35
1.80V			56.5	25.1	17.1	14.8	12.0	10.0	5.30

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

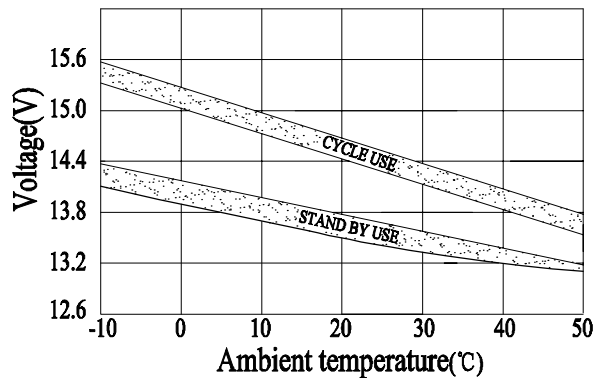
End Point Volts/Cell			1h	2h	3h	5h	6h	8h	10h
1.60V			122	69.7	52.3	35.6	31.2	24.5	20.6
1.65V			116	66.9	50.7	35.2	30.4	24.4	20.4
1.70V			112	65.9	50.4	34.8	30.2	24.3	20.2
1.75V			109	63.7	48.6	34.2	29.4	24.0	20.0
1.80V			102	61.7	48.0	33.8	29.0	23.5	19.7



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

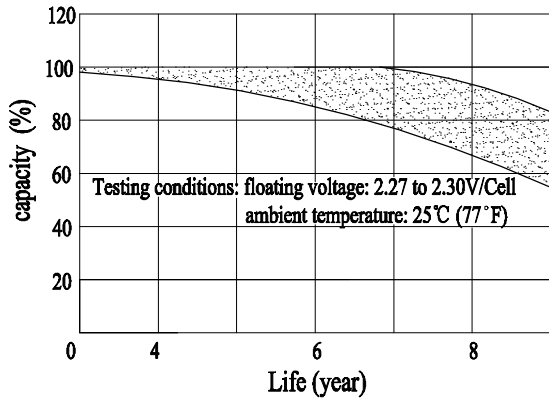


Relationship between charge voltage and temperature

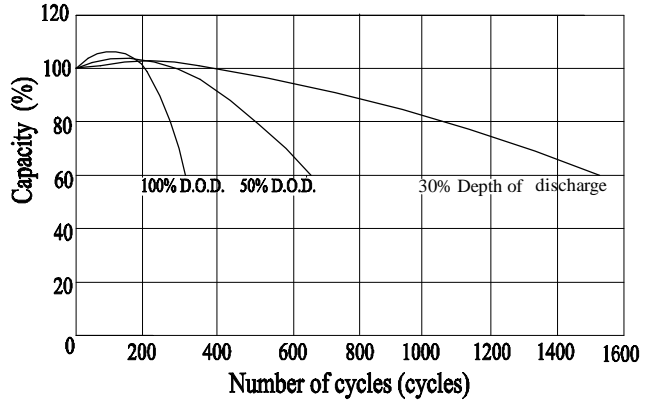


Remarks: the data of constant current/power, inner-resistance, largest discharging current and short-cut current is without wiring data.

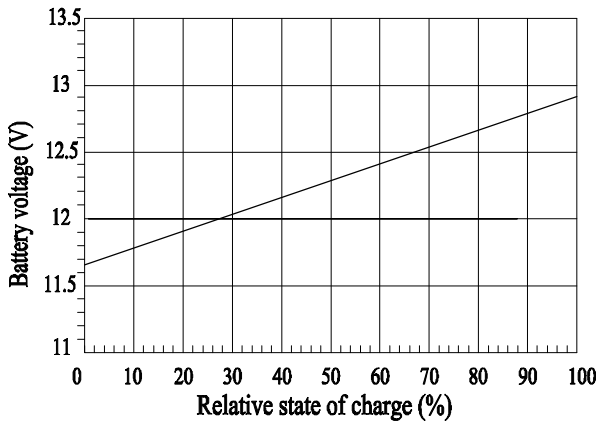
Life characteristics of standby use



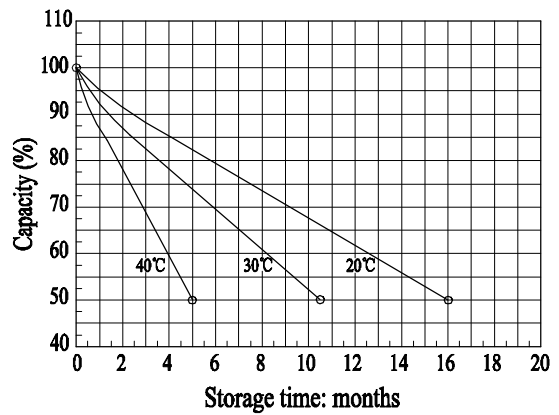
Cycle service life in relation to depth of discharge



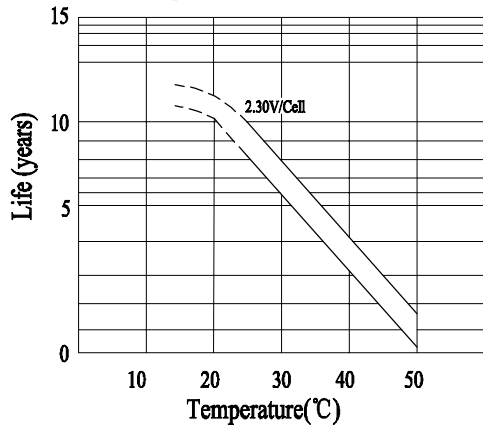
Relationship of OCV and state of charge (25°C)



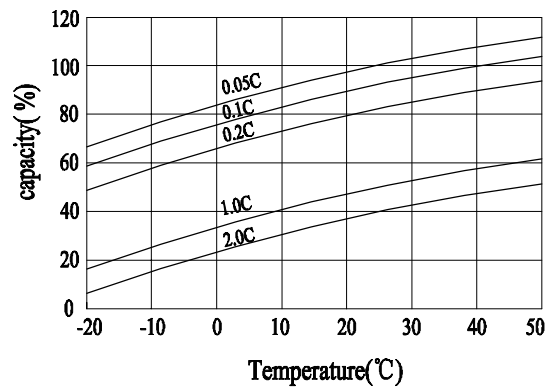
Self-discharge characteristic



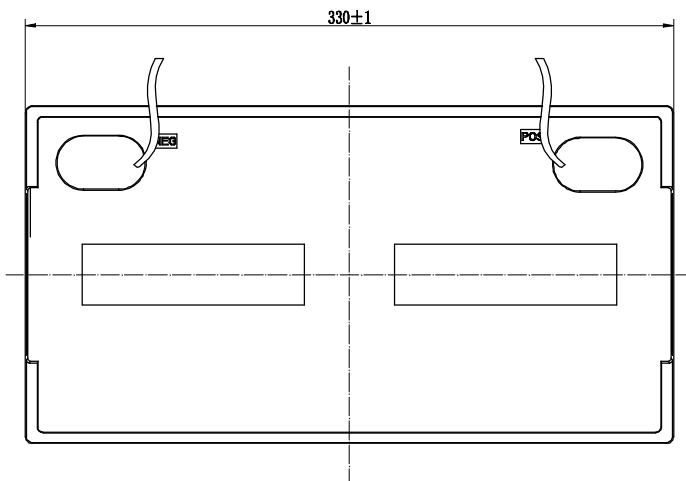
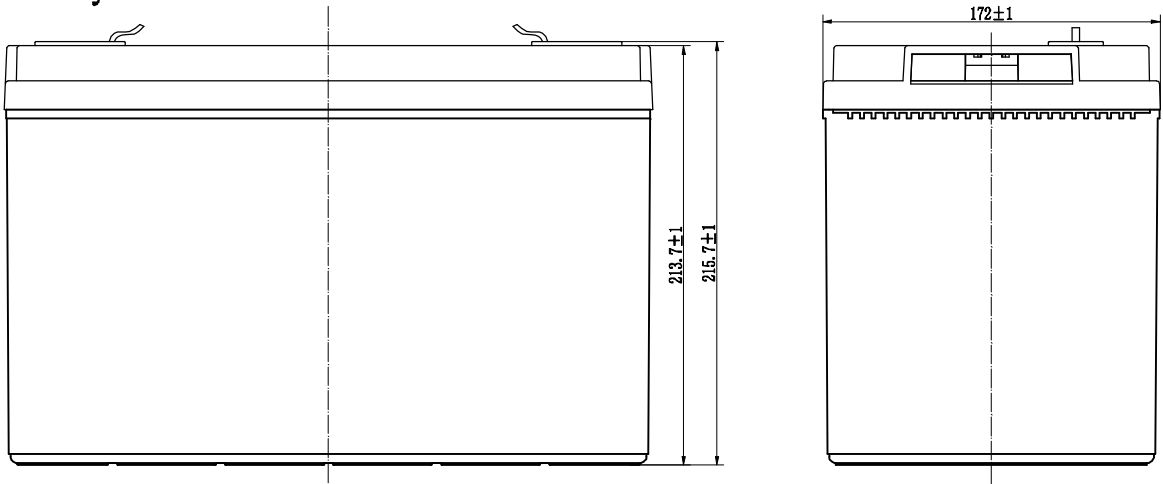
Temperature effects on float life



Temperature effects on capacity



Battery and terminal dimensions



Red ,Black wire terminal
Cross section area:4mm²
Length:1100 or 3600mm