SPECIFICATION: CG12-100XA (12V100Ah)

Gel battery shows some distinctive advantages over flooded battery or AGM battery, such as super thermal stability, high deep discharge capability, good recovery from deep discharge, even if the battery is left discharged for thirty days, it will still recover to 100% of capacity. With the above-mentioned advantages, the gel battery has long service life, is specially suitable for motive power applications, such as golf trailer, scrubber, forklift, etc. The deep discharge cycles increased 50% as compared with the AGM battery.

GENERAL FEATURES

- Micro millimeter SiO_2 and H_2SO_4 gelled electrolyte technology for efficient gas recombination of up to 99% and freedom from electrolyte maintenance or water adding.
- Not restricted for air transport-complies with IATA/ICAO Special Provision A67.
- UL-recognized component.
- Can be mounted in any orientation.
- Computer designed lead, calcium tin alloy grid for high power density.
- Long service life, float or cyclic applications.
- Maintenance-free operation.
- Low self discharge.
- Case and cover available in both standard and flame retardant ABS.

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	CG12-100XA			
Nominal voltage	12V			
Number of cell	6			
Capacity (25℃)	20hR(5.3A, 10.8V)	10hR(10.0A, 10.8V)	5hR(17.5A, 10.5V)	1hR(66.2A, 9.60V)
	106Ah	100Ah	87.5Ah	66.2Ah
Dimensions Max.	Length	Width	Height	Total Height
	330±1 mm	171±1 mm	214±1 mm	222±1 mm
Approx. weight	32 Kg (70.5 lbs)			
Internal resistance	Full charged at 25℃: 4.5mOhms			
Self discharge	3% of capacity declined per month at 20℃ (average)			
Operating temperature range	Discharge	Charge	Storage	
	-20～60℃	-10～60℃	-20～60℃	
Max. discharge current (25℃)	900A (5s)			
Short circuit current	2100A			

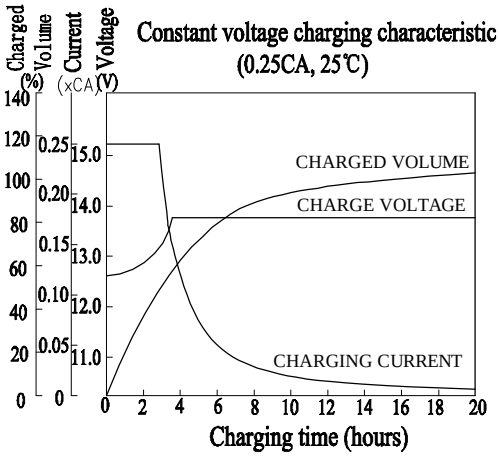
Constant current discharge ratings-amperes at 25℃(77 °F)

End Voltage Volts/cell	5min	10min	15min	30min	45min	1h	3h	5h	10h
1.60V	314	229	185	108	80.5	66.2	27.9	19.0	10.8
1.65V	296	221	178	104	78.7	62.5	27.7	18.3	10.6
1.70V	270	200	164	96.0	73.0	61.5	27.2	18.0	10.5
1.75V	242	187	153	93.0	71.3	60.5	26.9	17.5	10.3
1.80V	221	175	143	91.0	70.0	57.4	25.3	17.2	10.0

Constant power discharge ratings-watts per cell at 25℃(77 °F)

End Voltage Volts/cell	5min	10min	15min	30min	45min	1h	2h	3h	5h
1.60V	547	392	321	199	150	124	70.6	52.8	35.8
1.65V	517	379	315	188	146	118	67.8	51.2	35.4
1.70V	478	360	299	183	137	114	66.8	50.9	35.0
1.75V	441	353	294	177	134	111	64.5	49.1	34.4
1.80V	415	329	279	171	131	104	62.5	48.5	34.0

Constant voltage charging characteristic (0.25CA, 25℃)



CHARGING METHODS: Constant voltage charging at 25℃

Standby use: No charging current limit is required

Charging voltage: 13.6–13.8Volts

Cyclic use: Maximum charging current: 30% of rated capacity

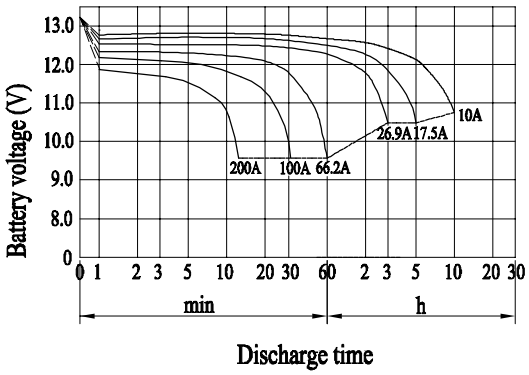
Charging voltage: 14.4–14.7Volts

Temperature compensation:

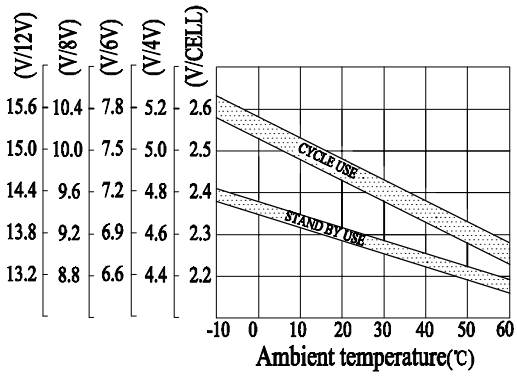
stand by -20mV/℃

cyclic use -30mV/℃.

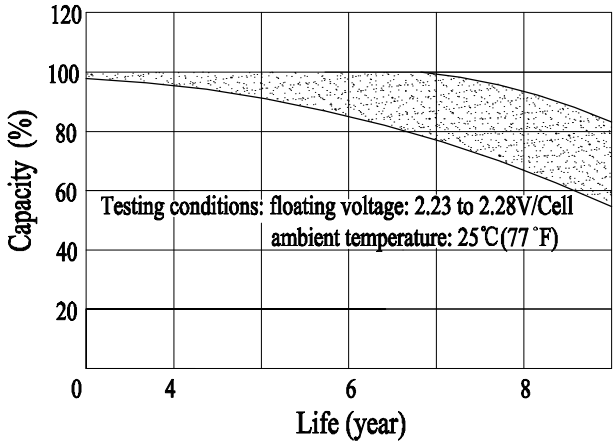
Discharge characteristic (25℃)



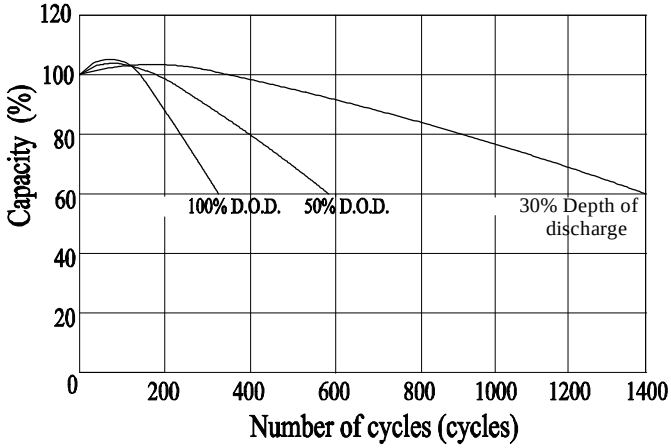
Relationship between charging voltage and temperature



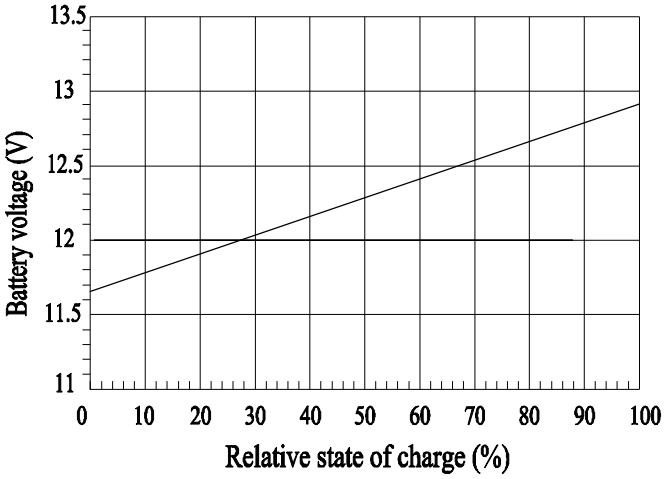
Life characteristics of standby use



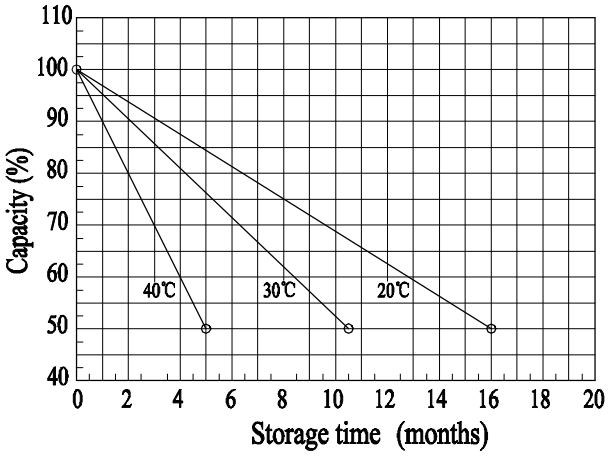
Cycle service life in relation to depth of discharge



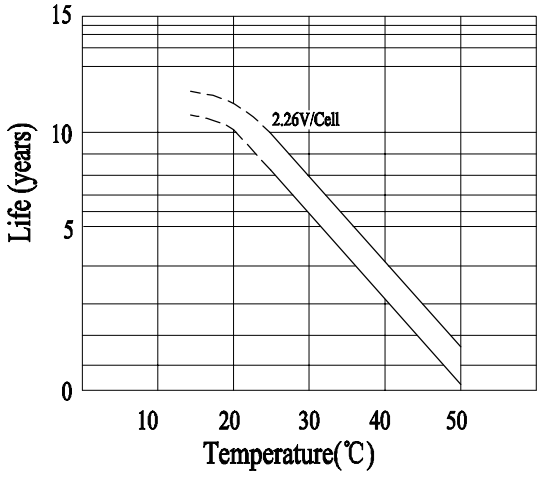
Relationship of OCV and state of charge (25℃)



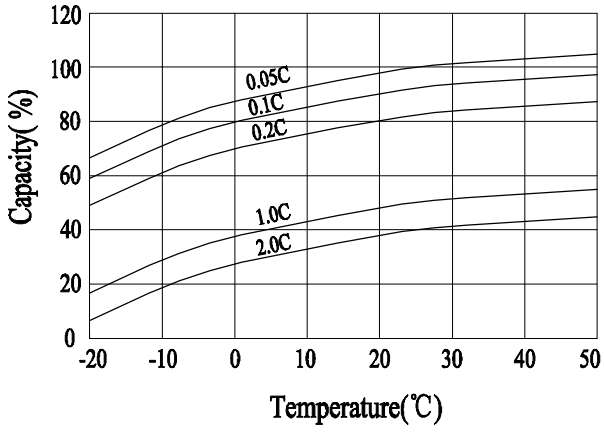
Self-discharge characteristic



Temperature effects on float life



Temperature effects on capacity



Battery and terminal dimensions