

## SPECIFICATION: CG12-150XA (12V150Ah)

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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

- l Micro millimeter SiO<sub>2</sub> and H<sub>2</sub>SO<sub>4</sub> gelled electrolyte technology for efficient gas recombination of up to 99% and freedom from electrolyte maintenance or water adding.
- l Not restricted for air transport-complies with IATA/ICAO Special Provision A67.
- l UL-recognized component.
- l Can be mounted in any orientation.
- l Computer designed lead, calcium tin alloy grid for high power density.
- l Long service life, float or cyclic applications.
- l Maintenance-free operation.
- l Low self discharge.
- l Case and cover available in both standard and flame retardant ABS.
- l Design Life 12 years

### 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

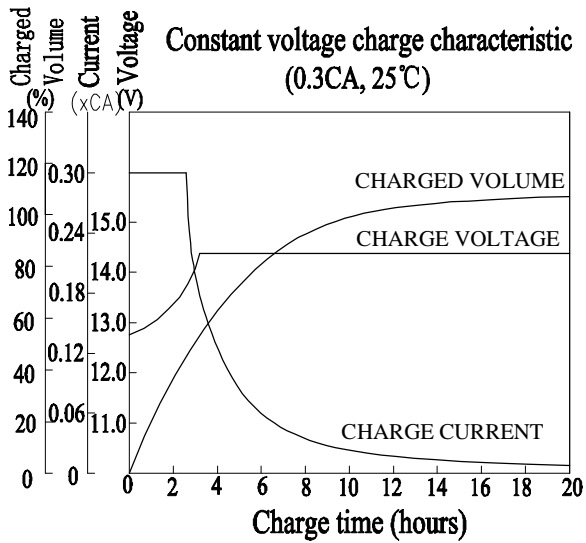
Battery model	CG12-150XA			
Nominal voltage	12V			
Number of cell	6			
Capacity (25°C)	20hR(7.8A, 10.5V)	10hR(150 A, 10.5V)	5hR(24A, 10.5V)	1hR(104A, 9.60V)
	156Ah	150Ah	120Ah	104Ah
Dimensions Max.	Length	Width	Height	Total Height
	482 ± 1 mm	170 ± 1 mm	240 ± 1 mm	240 ± 1 mm
Approx. weight	47Kg (103.6 lbs)			
Internal resistance	Full charged at 25°C: 3.8mOhms			
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	2700A			

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

End Point Volts/Cell	5min	10min	15min	30min	1h	3h	5h	10h	20h
1.60V	410	332	278	153	104	39.0	26.0	16.4	8.60
1.65V	389	316	265	147	100	37.6	25.6	16.1	8.40
1.70V	367	300	252	141	96.7	36.4	24.7	15.8	8.20
1.75V	345	283	240	134	92.1	35.2	24.0	15.4	8.00
1.80V	323	266	226	127	87.6	33.4	23.2	15.0	7.80

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

End Point Volts/Cell	5min	10min	15min	30min	45min	1h	2h	3h	5h
1.60V	697	563	473	292	233	194	104	74.2	50.1
1.65V	671	544	458	285	228	190	102	72.8	49.7
1.70V	643	523	443	277	222	186	99.8	71.4	49.3
1.75V	615	503	427	268	215	180	97.8	70.2	48.6
1.80V	585	480	409	258	207	174	94.3	67.7	47.8



**CHARGE METHODS: Constant voltage charging at 25°C**

Standby use: No charge current limit is required

Charge voltage: 13.38–13.68Volts

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

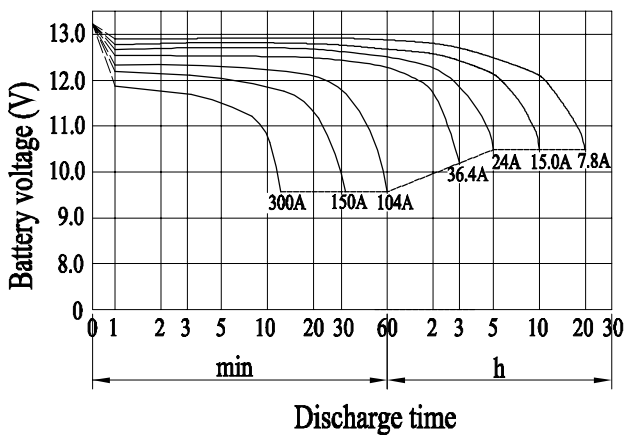
Charge voltage: 14.28–14.52Volts

Temperature compensation:

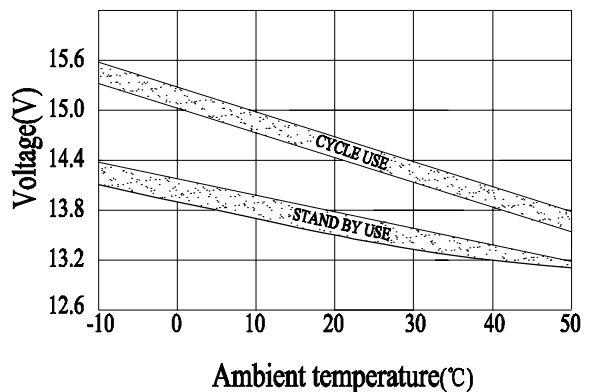
Standby use: -20mV/°C

Cyclic use: -30mV/°C.

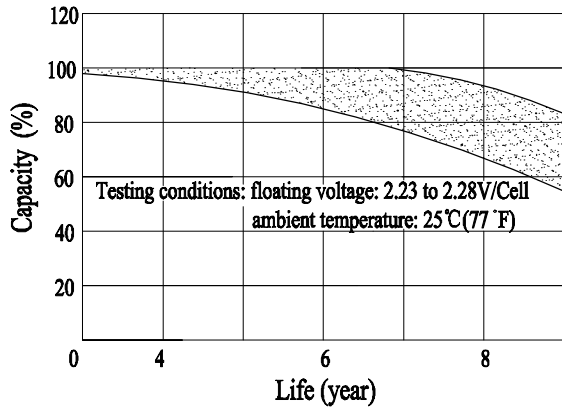
**Discharge characteristic (25°C)**



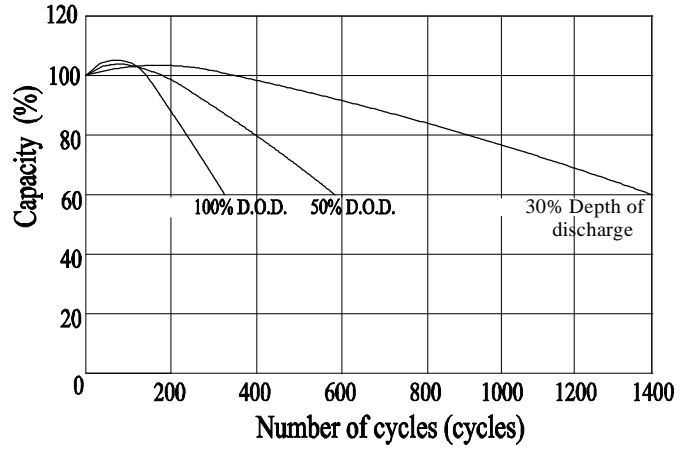
**Relationship between charge voltage and temperature**



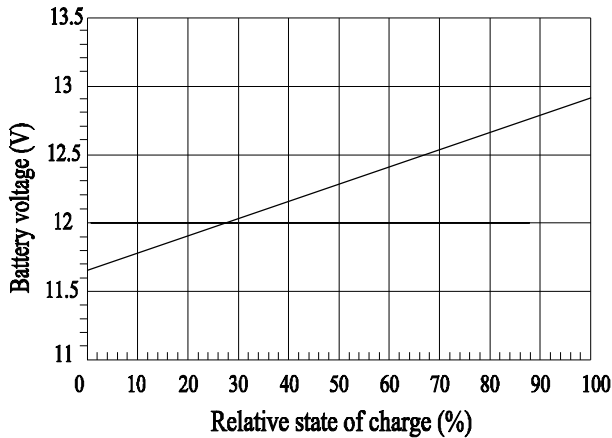
Life characteristics of standby use



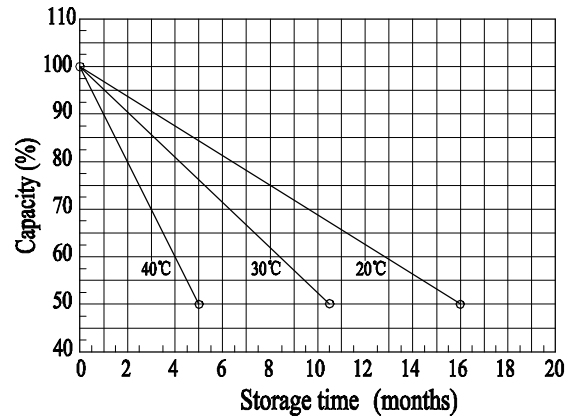
Cycle service life in relation to depth of discharge



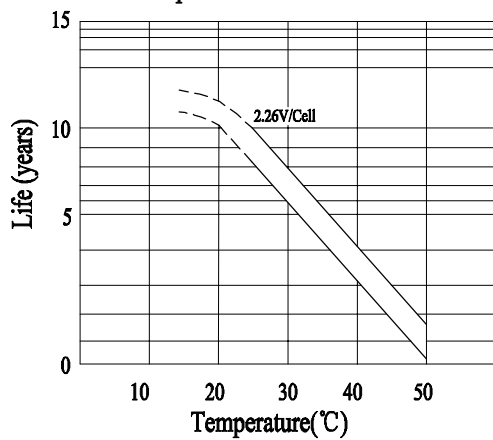
Relationship of OCV and state of charge (25°C)



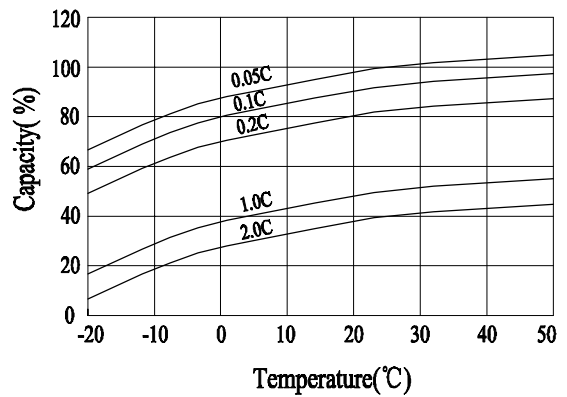
Self-discharge characteristic



Temperature effects on float life



Temperature effects on capacity



Battery and terminal dimensions

