

SPECIFICATION: CG12-120XA (12V120Ah)

page 1 of 4

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 SiO₂ and H₂SO₄ 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.

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

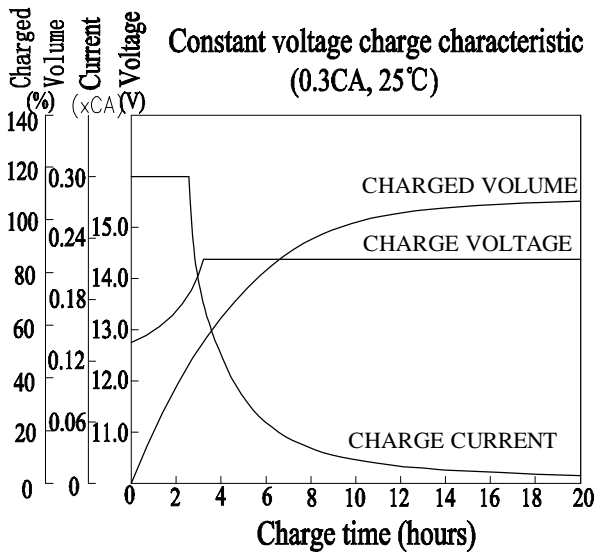
Battery model	CG12-120XA			
Nominal voltage	12V			
Number of cell	6			
Capacity (25°C)	20hR(6.3A, 10.5V)	10hR(12.0A, 10.5V)	5hR(20.0A, 10.5V)	1hR(71.6A, 9.60V)
	126Ah	120Ah	100.0Ah	71.6Ah
Dimensions Max.	Length	Width	Height	Total Height
	410±1 mm	176±1 mm	227±1 mm	227±1 mm
Approx. weight	38Kg (83.8lbs)			
Internal resistance	Full charged at 25°C: 4.3mOhms			
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)	950A (5s)			
Short circuit current	2250A			

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

End Point Volts/Cell	5min	10min	15min	30min	45min	1h	3h	5h	10h
1.60V	343	250	196	120	87.7	71.6	32.0	21.0	12.5
1.65V	329	245	195	116	86.1	71.1	31.5	21.0	12.3
1.70V	303	223	187	112	83.8	69.7	31.0	20.7	12.2
1.75V	277	210	179	108	81.0	67.5	30.5	20.0	12.1
1.80V	253	197	167	106	78.9	65.4	28.1	19.3	12.0

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	603	449	370	227	172	141	79.6	59.2	39.5
1.65V	567	426	358	220	171	137	76.8	56.6	38.9
1.70V	530	404	346	213	157	131	74.0	55.0	38.3
1.75V	494	383	334	206	154	128	72.6	54.1	37.4
1.80V	466	358	310	199	150	124	70.8	53.0	37.0



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

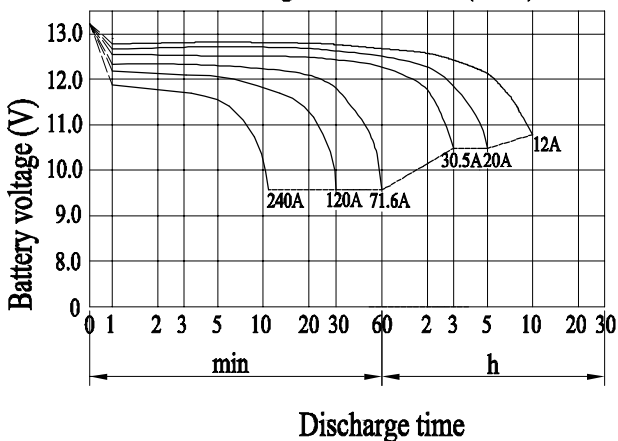
Charge voltage: 14.28--14.52Volts

Temperature compensation:

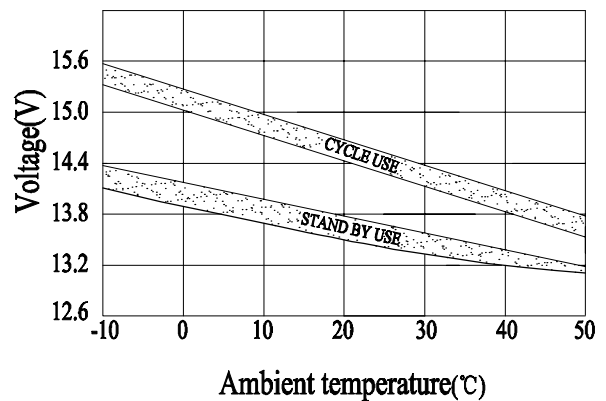
Standby use: -20mV/°C

Cyclic use: -30mV/°C.

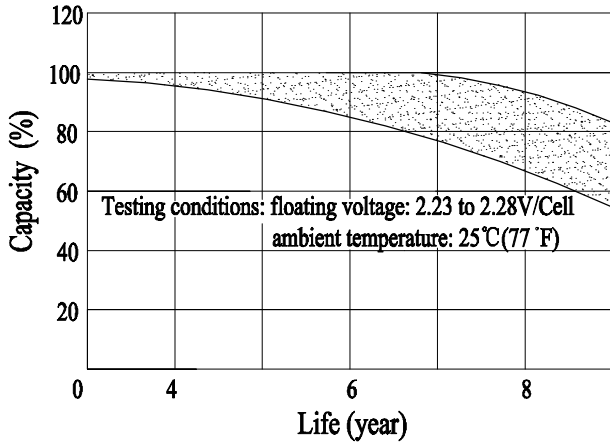
Discharge characteristic (25°C)



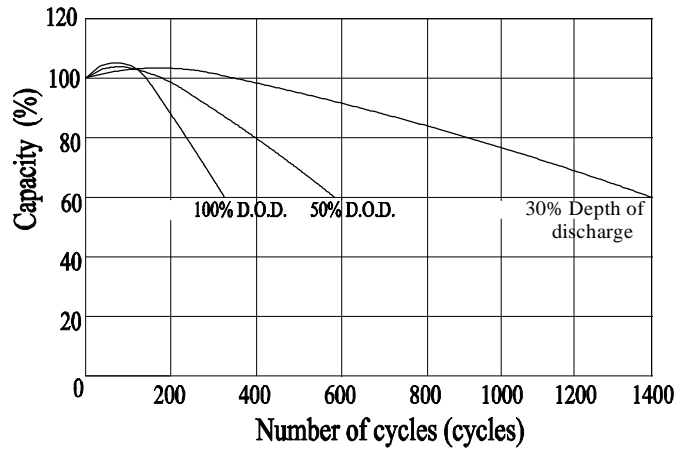
Relationship between charge voltage and temperature



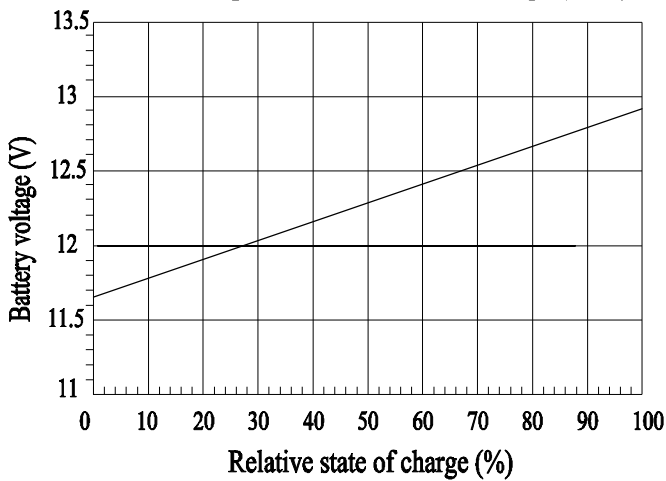
Life characteristics of standby use



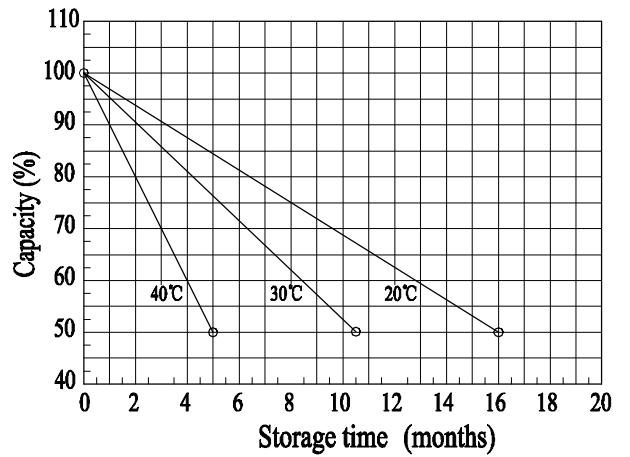
Cycle service life in relation to depth of discharge



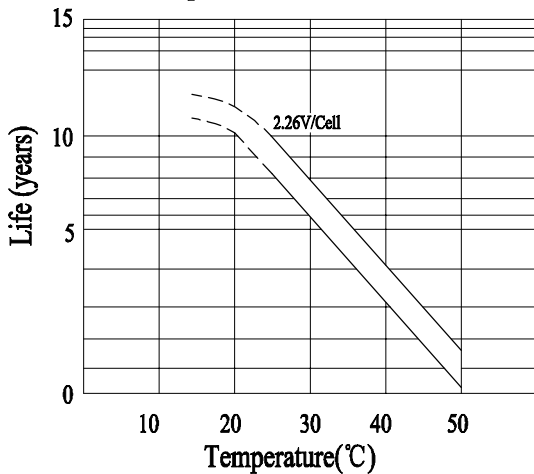
Relationship of OCV and state of charge (25°C)



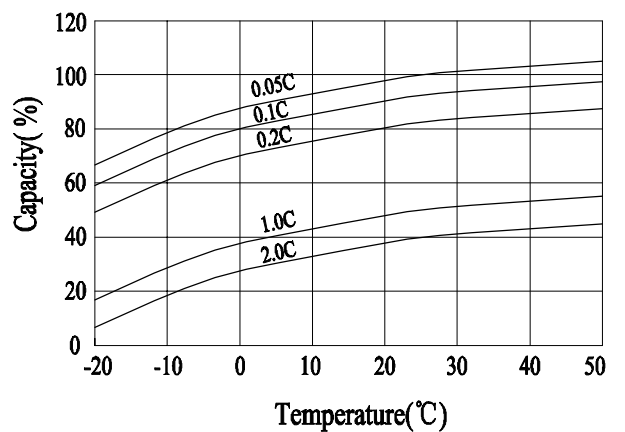
Self-discharge characteristic



Temperature effects on float life



Temperature effects on capacity



Battery and terminal dimensions

