

SPECIFICATION: CG12-7A (12V7Ah)

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

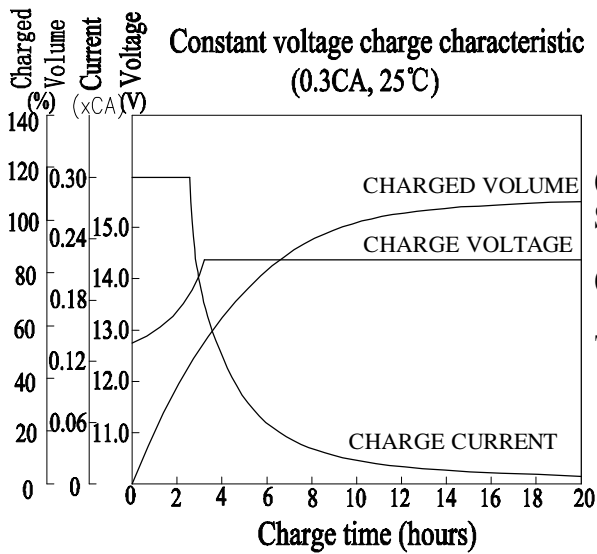
Battery model	CG12-7A			
Nominal voltage	12V			
Number of cell	6			
Capacity (25°C)	20HR(0.35A, 10.5V)	10HR(0.69A, 10.5V)	5HR(1.15A, 10.5V)	1HR(4.7A, 9.60V)
	7Ah	6.9Ah	5.75Ah	4.7Ah
Dimensions	Length	Width	Height	Total Height
	151±1mm	65±1mm	94±1mm	100±1mm
Approx. weight	2.32Kg (5.11 lbs) (Weight deviation: ± 3%)			
Internal resistance	Full charged at 25°C: ≤ 30 mOhms			
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)	105A (5s)			
Short circuit current	350A			

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	28.8	18.1	14.8	8.29	4.70	1.85	1.28	0.71	0.36
1.65V	27.3	17.3	14.2	7.95	4.54	1.79	1.24	0.70	0.36
1.70V	25.7	16.4	13.5	7.66	4.35	1.73	1.19	0.70	0.36
1.75V	24.2	15.4	12.8	7.37	4.17	1.67	1.15	0.69	0.35
1.80V	22.6	14.6	12.1	7.00	3.96	1.62	1.11	0.67	0.34

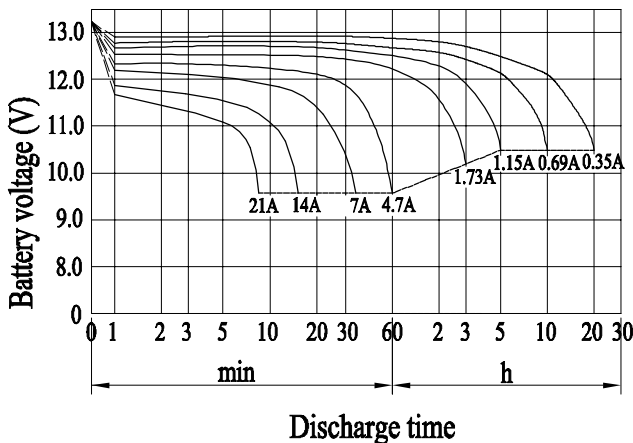
Constant power discharge rating-watts per cell at 25°C(77 °F)

End Point Volts/Cell	5min	10min	15min	30min	45min	1h	2h	3h	5h
1.60V	51.2	32.8	27.1	15.6	11.6	9.18	5.08	3.55	2.57
1.65V	48.8	31.5	26.0	15.0	11.2	8.91	4.94	3.46	2.51
1.70V	46.3	30.0	24.9	14.6	10.9	8.60	4.79	3.36	2.43
1.75V	43.8	28.5	23.8	14.1	10.5	8.28	4.62	3.24	2.36
1.80V	41.0	26.9	22.6	13.5	10.0	7.90	4.46	3.16	2.29

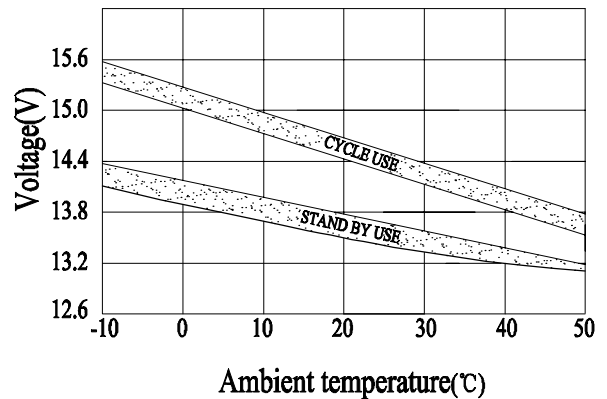


CHARGING METHODS: Constant voltage charging at 25°C
 Standby use: No charging current limit is required
 Charging voltage: 2.23-2.30VPC
 Cyclic use: Maximum charging current: 30% of rated capacity
 Charging voltage: 2.40-2.45VPC
 Temperature compensation :
 stand by -20mV/°C; cyclic use -30mV/°C

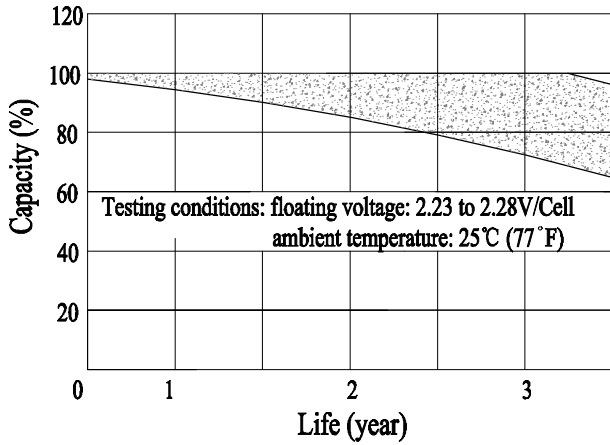
Discharge characteristic (25°C)



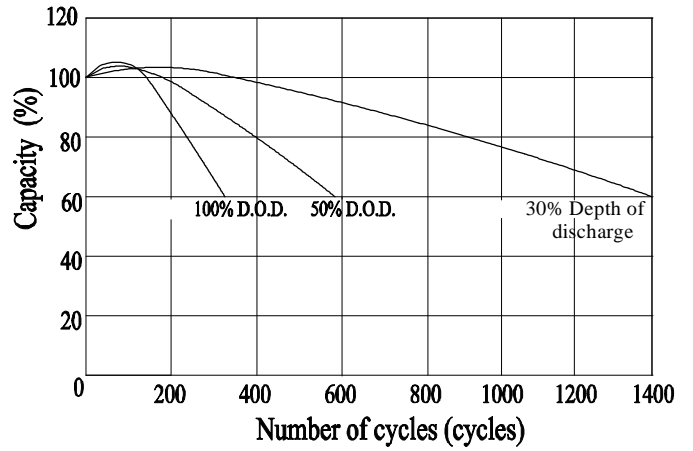
Relationship between charge voltage and temperature



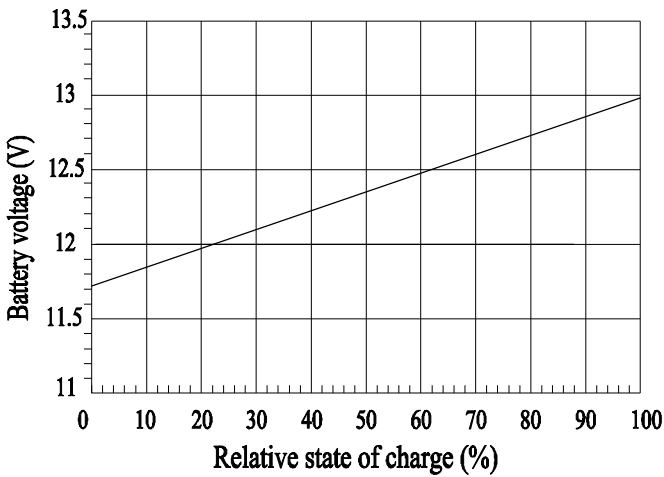
Life characteristics of standby use



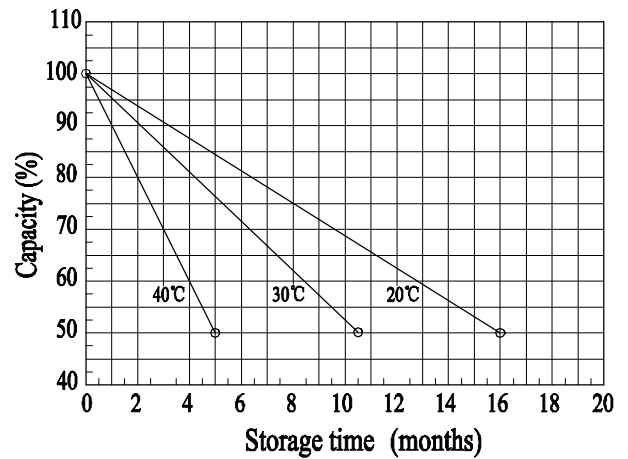
Cycle service life in relation to depth of discharge



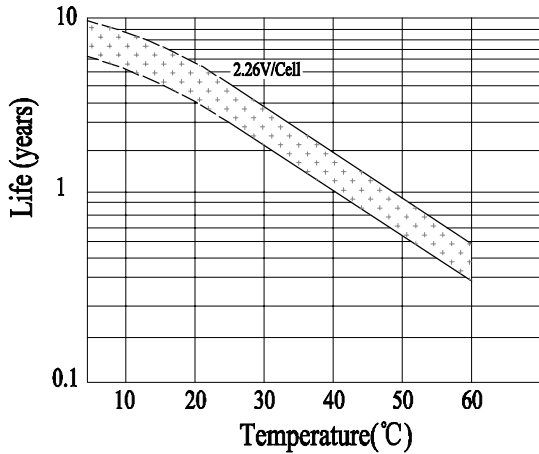
Relationship of OCV and state of charge (25°C)



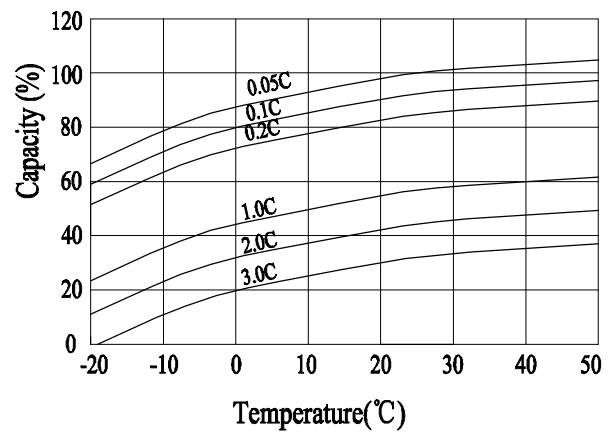
Self-discharge characteristic



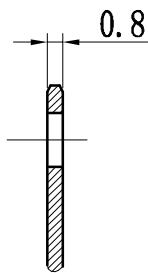
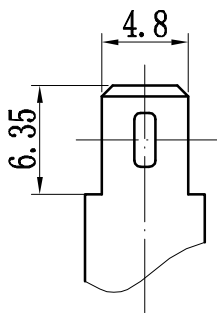
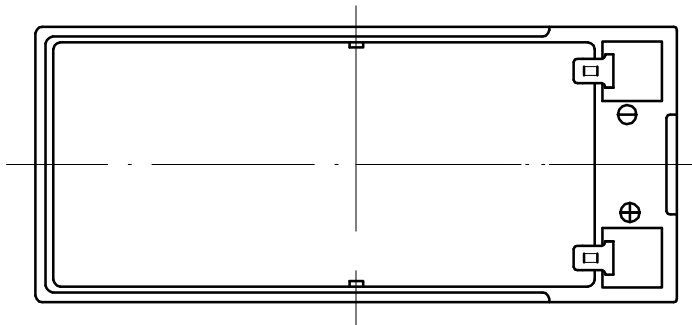
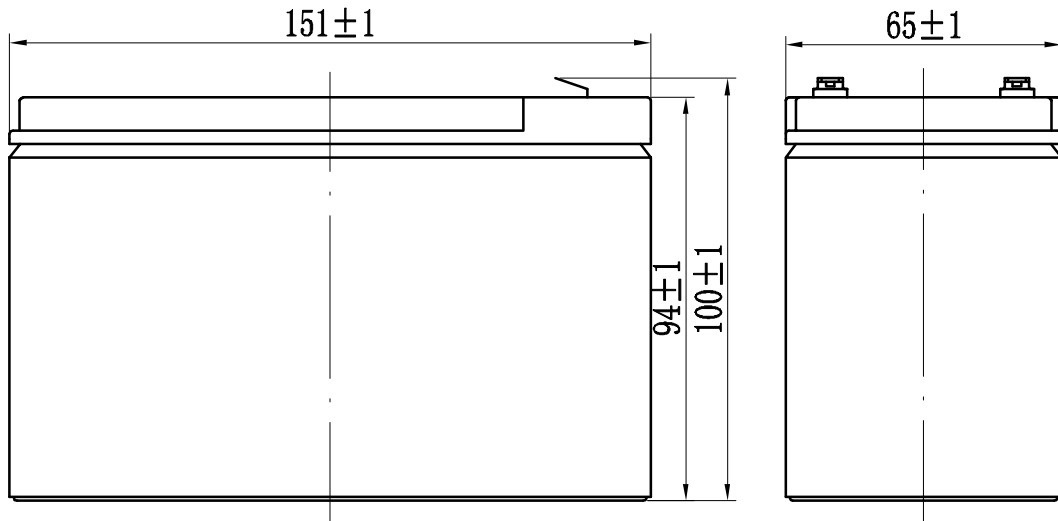
Temperature effects on float life



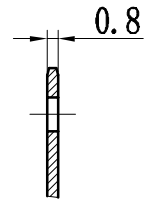
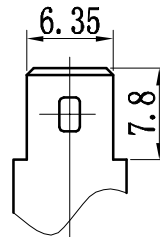
Temperature effects on capacity



Battery and terminal dimensions



Terminal
F1 (0.187)



Terminal (Optional)
F2 (0.250)