

SPECIFICATION: CG12-60DA(12V60Ah)

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

- l Absorbent Glass Mat (AGM) 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	Pb	Fiberglass	Gelled acid

TECHNOLOGY PARAMETER

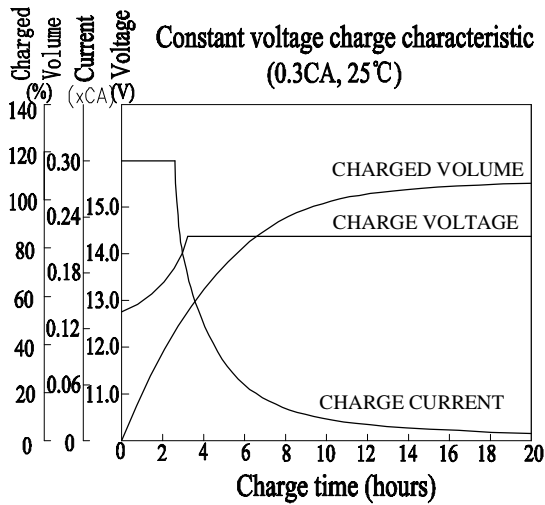
Battery model	CG12-60DA			
Nominal voltage	12V			
Number of cell	6			
Capacity (25°C)	20hR(3A, 10.5V)	10hR(5.74A, 10.5V)	5hR(10.3A, 10.5V)	1hR(42.9A, 9.60V)
	60Ah	57.4Ah	51.5Ah	42.9Ah
Dimensions	Length	Width	Height	Total Height
	258±1mm	166±1mm	206±1mm	235±1mm
Approx. weight	24Kg (52.9 lbs)			
Internal resistance	Full charged at 25°C: ≤ 7.0mOhms			
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)	600A (5s)			
Short circuit current	1450A			

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

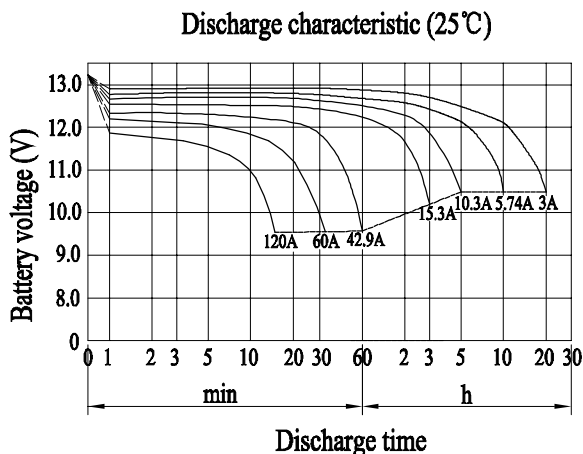
End Point Volts/Cell	5min	10min	15min	30min	1h	3h	5h	10h	20h
1.60V	195	145	121	69.8	42.9	16.4	11.2	6.24	3.30
1.65V	184	138	115	67.0	41.4	15.8	11.0	6.04	3.20
1.70V	174	131	109	64.1	39.9	15.3	10.7	5.84	3.15
1.75V	163	124	104	60.9	38.0	14.8	10.3	5.74	3.00
1.80V	153	116	98.4	57.8	36.1	14.0	10.0	5.45	3.00

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

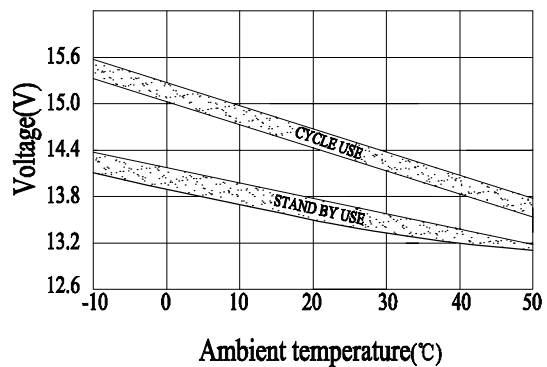
End Point Volts/Cell	5min	10min	15min	30min	45min	1h	2h	3h	5h
1.60V	344	256	217	126	95.8	77.0	43.9	32.8	23.0
1.65V	328	246	208	121	92.7	74.8	42.6	31.9	22.9
1.70V	311	234	200	117	89.6	72.4	41.4	31.0	22.3
1.75V	295	223	191	113	85.8	69.5	40.0	30.2	21.7
1.80V	276	210	180	107	81.7	66.2	38.1	28.8	21.1



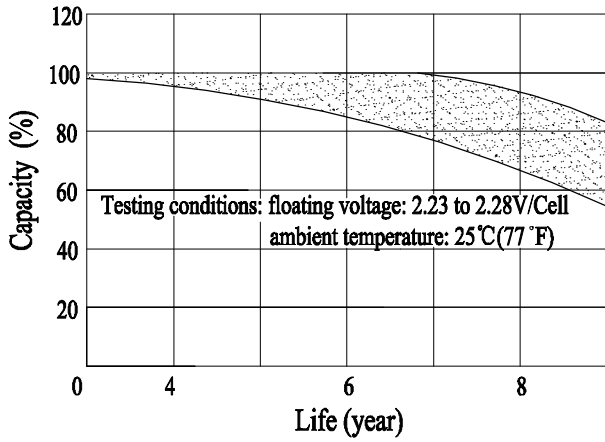
CHARGING METHODS: Constant voltage charging at 25°C
 Standby use: No charging current limit is required
 Charging voltage: 2.20-2.30VPC
 Cyclic use: Maximum charging current: 30% of rated capacity
 Charging voltage: 2.40-2.45VPC
 Temperature compensation :
 stand by -20mV/°C; cyclic use -30mV/°C



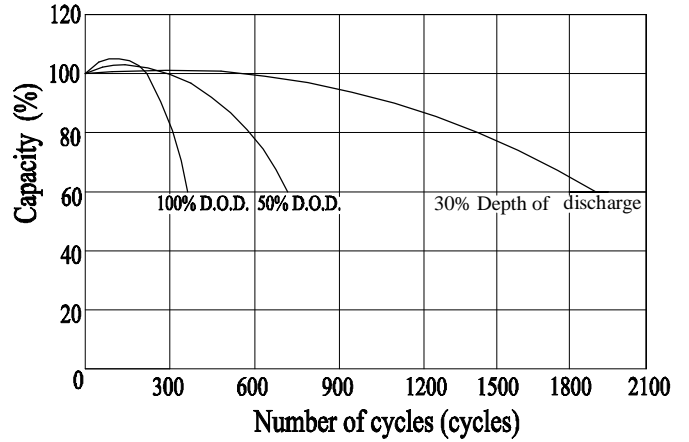
Relationship between charge voltage and temperature



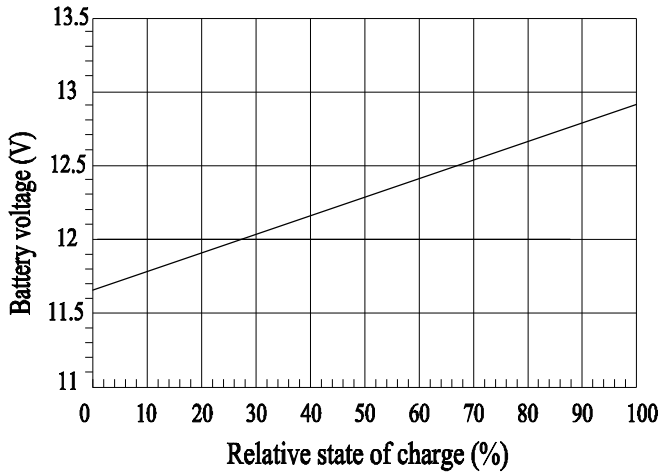
Life characteristics of standby use



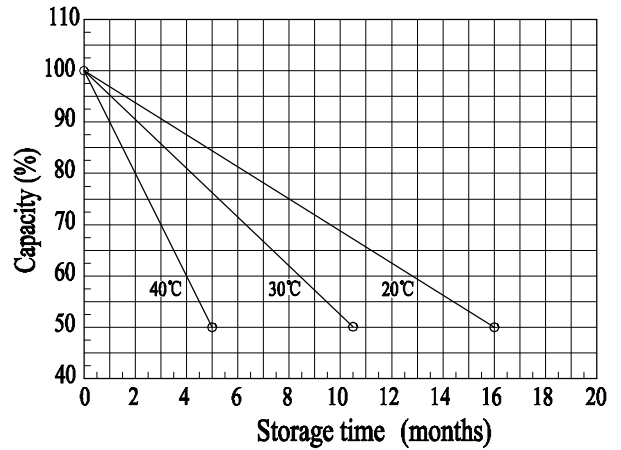
Cycle service life in relation to depth of discharge



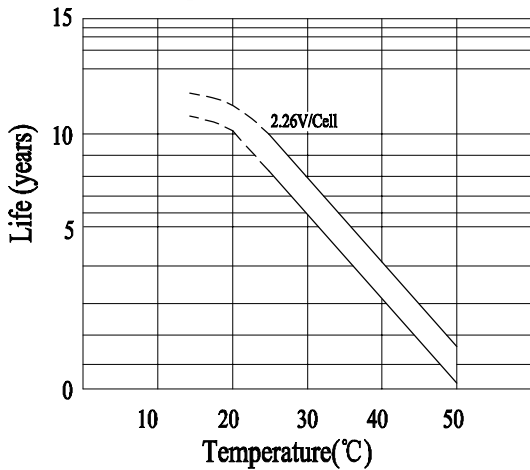
Relationship of OCV and state of charge (25°C)



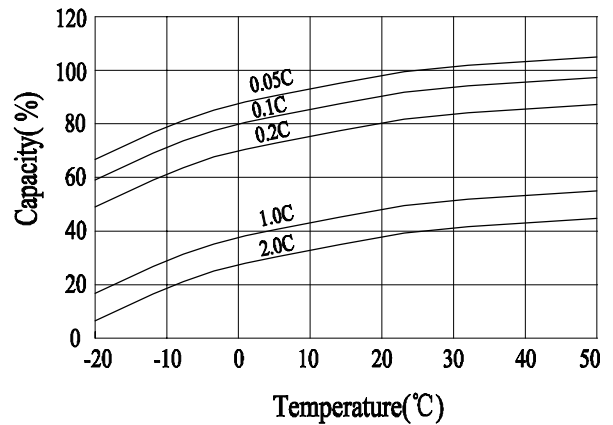
Self-discharge characteristic



Temperature effects on float life



Temperature effects on capacity



Battery and terminal dimensions

