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

- Absorbent Glass Mat (AGM) 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	Sulfuric acid

TECHNOLOGY PARAMETER

Battery model	CP1250A			
Nominal voltage	12V			
Number of cell	6			
Capacity (25℃)	20hR(0. 26A, 10.5V)	10hR(0.51A, 10.5V)	5hR(1.01A, 10.5V)	1hR(4.14A, 9.60V)
	5.2Ah	5.1Ah	5.05Ah	4.14Ah
Dimensions	Length	Width	Height	Total Height
	90±1mm	70±1mm	101±1mm	107±1mm
Approx. weight	1.95Kg (4.3 lbs)			
Internal resistance	Full charged at 25℃: 26mOhms			
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℃)	75A (5s)			
Short circuit current	270A			

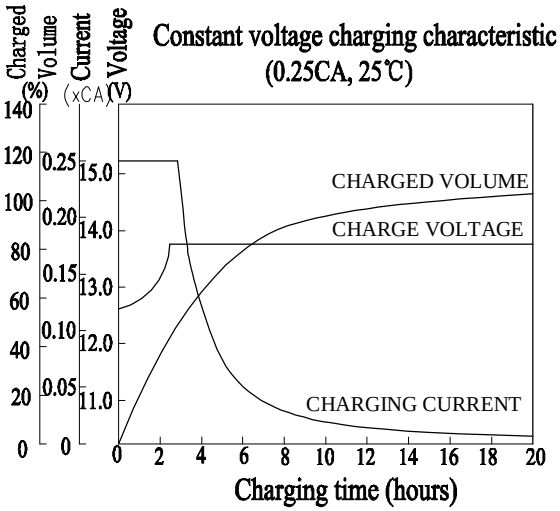
Constant current discharge ratings-amperes at 25℃(77 ˚F)

End point volts/cell	5min	10min	15min	30min	1h	5h	10h	20h
1.60V	25.5	16.1	13.1	7.51	4.14	1.03	0.52	0.27
1.65V	25.3	16.0	12.9	7.20	4.11	1.03	0.52	0.27
1.70V	25.0	15.9	12.8	7.06	4.07	1.02	0.52	0.27
1.75V	24.7	15.6	12.7	6.92	4.03	1.01	0.51	0.26
1.80V	24.1	15.3	12.5	6.88	3.99	1.00	0.50	0.26

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

End point volts/cell	5min	10min	15min	30min	45min	1h	3h	5h
1.60V	50.3	32.9	25.3	14.3	10.2	8.20	3.28	2.00
1.65V	49.8	32.6	25.1	14.2	10.2	8.14	3.27	1.99
1.70V	49.1	32.2	24.9	14.1	10.1	8.10	3.26	1.99
1.75V	48.4	32.0	24.7	14.0	10.0	8.05	3.24	1.98
1.80V	47.6	30.6	24.4	14.0	9.9	8.00	3.20	1.97

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

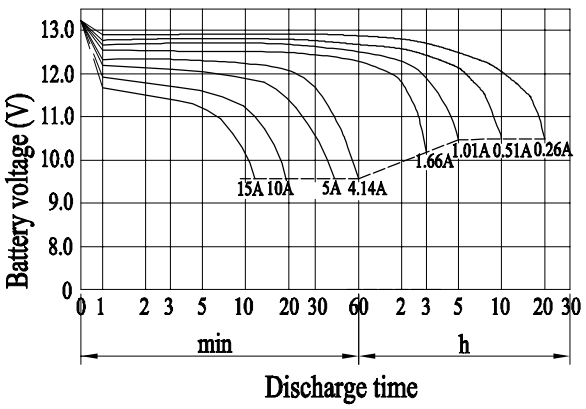
Cyclic use: Maximum charging current: 40% of rated capacity

Charging voltage: 14.5--14.9Volts

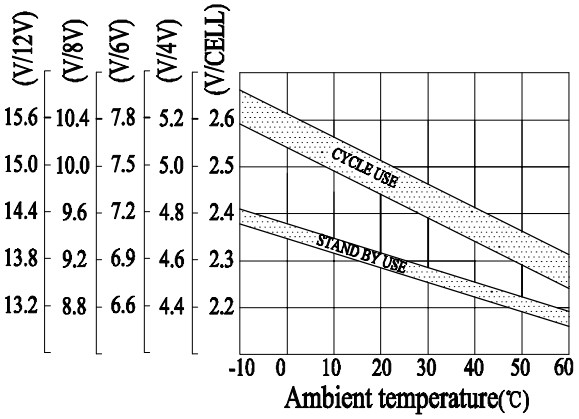
Temperature compensation :

stand by -20mV/℃; cyclic use -30mV/℃ .

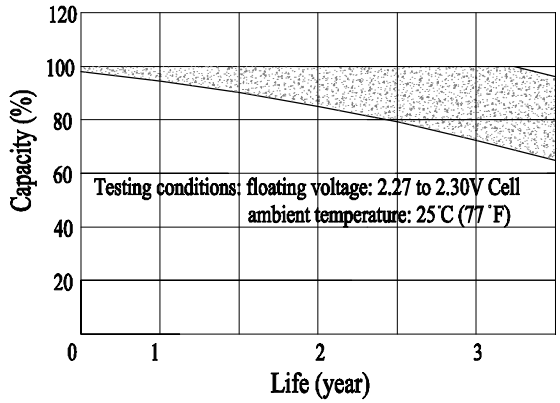
Discharge characteristic (25℃)



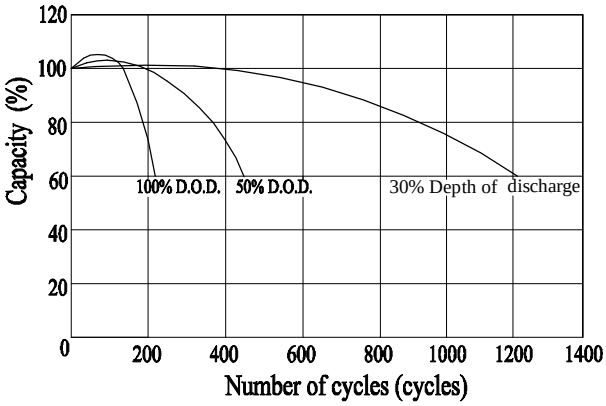
Relationship between charging voltage and temperature



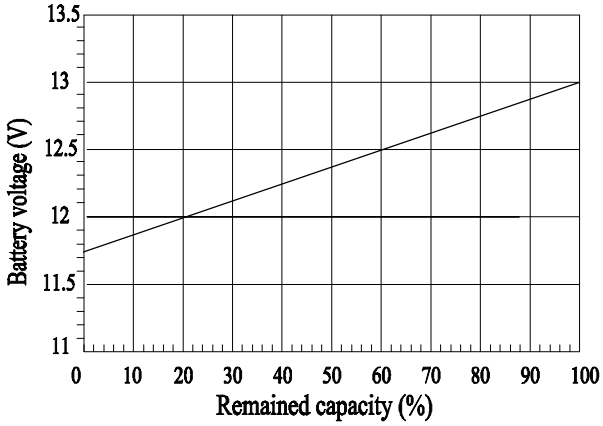
Life characteristics of standby use



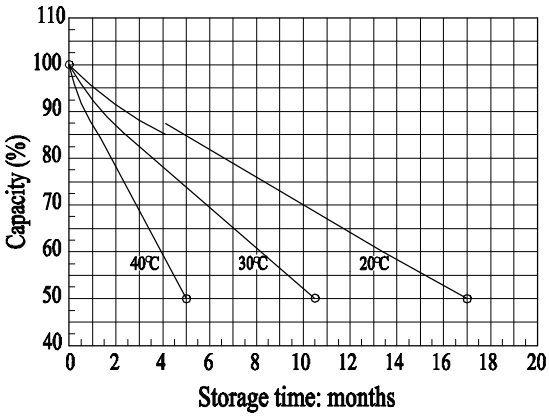
Cycle service life in relation to depth of discharge



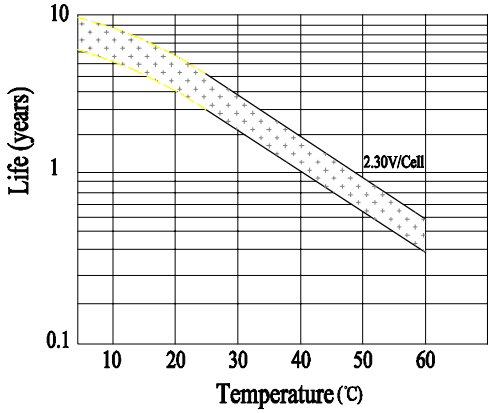
Relationship of OCV and state of charge (25˚C)



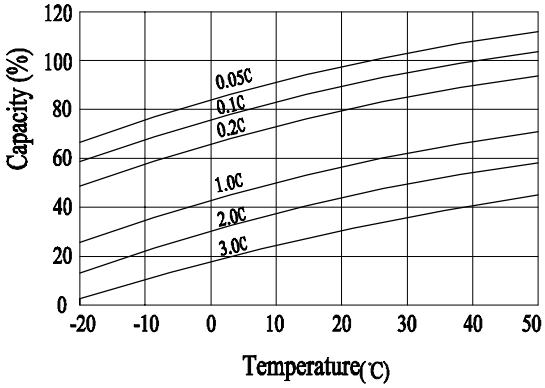
Self-discharge characteristic



Temperature effects on float life



Temperature effects on capacity



Battery and terminal dimensions