CP1229 12V 2.9Ah (20hr) Sealed Lead Acid (SLA) Battery



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.

Battery Construction

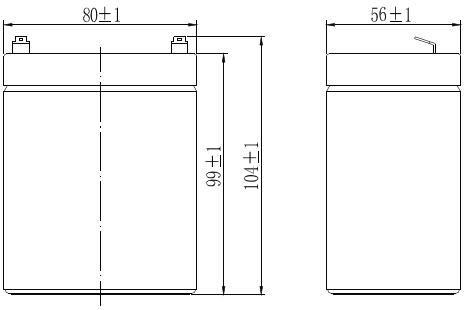
Component	Positive plate	Negative plate	Container	Cover	Safety valve	Terminal	Separator	Electrolyte
Raw material	Lead dioxide	Lead	ABS	ABS	Rubber	Copper	Fiberglass	Sulfuric acid

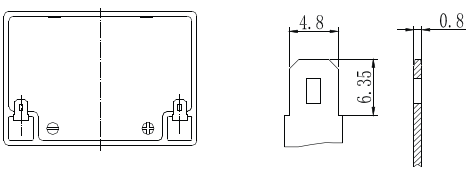
General Features

- 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
- Valve Regulated Lead Acid (VRLA) battery

Dimensions and Weight

Length(mm / inch)	80 / 3.14
Width(mm / inch)	56 / 2.20
Height(mm / inch)	99 / 3.89
Total Height(mm / inch)	104 / 4.09
Approx. Weight(Kg / lbs)	1.06 / 2.33





Performance Characteristics

Nominal Voltage	12V
Number of cell	6
Design Life	5 years
Nominal Capacity 77ºF(25ºC)	
20 hour rate (0.145A, 10.5V)	2.9Ah
10 hour rate (0.26A, 10.5V)	2.6Ah
5 hour rate (0.51A, 10.5V)	2.55Ah
1 hour rate (2.2A, 9.6V)	2.2Ah
Internal Resistance	
Fully Charged battery 77ºF(25ºC)	42mOhms
Self-Discharge	
3% of capacity declined per month at 20ºC(average)	
Operating Temperature Range	
Discharge	-20~60ºC
Charge	-10~60ºC
Storage	-20~60ºC
Max. Discharge Current 77ºF(25ºC)	43.5A(5s)
Short Circuit Current	145A
Charge Methods: Constant Voltage Charge 77ºF(25ºC)	
Cycle use	2.30-2.35VPC
Maximum charging current	1.16A
Temperature compensation	-30mV/ºC
Standby use	2.23-2.27VPC
Temperature compensation	-20mV/ºC

Discharge Constant Current (Amperes at 77ºF25ºC)

End Point Volts/Cell	5min	10min	15min	30min	1h	3h	5h	10h	20h
1.60V	13.8	9.00	7.13	4.20	2.20	0.85	0.55	0.29	0.160
1.65V	13.1	8.57	6.82	4.04	2.12	0.82	0.54	0.28	0.150
1.70V	12.3	8.12	6.48	3.86	2.04	0.79	0.52	0.27	0.150
1.75V	11.6	7.67	6.15	3.67	1.95	0.77	0.51	0.26	0.145
1.80V	10.9	7.22	5.81	3.48	1.85	0.73	0.49	0.26	0.140

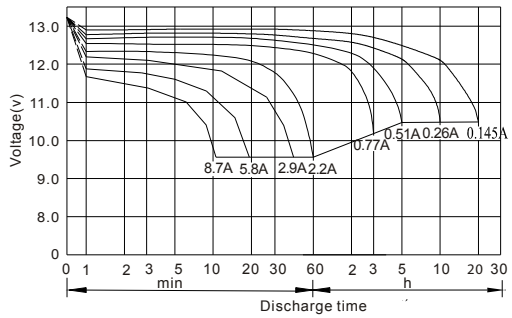
Discharge Constant Power (Watts at 77ºF25ºC)

End Point Volts/Cell	5min	10min	15min	30min	1h	3h	5h
1.60V	26.46	17.15	13.72	8.15	4.28	1.66	1.05
1.65V	25.28	16.46	13.23	7.88	4.15	1.62	1.04
1.70V	23.91	15.68	12.64	7.58	4.01	1.57	1.02
1.75V	22.64	14.90	12.05	7.26	3.86	1.52	0.99
1.80V	21.36	14.01	11.47	6.91	3.68	1.46	0.96

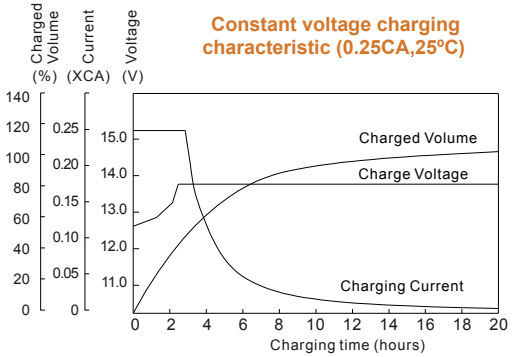
(Note)The above characteristics data are average values obtained within three charge/discharge cycles not the mimimum values.

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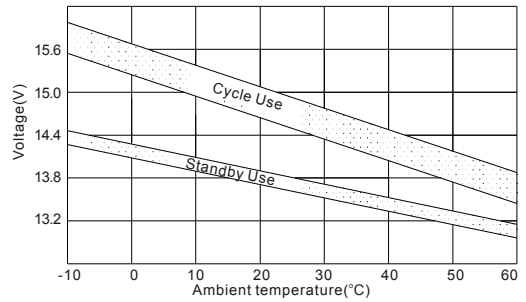
Discharge characteristic (25ºC)



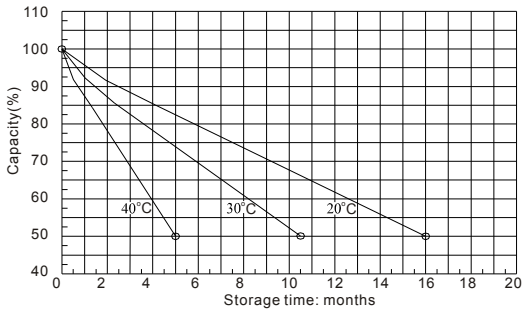
Constant voltage charging characteristic (0.25CA,25ºC)



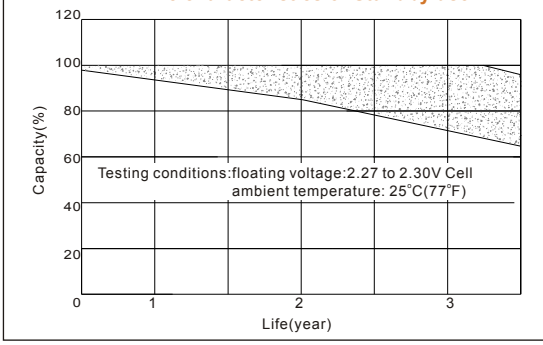
Relationship between charging voltage and temperature



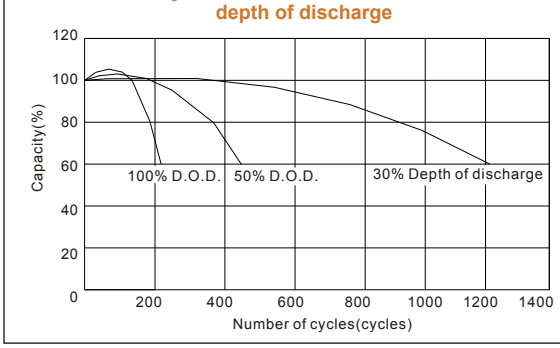
Self-discharge characteristic



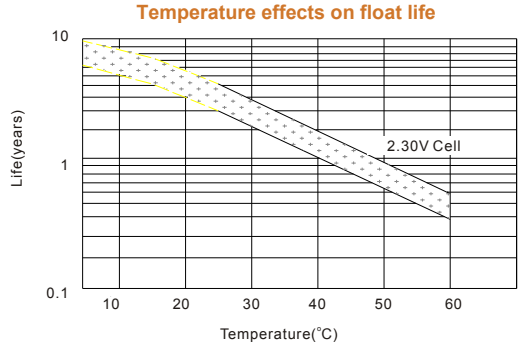
Life characteristics of Standby use



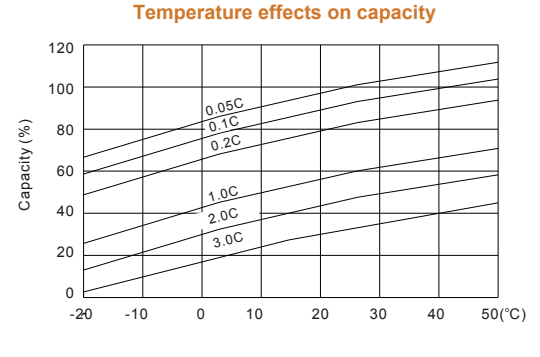
Cycle service life in relation to depth of discharge



Temperature effects on float life



Temperature effects on capacity



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