

Rechargeable Sealed Lead-Acid Battery

PS-490



Power-Sonic rechargeable batteries are lead-lead dioxide systems. The dilute sulphuric acid electrolyte is suspended 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 and leak proof.

PS-490 is air transport approved, and meets all current requirements set forth by the D.O.T., I.A.T.A., F.A.A. and C.A.B.

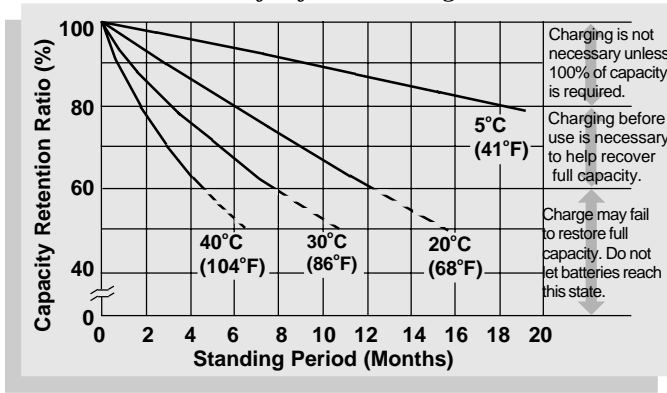
U.L. recognizes model PS-490 under file number MH 14328.



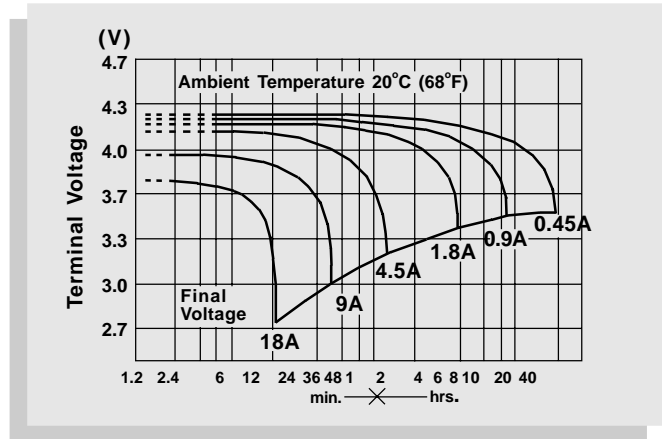
PERFORMANCE SPECIFICATIONS

Nominal Voltage	4 volts (2 cells in series)
Nominal Capacity	
20 hour rate (450mA to 3.50 volts)	9.0 A.H.
10 hour rate (830mA to 3.50 volts)	8.3 A.H.
5 hour rate (1530mA to 3.20 volts)	7.7 A.H.
1 hour rate (5400mA to 3.00 volts)	5.4 A.H.
Approximate Weight	2.8 pounds (1.28 kg)
Energy Density (20 hour rate)	1.40 Watt-hours/cubic inch (85.3 Watt-hours/l)
Specific Energy (20 hour rate)	12.9 Watt-hours/pound (28.1 Watt-hours/kg)
Internal Resistance (Fully Charged Battery)	10 milliohms (approximately)
Maximum Discharge Current (≤ 7 Min.)	27 amperes
Maximum Short-Duration Discharge Current (≤ 10 Sec.)	90 amperes
Terminals	Quick disconnect tabs, 0.250" x 0.032" Mate with AMP. INC FASTON "250" series
Vibration Test (2000 cycles/minute, 0.10 inch excursion, 2 hours)	No loss in capacity or performance
Shelf Life — % of nominal capacity at 68° F (20° C)	
1 Month.....	97%
3 Months.....	91%
6 Months.....	83%
Operating Temperature Range	
Charge	-4°F (-20°C) to 122°F (50°C)
Discharge	-4°F (-20°C) to 140°F (60°C)
Case	ABS Plastic

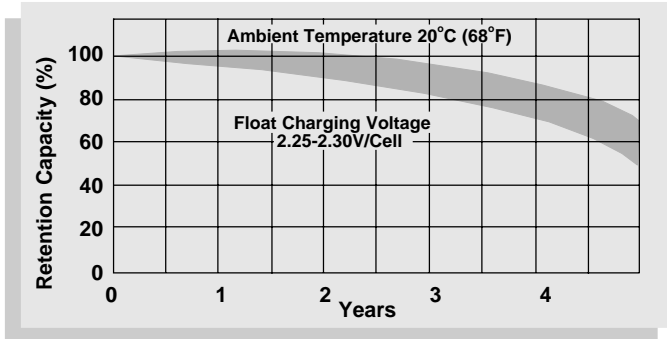
Shelf Life and Storage



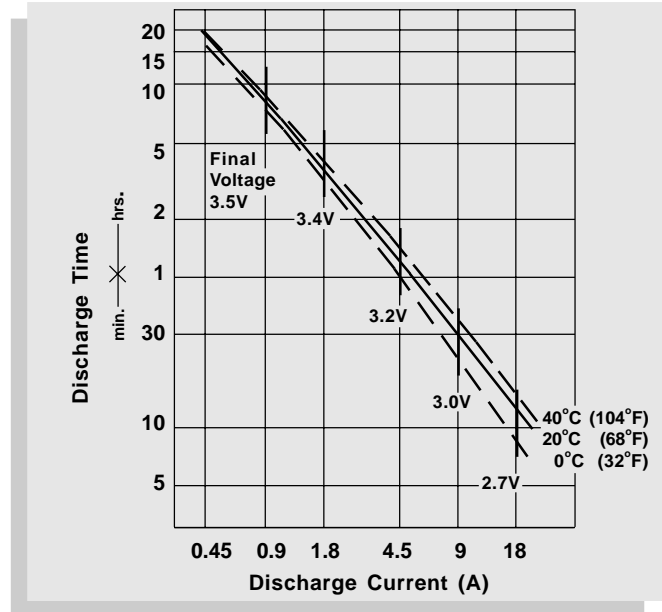
Discharge Characteristics



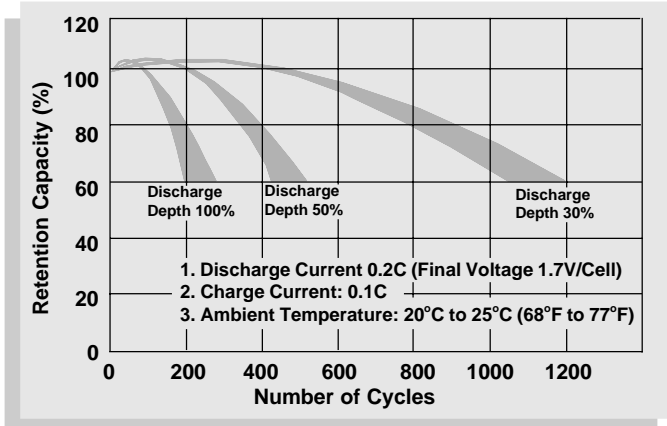
Life Characteristics in Stand-By Use



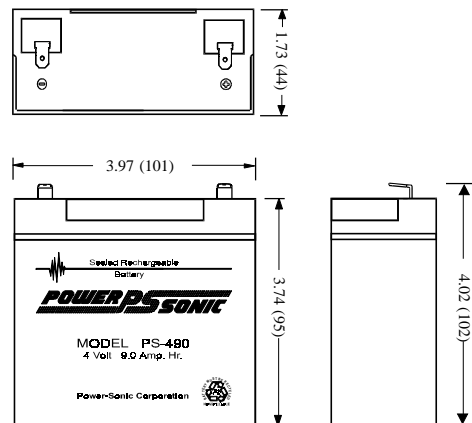
Discharge Time vs. Discharge Current



Life Characteristics in Cyclic Use



Physical Dimensions: in. (mm)



Tolerances are +/- 0.04 in. (+/- 1mm) and +/- 0.08 in. (+/- 2mm) for height dimensions. All data subject to change without notice.

CHARGING

Cycle Applications: Limit initial current to 1800mA. Charge until battery voltage (under charge) reaches 4.80 to 5.00 volts at 68°F (20°C). Hold at 4.80 to 5.00 volts until current drops to approximately 90mA. Battery is fully charged under these conditions, and charger should either be disconnected or switched to "float" voltage.

"Float" or "Stand-By" Service: Hold battery across constant voltage source of 4.50 to 4.60 volts continuously. When held at this voltage, the battery will seek its own current level and maintain itself in a fully charged condition.

NOTE: Due to the self-discharge characteristics of this type of battery, it is imperative that they be charged after 6-9 months of storage, otherwise permanent loss of capacity might occur as a result of sulfation.



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