

## Rechargeable Sealed Lead-Acid Battery

### PS-650 L



**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-650L is air transport approved, and meets all current requirements set forth by the C.A.B., F.A.A., I.A.T.A. and D.O.T.

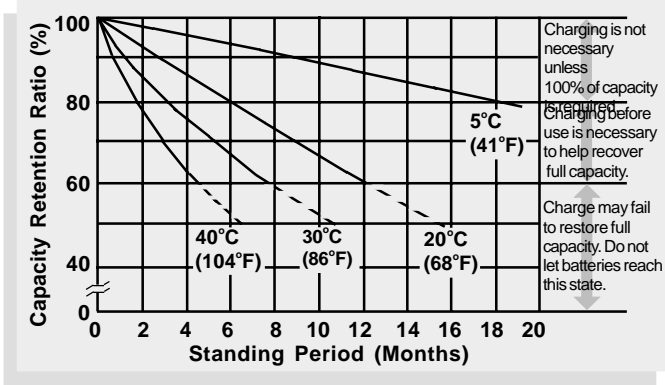
U.L. recognizes model PS-650L under file number MH 14328.



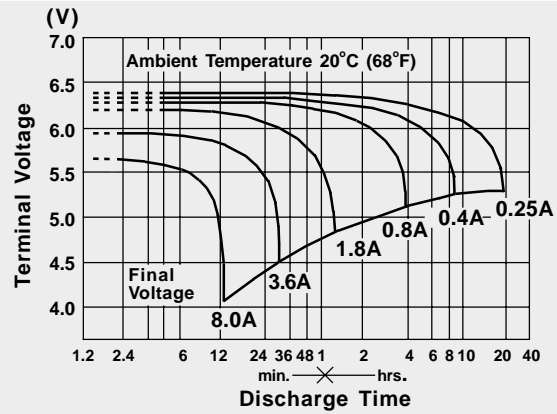
#### PERFORMANCE SPECIFICATIONS

<b>Nominal Voltage</b> .....	6 volts (3 cells in series)
<b>Nominal Capacity</b>	
20 hour rate ( 250mA to 5.25 volts).....	5 A.H.
10 hour rate ( 400mA to 5.25 volts).....	4 A.H.
5 hour rate ( 600mA to 5.10 volts).....	3 A.H.
1 hour rate (2100mA to 4.50 volts).....	2.1 A.H.
<b>Approximate Weight</b> .....	2.0 pounds (0.9 kg)
<b>Energy Density (20 hour rate)</b> .....	1.15 Watt-hours/cubic inch (69.6 Watt-hours/l)
<b>Specific Energy (20 hour rate)</b> .....	15.0 Watt-hours/pound (33.0 Watt-hours/kg)
<b>Internal Resistance (Fully Charged Battery)</b> .....	80 milliohms (approximately)
<b>Maximum Discharge Current (5 Min.)</b> .....	5 amperes
<b>Maximum Short-Duration Discharge Current (5 Sec.)</b> .....	5 amperes
<b>Terminals</b> .....	<b>PS-650 L:</b> Spring type terminals. <b>PS-650 LF:</b> Quick disconnect tabs.0.187" x 0.032" Mate with AMP. INC. FASTON "187" series. Internally protected against short circuits by means of automatically resetting circuit breaker
<b>Vibration Test (2000 cycles/minute, 0.10 inch excursion, 2 hours)</b> .....	No loss in capacity or performance
<b>Shelf Life — % of nominal capacity at 68°F (20° C)</b>	
1 Month.....	97%
3 Months.....	91%
6 Months.....	83%
<b>Operating Temperature Range</b>	
<b>Charge</b> .....	-4° F (-20°C) to 122°F (50°C)
<b>Discharge</b> .....	-4° F (-20°C) to 140°F (60°C)
<b>Case</b> .....	High-impact Polystyrene

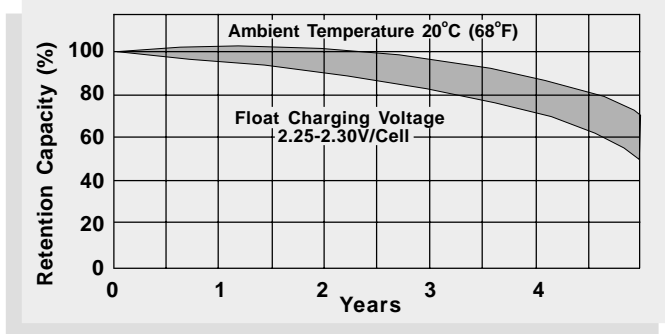
**Shelf Life and Storage**



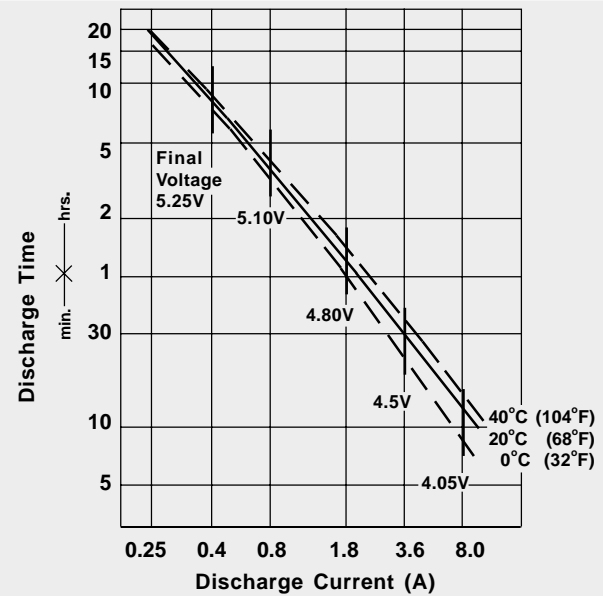
**Discharge Characteristics**



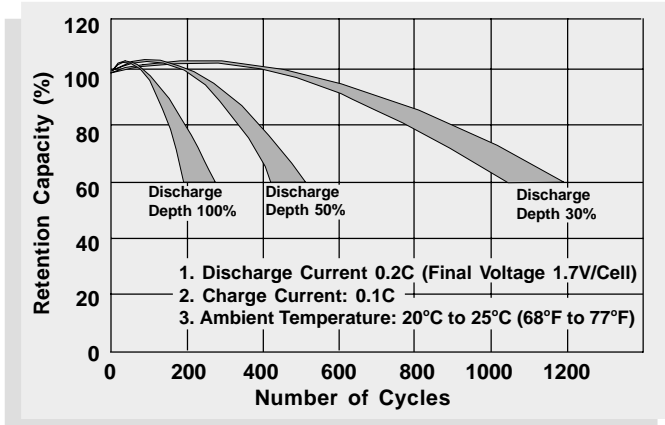
**Life Characteristics in Stand-By Use**



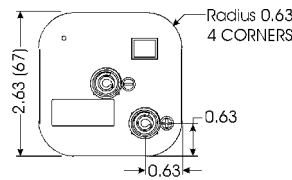
**Discharge Time vs. Discharge Current**



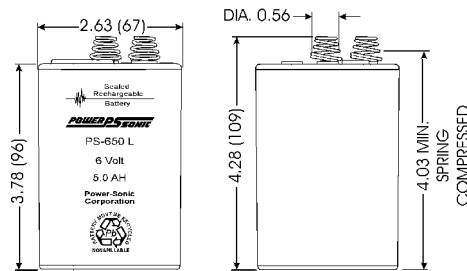
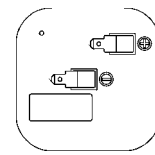
**Life Characteristics in Cyclic Use**



**Physical Dimensions**



**PS-650 LF (Faston)**



Tolerances are +/- 0.04 in. (+/- 1mm) and +/- 0.08 in. (+/- 2mm) for height dimensions.

**CHARGING**

**Cycle Applications:** Limit initial current to 1000mA. Charge until battery voltage (under charge) reaches 7.20 to 7.35 volts at 68°F (20°C). Hold at 7.20 to 7.35 volts until current drops to approximately 50mA. 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 6.75 to 6.90 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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