

## Tubular Gel Battery

2 Volt 250AH @ 10-hr. rate

2 Volt 316AH @ 100-hr. rate

Rechargeable Sealed Lead Acid Battery

Designed for Cyclic, Standby, and Solar Applications



# PSOPzV250 2v250AH



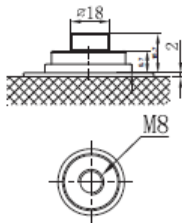
### Features

- Tubular plate and Gel electrolyte for increased performance, service life and reliability
- Gel electrolyte and spill proof construction allows safe operation and maintenance free
- Excellent cyclic performance
- Enhanced overcharge endurance
- Excellent recovery from over discharge situations
- Perfect for applications including
  - Solar / Wind energy storage
  - Telecommunications
  - UPS and critical power
  - Railway signaling
  - Utilities
- Rugged impact resistant ABS case
- Certified for transport by air, D.O.T., I.A.T.A., F.A.A. and C.A.B.
- 20 year design life in float applications

### Terminals

(mm)

- T11: Threaded insert  
8 mm stud fastener



### Performance Specifications

**Nominal Voltage** ..... 2 volts

#### Nominal Capacity

100-hr. (1.80 volts) .....	316.0AH
20-hr. (1.80 volts) .....	267.3AH
10-hr. (1.80 volts) .....	250.0 AH
5-hr. (1.75 volts).....	219.0 AH
3-hr. (1.75 volts).....	194.7 AH
1-hr. (1.60 volts) .....	143.0 AH

**Approximate Weight** ..... 48.5 lbs. (22.0 kg)

**Internal Resistance** (approx.) .....1.1 milliohms

**Max. Discharge Current** (approx.) ..... 2000A (5s)

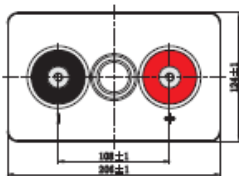
**Shelf Life** .....<2% per month at 68° F (20° C)

#### Operating Temperature Range

Charge ..... 32° F (0° C) to 104° F (40° C)  
 Discharge ..... -4° F (-20° C) to 131° F (55° C)

**Case** ..... ABS Plastic

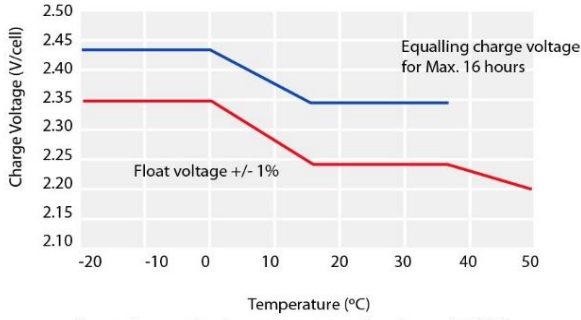
### Physical Dimensions: in (mm)



L: 4.88 (124) W: 8.11 (206) H: 14.0 (355) TH: 15.3 (390)

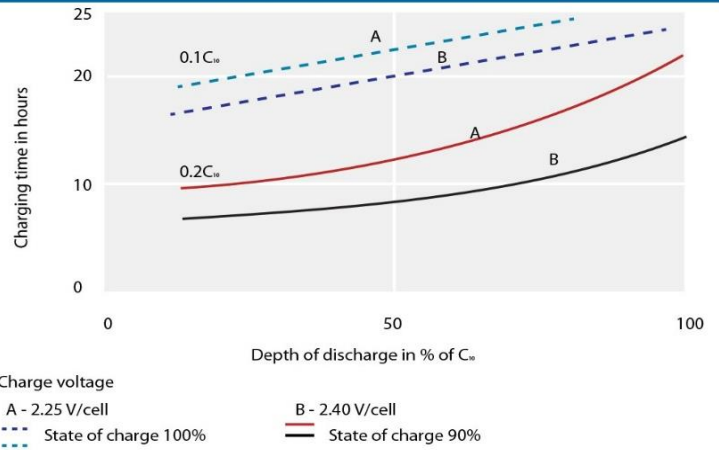
Tolerances are +/- 0.11 in. (+/- 3mm) for all dimensions. All data subject to change without notice.

**TEMPERATURE EFFECTS IN RELATION TO CHARGE VOLTAGE**



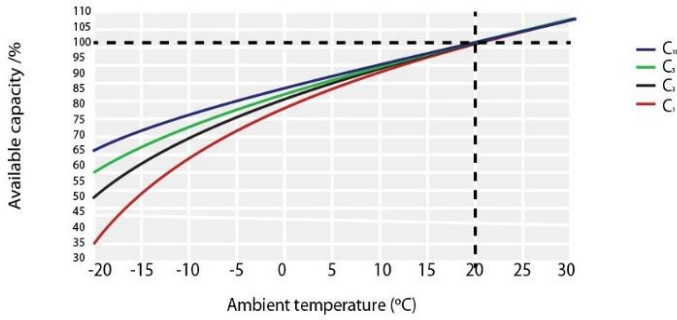
For continuous charging we recommend a voltage of 2.25 V  
The charging voltage must be compensated to the curve for a continuously different battery ambient temperature

**CHARGING CHARACTERISTICS**

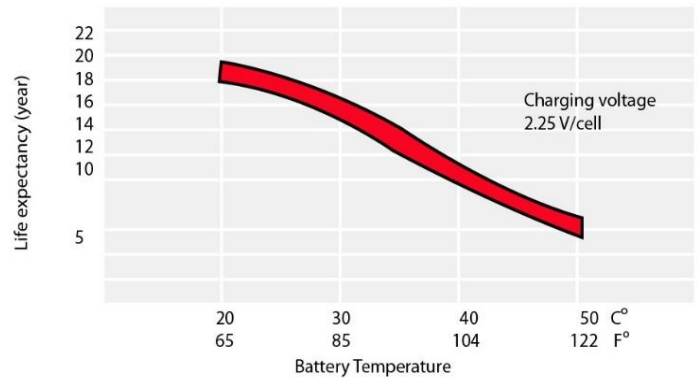


Charge voltage  
A - 2.25 V/cell  
B - 2.40 V/cell  
--- State of charge 100%  
— State of charge 90%

**TEMPERATURE EFFECTS IN RELATION TO BATTERY CAPACITY**

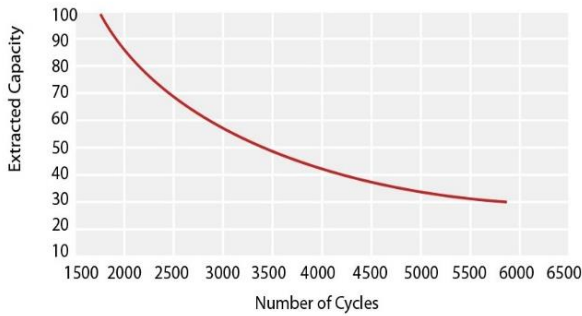


**EFFECT OF TEMPERATURE ON LONG TERM FLOAT LIFE**



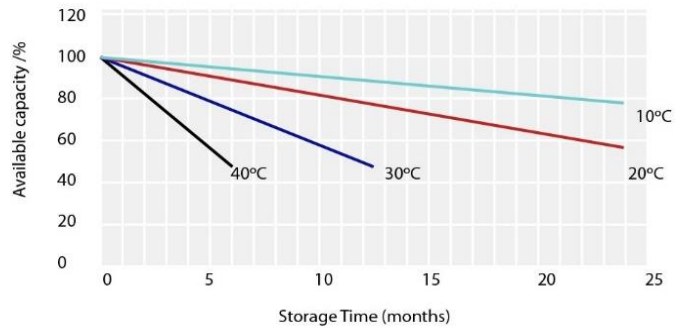
**CYCLE LIFE IN RELATION TO DEPTH OF DISCHARGE**

Acc. to IEC 896 (25°C/77°F)



**GENERAL RELATION OF CAPACITY VS STORAGE TIME**

Residual average capacity in % of C<sub>100</sub>



**Charging**

**Cycle Applications:** Limit initial current to less than 62.5A. Charge until battery Voltage (under charge) reaches 2.40 to 2.50 volts at 68 °F (20 °C). Coefficient -5mV/°C

**“Float” or “Stand-By” Service:** Hold battery across constant voltage source of 2.25 to 2.30 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 within 6 months of storage, otherwise permanent loss of capacity might occur as a result of sulfation.

**Chargers**

Power-Sonic offers a wide range of chargers suitable for batteries up to 100AH. Please refer to the Charger Selection Guide in our specification sheets for “C-Series Switch Mode Chargers” and “Transformer Type A and F Series”. Please contact our Technical department for advice if you have difficulty in locating suitable models.

**Further Information**

Please refer to our website [www.power-sonic.com](http://www.power-sonic.com) for a complete range of useful downloads, such as product catalogs, material safety data sheets (MSDS), ISO certification, etc.

**Contact Information**



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