

Tubular Gel Battery

2 Volt 420 AH @ 10-hr. rate

2 Volt 530.9 AH @ 100-hr. rate

Rechargeable Sealed Lead Acid Battery
Designed for Cyclic, Standby, and Solar Applications



PSOPzV420 2v420AH



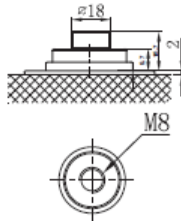
Features

- 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

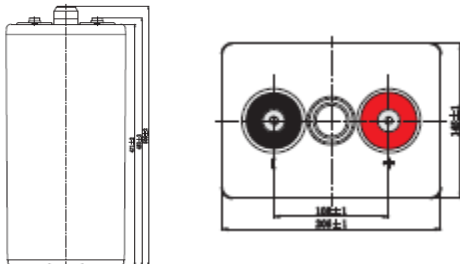
Terminals

(mm)

- T11: Threaded insert
8 mm stud fastener



Physical Dimensions: in (mm)



L: 5.17 (145) W: 8.11 (206) H: 18.5 (471) TH: 19.9 (506)

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

Performance Specifications

Nominal Voltage 2 volts

Nominal Capacity

100-hr. (1.80 volts)	530.9AH
20-hr. (1.80 volts)	449.0AH
10-hr. (1.80 volts)	420.0 AH
5-hr. (1.75 volts).....	365.5 AH
3-hr. (1.75 volts).....	324.0 AH
1-hr. (1.60 volts)	239.0AH

Approximate Weight 75.0 lbs. (34.0 kg)

Internal Resistance (approx.)0.8 milliohms

Max. Discharge Current (approx.) 3360A (5s)

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

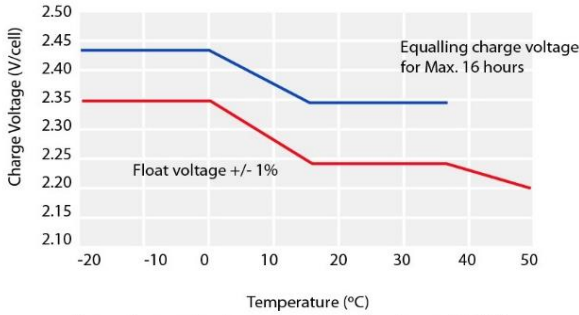
Operating Temperature Range

Charge 32 °F (0 °C) to 104 °F (40 °C)

Discharge -4 °F (-20 °C) to 131 °F (55 °C)

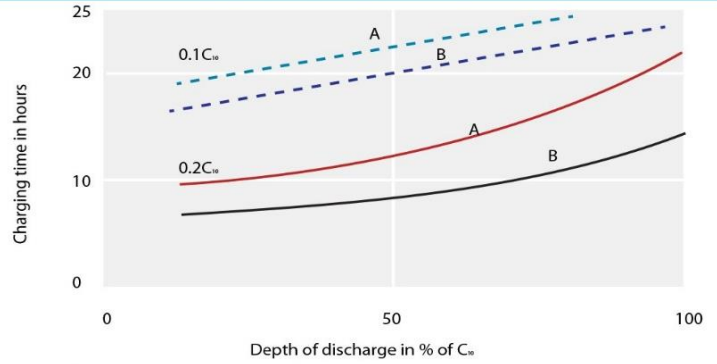
Case ABS Plastic

TEMPERATURE EFFECTS IN RELATION TO CHARGE VOLTAGE



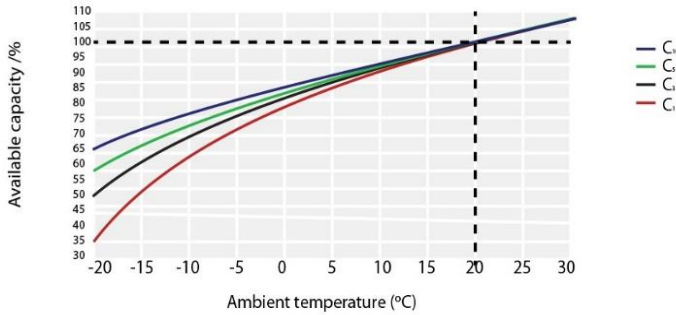
For continuous charging we recommend a voltage of 2.25 V
The charging voltage must be compensated to the curve for a continuously different battery ambient temperature

CHARGING CHARACTERISTICS

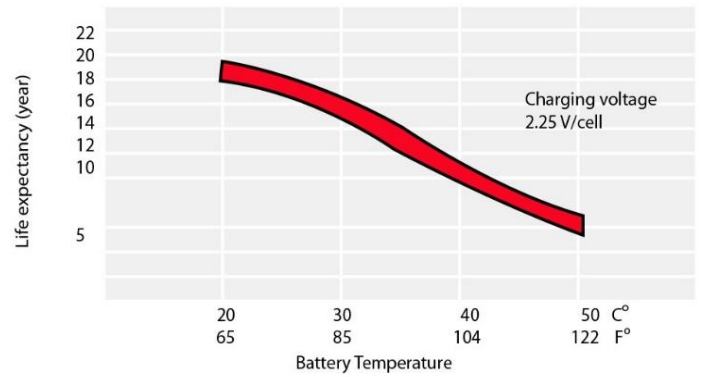


Charge voltage
A - 2.25 V/cell B - 2.40 V/cell
--- State of charge 100% — State of charge 90%

TEMPERATURE EFFECTS IN RELATION TO BATTERY CAPACITY

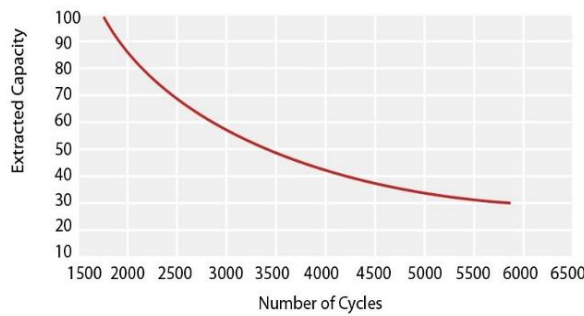


EFFECT OF TEMPERATURE ON LONG TERM FLOAT LIFE

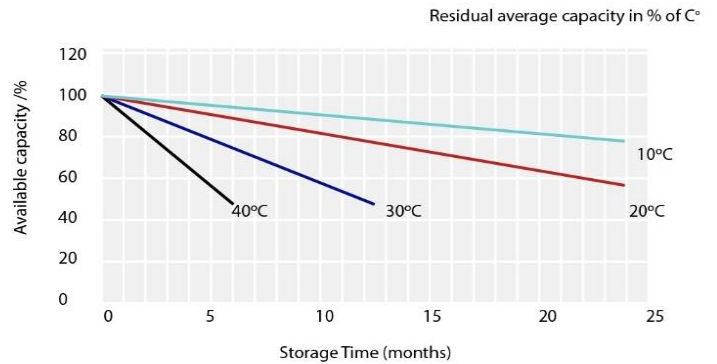


CYCLE LIFE IN RELATION TO DEPTH OF DISCHARGE

Acc. to IEC 896 (25°C/77°F)



GENERAL RELATION OF CAPACITY VS STORAGE TIME



Charging

Cycle Applications: Limit initial current to less than 105A. 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 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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