POWER SONIC

Tubular Gel Battery

2 Volt 490 AH @ 10-hr. rate
2 Volt 619.4 AH @ 100-hr. rate
Rechargeable Sealed Lead Acid Battery
Designed for Cyclic, Standby, and Solar Applications

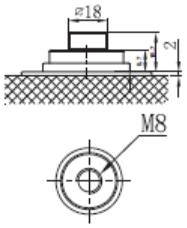
PSOPzV490
2v490AH

Features

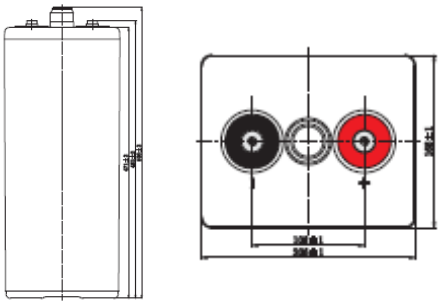
- Tubular plate and Gel electrolyte for increased performance, service life and reliability
- Gel electrolyte and spill proof construction allows safe operation and maintenance free
- Excellent cyclic performance
- Enhanced overcharge endurance
- Excellent recovery from over discharge situations
- Perfect 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: 6.54 (166) 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) 619.4AH
20-hr. (1.80 volts) 523.8AH
10-hr. (1.80 volts) ..... 490.0 AH
5-hr. (1.75 volts)..... 426.5 AH
3-hr. (1.75 volts)..... 378.0 AH
1-hr. (1.60 volts) ..... 279.0 AH

Approximate Weight ..... 86 lbs. (39.0 kg)

Internal Resistance (approx.) .....0.73 milliohms

Max. Discharge Current (approx.) 3920A (5s)

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

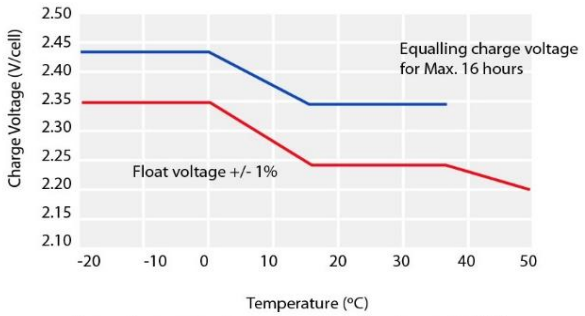
Operating Temperature Range

Charge ..... 32°F (0°C) to 104°F (40°C)

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

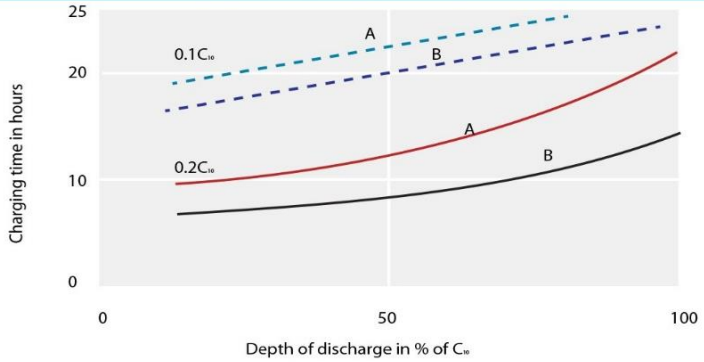
Case ..... ABS Plastic

TEMPERATURE EFFECTS IN RELATION TO CHARGE VOLTAGE



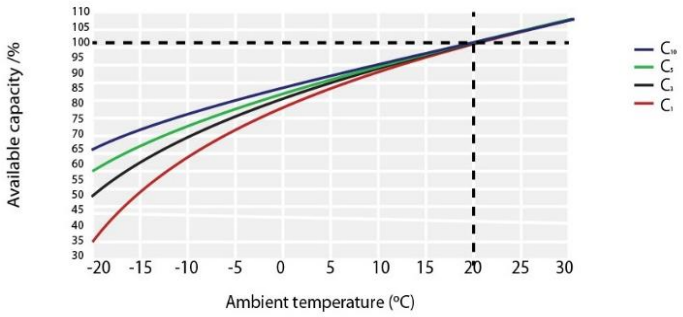
For continuous charging we recommend a voltage of 2.25 V
The charging voltage must be compensated to the curve for
a continuously different battery ambient temperature

CHARGING CHARACTERISTICS

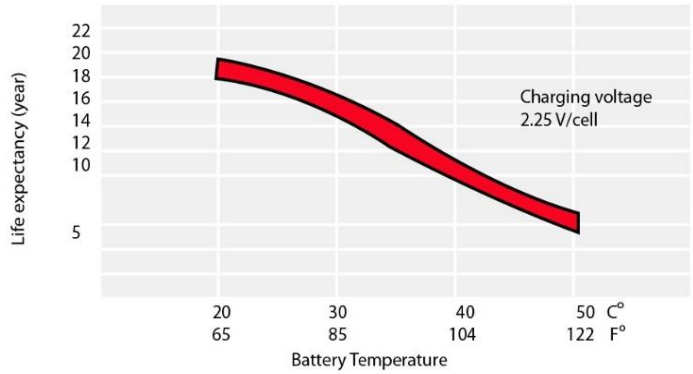


Charge voltage
A - 2.25 V/cell
State of charge 100%
B - 2.40 V/cell
State of charge 90%

TEMPERATURE EFFECTS IN RELATION TO BATTERY CAPACITY

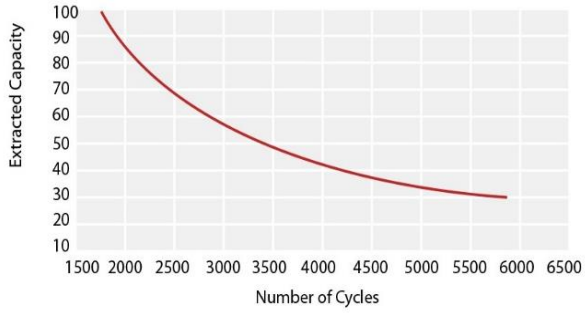


EFFECT OF TEMPERATURE ON LONG TERM FLOAT LIFE



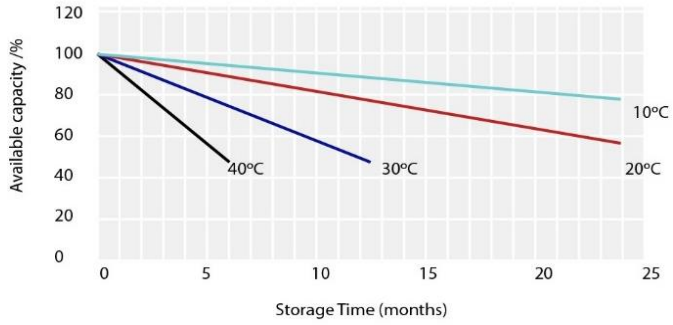
CYCLE LIFE IN RELATION TO DEPTH OF DISCHARGE

Acc. to IEC 896 (25°C/77°F)



GENERAL RELATION OF CAPACITY VS STORAGE TIME

Residual average capacity in % of C°



Charging

Cycle Applications: Limit initial current to less than 122.5A. 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 for a complete range of useful downloads, such as product catalogs, material safety data sheets (MSDS), ISO certification, etc.