

**PSS-2V450, 2 Volt 460 AH @ 100-hr. rate  
428 AH @ 20-hr. rate**

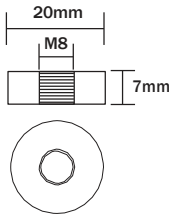
**Rechargeable Sealed Lead Acid Solar Battery**



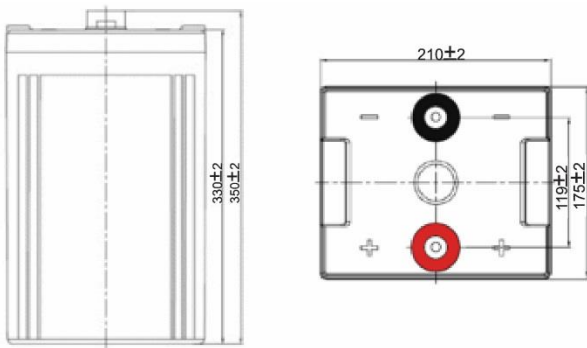
\*Case colour may vary depending on quantity

## Terminals (mm)

- T11: Threaded insert  
8 mm stud fastener



## Physical Dimensions: in (mm)



**L: 8.27(210) W: 6.89(175) H: 12.99(330) HT: 13.78(350)**

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

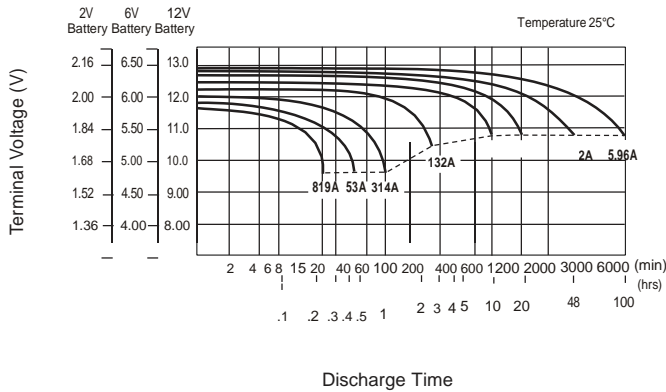
## Features

- Absorbent Glass Mat (AGM) technology for superior performance
- Valve regulated, spill proof construction allows safe operation in any position
- Superior cyclic performance
- Enhanced overcharge endurance
- Excellent recovery from over discharge situations
- Lower acid density, increased electrolyte volume and greater distance between the plates help keep the battery at lower temperatures and improve plate grid life
- Rugged impact resistant ABS case

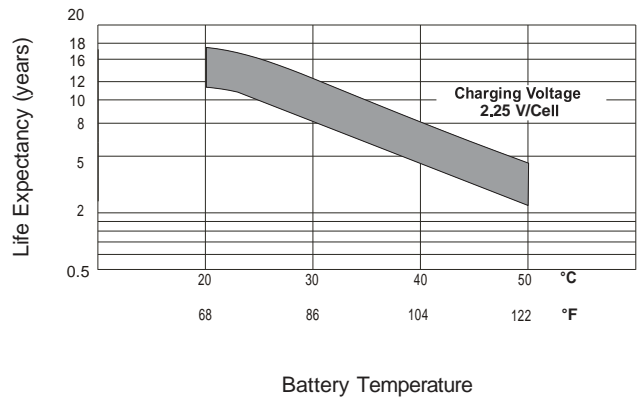
## Performance Specifications

|   |  |
|---|--|
| Nominal Voltage .....                               | 2 volts                                |
| Nominal Capacity                                    |  |
| 100-hr. (4.60A to 1.80 volts) .....                 | 460.0 AH                               |
| 20-hr. (21.4A to 1.80 volts) .....                  | 428.0 AH                               |
| 10-hr. (40.0A to 1.80 volts).....                   | 400.0 AH                               |
| 5-hr. (70.3A to 1.75 volts) .....                   | 351.5 AH                               |
| 1-hr. (235.2A to 1.60 volts).....                   | 235.2 AH                               |
| Max. Discharge Current.....                         | 3200A (5s)                             |
| Approximate Weight .....                            | 54.9 lbs. (24.9kg)                     |
| Internal Resistance (approx.) .....                 | 0.7 milliohms                          |
| Shelf Life (% of nominal capacity at 68° F (20° C)) |  |
| 1 Month .....                                       | 97%                                    |
| 3 Months.....                                       | 91%                                    |
| 6 Months .....                                      | 83%                                    |
| Operating Temperature Range                         |  |
| Charge.....   | 32° F (0° C) to 104° F (40° C)         |
| Discharge.....                                      | 5° F (-15° C) to 122° F (50° C)        |
| Storage.....  | 5° F (-15° C) to 104° F (40° C)        |
| Case - 2V450 .....                                  | ABS Plastic                            |
| Case - 2V450FR .....                                | ABS Plastic (UL94 V-0 flame retardant) |

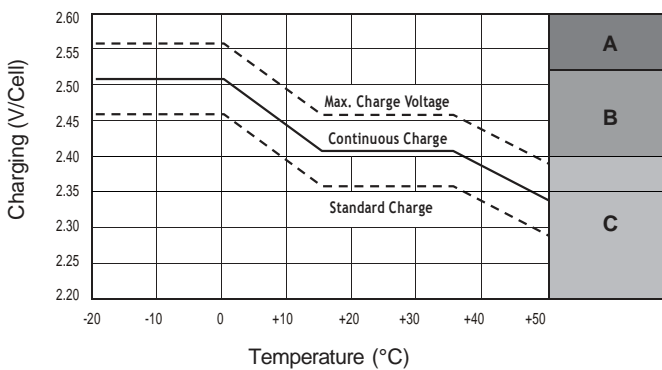
**Discharge Characteristics**



**Float Charging Characteristics**

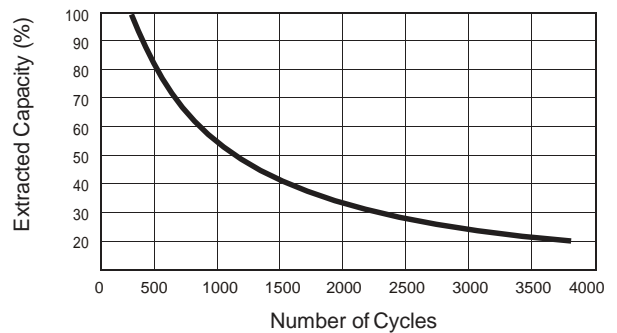


**Charge Mode**



- A** With switch regulator (two-step controller) charge on curve max. Charge voltage for max 2hrs/day, then switch to continuous charge
- B** Standard charge without switching
- C** Boost charge (equalizing charge with external generator) charge on curve continuous charge for max. 5 hrs/month, then switch over to standard charge

**Cycle Service Life**



**Charging**

Cycle Applications: Limit initial current to less than 120.0A. Charge until battery voltage (under charge) reaches 2.40 to 2.50 volts at 77 °F (25 °C). Coefficient -5mV/°C

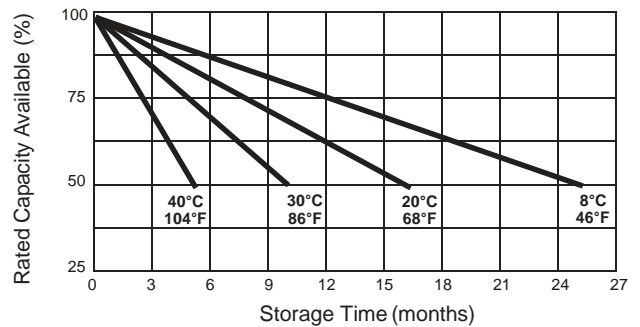
“Float” or “Stand-By” Service: Hold battery across constant voltage source of 2.25 to 2.3 volts at 77 °F (25 °C) continuously. When held at this voltage, the battery will seek its own current level and maintain itself in a fully charged condition. Coefficient -3mV/°C

Note: Due to the self-discharge characteristics of this type of battery, it is imperative that they be charged within 6 months of storage at 77 °F (25 °C) (shorter time frame at higher temp) otherwise permanent loss of capacity can occur.

**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.

**Self-Discharge Characteristics**



**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.

