

**PG-12V42 FR**      **12 Volt 45 AH @ 20-hr. rate**  
**42 AH @ 10-hr. rate**

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



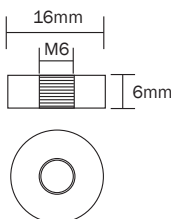
**We've Got The Power.™**



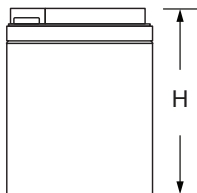
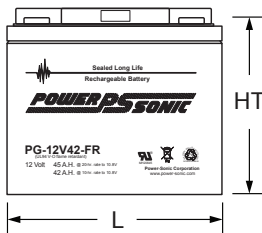
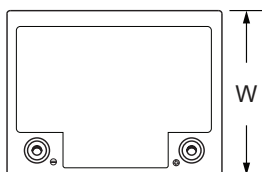
## Terminals

(mm)

- T6: Threaded insert w. 6 mm stud fastener



## Physical Dimensions: in (mm)



**L: 7.76 (197) W: 6.50 (165) H: 6.69 (170) HT: 6.14 (156)**

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

## Features

- **Long Service Life** - Thick plate design and efficient gas recombination yield a service life expectancy of up to 10 years in standby mode.
- **Low Internal Resistance** - Superb high-rate discharge characteristics ensure reliable performance in UPS and Telecom applications.
- **Maintenance-Free, Non-Spillable** - Proven VRLA technology guarantees safe operation without maintenance and 'non-restricted article' status for transportation.
- **Low Self-Discharge** - Lead-calcium alloy grids and use of high purity lead account for superior shelf-life characteristics permitting storage for extended periods of time.
- **Designed-In Reliability** - Cutting-edge manufacturing and process control combined with meticulous quality assurance procedures guarantee consistent and dependable performance.

## Performance Specifications

**Nominal Voltage** ..... 12 volts (6 cells)

### Nominal Capacity

|        |                         |         |
|--------|-------------------------|---------|
| 20-hr. | (2.25A to 10.80 volts)  | 45.0 AH |
| 10-hr. | (4.2A to 10.80 volts)   | 42.0 AH |
| 8-hr.  | (5.2A to 10.50 volts)   | 41.6 AH |
| 5-hr.  | (7.20A to 10.50 volts)  | 36.0 AH |
| 3-hr.  | (10.90A to 10.50 volts) | 32.7 AH |
| 1-hr.  | (25.2A to 9.60 volts)   | 25.2 AH |

**Approximate Weight** ..... 32 lbs. (14.5 kg)

**Energy Density** (10-hr. rate) ..... 1.49 W-h/in<sup>3</sup> (91.14 W-h/l)

**Specific Energy** (10-hr. rate) ..... 15.75 W-h/lb (34.72 W-h/kg)

**Internal Resistance** (approx.) ..... 8.0 milliohms

**Max Short-Duration Discharge Current** (10 Sec.) ..... 263 amperes

**Shelf Life** (% of nominal capacity at 68 °F (20 °C))

|          |     |
|----------|-----|
| 1 Month  | 97% |
| 3 Months | 91% |
| 6 Months | 83% |

### Operating Temperature Range

|           |                                   |
|-----------|-----------------------------------|
| Charge    | -4 °F (-20 °C) to 122 °F (50 °C)  |
| Discharge | -40 °F (-40 °C) to 140 °F (60 °C) |

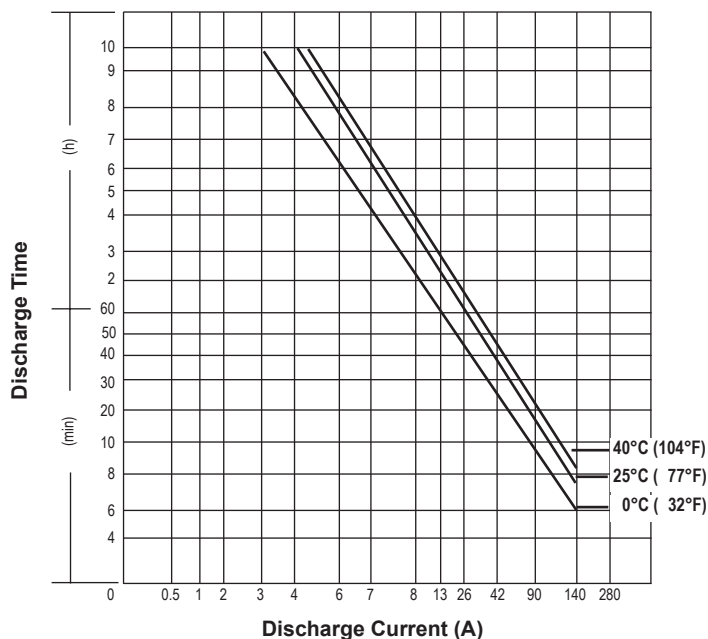
**Case** ..... ABS Plastic (UL94 V-0 flame retardant)

**Power-Sonic Chargers** ..... PSC-124000A, 124000A-C

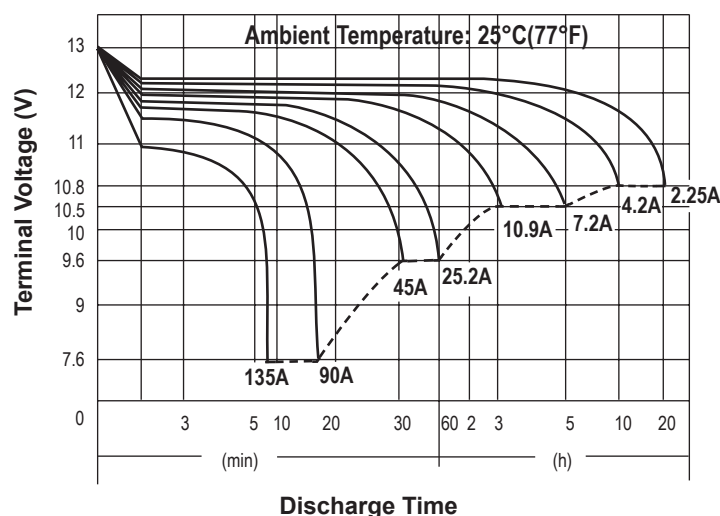
### Constant Current & Power Discharge Ratings

| MODEL              | FINAL VOLTAGE | AMPS/WATTS PER CELL @ 25° C |     |        |     |        |     |        |     |        |     |        |    |        |    |
|--------------------|---------------|-----------------------------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|----|--------|----|
|                    |               | 5 MIN                       |     | 10 MIN |     | 15 MIN |     | 20 MIN |     | 30 MIN |     | 45 MIN |    | 60 MIN |    |
|                    |               | A                           | W   | A      | W   | A      | W   | A      | W   | A      | W   | A      | W  | A      | W  |
| <b>PG-12V42 FR</b> | 1.80          | 86                          | 162 | 74     | 142 | 64     | 125 | 56.5   | 112 | 46     | 93  | 33.2   | 67 | 27     | 54 |
|                    | 1.75          | 99                          | 186 | 80     | 150 | 70     | 134 | 62.5   | 122 | 49     | 98  | 36     | 73 | 27     | 55 |
|                    | 1.67          | 113                         | 194 | 92.5   | 168 | 81.2   | 150 | 67     | 129 | 152    | 100 | 36.2   | 75 | 25.2   | 56 |
|                    | 1.60          | 139                         | 210 | 97     | 176 | 84     | 155 | 68.9   | 132 | 48.6   | 116 | 33.6   | 77 | 25     | 57 |

#### Discharge Time vs. Discharge Current



#### Discharge Characteristics



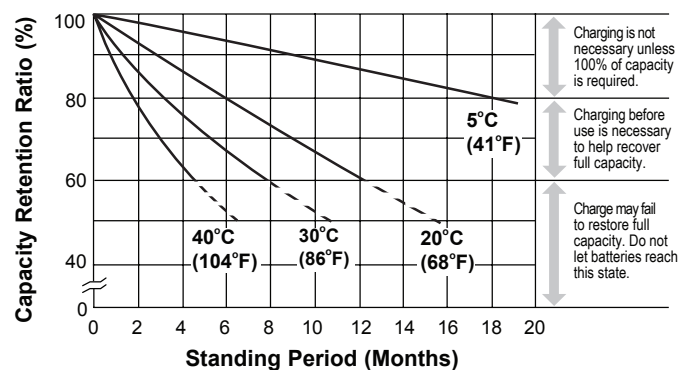
### Charging

**Cycle Applications:** Limit initial current to 12.6A. Charge until battery voltage (under charge) reaches 14.4 to 14.7 volts at 68°F (20°C). Hold at 14.4 to 14.7 volts until current drops to under 420mA. Battery is fully charged under these conditions, and charger should be disconnected or switched to “float” voltage.

**“Float” or “Stand-By” Service:** Hold battery across constant voltage source of 13.5 to 13.8 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.

#### Shelf Life & Storage



### 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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