### PG 12V220 FR

**Rechargeable Sealed Lead Acid Battery**

**PG – Long Life Series**

**TERMINALS: (mm)**

<table>
<thead>
<tr>
<th>Terminal</th>
<th>Diameter in Millimeters</th>
</tr>
</thead>
<tbody>
<tr>
<td>T11</td>
<td>20mm</td>
</tr>
<tr>
<td></td>
<td>16mm</td>
</tr>
<tr>
<td></td>
<td>7mm</td>
</tr>
</tbody>
</table>

- **Torque:** 11.0~14.7 Nxm
- **Threaded insert with 8mm stud fastener**

**DIMENSIONS: inch (mm)**

- **L:** 20.55 (522)
- **W:** 9.45 (240)
- **H:** 8.58 (218)
- **HT:** 8.82 (224)

- **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
- Superb high-rate discharge characteristics ensures reliable performance in UPS and telecom applications
- Proven valve regulated technology that guarantees safe operation without maintenance
- Rugged impact resistant ABS case and cover, flame retardant to UL94:V-0
- Thick plate design and efficient gas recombination yield a service life of 10 – 12 years in standby mode

**APPROVALS**

- U.L recognized
- ISO9001:2015 – Quality management systems

**PERFORMANCE SPECIFICATIONS**

- **Nominal Voltage:** 12 volts (6 cells)
- **Nominal Capacity**
  - 20-hr. (11.3A to 10.80 volts) 226.0 AH
  - 10-hr. (21.0A to 10.80 volts) 210.0 AH
  - 5-hr. (36.1A to 10.50 volts) 180.5 AH
  - 1-hr. (126.0A to 9.60 volts) 126.0 AH
- **Approximate Weight:** 144 lbs. (65.3 kg)
- **Internal Resistance (approx.):** 3.0 milliohms
- **Max Short-Duration Discharge Current (10 Sec.):** 1200 amperes
- **Shelf Life (% of nominal capacity at 68°F (20°C))**
  - 1 Month 97%
  - 3 Month 91%
  - 6 Month 83%
- **Operating Temperature Range**
  - Charge 5°F (-15°C) to 122°F (50°C)
  - Discharge -4°F (-20°C) to 140°F (60°C)
- **Case**
  - Flame Retardant ABS Plastic UL94:V-0
**CHARGING**

**Cycle Applications:** Apply constant voltage charge at 2.35v/c – 2.45v/c (14.1 – 14.7v for 12v Monobloc) at 20°C. Initial charging current should be set at less than 0.25C Amps. Switch to float charge to avoid overcharging.

“Float” or “Stand-By” Service: Apply constant voltage charge of 2.25v/c – 2.30v/c (13.5 to 13.8 volts for 12v Monobloc at 20°C. When held at this voltage, the battery will seek its own current level and maintain itself in a fully charged condition.

**Temperature Compensation:** Charging Voltage for both Cyclic and Standby applications should be regulated in relation to ambient temperature. As temperature rises charging voltage should be reduced to prevent overcharge and increased as temperature falls to avoid undercharge.

For further charging information including temperature compensation factors, see Power Sonic Technical Manual/Power Sonic Charger specifications.

**APPLICATIONS**

A whole range of CYCLIC applications including but not limited to:
- Fire and Security
- Telecommunications
- Emergency Lighting
- Utility
- Solar
- Wind
- UPS

**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.

**CHARGERS**

Power Sonic offers a wide range of chargers suitable for batteries with a variety of capacities.

Please refer to our website for more information on our switch mode and transformer type chargers.

Please contact our technical department for advice if you have difficulty in locating a suitable charger.

---

**FLOAT LIFE IN YEARS VS. TEMPERATURE**

<table>
<thead>
<tr>
<th>Battery Temperature (°C)</th>
<th>Float Life (Year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>10</td>
</tr>
<tr>
<td>25</td>
<td>8</td>
</tr>
<tr>
<td>30</td>
<td>6</td>
</tr>
<tr>
<td>35</td>
<td>4</td>
</tr>
<tr>
<td>40</td>
<td>2</td>
</tr>
<tr>
<td>45</td>
<td>1</td>
</tr>
<tr>
<td>50</td>
<td>0</td>
</tr>
</tbody>
</table>

**GENERAL RELATION OF CAPACITY VS. STORAGE TIME**

<table>
<thead>
<tr>
<th>Standing Period (months)</th>
<th>Capacity Retention Ratio (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>100</td>
</tr>
<tr>
<td>4</td>
<td>80</td>
</tr>
<tr>
<td>6</td>
<td>60</td>
</tr>
<tr>
<td>8</td>
<td>40</td>
</tr>
<tr>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>12</td>
<td>10</td>
</tr>
</tbody>
</table>

Charging is not necessary unless 100% of capacity is required.

Charging before use is necessary to help recover full capacity.

Charge may fail to restore full capacity. Do not let batteries reach this state.

**CORPORATE HEADQUARTERS**

(USA AND INTERNATIONAL EXCLUDING EMEA)

Power-Sonic Corporation
7550 Panasonic Way, San Diego, California 92154
T: +1 (619) 661 2020
F: +1 (619) 661 3650
E: customer-service@power-sonic.com

**POWER-SONIC EUROPE LIMITED**

(EMEA – EUROPE, MIDDLE EAST AND AFRICA)

3 Buckingham Square, Hurricane Way, Wickford, Essex SS11 8YQ
T: +44 (0)1268 560686
F: +44 (0)1268 560902
E: salesEMEA@power-sonic.com

To ensure safe and efficient operation always refer to the latest edition of our Technical Manual, as published on our website.

© 2018. Power-Sonic Corporation. All rights reserved. All trademarks are the property of their respective owners.

All data subject to change without notice. E&O E.