









# PHR-1290 12V 21.2 AH @ 20-hr. 90 W/Cell @ 15-min.

**Rechargeable Sealed Lead Acid Battery** PHR – High-Rate Series

#### TERMINALS: (mm)



L:

**POWER-SONIC EMEA** 

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(EMEA - EUROPE, MIDDLE EAST AND AFRICA)

7.14 (181)

6.56 (167)

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

Η

W: 2.99 (76) H:

HT: 6.56 (167) Tolerances are +/- 0.04 in.

#### **DIMENSIONS:** inch (mm)







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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

# **FEATURES**

- Superb high-rate discharge characteristics that ensure reliable performance in UPS applications for up to 10 years
- Specifically designed for UPS and critical power backup applications
- Valve regulated, maintenance free spill proof construction
- Precision plate pasting for higher consistency with • 100% load testing to ensure uniform capacity
- Patented dual-paste process for enhanced active material bonding and computer guided volumetric electrolyte control for precision filling
- · Rugged vibration and impact resistant ABS case and cover flame retardant to UL94-V0

# **APPROVALS**

- Approved for transport by air. D.O.T., I.A.T.A., F.A.A. and C.A.B. certified
- U.L recognized
- ISO9001:2015 Quality management systems

#### PERFORMANCE SPECIFICATIONS

| Nominal Voltage       12 volts (6 cells)         Nominal Power (15 min.)       90 W/Cell         Rated Capacity       21.2 AH         20-hr.       (1.06A to 10.80 volts)       21.2 AH         10-hr.       (2.00A to 10.50 volts)       20.0 AH         8-hr.       (2.44A to 10.50 volts)       20.0 AH         Approximate Weight       14.00 lbs. (6.35 kg)         Internal Resistance (approx.)       9.0 milliohms         Max Discharge Current (5 Sec.)       470 amperes         Shelf Life (% of nominal capacity at 68°F (20°C)       97%         1 Month       91%         3 Month       91%         6 Month       83%         Operating Temperature Range       S°F (-15°C) to 122°F (50°C)         Charge       S°F (-15°C) to 140°F (60°C)         Discharge       S°F (-15°C) to 140°F (60°C)         Case and Cover       Flame Retardant ABS Plastic         Power Sonic Chargers       PSC-124000-PC         PSC-243500-PC       PSC-243500-PC |  |                      |  |  |  |  |  |
|---|--|----------------------|--|--|--|--|--|
| Rated Capacity         20-hr.       (1.06A to 10.80 volts)       21.2 AH         10-hr.       (2.00A to 10.50 volts)       20.0 AH         8-hr.       (2.44A to 10.50 volts)       20.0 AH         8-hr.       (2.44A to 10.50 volts)       19.5 AH         Approximate Weight       14.00 lbs. (6.35 kg)         Internal Resistance (approx.)       9.0 milliohms         Max Discharge Current (5 Sec.)       470 amperes         Shelf Life (% of nominal capacity at 68°F (20°C)       1         1 Month       97%         3 Month       91%         6 Month       83%         Operating Temperature Range       5°F (-15°C) to 122°F (50°C)         Charge       -4°F (-20°C) to 140°F (60°C)         Discharge       Flame Retardant ABS Plastic         UL94.V-0       PSC-124000-PC   | Nominal Voltage  | 12 volts (6 cells)   |  |  |  |  |  |
| 20-hr.       (1.06A to 10.80 volts)       21.2 AH         10-hr.       (2.00A to 10.50 volts)       20.0 AH         8-hr.       (2.44A to 10.50 volts)       19.5 AH         Approximate Weight       14.00 lbs. (6.35 kg)         Internal Resistance (approx.)       9.0 milliohms         Max Discharge Current (5 Sec.)       470 amperes         Shelf Life (% of nominal capacity at 68°F (20°C)       97%         1 Month       97%         3 Month       91%         6 Month       83%         Operating Temperature Range       5°F (-15°C) to 122°F (50°C)         Charge       5°F (-20°C) to 140°F (60°C)         Discharge       5°F (-20°C) to 140°F (60°C)         Case and Cover       Flame Retardant ABS Plastic         UL94:V-0       PSC-124000-PC   | Nominal Power (15 min.)                                  | 90 W/Cell            |  |  |  |  |  |
| Internal Resistance (approx.)9.0 milliohmsMax Discharge Current (5 Sec.)9.0 milliohmsMax Discharge Current (5 Sec.)470 amperesShelf Life (% of nominal capacity at 68°F (20°C)97%1 Month97%3 Month91%6 Month93%Operating Temperature Range<br>Charge<br>Discharge5°F (-15°C) to 122°F (50°C)<br>-4°F (-20°C) to 140°F (60°C)Case and CoverFlame Retardant ABS Plastic<br>UL94:V-0Power Sonic ChargesPSC-124000-PC   | 20-hr.(1.06A to 10.80 volts)10-hr.(2.00A to 10.50 volts) | 20.0 AH              |  |  |  |  |  |
| Max Discharge Current (5 Sec.)       470 amperes         Shelf Life (% of nominal capacity at 68°F (20°C)       97%         1 Month       97%         3 Month       91%         6 Month       83%         Operating Temperature Range       5°F (-15°C) to 122°F (50°C)         Charge       5°F (-20°C) to 140°F (60°C)         Discharge       -4°F (-20°C) to 140°F (60°C)         Case and Cover       Flame Retardant ABS Plastic         UL94:V-0       PSC-124000-PC   | Approximate Weight                                       | 14.00 lbs. (6.35 kg) |  |  |  |  |  |
| Shelf Life (% of nominal capacity at 68°F (20°C)         1 Month       97%         3 Month       91%         6 Month       83%         Operating Temperature Range       5°F (-15°C) to 122°F (50°C)         Charge       5°F (-20°C) to 140°F (60°C)         Discharge       -4°F (-20°C) to 140°F (60°C)         Case and Cover       Flame Retardant ABS Plastic UL94:V-0         Power Sonic Chargers       PSC-124000-PC   | Internal Resistance (approx.)                            | 9.0 milliohms        |  |  |  |  |  |
| 1 Month       97%         3 Month       91%         6 Month       91%         6 Month       83%         Operating Temperature Range       5°F (-15°C) to 122°F (50°C)         Charge       -4°F (-20°C) to 140°F (60°C)         Discharge       -4°F (-20°C) to 140°F (60°C)         Case and Cover       Flame Retardant ABS Plastic         UL94:V-0       PSC-124000-PC  | Max Discharge Current (5 Sec.)                           | 470 amperes          |  |  |  |  |  |
| Charge     5°F (-15°C) to 122°F (50°C)       Discharge     -4°F (-20°C) to 140°F (60°C)       Case and Cover     Flame Retardant ABS Plastic       UL94:V-0     PSC-124000-PC   | 1 Month<br>3 Month                                       | 91%                  |  |  |  |  |  |
| Case and Cover UL94:V-0 Power Sonic Chargers PSC-124000-PC  | Charge   |                      |  |  |  |  |  |
| Power Sonic Chargers  | Case and Cover   |                      |  |  |  |  |  |
|   | Power Sonic Chargers                                     |                      |  |  |  |  |  |





# PHR-1290 12V 21.2 AH @ 20-hr. 90 W/Cell @ 15-min.

Rechargeable Sealed Lead Acid Battery PHR – High-Rate Series

| CONSTANT   | CONSTANT CURRENT DISCHARGE (AMPERES) AT 25°C (77°F) |       |       |       |       |       |      |     |     |     |     |     |     |     |     |
|------------|---|-------|-------|-------|-------|-------|------|-----|-----|-----|-----|-----|-----|-----|-----|
| F.V/Time   | 5min  | 10min | 15min | 20min | 30min | 45min | 1h   | 2h  | 3h  | 4h  | 5h  | 6h  | 8h  | 10h | 20h |
| 1.85V/cell | 55.4  | 41.2  | 35.2  | 29.8  | 21.8  | 15.7  | 12.3 | 6.9 | 5.0 | 4.0 | 3.4 | 2.9 | 2.3 | 1.9 | 1.0 |
| 1.80V/cell | 63.4  | 46.7  | 39.0  | 32.7  | 23.6  | 16.8  | 13.1 | 7.3 | 5.3 | 4.2 | 3.5 | 3.1 | 2.4 | 2.0 | 1.1 |
| 1.75V/cell | 71.7  | 51.2  | 42.5  | 34.8  | 24.9  | 17.6  | 13.7 | 7.6 | 5.5 | 4.4 | 3.6 | 3.1 | 2.4 | 2.0 | 1.1 |
| 1.70V/cell | 79.4  | 56.2  | 45.7  | 36.9  | 26.1  | 18.3  | 14.1 | 7.8 | 5.6 | 4.4 | 3.7 | 3.2 | 2.5 | 2.0 | 1.1 |
| 1.65V/cell | 86.5  | 60.5  | 48.9  | 38.5  | 26.8  | 18.7  | 14.5 | 7.9 | 5.7 | 4.5 | 3.7 | 3.2 | 2.5 | 2.1 | 1.1 |
| 1.60V/cell | 93.4  | 63.1  | 50.2  | 39.2  | 27.2  | 18.9  | 14.6 | 8.0 | 5.8 | 4.6 | 3.8 | 3.2 | 2.5 | 2.1 | 1.1 |

#### CONSTANT POWER DISCHARGE (WATTS/CELL) AT 25°C (77°F)

| F.V/Time   | 5min  | 10min | 15min | 20min | 30min | 45min | 1h   | 2h   | 3h   | 4h  | 5h  | 6h  | 8h  | 10h | 20h |  |
|------------|-------|-------|-------|-------|-------|-------|------|------|------|-----|-----|-----|-----|-----|-----|--|
| 1.85V/cell | 103.8 | 78.4  | 67.9  | 58.1  | 42.9  | 31.1  | 24.6 | 13.9 | 10.1 | 8.1 | 6.9 | 5.9 | 4.7 | 3.9 | 2.1 |  |
| 1.80V/cell | 117.4 | 87.9  | 74.6  | 63.2  | 46.1  | 33.2  | 26.1 | 14.6 | 10.7 | 8.5 | 7.2 | 6.2 | 4.9 | 4.1 | 2.2 |  |
| 1.75V/cell | 130.7 | 95.1  | 80.3  | 66.5  | 48.3  | 34.6  | 27.1 | 15.1 | 10.9 | 8.8 | 7.3 | 6.3 | 5.0 | 4.1 | 2.2 |  |
| 1.70V/cell | 142.2 | 102.8 | 85.2  | 69.8  | 50.3  | 35.7  | 27.9 | 15.5 | 11.2 | 8.9 | 7.4 | 6.4 | 5.0 | 4.2 | 2.2 |  |
| 1.65V/cell | 151.7 | 108.9 | 90.0  | 71.9  | 51.3  | 36.2  | 28.3 | 15.7 | 11.4 | 9.0 | 7.5 | 6.5 | 5.1 | 4.2 | 2.3 |  |
| 1.60V/cell | 160.8 | 111.8 | 90.9  | 72.3  | 51.4  | 36.2  | 28.4 | 15.7 | 11.4 | 9.1 | 7.6 | 6.5 | 5.1 | 4.2 | 2.3 |  |

# 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**

High Rate UPS

Data Centers

#### **GLOBAL HEADQUARTERS** (USA AND INTERNATIONAL EXCLUDING EMEA)

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# **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.

# **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.



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