

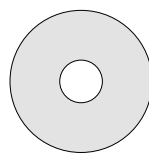
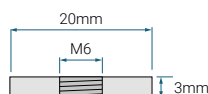


## PHR-12400 12V 110.0 AH @ 20-hr. 430 W/Cell @ 15-min.

Rechargeable Sealed Lead Acid Battery  
PHR – High-Rate Series

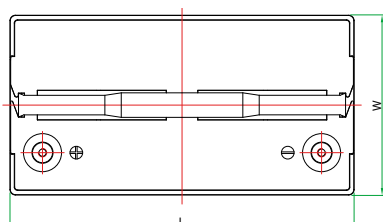
### TERMINALS: (mm)

T8: Threaded insert with  
6mm stud fastener



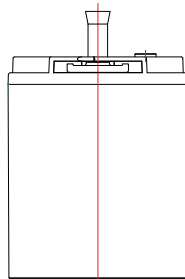
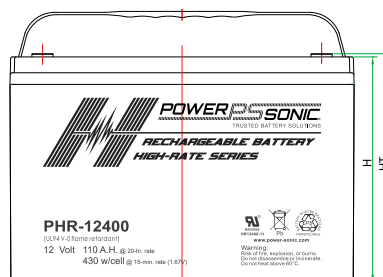
Torque: 3.9~5.4 Nxm

### DIMENSIONS: inch (mm)



L: 12.81(326)  
W: 6.69 (170)  
H: 8.39 (213)  
HT: 8.50 (216)

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



### 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

## 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

<b>Nominal Voltage</b>	12 volts (6 cells)
<b>Nominal Power (15 min.)</b>	430 W/Cell
<b>Rated Capacity</b>	
20-hr. (5.5A to 10.80 volts)	110.0 AH
10-hr. (10.7A to 10.50 volts)	107.0 AH
8-hr. (12.9A to 10.50 volts)	103.2 AH
<b>Approximate Weight</b>	69.2 lbs. (31.4 kg)
<b>Internal Resistance (approx.)</b>	3.6 milliohms
<b>Max Discharge Current (5 Sec.)</b>	1650 amperes
<b>Shelf Life (% of nominal capacity at 68°F (20°C))</b>	
1 Month	97%
3 Month	91%
6 Month	83%
<b>Operating Temperature Range</b>	
Charge	5°F (-15°C) to 122°F (50°C)
Discharge	-4°F (-20°C) to 140°F (60°C)
<b>Case and Cover</b>	Flame Retardant ABS Plastic UL94-V-0
<b>Power Sonic Chargers</b>	PSC-1220000-PC

## PHR-12400 12V 110.0 AH @ 20-hr. 430 W/Cell @ 15-min.

Rechargeable Sealed Lead Acid Battery  
PHR – High-Rate Series

### 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	216.5	183.3	159.3	136.4	104.9	76.9	61.6	35.8	26.4	21.2	17.8	15.4	12.3	10.3	5.38
1.80V/cell	264.0	210.3	176.9	149.5	112.4	82.9	65.6	37.7	27.6	22.0	18.5	15.9	12.6	10.5	5.50
1.75V/cell	297.0	230.3	193.6	161.7	119.7	86.8	68.9	39.5	28.7	22.6	18.8	16.3	12.9	10.7	5.63
1.70V/cell	335.3	254.1	209.9	173.9	128.0	91.8	72.5	41.1	29.6	23.2	19.3	16.6	13.2	10.9	5.72
1.65V/cell	363.0	275.2	227.0	186.8	135.3	96.5	75.9	42.4	30.4	23.8	19.8	17.0	13.5	11.1	5.82
1.60V/cell	390.7	298.7	243.3	198.3	142.6	100.3	78.4	43.8	31.2	24.6	20.3	17.5	13.8	11.3	5.98

### 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	421.2	358.6	313.4	269.7	208.5	153.4	123.4	71.9	53.3	42.9	36.1	31.4	25.2	21.2	11.1
1.80V/cell	508.2	407.2	344.5	292.7	221.4	164.2	130.4	75.5	55.4	44.4	37.4	32.3	25.8	21.5	11.3
1.75V/cell	565.9	441.9	373.7	313.9	233.7	170.6	136.0	78.5	57.2	45.3	37.8	32.8	26.2	21.8	11.5
1.70V/cell	631.6	482.1	400.4	334.0	247.6	178.7	142.0	81.1	58.7	46.2	38.4	33.3	26.6	22.1	11.6
1.65V/cell	678.3	518.2	430.4	356.5	260.1	186.8	148.0	83.2	60.0	47.2	39.2	33.8	26.9	22.3	11.8
1.60V/cell	721.9	556.4	456.5	374.9	271.3	192.4	151.4	85.1	61.1	48.2	40.0	34.5	27.3	22.5	12.0

## 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

- High Rate UPS
- Data Centers

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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](http://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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