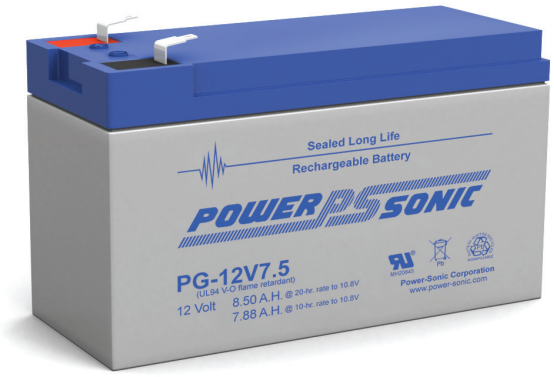
PG-12V7.5, PG-12V7.5 FR

12 Volt 8.50 AH @ 20-hr. rate
7.88 AH @ 10-hr. rate

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

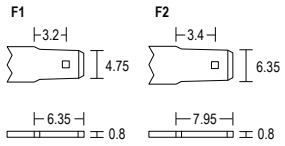


Terminals (mm)

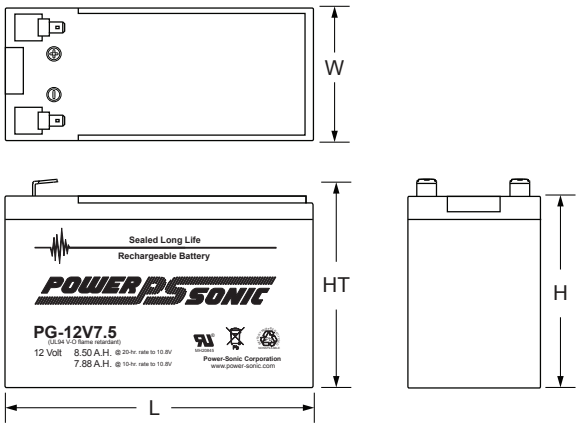
- F1 - Quick disconnect tabs, 0.187" x 0.032"- Mate with AMP. INC. FASTON "187" series

— OR —

- F2 - Quick disconnect tabs, 0.250" x 0.032" - Mate with AMP. INC FASTON "250" series



Physical Dimensions: in (mm)



L: 5.95 (151) **W:** 2.56 (65) **H:** 3.68 (93.5) **HT:** 3.90 (99)

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 10 years in standby mode.
- **Low Internal Resistance** - Superb high-rate discharge characteristics ensure reliable performance.
- **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

Nominal Capacity

20-hr.	(425mA to 10.80 volts)	8.50 AH
10-hr.	(788mA to 10.80 volts)	7.88 AH
8-hr.	(950mA to 10.50 volts)	7.60 AH
5-hr.	(1.41A to 10.50 volts)	7.05 AH
3-hr.	(2.13A to 10.50 volts)	6.39 AH
1-hr.	(5.89A to 9.60 volts)	5.89 AH

Approximate Weight ..... 5.40 lbs. (2.45 kg)

Energy Density (10-hr. rate) ..... 1.82 W-h/in^3 (111.04 W-h/l)

Specific Energy (10-hr. rate) ..... 18.89 W-h/lb (41.64 W-h/kg)

Internal Resistance (approx.) ..... 18.0 milliohms

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 – 12V7.5 ..... ABS Plastic (UL-94-HB rated)

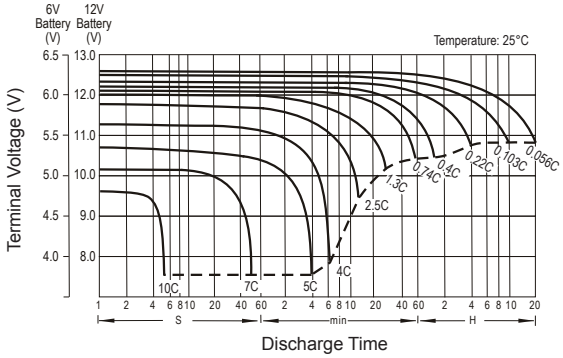
Case – 12V7.5 FR ..... ABS Plastic (UL94 V-0 flame retardant)

Further Information

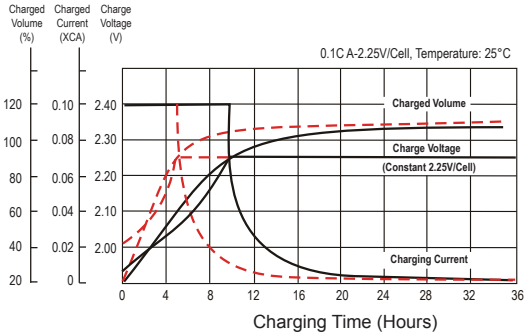
Please refer to our website www.power-sonic.com for a complete range of useful downloads, such as product catalogs, material safety data sheets (MSDS), technical manual, ISO certification, etc..

AMPS/WATTS @ 25° C											
FINAL VOLTAGE	10 MIN	15 MIN	30 MIN	45 MIN	1 HR	2 HR	3 HR	5 HR	8 HR	10 HR	20 HR
	A/W	A/W	A/W	A/W	A/W	A/W	A/W	A/W	A/W	A/W	A/W
1.85	18.8/35.3	15.5/29.1	9.32/17.7	6.63/12.7	5.18/10.0	2.81/5.46	2.00/3.90	1.32/2.59	0.917/1.81	0.767/1.52	0.416/0.825
1.80	20.6/37.7	16.7/30.9	9.75/18.4	6.86/13.1	5.37/10.3	2.90/5.59	2.07/4.00	1.36/2.66	0.950/1.87	0.788/1.56	0.425/0.841
1.75	21.9/39.8	17.5/32.2	10.15/19.0	7.12/13.5	5.55/10.6	2.99/5.75	2.13/4.11	1.41/2.74	0.978/1.92	0.810/1.60	0.434/0.857
1.70	22.9/41.1	18.4/33.3	10.50/19.6	7.34/13.8	5.69/10.8	3.08/5.90	2.19/4.22	1.45/2.81	0.991/1.95	0.825/1.63	0.439/0.867
1.67	23.9/42.0	19.0/34.0	10.81/20.0	7.51/14.0	5.79/11.0	3.14/6.00	2.23/4.28	1.47/2.85	1.008/1.97	0.833/1.64	0.442/0.872
1.60	24.4/42.4	19.4/34.2	11.02/20.1	7.63/14.2	5.89/11.1	3.18/6.06	2.26/4.31	1.49/2.87	1.017/1.99	0.840/1.65	0.445/0.875

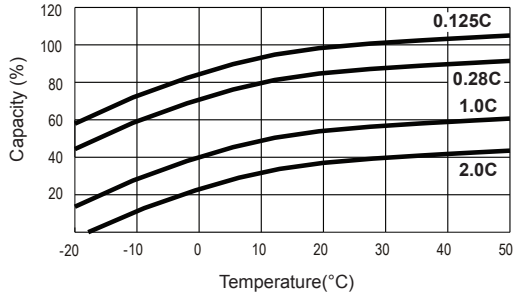
Discharge Characteristics



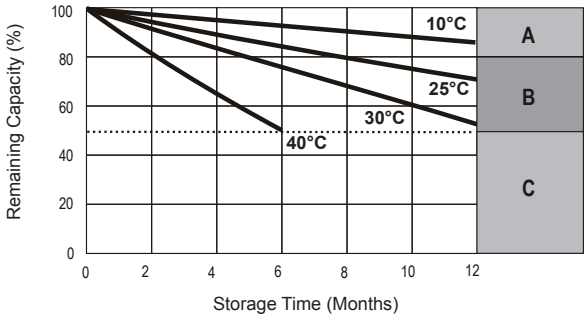
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Self Discharge Characteristics

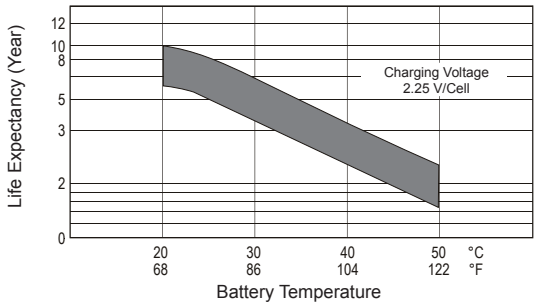


A — No supplementary charge required
(Carry out supplementary charge before use if 100% capacity is required.)

B — Supplementary charge required before use.Optional charging way as below:
1.Charged for above 3 days at limted current 0.25CA and constant volatge 2.25V/cell.
2.Charged for above 20hours at limted current 0.25CA and constant volatge 2.45V/cell.
3.Charged for 8~10hours at limted current 0.05CA .

C — Supplementary charge may often fail to recover the capacity.
The battery should never be left standing till this is reached

Effect of Temperature on Long-Term Float Life



Charging

Cycle Applications: Limit initial current to less than 2.55A. Charge until battery voltage (under charge) reaches 14.4 to 15.0 volts at 77°F (25°C) (Temperature Coefficient -5V/C). Hold at 14.4 to 15.0 volts until current drops to under 85mA. 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.

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