

PG-12V18 FR 12 Volt 19.8 AH @ 20-hr. rate
18.6 AH @ 10-hr. rate

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



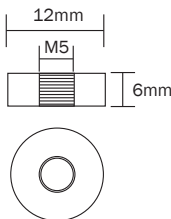
Features

- **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.

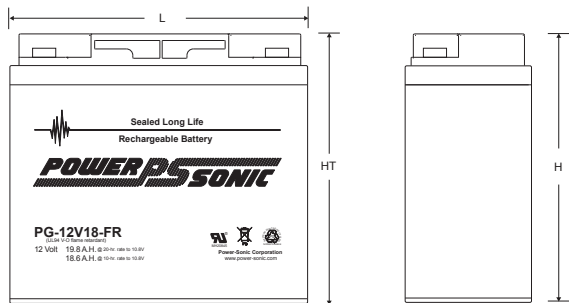
Terminals

(mm)

- T12: Threaded insert w. 5 mm stud fastener



Physical Dimensions: in (mm)



L: 7.14 (181.5) W: 3.03 (77) H: 6.59 (167.5) HT: 6.59 (167.5)

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

Performance Specifications

Nominal Voltage 12 volts (6 cells)

Nominal Capacity

20-hr. (990mA to 10.80 volts)	19.8 AH
10-hr. (1.86A to 10.80 volts)	18.6 AH
8-hr. (2.12A to 10.50 volts).....	16.7 AH
5-hr. (3.24A to 10.50 volts)	16.2 AH
3-hr. (4.97A to 10.50 volts).....	14.9 AH
1-hr. (14.8A to 9.60 volts)	14.8 AH

Approximate Weight 13.2 lbs. (6.0 kg)

Energy Density (10-hr. rate) 1.67 W-h/in³ (101.7 W-h/l)

Specific Energy (10-hr. rate) 18.0 W-h/lb (39.68 W-h/kg)

Internal Resistance (approx.) 16.0 milliohms

Max Short-Duration Discharge Current (10 Sec.)..... 55.8 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)

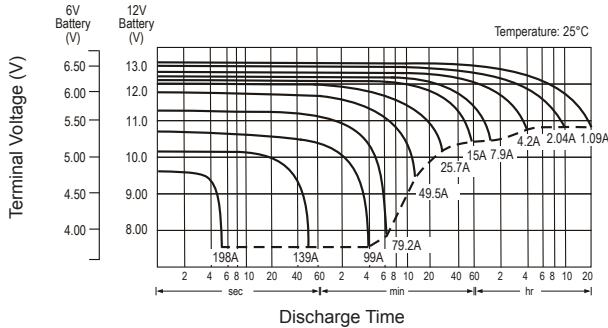
Case ABS Plastic (UL94 V-0 flame retardant)

Power-Sonic Chargers n/a

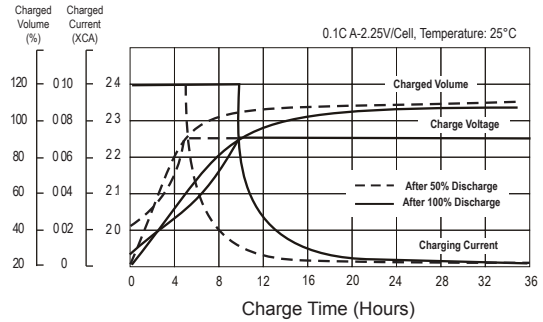
AMPS/WATTS @ 25 ° C

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	36.8/67.9	32.3/60.2	20.5/39.1	15.1/29.1	12.0/23.3	6.48/12.6	4.53/8.88	2.99/5.94	2.12/4.14	1.75/3.46	0.93/1.83
1.80	41.4/75.5	35.5/65.3	22.0/41.3	16.5/31.3	12.9/24.7	6.94/13.4	4.88/9.50	3.14/6.23	2.25/4.38	1.86/3.67	0.99/1.95
1.75	45.6/81.7	38.8/70.5	22.9/42.6	17.1/32.3	13.5/25.7	7.20/13.9	4.97/9.63	3.24/6.40	2.31/4.49	1.88/3.70	1.00/1.96
1.70	49.4/87.1	41.4/74.2	23.8/44.0	17.8/33.5	13.9/26.5	7.48/14.4	5.15/9.99	3.32/6.54	2.34/4.55	1.90/3.73	1.01/1.98
1.65	53.5/93.1	44.0/78.4	25.1/46.1	18.2/34.0	14.4/27.2	7.69/14.6	5.33/10.3	3.39/6.65	2.38/4.61	1.94/3.80	1.03/2.01
1.60	56.5/96.9	46.2/80.6	26.5/48.3	19.0/35.2	14.8/27.9	7.95/15.1	5.48/10.6	3.48/6.81	2.40/4.65	1.95/3.84	1.03/2.04

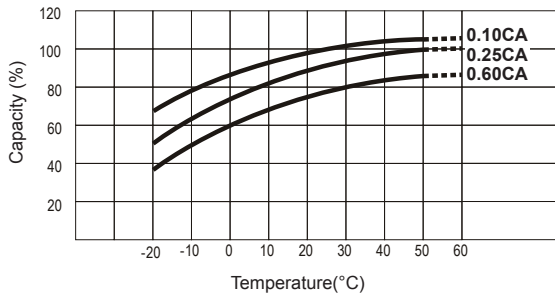
Discharge Characteristics



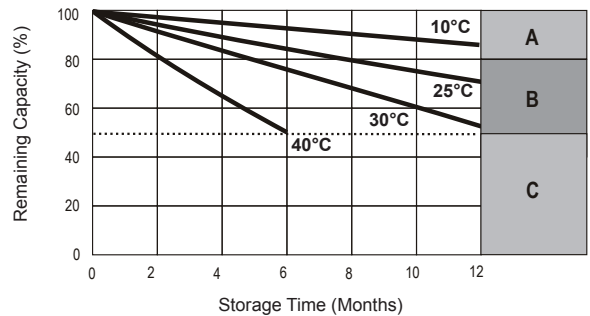
Float Charging Characteristics



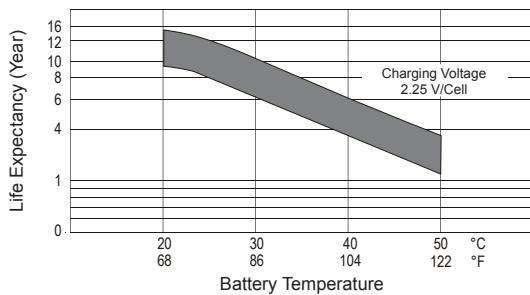
Temperature Effects in Relation to Battery Capacity



Self Discharge Characteristics



Effect of Temperature on Long-Term Float Life



- 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 limited current 0.25CA and constant voltage 2.25V/cell.
 2. Charged for above 20 hours at limited current 0.25CA and constant voltage 2.45V/cell.
 3. Charged for 8-10 hours at limited current 0.05CA.
- C** Supplementary charge may often fail to recover the capacity.
The battery should never be left standing till this is reached

Charging

Cycle Applications: Limit initial current to less than 5.58A. 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 186mA. 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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