

PS-4100

Rechargeable Sealed Lead Acid Battery PS - General Purpose Series

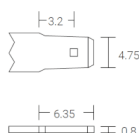
Versatile sealed lead acid batteries specifically engineered for use in general purpose float and light cyclic applications including fire and security systems, emergency lighting, UPS, toys and medical devices.



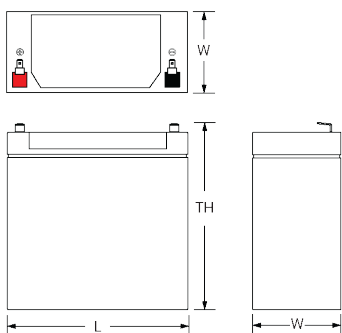
Available Terminals

1

**F1
FASTON**
0.187" x 0.032"
quick disconnect
tabs.



Engineering Drawing



L: 4.02in (102.0mm)

W: 1.97in (50.0mm)

H: 3.66in (93.0mm)

HT: 3.9in (99.0mm)

+/- 0.08 in. (+/- 2mm) for
length, width, and height
dimensions

Features

- AGM Technology
- Gas Recombination
- Power Volume Ratio
- SLA ABS Case
- SLA Maintenance Free

Performance Specs

| | |
|------------------------------|-------------------------------|
| Nominal Voltage | 4.0V |
| Nominal Capacity | 10.0Ah |
| 20-hr Rate | 10.0Ah |
| 10-hr Rate | 9.46Ah |
| 5-hr Rate | 9.15Ah |
| 1-hr Rate | 6.28Ah |
| Weight | 1.14kg |
| Internal Resistance | 9.0 milliohms |
| Max Discharge Current | 150.0A |
| Charge Temp Range | ?4°F (?20°C) to 104°F (40°C) |
| Discharge Temp Range | 5°F (?15°C) to 122°F (50°C) |
| Case Material | ABS (UL94 HB or V-0 optional) |

Available options

- PS-4100 F1

Applications



Emergency
Lighting



Fire Security



General
Purpose



Medical



Signaling
(Air, Rail, Sea)



Solar



Telecomm



UPS



Utility



Wind

Constant Current Discharge Table

| VoltageOverTime | 5min | 10min | 15min | 20min | 30min | 45min | 1h | 1.5h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|-----------------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|-------|-------|
| 1.60V/cell | 38.6 | 26.2 | 19.4 | 15.8 | 11.5 | 8.0 | 6.28 | 4.8 | 3.8 | 2.76 | 2.21 | 1.88 | 1.6 | 1.26 | 0.975 | 0.514 |
| 1.65V/cell | 36.77 | 25.4 | 19.0 | 15.5 | 11.3 | 7.85 | 6.19 | 4.74 | 3.75 | 2.73 | 2.19 | 1.86 | 1.59 | 1.25 | 0.968 | 0.51 |
| 1.67V/cell | 36.4 | 25.1 | 18.8 | 15.3 | 11.2 | 7.81 | 6.14 | 4.7 | 3.72 | 2.71 | 2.18 | 1.85 | 1.58 | 1.24 | 0.962 | 0.508 |
| 1.70V/cell | 35.2 | 24.4 | 18.3 | 15.0 | 11.0 | 7.68 | 6.05 | 4.64 | 3.68 | 2.68 | 2.16 | 1.83 | 1.57 | 1.23 | 0.955 | 0.504 |
| 1.75V/cell | 33.6 | 23.5 | 17.7 | 14.6 | 10.7 | 7.52 | 5.94 | 4.56 | 3.63 | 2.64 | 2.13 | 1.81 | 1.55 | 1.22 | 0.946 | 0.5 |
| 1.80V/cell | 31.9 | 22.6 | 17.1 | 14.2 | 10.5 | 7.36 | 5.82 | 4.48 | 3.56 | 2.6 | 2.1 | 1.79 | 1.53 | 1.2 | 0.937 | 0.495 |
| 1.85V/cell | 29.6 | 21.3 | 16.3 | 13.7 | 10.1 | 7.16 | 5.68 | 4.39 | 3.5 | 2.56 | 2.07 | 1.76 | 1.51 | 1.19 | 0.924 | 0.489 |

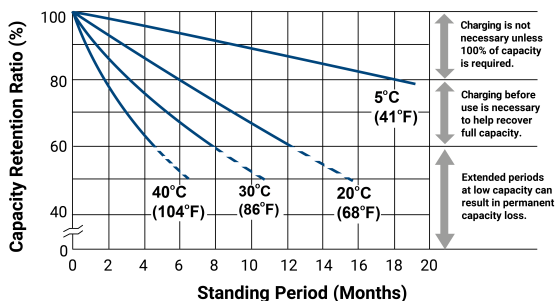
Constant Power Discharge Table

| VoltageOverTime | 5min | 10min | 15min | 20min | 30min | 45min | 1h | 1.5h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|-----------------|------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|------|
| 1.60V/cell | 68.9 | 47.9 | 36.1 | 29.7 | 21.8 | 15.2 | 12.0 | 9.24 | 7.33 | 5.36 | 4.33 | 3.68 | 3.15 | 2.48 | 1.93 | 1.03 |
| 1.65V/cell | 66.8 | 47.0 | 35.5 | 29.2 | 21.5 | 15.0 | 11.9 | 9.15 | 7.27 | 5.32 | 4.29 | 3.65 | 3.12 | 2.46 | 1.92 | 1.02 |
| 1.67V/cell | 66.2 | 46.6 | 35.2 | 29.0 | 21.3 | 14.9 | 11.8 | 9.08 | 7.21 | 5.28 | 4.26 | 3.63 | 3.11 | 2.45 | 1.91 | 1.02 |
| 1.70V/cell | 64.5 | 45.6 | 34.4 | 28.5 | 21.0 | 14.7 | 11.6 | 8.98 | 7.15 | 5.24 | 4.23 | 3.6 | 3.09 | 2.43 | 1.89 | 1.01 |
| 1.75V/cell | 62.2 | 44.1 | 33.5 | 27.8 | 20.6 | 14.5 | 11.5 | 8.86 | 7.06 | 5.17 | 4.18 | 3.56 | 3.05 | 2.41 | 1.88 | 1.0 |
| 1.80V/cell | 59.7 | 42.7 | 32.6 | 27.2 | 20.1 | 14.2 | 11.3 | 8.72 | 6.96 | 5.1 | 4.13 | 3.52 | 3.02 | 2.39 | 1.86 | 0.99 |
| 1.85V/cell | 56.1 | 40.6 | 31.3 | 26.3 | 19.6 | 13.9 | 11.1 | 8.57 | 6.85 | 5.03 | 4.08 | 3.48 | 2.98 | 2.35 | 1.84 | 0.98 |

Graphs

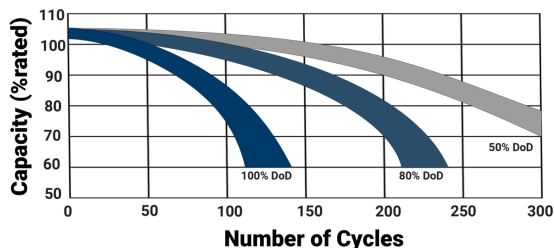
1. Capacity Retention SLA

CAPACITY RETENTION



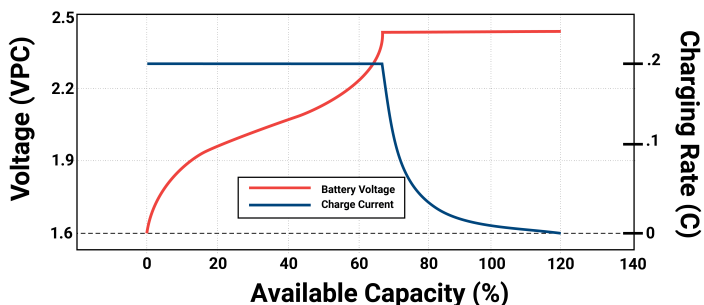
2. PS Cycle Life

CYCLE LIFE @25°C



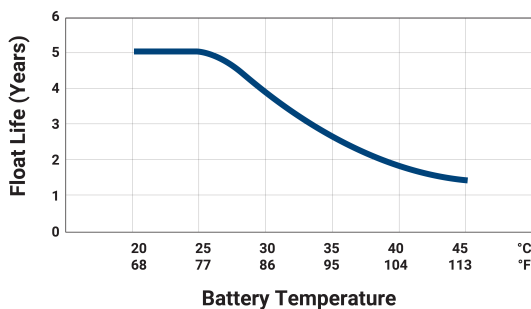
3. SLA Charging

CHARGING CHARACTERISTICS @ C/5 AND 25°C



4. SLA Float Life 5YR

FLOAT LIFE VS. TEMPERATURE



Charging

- **Cycle Applications:** Apply constant voltage charge at 2.35VPC – 2.45VPC (14.1 to 14.7 volts for 12V Monobloc) at 20°C. The initial charging current should be set at less than C/5 Amps. Switch to float charge when the current falls to a 3% capacity rate to avoid overcharging. Stand-By or "Float" Service: Apply constant voltage charge of 2.25VPC – 2.30VPC (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 stand-by applications should be regulated in relation to ambient temperature. As temperature rises, charging voltage should be reduced to prevent overcharge and increased as the temperature falls to avoid undercharge. For further charging information, including temperature compensation factors, see the Power-Sonic Technical Manual.

Approvals

