

Sealed Lead Acid (SLA) Batteries

12V 2.9AH - 4.8mm/F1 Terminal

Model: S 4528

Powerhouse
BATTERIES



This 12V 2.9Ah sealed lead acid (SLA) battery is a compact battery for powering 12V equipment. It is commonly used in battery back up systems, alarm and communications systems and UPS units. Fitted with 4.8mm/F1 tab terminals, these batteries are easily user replaced in most equipment they are used in. Cells are fully sealed to prevent any leakage of electrolyte.

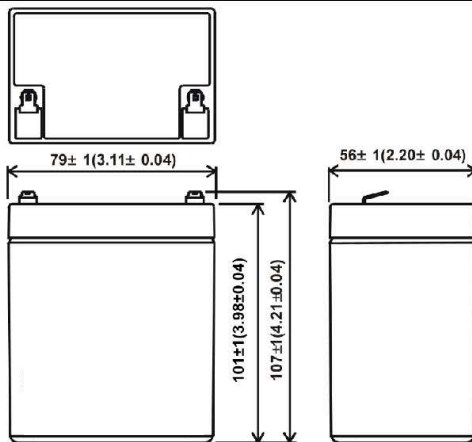
Our range of Powerhouse SLA batteries are from a quality supplier and are graded for use in UPS systems. We have found the quality of SLA batteries varies considerably between suppliers and often cheaper units have a shorter life span.

ActivFire Listed (afp3824). Conforms to IEC 60896-21:2004 and IEC 60896-22:2004.

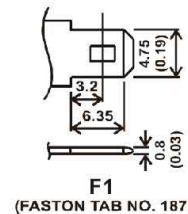
| | | | |
|-----------------------------------|--|----------------------------|---------------------------------|
| Cell per unit | 6 | Ambient temperature | |
| Nominal Voltage (V) | 12 | Charge | 0°C (32°F) to 40°C (104°F) |
| Nominal Capacity (Ah) | 2.9Ah @ 20hour rate F.V/(1.75/cell) | Discharge | -15°C (5°F) to 50°C (122°F) |
| Weight | Approx. 1.10kg(2.42Lbs.) | Storage | -15°C (5°F) to 40°C (104°F) |
| Internal Resistance (1KHz) | 34mΩ | Max charge Current | |
| Max Discharge Current (5s) | 43.5A | Cycle use : | Max charge current : 0.87A |
| Battery Life : | Stand by : 3~5 years | | Charge voltage: 14.4 to 15.0V |
| Terminal Type | F1 | Stand by : | Charge voltage: 13.50 to 13.80V |
| Container Material | ABS(Option : 94-HB & 94V-0 flame retardant case) | | |



| DIMENSIONS | Length | Width | Height | Total Height |
|------------|-----------|-----------|-----------|--------------|
| Unit: mm | 79±1 | 56±1 | 101±1 | 107±1 |
| Unit: inch | 3.11±0.04 | 2.20±0.04 | 3.98±0.04 | 4.21±0.04 |



mm(inch)



F1
(FASTON TAB NO. 187)

| Constant current discharge characteristics Unit:A(25°C 77°F) | | | | | | | | | | |
|--|-------|-------|-------|-------|------|------|-------|-------|-------|-------|
| F.V/Time | 5MIN | 15MIN | 30MIN | 60MIN | 2HR | 3HR | 5HR | 8HR | 10HR | 20HR |
| 1.60V | 11.19 | 5.63 | 3.34 | 1.82 | 1.06 | 0.82 | 0.537 | 0.351 | 0.291 | 0.152 |
| 1.67V | 10.15 | 5.26 | 3.16 | 1.80 | 1.02 | 0.79 | 0.519 | 0.348 | 0.288 | 0.151 |
| 1.70V | 9.20 | 4.95 | 2.99 | 1.76 | 1.00 | 0.76 | 0.505 | 0.343 | 0.282 | 0.149 |
| 1.75V | 8.36 | 4.64 | 2.88 | 1.71 | 0.98 | 0.74 | 0.493 | 0.338 | 0.277 | 0.146 |
| 1.80V | 7.41 | 4.24 | 2.77 | 1.63 | 0.94 | 0.73 | 0.480 | 0.332 | 0.270 | 0.145 |

| Constant power discharge characteristics Unit:W(25°C 77°F) | | | | | | | | | | |
|--|--------|-------|-------|-------|-------|------|-------|-------|-------|-------|
| F.V/Time | 5MIN | 15MIN | 30MIN | 60MIN | 2HR | 3HR | 5HR | 8HR | 10HR | 20HR |
| 1.60V | 111.60 | 59.10 | 36.48 | 20.52 | 12.06 | 9.36 | 6.204 | 4.116 | 3.438 | 1.794 |
| 1.67V | 103.20 | 56.16 | 34.80 | 20.46 | 11.64 | 9.12 | 6.030 | 4.086 | 3.408 | 1.788 |
| 1.70V | 94.80 | 53.22 | 33.24 | 20.16 | 11.52 | 8.76 | 5.886 | 4.032 | 3.342 | 1.764 |
| 1.75V | 88.80 | 50.58 | 32.16 | 19.56 | 11.28 | 8.56 | 5.754 | 3.984 | 3.282 | 1.734 |
| 1.80V | 80.40 | 46.86 | 31.20 | 18.78 | 10.92 | 8.46 | 5.622 | 3.924 | 3.198 | 1.722 |

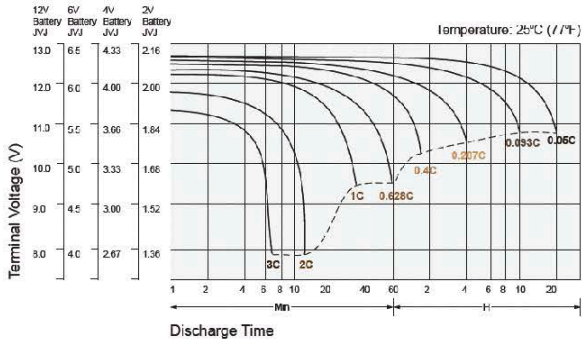
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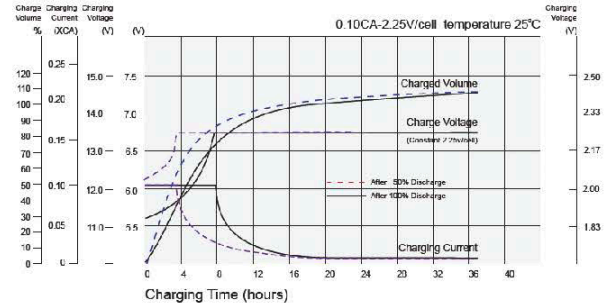
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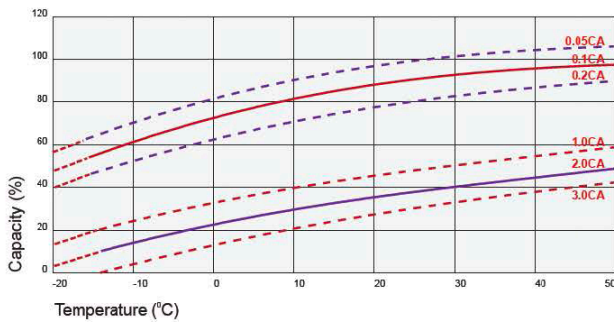
Battery Discharge Characteristics (25°C/77°F)



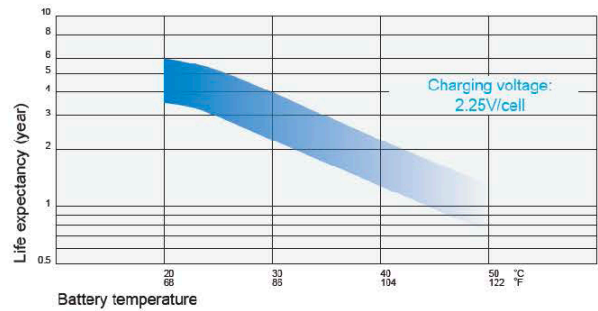
Battery Charge Characteristic for standby use



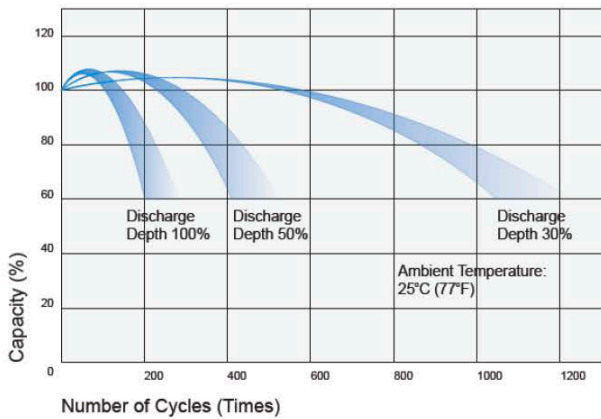
Temperature Effects in Relation to Battery Capacity



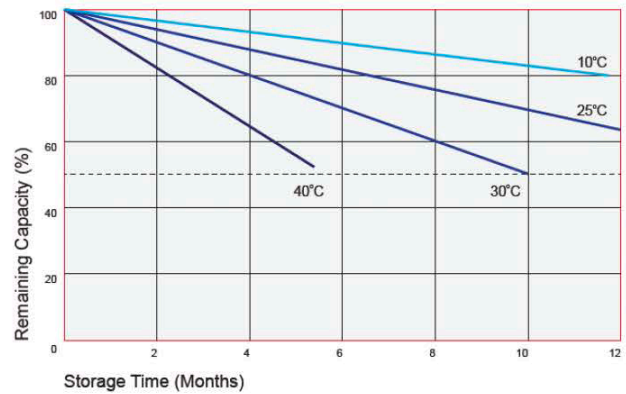
Temperature Effects on Long Term Float Life



Cycle Service Life



Self Discharge Characteristics



Charging Procedures

| Application | Charge Voltage(V/cell) | | | Max. Charge Current |
|-------------|------------------------|-----------|-----------------|---------------------|
| | Temperature | Set Point | Allowable Range | |
| Cycle Use | 25°C(77°F) | 2.45 | 2.40-2.50 | 0.25C |
| Standby | 25°C(77°F) | 2.275 | 2.25-2.30 | |

Discharge Current VS. Discharge Voltage

| | | | | |
|--------------------------------|-----------|-----------|-----------|-----------|
| Final Discharge Voltage V/cell | 1.75 | 1.70 | 1.65 | 1.60 |
| Discharge Current (A) | 0.2C >(A) | 0.2C <(A) | 0.5C <(A) | (A) >1.0C |
| | | <0.5C | <1.0C | |