



# LP6-4.5S (6V 4.5Ah)

## Specifications

|                               |                                                                                                                                                                          |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Rated Voltage                 | 6                                                                                                                                                                        |
| Nominal Capacity              | 4.5 Ah (C <sub>20</sub> , 1.75V/cell)                                                                                                                                    |
| Dimensions                    | Length 67mm                                                                                                                                                              |
|                               | Width 67 mm                                                                                                                                                              |
|                               | Container Height 96 mm                                                                                                                                                   |
|                               | Total Height 109 mm                                                                                                                                                      |
| Approx. Weight                | 0.78 Kg (1.72lbs)                                                                                                                                                        |
| Terminal                      | -                                                                                                                                                                        |
| Layout                        | S1                                                                                                                                                                       |
| Container material            | ABS                                                                                                                                                                      |
| Rated Capacity (25°C)         | 4.50 Ah (20hr, 0.225A, 1.80V/cell)                                                                                                                                       |
|                               | 4.19 Ah (10hr, 0.419A, 1.80V/cell)                                                                                                                                       |
|                               | 3.78 Ah (5hr, 0.756A, 1.75V/cell)                                                                                                                                        |
|                               | 3.30 Ah (3hr, 1.10A, 1.75V/cell)                                                                                                                                         |
|                               | 2.73 Ah (1hr, 2.73A, 1.60V/cell)                                                                                                                                         |
| Max. Discharge Current        | 67.5A (5s)                                                                                                                                                               |
| Internal Resistance (25°C)    | Approx 60mΩ                                                                                                                                                              |
| Operating Temp. Range         | Discharge: -15°C ~50°C (5~122°F)                                                                                                                                         |
|                               | Charge: 0°C ~40°C (32~104°F)                                                                                                                                             |
|                               | Storage: -15°C ~40°C (5~104°F)                                                                                                                                           |
| Nominal Operating Temp. Range | 25±3°C (77±5°F)                                                                                                                                                          |
| Cycle Use                     | Initial Charging Current less than 1.35A. Voltage 7.2V~7.5V at 25°C (77 °F)Temp. Coefficient -15mV/°C                                                                    |
| Standby Use                   | Initial Charging Current less than 1.35A. Voltage 6.75V~6.9V at 25°C (77 °F)Temp. Coefficient -10mV/°C                                                                   |
| Effect Of Temp. To Capacity   | 40°C (104°F) 103%                                                                                                                                                        |
|                               | 25°C (77°F) 100%                                                                                                                                                         |
|                               | 0°C (32°F) 86%                                                                                                                                                           |
| Self Discharge                | LP series batteries may be stored for up to 6 months at 25°C (77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter. |



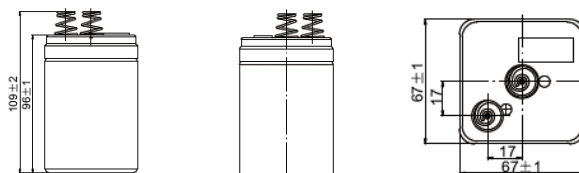
## Description and Features

The LP Series AGM batteries have been specially developed to be widely applicable. These lead acid batteries with AGM technology are completely sealed and therefore 100% maintenance free and leak-proof. These batteries have a low self-discharge. The reliable and safe multipurpose batteries from the LP Series offer a long service life and can be used in various industries.

### Features

- Absorbent Glass Mat technology
- Reliable and safe performance
- Long service life - 3-5 years in standby application (at 25°C)
- Suitable for multipurpose applications

## Layout



## Constant Current Discharge Characteristics: A (25°C)

| F.V/Time   | 5 Min | 10 Min | 15 Min | 20 Min | 30 Min | 45 Min | 1Hr  | 2 Hr | 3 Hr | 4 Hr  | 5 Hr  | 6 Hr  | 8 Hr  | 10 Hr | 20 Hr |
|------------|-------|--------|--------|--------|--------|--------|------|------|------|-------|-------|-------|-------|-------|-------|
| 1.85V/cell | 8.64  | 6.02   | 4.97   | 4.31   | 3.46   | 2.66   | 2.17 | 1.33 | 1.01 | 0.831 | 0.706 | 0.611 | 0.486 | 0.404 | 0.223 |
| 1.80V/cell | 10.6  | 7.19   | 5.76   | 4.87   | 3.83   | 2.90   | 2.34 | 1.41 | 1.06 | 0.874 | 0.736 | 0.638 | 0.504 | 0.419 | 0.225 |
| 1.75V/cell | 12.6  | 8.13   | 6.35   | 5.31   | 4.09   | 3.08   | 2.46 | 1.47 | 1.10 | 0.901 | 0.756 | 0.654 | 0.518 | 0.427 | 0.227 |
| 1.70V/cell | 14.3  | 8.96   | 6.88   | 5.70   | 4.29   | 3.20   | 2.57 | 1.53 | 1.14 | 0.924 | 0.775 | 0.670 | 0.525 | 0.434 | 0.231 |
| 1.67V/cell | 15.7  | 9.64   | 7.27   | 5.98   | 4.47   | 3.32   | 2.67 | 1.58 | 1.17 | 0.943 | 0.792 | 0.683 | 0.534 | 0.440 | 0.234 |
| 1.60V/cell | 16.5  | 10.0   | 7.58   | 6.17   | 4.60   | 3.40   | 2.73 | 1.63 | 1.19 | 0.966 | 0.808 | 0.696 | 0.545 | 0.447 | 0.236 |

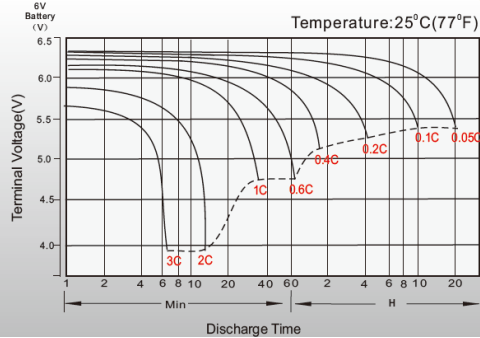
## Constant Power Discharge Characteristics: Wpc (25°C)

| F.V/Time   | 5 Min | 10 Min | 15 Min | 20 Min | 30 Min | 45 Min | 1Hr  | 2 Hr | 3 Hr | 4 Hr | 5 Hr | 6 Hr | 8 Hr  | 10 Hr | 20 Hr |
|------------|-------|--------|--------|--------|--------|--------|------|------|------|------|------|------|-------|-------|-------|
| 1.85V/cell | 16.3  | 11.5   | 9.55   | 8.35   | 6.74   | 5.21   | 4.28 | 2.63 | 2.01 | 1.66 | 1.41 | 1.23 | 0.977 | 0.815 | 0.450 |
| 1.80V/cell | 19.8  | 13.6   | 11.0   | 9.37   | 7.41   | 5.65   | 4.58 | 2.78 | 2.10 | 1.73 | 1.46 | 1.27 | 1.01  | 0.838 | 0.452 |
| 1.75V/cell | 23.2  | 15.2   | 12.0   | 10.1   | 7.86   | 5.96   | 4.80 | 2.88 | 2.16 | 1.78 | 1.49 | 1.30 | 1.03  | 0.849 | 0.453 |
| 1.70V/cell | 26.0  | 16.6   | 12.9   | 10.8   | 8.20   | 6.16   | 4.97 | 2.98 | 2.22 | 1.81 | 1.52 | 1.32 | 1.04  | 0.858 | 0.459 |
| 1.67V/cell | 28.3  | 17.6   | 13.4   | 11.2   | 8.48   | 6.36   | 5.15 | 3.05 | 2.27 | 1.84 | 1.55 | 1.34 | 1.05  | 0.866 | 0.463 |
| 1.60V/cell | 29.2  | 18.1   | 13.9   | 11.4   | 8.62   | 6.44   | 5.22 | 3.13 | 2.31 | 1.87 | 1.57 | 1.36 | 1.07  | 0.876 | 0.464 |

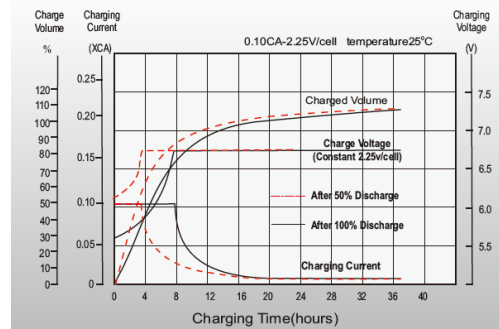


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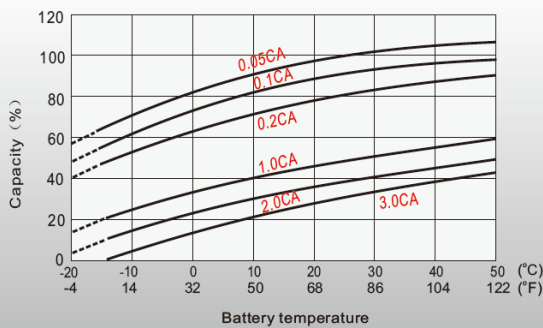
## Discharge Characteristics



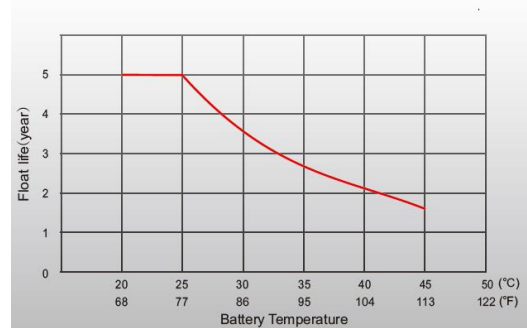
## Float Charging Characteristics



## Temperature Effects In Relation To Battery Capacity



## Float Service Life



## Applications

- All purpose
- Uninterruptable Power Supply (UPS)
- Electric Power System (EPS)
- Emergency backup power supply
- Alarm and security system
- Communication power supply
- DC power supply
- Auto control system

## General Features

- 5 years design life(25°C)
- Special exhaust structure and sealing technology, safe and reliable, flexible installation, convenient maintenance
- PbCaSn alloy for plate grids: less gassing, less self-discharging
- High quality AGM separator: extend cycle life and prevent micro short circuit
- High purity raw material: ensure low self discharge rate

## Standards

- Compliance with IEC 60896 standards, EU Battery Directive
- UL, CE Certified
- IATF16949, ISO45001, ISO 9001 and ISO 14001 certified production facilities

(Note) All above information shall be changed without prior notice, Landport Batteries reserves the right to explain and update the latest information.