



# LP12-10H (12V 10Ah)

## Specifications

|                               |                                                                                                                                                                          |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Rated Voltage                 | 12                                                                                                                                                                       |
| Nominal Capacity              | 10.0Ah (C <sub>20</sub> , 1.75V/cell)                                                                                                                                    |
| Dimensions                    | Length 151 mm                                                                                                                                                            |
|                               | Width 65 mm                                                                                                                                                              |
|                               | Container Height 111 mm                                                                                                                                                  |
|                               | Total Height 117 mm                                                                                                                                                      |
| Approx. Weight                | 3.11 Kg (6.86 lbs)                                                                                                                                                       |
| Terminal                      | T2                                                                                                                                                                       |
| Layout                        | 3                                                                                                                                                                        |
| Container material            | ABS                                                                                                                                                                      |
| Rated Capacity (25°C)         | 10.0 Ah (20hr, 0.50A, 1.75V/cell)                                                                                                                                        |
|                               | 9.30 Ah (10hr, 0.93A, 1.75V/cell)                                                                                                                                        |
|                               | 8.50 Ah (5hr, 1.70A, 1.75V/cell)                                                                                                                                         |
|                               | 7.65 Ah (3hr, 2.55A, 1.75V/cell)                                                                                                                                         |
|                               | 6.28 Ah (1hr, 6.28A, 1.60V/cell)                                                                                                                                         |
| Max. Discharge Current        | 150A (5s)                                                                                                                                                                |
| Internal Resistance (25°C)    | Approx 24mΩ                                                                                                                                                              |
| 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 3.0A. Voltage 14.4V~15.0V at 25°C (77 °F)Temp. Coefficient -30mV/°C                                                                   |
| Standby Use                   | Initial Charging Current less than 3.0A. Voltage 13.5V~13.8V at 25°C (77 °F)Temp. Coefficient -20mV/°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.

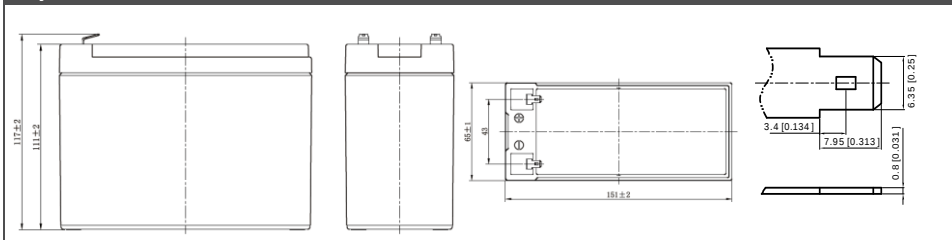
### Features

- 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

## Terminal

## UL certification



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

| F.V/Time   | 5 Min | 10 Min | 15 Min | 20 Min | 30 Min | 45 Min | 1 Hr | 1.5 Hr | 2 Hr | 3 Hr | 4 Hr | 5 Hr | 6 Hr | 8 Hr | 10 Hr | 20 Hr |
|------------|-------|--------|--------|--------|--------|--------|------|--------|------|------|------|------|------|------|-------|-------|
| 1.85V/cell | 29.6  | 21.3   | 16.3   | 13.7   | 10.1   | 7.16   | 5.68 | 4.75   | 3.28 | 2.47 | 2.01 | 1.65 | 1.44 | 1.12 | 0.909 | 0.489 |
| 1.80V/cell | 31.9  | 22.6   | 17.1   | 14.2   | 10.5   | 7.36   | 5.82 | 4.84   | 3.34 | 2.51 | 2.04 | 1.68 | 1.46 | 1.13 | 0.921 | 0.495 |
| 1.75V/cell | 33.6  | 23.5   | 17.7   | 14.6   | 10.7   | 7.52   | 5.94 | 4.93   | 3.40 | 2.55 | 2.07 | 1.70 | 1.48 | 1.15 | 0.930 | 0.500 |
| 1.70V/cell | 35.2  | 24.4   | 18.3   | 15.0   | 11.0   | 7.68   | 6.05 | 5.02   | 3.45 | 2.59 | 2.10 | 1.72 | 1.50 | 1.16 | 0.940 | 0.504 |
| 1.67V/cell | 36.4  | 25.1   | 18.8   | 15.3   | 11.2   | 7.81   | 6.14 | 5.08   | 3.49 | 2.61 | 2.12 | 1.74 | 1.51 | 1.17 | 0.946 | 0.508 |
| 1.60V/cell | 38.6  | 26.2   | 19.4   | 15.8   | 11.5   | 8.00   | 6.28 | 5.19   | 3.56 | 2.66 | 2.16 | 1.77 | 1.53 | 1.18 | 0.958 | 0.514 |

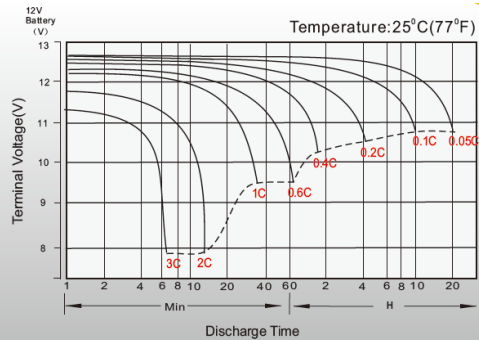
## Constant Power Discharge Characteristics: Wpc (25°C)

| F.V/Time   | 5 Min | 10 Min | 15 Min | 20 Min | 30 Min | 45 Min | 1 Hr | 1.5 Hr | 2 Hr | 3 Hr | 4 Hr | 5 Hr | 6 Hr | 8 Hr | 10 Hr | 20 Hr |
|------------|-------|--------|--------|--------|--------|--------|------|--------|------|------|------|------|------|------|-------|-------|
| 1.85V/cell | 56.1  | 40.6   | 31.3   | 26.3   | 19.6   | 13.9   | 11.1 | 9.27   | 6.42 | 4.85 | 3.97 | 3.27 | 2.85 | 2.21 | 1.81  | 0.98  |
| 1.80V/cell | 59.7  | 42.7   | 32.6   | 27.2   | 20.1   | 14.2   | 11.3 | 9.43   | 6.52 | 4.92 | 4.02 | 3.31 | 2.89 | 2.24 | 1.83  | 0.99  |
| 1.75V/cell | 62.2  | 44.1   | 33.5   | 27.8   | 20.6   | 14.5   | 11.5 | 9.58   | 6.62 | 4.99 | 4.07 | 3.35 | 2.92 | 2.27 | 1.85  | 1.00  |
| 1.70V/cell | 64.5  | 45.6   | 34.4   | 28.5   | 21.0   | 14.7   | 11.6 | 9.72   | 6.70 | 5.05 | 4.11 | 3.39 | 2.95 | 2.29 | 1.86  | 1.01  |
| 1.67V/cell | 66.2  | 46.6   | 35.2   | 29.0   | 21.3   | 14.9   | 11.8 | 9.82   | 6.76 | 5.10 | 4.15 | 3.41 | 2.98 | 2.30 | 1.88  | 1.02  |
| 1.60V/cell | 68.9  | 47.9   | 36.1   | 29.7   | 21.8   | 15.2   | 12.0 | 9.99   | 6.88 | 5.18 | 4.21 | 3.46 | 3.01 | 2.33 | 1.90  | 1.03  |

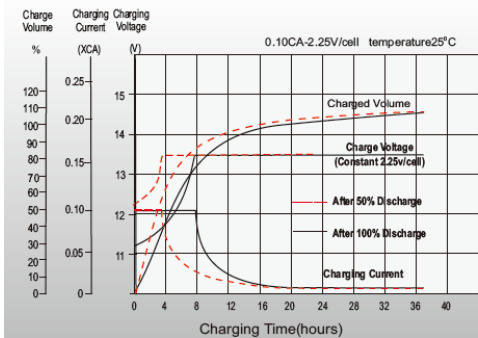


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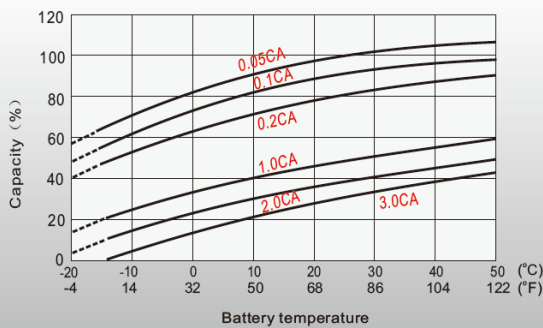
## Discharge Characteristics



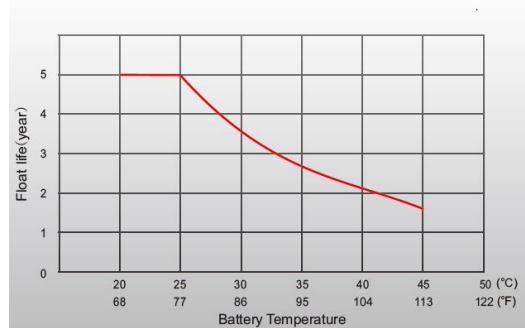
## Float Charging Characteristics



## 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.