



# LP12-12 (12V 12Ah)

## Specifications

Rated Voltage	12
Nominal Capacity (20Hr)	12Ah
Dimensions	Length 152 mm
	Width 98 mm
	Container Height 95 mm
	Total Height 102 mm
Approx. Weight	3.80 Kg (8.38lbs)
Terminal	T2
Layout	3
Container material	ABS
Rated Capacity (25°C)	12.0 Ah (20hr, 0.60A, 1.80V/cell)
	11.2 Ah (10hr, 1.12A, 1.80V/cell)
	10.2 Ah (5hr, 2.03A, 1.75V/cell)
	8.94 Ah (3hr, 2.98A, 1.75V/cell)
	7.49 Ah (1hr, 7.49A, 1.60V/cell)
Max. Discharge Current	180A (5s)
Internal Resistance (25°C)	Approx 18mΩ
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 3.6A. Voltage 14.4V~15.0V at 25°C (77 °F)Temp. Coefficient -30mV/°C
Standby Use	No Limit on Initial Charging Current 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

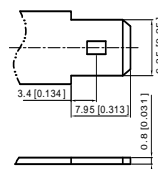
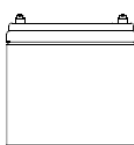
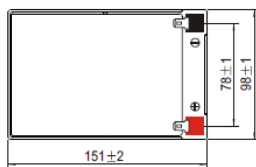
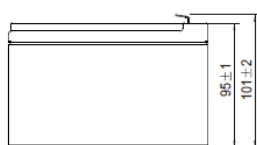
The LP Series AGM batteries have been specially developed to be widely applicable. These lead acid batteries with AGM technology are completely sealed and therefore 100% maintenance free and leak-proof. These batteries have a low self-discharge. The reliable and safe multipurpose batteries from the LP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



## 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	22.9	15.2	12.5	11.0	9.02	7.04	5.83	3.58	2.70	2.22	1.88	1.63	1.30	1.08	0.594
1.80V/cell	27.4	18.2	14.7	12.6	10.1	7.73	6.31	3.84	2.88	2.36	1.98	1.70	1.34	1.12	0.600
1.75V/cell	32.8	20.9	16.4	13.9	10.8	8.27	6.67	4.00	2.98	2.42	2.03	1.75	1.38	1.14	0.606
1.70V/cell	38.1	23.3	18.0	15.1	11.5	8.67	6.96	4.14	3.05	2.47	2.08	1.79	1.40	1.16	0.617
1.67V/cell	42.0	25.3	19.3	16.2	12.1	9.06	7.20	4.27	3.14	2.54	2.12	1.82	1.42	1.18	0.625
1.60V/cell	46.3	27.4	20.8	17.1	12.8	9.42	7.49	4.38	3.21	2.60	2.17	1.86	1.45	1.20	0.629

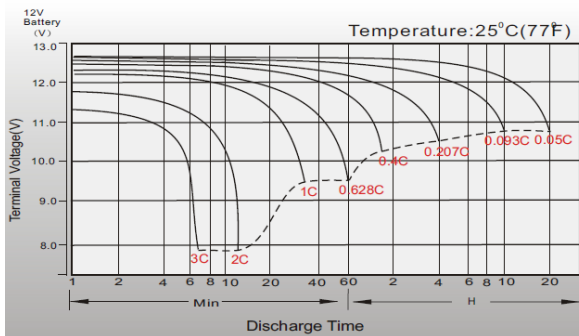
## Constant Power Discharge Characteristics: Wpc (25°C)

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	42.6	28.4	23.6	20.8	17.1	13.5	11.3	6.96	5.26	4.33	3.69	3.20	2.56	2.14	1.18
1.80V/cell	49.5	33.4	27.2	23.6	19.0	14.7	12.1	7.41	5.58	4.59	3.86	3.33	2.65	2.21	1.19
1.75V/cell	58.8	37.9	30.0	25.8	20.2	15.7	12.7	7.69	5.75	4.68	3.95	3.42	2.71	2.26	1.20
1.70V/cell	67.3	41.7	32.7	27.8	21.4	16.3	13.2	7.94	5.88	4.78	4.04	3.48	2.75	2.29	1.22
1.67V/cell	73.1	44.6	34.7	29.5	22.4	16.9	13.6	8.17	6.02	4.88	4.11	3.54	2.79	2.32	1.23
1.60V/cell	79.2	47.5	36.6	30.6	23.3	17.5	14.1	8.33	6.13	4.99	4.18	3.61	2.84	2.35	1.24

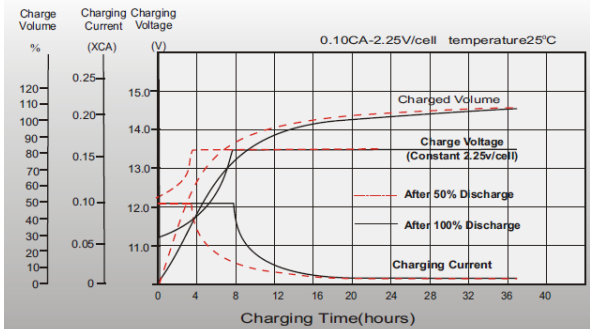


## LP12-12 (12V 12Ah)

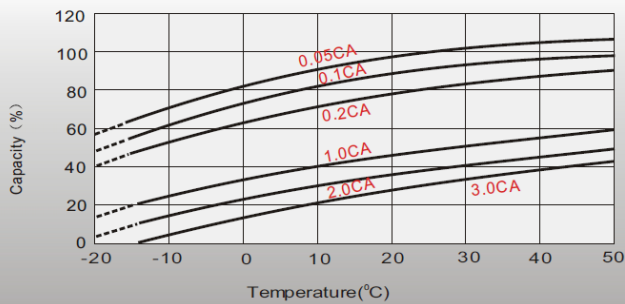
## Discharge Characteristics



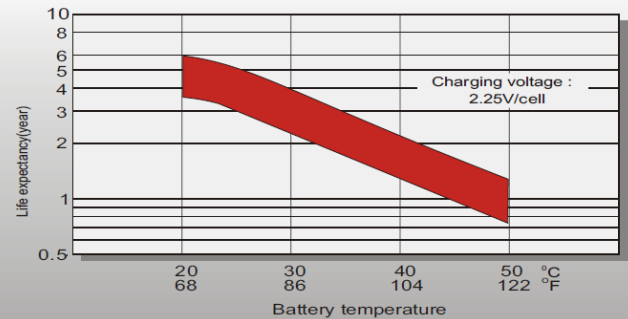
## Float Charging Characteristics



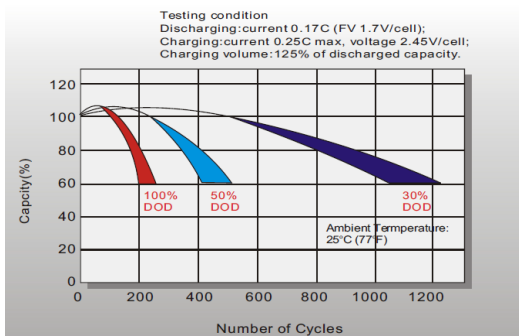
## Temperature Effects In Relation To Battery Capacity



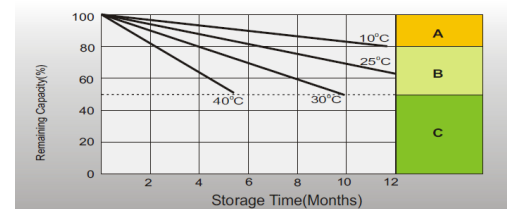
## Effect of Temperature on Long Term Float Life



## Cycle Life in Relation to Depth of Discharge



## Self Discharge Characteristics



**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.

## Applications

- All purpose
- Uninterruptable Power Supply (UPS)
- Electric Power System (EPS)
- Emergency backup power supply
- Emergency light
- Railway signal
- Aircraft signal
- Alarm and security system
- Electronic apparatus and equipment
- Communication power supply
- DC power supply
- Auto control system

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