

# LP SERIES-General Purpose

## LP12-6.0 (12V5.8AH)

### Specification

Nominal Voltage	12V	
Nominal Capacity(20HR)	5.8AH	
Dimensions	Length	90 ± 1mm (3.54 inches)
	Width	70 ± 1mm (2.76 inches)
	Container Height	101 ± 2mm (3.98 inches)
	Total Height (with Terminal)	107 ± 2mm (4.21 inches)
Approx Weight	Approx 1.88 kg (4.15lbs)	
Terminal	T1	
Container Material	ABS	
Rated Capacity	5.80 AH/0.290A	(20hr, 1.80V/cell, 25°C/77°F)
	5.58 AH/0.558A	(10hr, 1.80V/cell, 25°C/77°F)
	5.05 AH/1.01A	(5hr, 1.75V/cell, 25°C/77°F)
	4.41 AH/1.47A	(3hr, 1.75V/cell, 25°C/77°F)
	3.64 AH/3.64A	(1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	90A (5s)	
Internal Resistance	Approx 25mΩ	
Operating Temp. Range	Discharge	-15 ~ 50°C (5 ~ 122°F)
	Charge	0 ~ 40°C (32 ~ 104°F)
	Storage	-15 ~ 40°C (5 ~ 104°F)
Nominal Operating Temp. Range	25 ± 3°C (77 ± 5°F)	
Cycle Use	Initial Charging Current less than 1.8A. 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	
Capacity affected by Temperature	40°C (104°F)	103%
	25°C (77°F)	100%
	0°C (32°F)	86%
Self Discharge	Leoch 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.	



### 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



### Constant Current Discharge (Amperes) at 25 °C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	11.5	8.03	6.62	5.74	4.61	3.54	2.90	1.77	1.35	1.11	0.941	0.815	0.648	0.539	0.297
1.80V/cell	14.2	9.58	7.68	6.50	5.10	3.86	3.12	1.88	1.42	1.17	0.982	0.851	0.672	0.558	0.300
1.75V/cell	16.8	10.8	8.47	7.07	5.45	4.10	3.28	1.96	1.47	1.20	1.01	0.872	0.690	0.569	0.303
1.70V/cell	19.0	12.0	9.17	7.60	5.72	4.26	3.42	2.04	1.52	1.23	1.03	0.893	0.701	0.578	0.308
1.65V/cell	21.0	12.9	9.70	7.97	5.96	4.43	3.56	2.10	1.55	1.26	1.06	0.910	0.712	0.586	0.313
1.60V/cell	22.0	13.4	10.1	8.23	6.13	4.53	3.64	2.17	1.59	1.29	1.08	0.928	0.727	0.596	0.314

### Constant Power Discharge (Watts) at 25 °C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	21.7	15.3	12.7	11.1	8.99	6.95	5.71	3.50	2.68	2.21	1.88	1.63	1.30	1.09	0.600
1.80V/cell	26.4	18.1	14.6	12.5	9.88	7.53	6.11	3.70	2.80	2.31	1.95	1.70	1.34	1.12	0.603
1.75V/cell	30.9	20.2	16.0	13.5	10.5	7.95	6.40	3.84	2.88	2.37	1.99	1.73	1.37	1.13	0.605
1.70V/cell	34.7	22.1	17.2	14.4	10.9	8.21	6.63	3.98	2.96	2.41	2.03	1.76	1.38	1.14	0.612
1.65V/cell	37.7	23.4	17.9	14.9	11.3	8.48	6.86	4.07	3.02	2.45	2.07	1.78	1.40	1.15	0.618
1.60V/cell	39.0	24.1	18.5	15.2	11.5	8.58	6.96	4.17	3.07	2.50	2.09	1.81	1.42	1.17	0.618

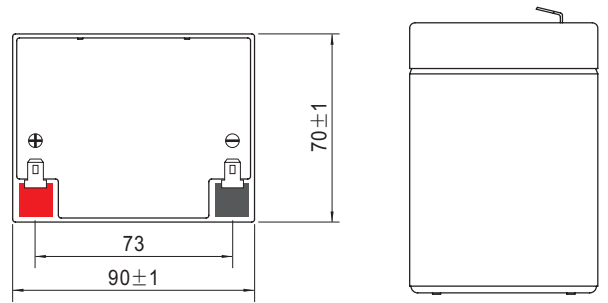
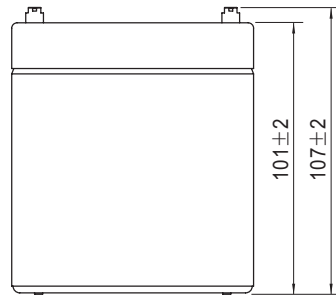
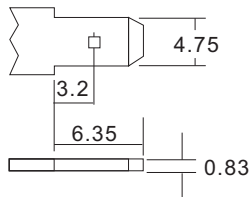
Specifications subject to change without notice.



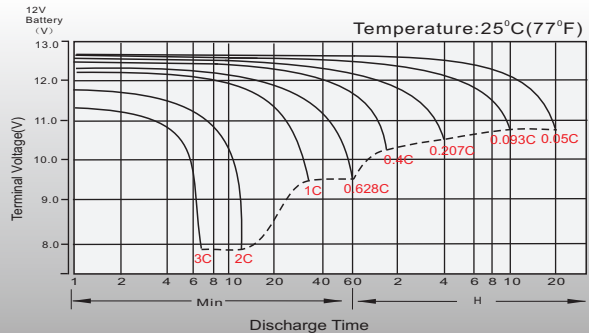
## Dimensions

### T1 Terminal

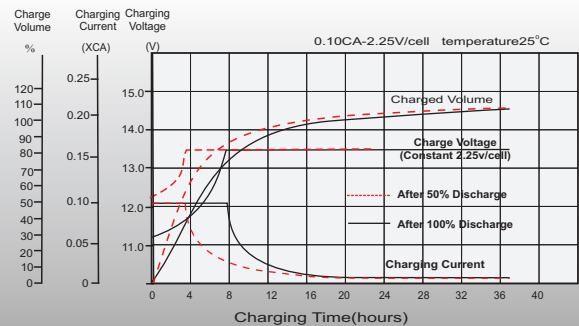
Unit: mm



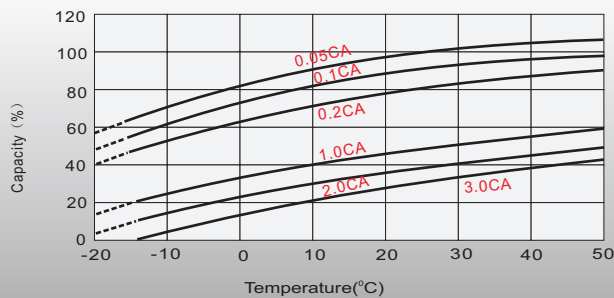
## Discharge Characteristics



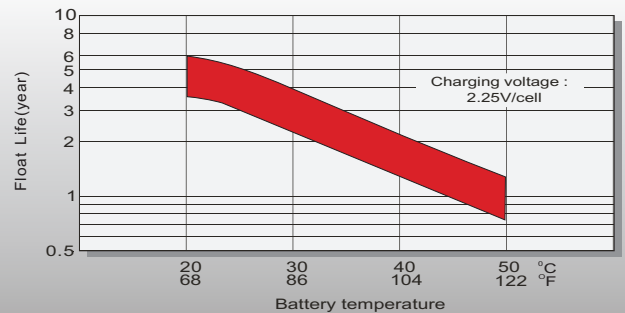
## Float Charging Characteristics



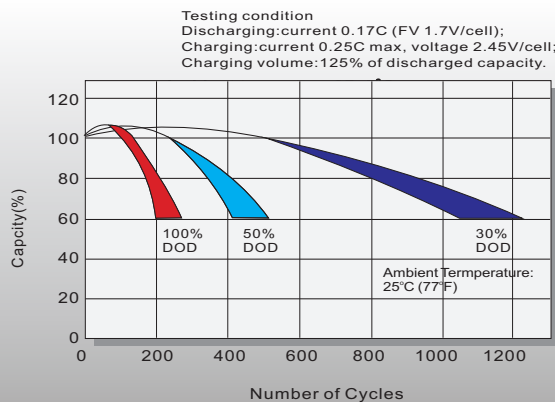
## Temperature Effects in Relation to Battery Capacity



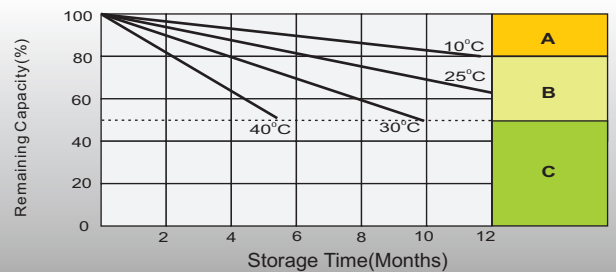
## Effect of Temperature on Long Term Float Life



## 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.)

Supplementary charge required before use. Optional charging way as below:  
**B** 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.

## Sales Office

### China sales office:

Add: 5th Floor, Xinbaohui Bldg., Nanhai Blvd.,  
 Nanshan, Shenzhen, China. 518052  
 Tel: +86-755-86036060 (100 lines)  
 Fax: +86-755-26067269  
 E-mail: export@leoch.com  
 Http://www.leoch.com

### HongKong sales office:

Workshop C, 33/F, TML Tower,  
 No. 3 Hoi Shing Road, Tsuen Wan,  
 New Territories, Hong Kong  
 Tel: +852 35786666  
 Fax: +852 21170016  
 E-mail: sales.hk@leoch.com

### Singapore sales office:

Add: No. 1 Tech Park Crescent,  
 Singapore 638131  
 Tel: +65 68636078  
 Fax: +65 68636079  
 Email sales.sg@leoch.com  
 Http://www.leoch.com

### North America sales office:

Add: 19751 Descartes, Unit A,  
 Foothill Ranch, CA 92610, USA  
 Tel: 949-588-5853  
 Fax: 949-588-5966  
 E-mail: sales@leoch.us  
 Http://www.leoch.com

### Europe sales office:

Add: 9B Wheatstone Court. Waterwells  
 Business Park, Gloucester, GL2-2AQ,  
 UK United Kingdom  
 Tel: +44(0) 1452 729428 / 1452 729696  
 Fax: +44 (0)1452-690125  
 E-mail: Sales.Europe@leoch.com