

# LP SERIES-General Purpose

## LP12-6.5 (12V6.5AH)

### Specification

Nominal Voltage	12V	
Nominal Capacity(20HR)	6.5AH	
Dimensions	Length	151±2mm (5.94 inches)
	Width	65±1mm (2.54 inches)
	Container Height	93.5±1mm (3.68 inches)
	Total Height (with Terminal)	99±1mm (3.90 inches)
	Approx Weight	Approx 2.06 kg (4.54lbs)
Terminal	T1 / T2	
Container Material	ABS	
Rated Capacity	6.50 AH/0.325A	(20hr, 1.80V/cell, 25°C/77°F)
	6.05 AH/0.605A	(10hr, 1.80V/cell, 25°C/77°F)
	5.55 AH/1.11A	(5hr, 1.75V/cell, 25°C/77°F)
	4.98AH/1.66A	(3hr, 1.75V/cell, 25°C/77°F)
	4.08 AH/4.08A	(1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	97.5A (5s)	
Internal Resistance	Approx 19mΩ	
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 1.95A. 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 battery 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	12.4	9.51	7.87	6.81	5.26	3.88	3.27	1.93	1.51	1.23	1.00	0.870	0.702	0.586	0.322
1.80V/cell	16.6	12.1	9.51	8.05	6.21	4.51	3.66	2.11	1.63	1.31	1.08	0.933	0.744	0.605	0.325
1.75V/cell	18.7	13.3	10.39	8.66	6.45	4.68	3.83	2.19	1.66	1.34	1.11	0.959	0.757	0.621	0.328
1.70V/cell	20.6	14.5	11.1	9.10	6.71	4.87	3.95	2.24	1.70	1.38	1.13	0.979	0.768	0.633	0.334
1.65V/cell	22.7	15.7	11.8	9.67	7.08	4.99	4.04	2.28	1.78	1.43	1.16	1.00	0.780	0.646	0.339
1.60V/cell	25.1	17.0	12.6	10.3	7.48	5.20	4.08	2.37	1.83	1.47	1.20	1.02	0.788	0.653	0.341

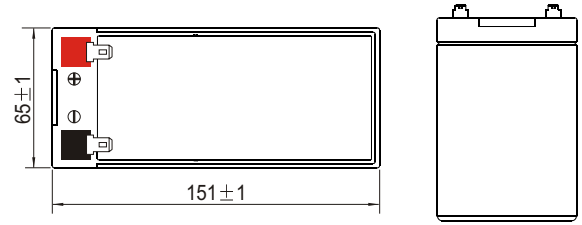
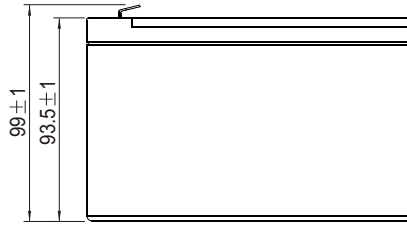
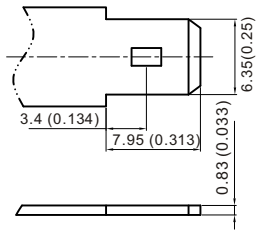
### Constant Power Discharge (Watts) at 25 °C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	22.6	17.6	14.7	12.8	10.0	7.45	6.31	3.75	2.95	2.40	1.97	1.71	1.39	1.16	0.637
1.80V/cell	30.1	22.2	17.5	14.9	11.7	8.60	7.02	4.07	3.15	2.55	2.10	1.83	1.47	1.19	0.643
1.75V/cell	33.2	24.0	18.9	15.9	12.0	8.84	7.32	4.20	3.20	2.60	2.15	1.87	1.49	1.23	0.648
1.70V/cell	35.5	25.5	19.9	16.6	12.4	9.16	7.52	4.30	3.28	2.67	2.20	1.91	1.51	1.25	0.660
1.65V/cell	38.6	27.3	21.0	17.5	13.0	9.31	7.64	4.34	3.41	2.75	2.25	1.94	1.53	1.27	0.668
1.60V/cell	41.6	29.0	22.1	18.5	13.6	9.65	7.67	4.50	3.50	2.82	2.32	1.98	1.54	1.28	0.671

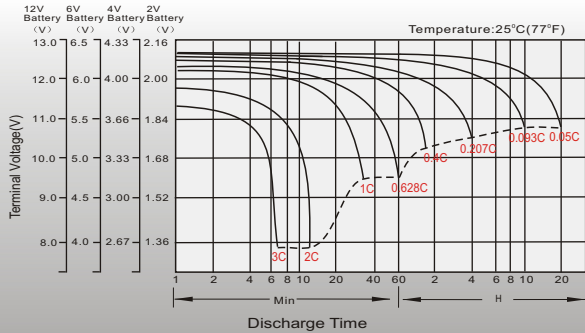
# Dimensions

## T2 Terminal

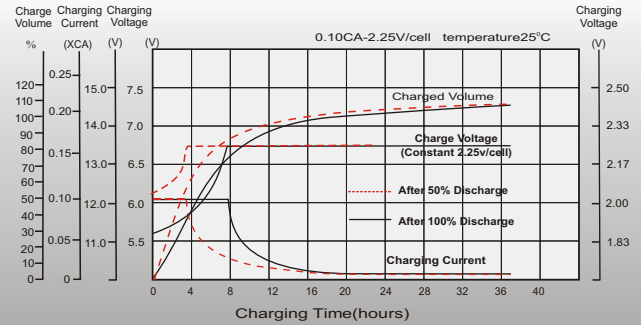
Unit: mm [inches]



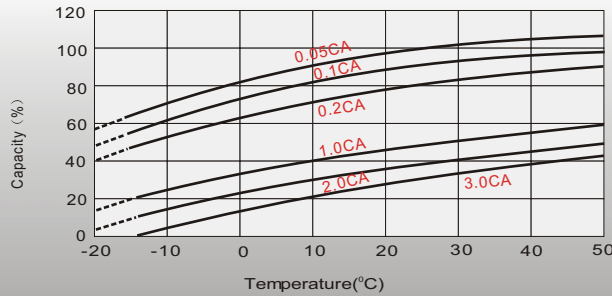
## Discharge Characteristics



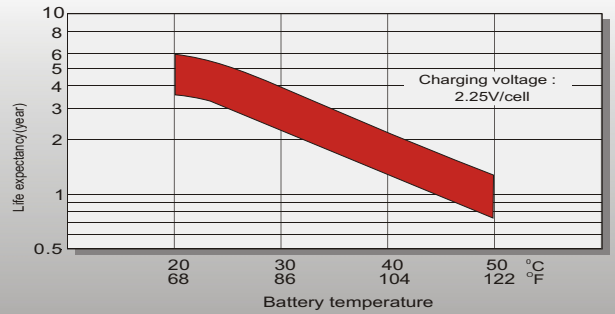
## Float Charging Characteristics



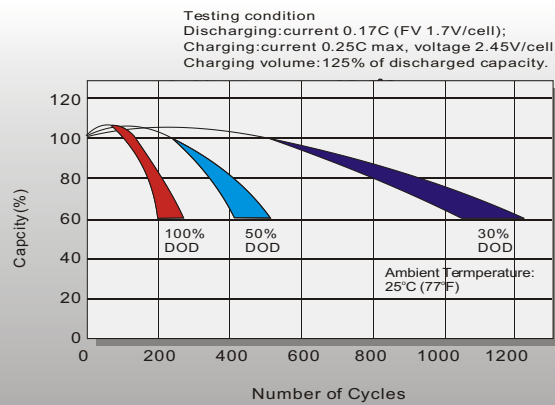
## Temperature Effects in Relation to Battery Capacity



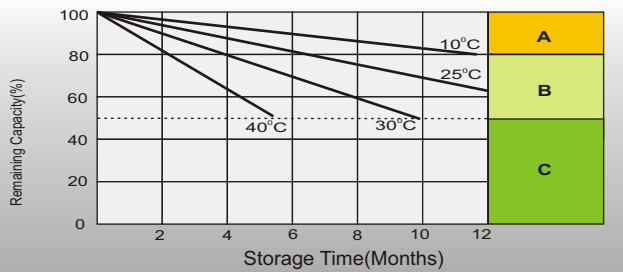
## Effect of Temperature on Long Term Float Life



## 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 volatge 2.25V/cell.  
2. Charged for above 20hours at limited current 0.25CA and constant volatge 2.45V/cell.  
3. Charged for 8-10hours 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.

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