

# LP SERIES-General Purpose

## LP6-2.0 (6V2.0AH)



### Specification

Nominal Voltage	6V	
Nominal Capacity(20HR)	2.0AH	
Dimensions	Length	43 ± 1mm (1.69 inches)
	Width	37 ± 1mm (1.46 inches)
	Container Height	76 ± 1mm (2.99 inches)
	Total Height (with Terminal)	76 ± 1mm (2.99 inches)
	Approx Weight	Approx 0.34 kg (0.75lbs)
Terminal	\	
Container Material	ABS	
Rated Capacity	2.00 AH/0.100A	(20hr, 1.80V/cell, 25°C/77°F)
	1.86 AH/0.186A	(10hr, 1.80V/cell, 25°C/77°F)
	1.68 AH/0.336A	(5hr, 1.75V/cell, 25°C/77°F)
	1.47 AH/0.489A	(3hr, 1.75V/cell, 25°C/77°F)
	1.21 AH/1.21A	(1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	30A (5s)	
Internal Resistance	Approx 40mΩ	
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 0.6A. Voltage	
	7.2V~7.5V at 25°C(77°F)Temp. Coefficient -15mV/°C	
Standby Use	No limit on Initial Charging Current Voltage	
	6.75V~6.9V at 25°C(77°F)Temp. Coefficient -10mV/°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	3.84	2.68	2.21	1.91	1.536	1.181	0.966	0.590	0.449	0.370	0.314	0.272	0.216	0.180	0.099
1.80V/cell	4.72	3.19	2.56	2.17	1.70	1.288	1.040	0.627	0.473	0.389	0.327	0.284	0.224	0.186	0.100
1.75V/cell	5.59	3.61	2.82	2.36	1.82	1.368	1.094	0.654	0.489	0.401	0.336	0.291	0.230	0.190	0.101
1.70V/cell	6.35	3.98	3.06	2.53	1.91	1.421	1.140	0.681	0.505	0.411	0.344	0.298	0.234	0.193	0.103
1.65V/cell	7.00	4.28	3.23	2.66	1.99	1.477	1.188	0.701	0.518	0.419	0.352	0.303	0.237	0.195	0.104
1.60V/cell	7.34	4.46	3.37	2.74	2.04	1.509	1.214	0.723	0.531	0.430	0.359	0.309	0.242	0.199	0.105

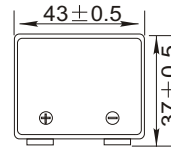
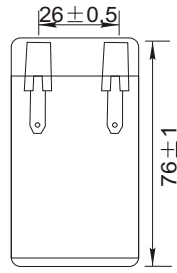
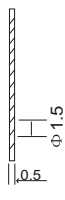
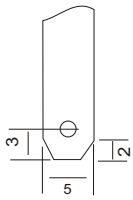
### Constant Power Discharge (Watts/cell) at 25 °C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	7.24	5.10	4.25	3.71	3.00	2.32	1.90	1.168	0.893	0.737	0.628	0.545	0.434	0.362	0.200
1.80V/cell	8.80	6.02	4.88	4.16	3.29	2.51	2.04	1.235	0.934	0.770	0.650	0.565	0.448	0.373	0.201
1.75V/cell	10.30	6.74	5.33	4.50	3.49	2.65	2.13	1.281	0.961	0.789	0.664	0.576	0.457	0.377	0.202
1.70V/cell	11.56	7.36	5.72	4.79	3.65	2.74	2.21	1.326	0.987	0.805	0.677	0.586	0.461	0.382	0.204
1.65V/cell	12.57	7.81	5.98	4.98	3.77	2.83	2.29	1.356	1.007	0.817	0.689	0.595	0.466	0.385	0.206
1.60V/cell	12.99	8.04	6.16	5.08	3.83	2.86	2.32	1.389	1.024	0.832	0.698	0.604	0.474	0.389	0.206

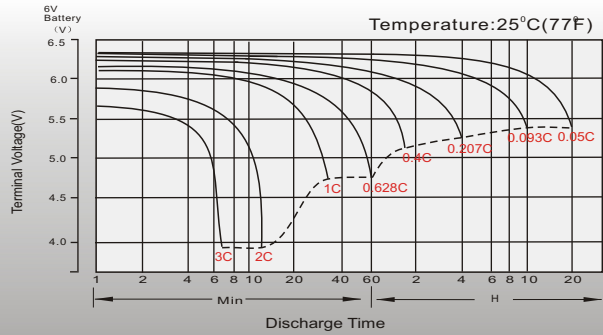
# Dimensions

## Terminal

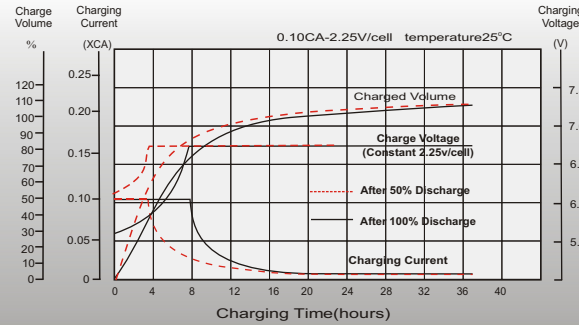
Unit: mm [inches]



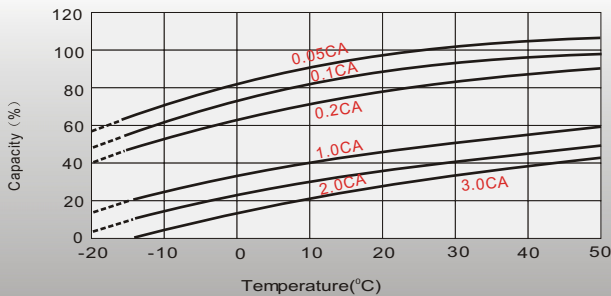
## Discharge Characteristics



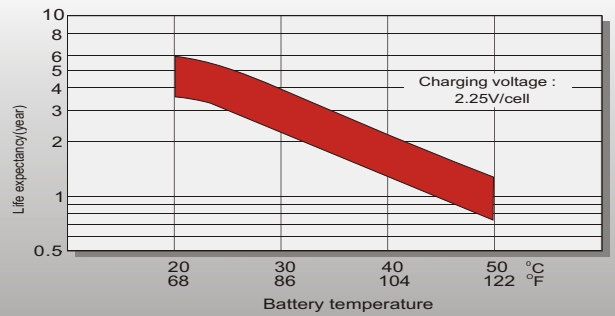
## Float Charging Characteristics



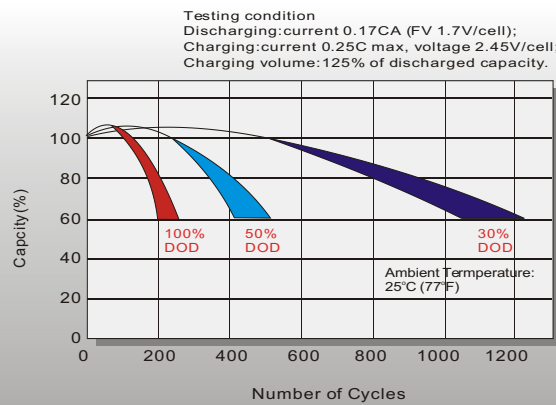
## Temperature Effects in Relation to Battery Capacity



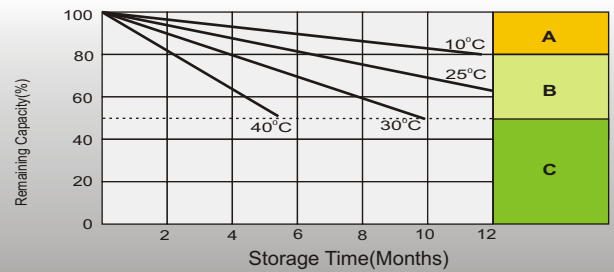
## Effect of Temperature on Long Term Float Life



## 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 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.

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