

# LP SERIES-General Purpose

## LP12-55 (12V55AH)

### Specification

Nominal Voltage	12V	
Nominal Capacity(10HR)	55.0AH	
Dimensions	Length	229±3mm (9.02 inches)
	Width	138±2mm (5.43 inches)
	Container Height	205±3mm (8.07 inches)
	Total Height (with Terminal)	211±3mm (8.31 inches)
Approx Weight	Approx 16.2 kg (35.7lbs)	
Terminal	T6	
Container Material	ABS	
Rated Capacity	57.2 AH/2.86A	(20hr, 1.80V/cell, 25°C/77°F)
	55.0 AH/5.50A	(10hr, 1.80V/cell, 25°C/77°F)
	47.3 AH/9.46A	(5hr, 1.75V/cell, 25°C/77°F)
	42.9 AH/14.3A	(3hr, 1.75V/cell, 25°C/77°F)
	33.6 AH/33.6A	(1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	660A (5s)	
Internal Resistance	Approx 7.5mΩ	
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 16.5A. 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	94.1	74.0	62.9	52.6	41.8	31.7	25.9	16.5	13.1	10.7	8.60	7.49	6.08	5.19	2.83
1.80V/cell	126.4	94.6	76.0	62.2	49.4	36.8	29.0	18.0	14.1	11.4	9.23	8.03	6.45	5.50	2.86
1.75V/cell	142.5	103.9	83.1	66.9	51.3	38.2	30.4	18.7	14.3	11.6	9.46	8.25	6.56	5.56	2.89
1.70V/cell	156.9	113.3	88.7	70.4	53.3	39.7	31.3	19.4	14.7	11.9	9.71	8.42	6.65	5.61	2.94
1.65V/cell	173.0	122.2	94.3	74.7	56.3	40.7	32.4	20.0	15.3	12.4	9.98	8.61	6.75	5.73	2.98
1.60V/cell	190.8	132.7	100.8	79.6	59.4	42.5	33.6	20.7	15.8	12.7	10.3	8.79	6.82	5.79	3.00

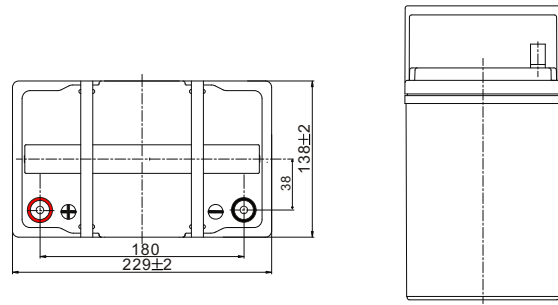
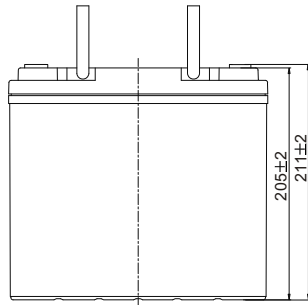
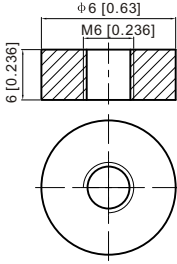
### Constant Power Discharge (Watts/cell) at 25 °C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	172.1	136.7	117.4	99.2	79.7	60.9	50.0	32.1	25.5	20.9	16.9	14.7	12.0	10.3	5.61
1.80V/cell	228.6	172.6	140.0	115.6	92.7	70.2	55.7	34.8	27.2	22.2	18.0	15.7	12.7	10.9	5.66
1.75V/cell	252.2	186.6	151.0	123.1	95.4	72.2	58.0	35.9	27.6	22.6	18.4	16.1	12.9	11.0	5.70
1.70V/cell	270.0	198.8	159.0	128.4	98.7	74.8	59.7	37.3	28.4	23.1	18.9	16.4	13.0	11.1	5.81
1.65V/cell	293.6	212.6	167.8	135.4	103.3	76.0	61.2	38.1	29.4	23.8	19.3	16.7	13.2	11.3	5.88
1.60V/cell	316.3	225.5	176.5	142.7	108.3	78.8	63.1	39.2	30.2	24.5	19.9	17.0	13.3	11.4	5.90

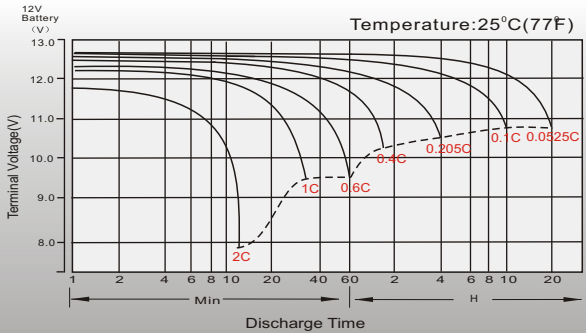
## Dimensions

### T6 Terminal

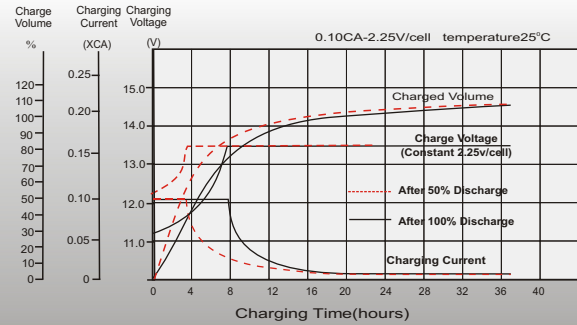
Unit: mm [inches]



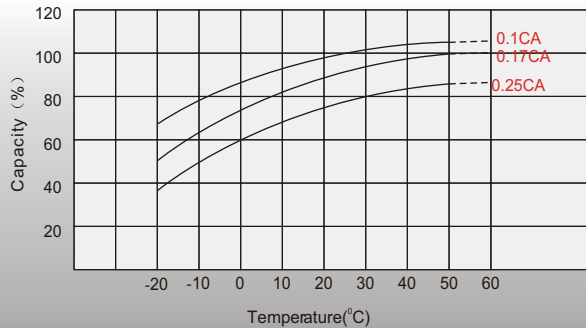
## Discharge Characteristics



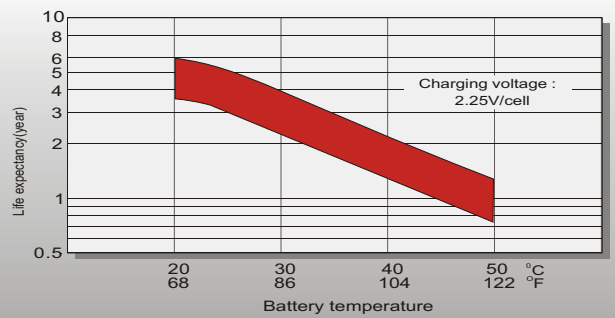
## Float Charging Characteristics



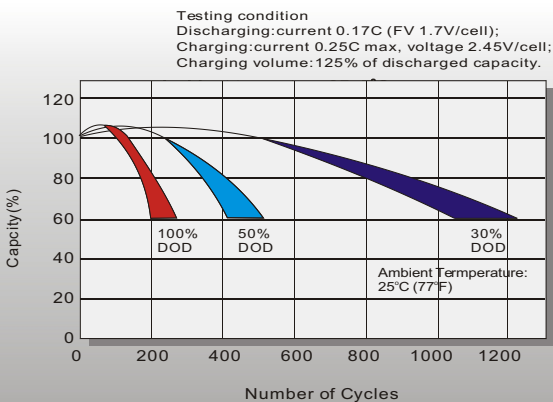
## Temperature Effects in Relation to Battery Capacity



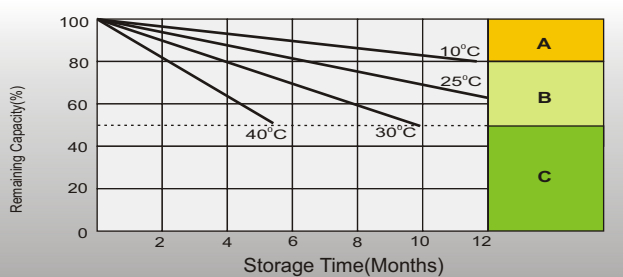
## Effect of Temperature on Long Term Float Life



## 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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