

# LP SERIES-General Purpose

## LP12-180 (12V180AH)

### Specification

Nominal Voltage	12V	
Nominal Capacity(10HR)	180.0AH	
Dimensions	Length	532±3mm (20.9 inches)
	Width	207±3mm (8.15 inches)
	Container Height	214±3mm (8.42 inches)
	Total Height (with Terminal)	220±3mm (8.66 inches)
Approx Weight	Approx 53.6 kg (118.2lbs)	
Terminal	T11	
Container Material	ABS	
Rated Capacity	187.2 AH/9.36A	(20hr, 1.80V/cell, 25°C/77°F)
	180.0 AH/18.0A	(10hr, 1.80V/cell, 25°C/77°F)
	155 AH/31.0A	(5hr, 1.75V/cell, 25°C/77°F)
	140.4 AH/46.8A	(3hr, 1.75V/cell, 25°C/77°F)
	109.8 AH/109.8A	(1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	1800A (5s)	
Internal Resistance	Approx 3.0mΩ	
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 54.0A. 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	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	242.2	206.0	172.3	136.9	103.6	84.9	54.1	42.7	34.9	28.1	24.5	19.9	17.0	9.27
1.80V/cell	309.5	248.9	203.7	161.6	120.5	95.1	59.0	46.0	37.3	30.2	26.3	21.1	18.0	9.36
1.75V/cell	340.1	271.8	219.1	167.7	125.1	99.5	61.2	46.8	38.1	31.0	27.0	21.5	18.2	9.45
1.70V/cell	370.6	290.2	230.2	174.6	130.1	102.6	63.6	48.2	39.1	31.8	27.6	21.8	18.4	9.63
1.65V/cell	400.0	308.6	244.6	184.2	133.3	106.0	65.4	50.2	40.5	32.7	28.2	22.1	18.7	9.76
1.60V/cell	434.3	330.0	260.6	194.4	139.0	109.8	67.6	51.7	41.7	33.8	28.8	22.3	18.9	9.81

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

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	447.4	384.3	324.7	261.0	199.2	163.7	105.0	83.3	68.2	55.2	48.2	39.3	33.6	18.4
1.80V/cell	564.9	458.1	378.2	303.2	229.9	182.4	113.8	89.1	72.5	59.0	51.5	41.5	35.6	18.5
1.75V/cell	610.8	494.3	403.0	312.2	236.3	189.9	117.6	90.4	73.8	60.3	52.7	42.1	35.9	18.7
1.70V/cell	650.7	520.4	420.3	323.2	244.8	195.3	122.0	92.8	75.7	61.7	53.7	42.7	36.2	19.0
1.65V/cell	695.8	549.0	443.2	338.1	248.7	200.4	124.7	96.3	78.0	63.2	54.7	43.3	36.9	19.2
1.60V/cell	738.1	577.5	467.0	354.5	257.8	206.4	128.2	98.8	80.2	65.1	55.8	43.6	37.2	19.3

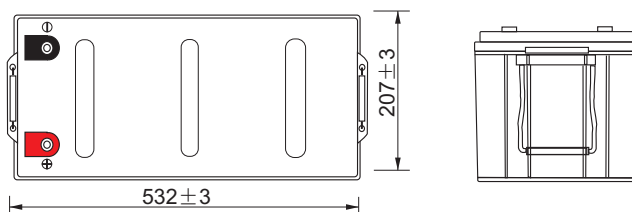
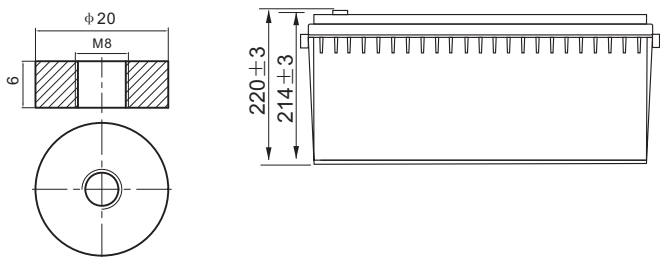
Specifications subject to change without notice.



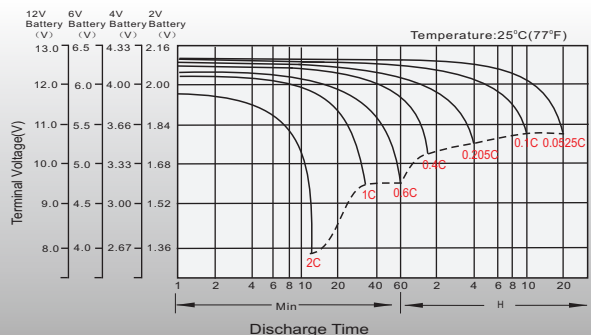
# Dimensions

## T11 Terminal

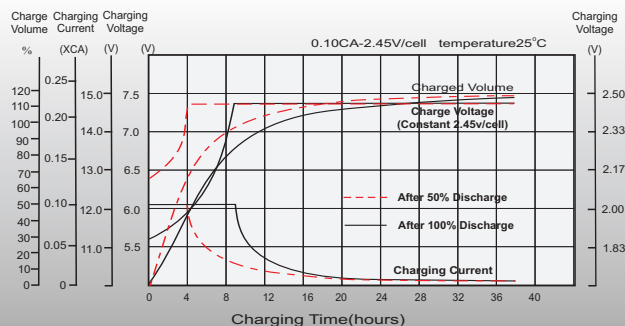
Unit: mm



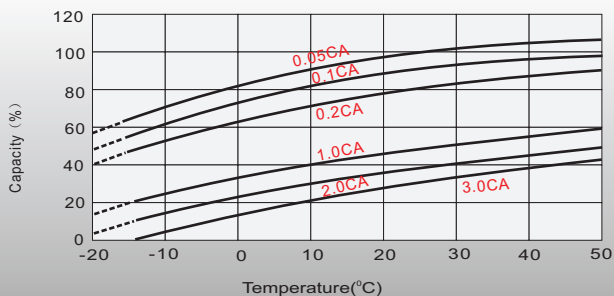
## Discharge Characteristics



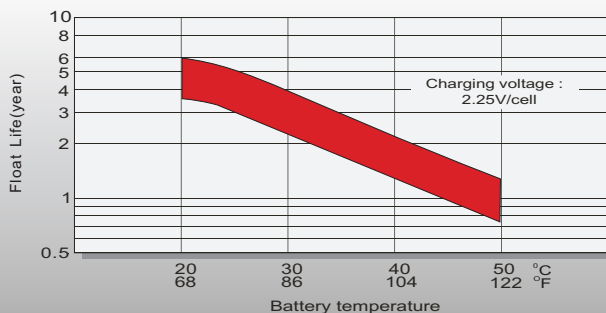
## Charging Characteristics (cycle use)



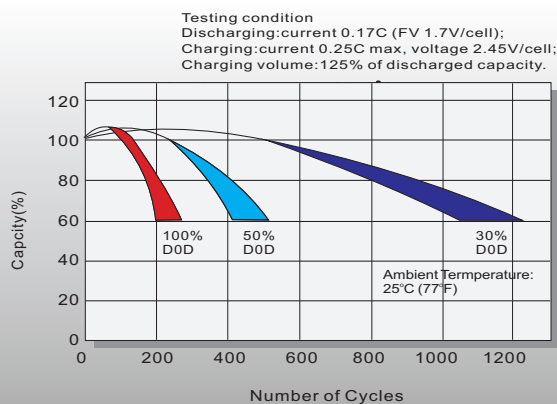
## Temperature Effects in Relation to Batter Capacity



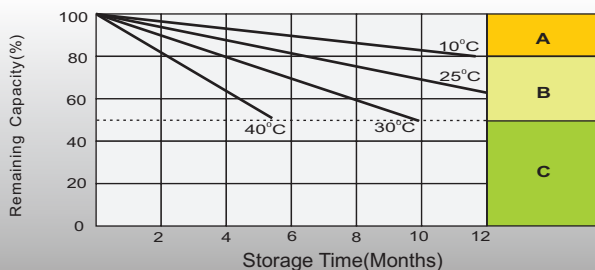
## Effect of Temperature on Long Term Float Life



## 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.

## 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