

### Specification

Nominal Voltage	12V	
Nominal Capacity(20HR)	18.0AH	
Dimension	Length	181.5±1mm (7.14 inches)
	Width	77±1mm (3.03 inches)
	Container Height	167.5±1mm (6.59 inches)
	Total Height (with Terminal)	167.5±1mm (6.59 inches)
Approx Weight	Approx 5.32kg (11.73lbs)	
Terminal	T3	
Container Material	ABS	
Rated Capacity	18.0 AH/0.90A	(20hr , 1.80V/cell,25°C/77°F)
	16.9 AH/1.69A	(10hr, 1.80V/cell,25°C/77°F)
	15.8 AH/3.16A	(5hr, 1.75V/cell,25°C/77°F)
	14.4 AH/4.79A	(3hr, 1.75V/cell,25°C/77°F)
	12.7 AH/12.7A	(1hr, 1.60V/cell,25°C/77°F)
Max. Discharge Current	270A (5s)	
Internal Resistance	Approx 16mΩ	
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 5.4A. 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	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.85V/cell	45.3	34.7	28.6	18.8	11.2	6.30	4.52	3.60	2.99	2.00	1.64	0.888
1.80V/cell	52.3	37.9	30.8	19.5	11.6	6.52	4.66	3.72	3.09	2.06	1.69	0.900
1.75V/cell	58.9	41.1	32.5	20.1	11.8	6.68	4.79	3.81	3.16	2.10	1.72	0.913
1.70V/cell	65.6	43.4	34.7	20.6	12.1	6.84	4.91	3.90	3.22	2.14	1.75	0.925
1.65V/cell	69.7	45.5	35.4	21.0	12.4	7.01	5.02	3.96	3.28	2.18	1.78	0.938
1.60V/cell	73.0	47.2	36.3	21.5	12.7	7.14	5.12	4.04	3.34	2.21	1.81	0.943

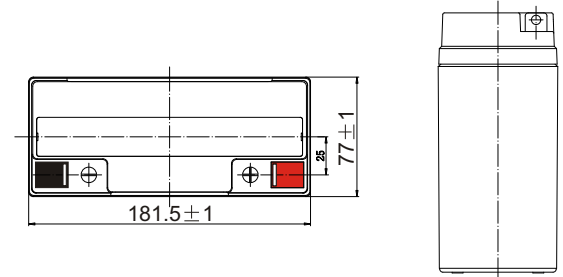
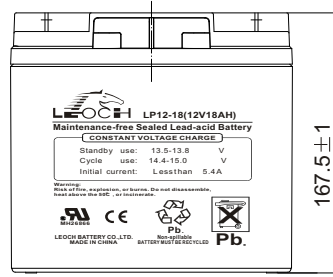
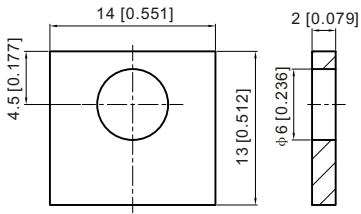
### Constant Power Discharge (Watts) at 25 °C (77°F)

F.V/Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.85V/cell	86.1	66.9	55.8	36.9	22.2	12.6	9.04	7.23	5.99	4.01	3.30	1.79
1.80V/cell	97.6	71.8	59.2	38.0	22.8	12.9	9.30	7.44	6.19	4.13	3.38	1.81
1.75V/cell	108.1	76.8	61.9	38.9	23.2	13.2	9.52	7.60	6.32	4.20	3.44	1.83
1.70V/cell	118.5	80.1	65.3	39.4	23.5	13.4	9.70	7.74	6.42	4.28	3.51	1.86
1.65V/cell	124.6	83.4	66.2	40.0	24.0	13.7	9.88	7.84	6.52	4.34	3.55	1.88
1.60V/cell	127.9	85.1	67.2	40.4	24.2	13.8	9.99	7.93	6.59	4.39	3.59	1.92

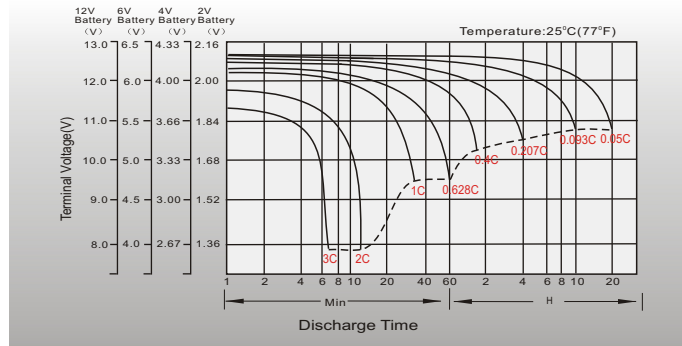
# Dimensions

## T3 Terminal

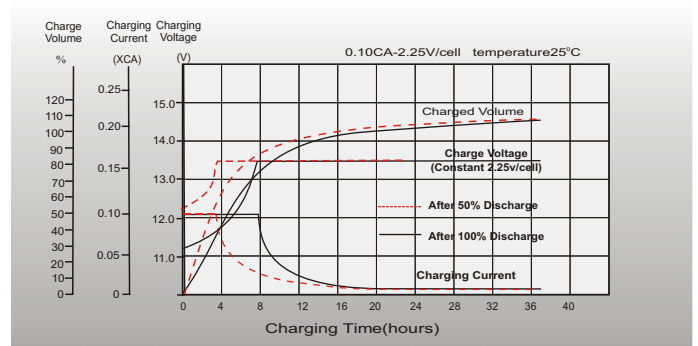
Unit: mm [inches]



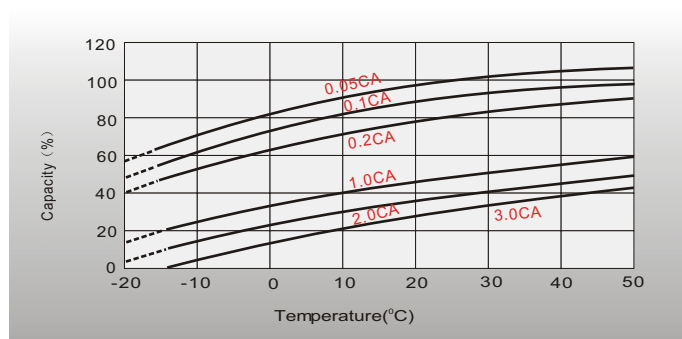
## Discharge Characteristics



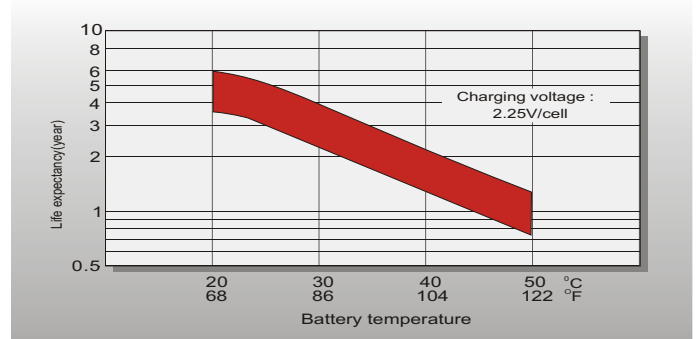
## Float Charging Characteristics



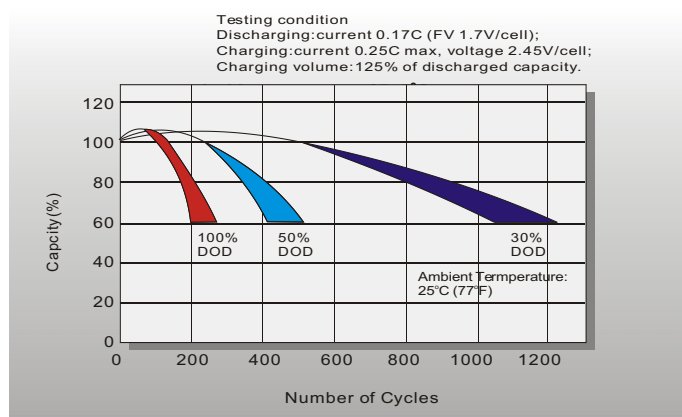
## Temperature Effects in Relation to Battery Capacity



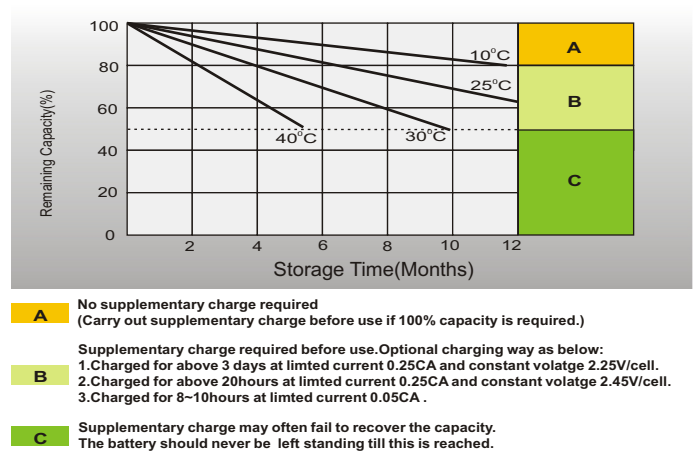
## Effect of Temperature on Long Term Float Life



## 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.

## 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

### 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.us

### Europe sales office:

Add: 12C Wheatstone Park, Waterwells  
Business Park, Gloucester, GL2 2AQ. UK.  
Tel: +44(0) 1452 751016  
Fax: +44 (0)1452-690125  
E-mail: Sales.Europe@leoch.com