

# LPC SERIES -Deep Cycle

## LPC12-90 (12V90AH)

### Specification

Nominal Voltage	12V	
Nominal Capacity(10HR)	90.0AH	
Dimension	Length	306±2mm (12.04 inches)
	Width	168±2mm (6.61 inches)
	Container Height	208±2mm (8.19 inches)
	Total Height (with Terminal)	214±2mm (8.43 inches)
	Approx Weight	Approx 26.8 Kg (59.1 lbs)
Terminal	T6	
Container Material	ABS	
Rated Capacity	96.4 AH/4.82A	(20hr, 1.80V/cell, 25°C/77°F)
	90.0 AH/9.0A	(10hr, 1.80V/cell, 25°C/77°F)
	79.0 AH/15.8A	(5hr, 1.75V/cell, 25°C/77°F)
	71.7 AH/23.9A	(3hr, 1.75V/cell, 25°C/77°F)
	58.1 AH/58.1A	(1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	1080A (5s)	
Internal Resistance	Approx 5.0mΩ	
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 27.0A. 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 LPC 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

- ◆ Electric tools
- ◆ Vehicle in place of walking
- ◆ Lawn mowers
- ◆ Golf trolleys and golf cart
- ◆ Portable apparatus, lights and instruments;
- ◆ Electric toys
- ◆ Illumination light
- ◆ Fire alarms
- ◆ Portable power
- ◆ Wheelchairs
- ◆ Medical equipments.



### 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	131.8	110.9	96.9	69.7	55.4	44.9	27.9	21.8	17.6	14.3	12.5	10.2	8.50	4.78
1.80V/cell	168.4	134.0	114.5	82.3	64.4	50.3	30.5	23.4	18.8	15.4	13.4	10.8	9.00	4.82
1.75V/cell	185.0	146.3	123.2	85.4	66.8	52.7	31.6	23.9	19.2	15.8	13.8	11.0	9.09	4.87
1.70V/cell	201.6	156.2	129.5	88.9	69.5	54.3	32.9	24.5	19.8	16.2	14.1	11.2	9.18	4.96
1.65V/cell	217.6	166.1	137.5	93.8	71.2	56.2	33.8	25.6	20.4	16.6	14.4	11.3	9.37	5.02
1.60V/cell	236.3	177.7	146.5	99.0	74.3	58.1	34.9	26.3	21.1	17.2	14.7	11.4	9.47	5.05

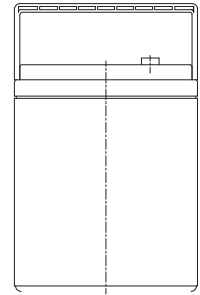
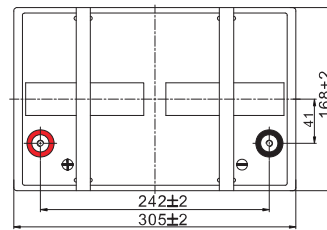
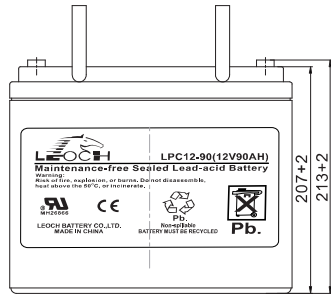
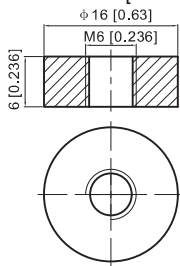
### Constant Power Discharge (Watts) at 25 °C (77°F)

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	245.9	209.0	184.6	134.0	107.1	87.2	54.4	42.5	34.5	28.1	24.7	20.2	16.8	9.56
1.80V/cell	309.9	248.8	214.9	156.2	123.6	97.1	59.0	45.5	36.7	30.1	26.4	21.4	17.8	9.64
1.75V/cell	336.4	269.2	229.3	161.3	127.6	101.2	61.0	46.2	37.4	30.9	27.1	21.7	18.0	9.72
1.70V/cell	361.5	285.3	239.6	167.3	132.3	104.2	63.3	47.4	38.3	31.6	27.6	22.0	18.1	9.89
1.65V/cell	387.4	301.3	253.4	175.7	135.1	107.3	64.9	49.3	39.6	32.4	28.2	22.3	18.5	10.0
1.60V/cell	413.4	318.4	267.1	183.6	139.6	110.2	66.7	50.6	40.6	33.3	28.7	22.5	18.7	10.0

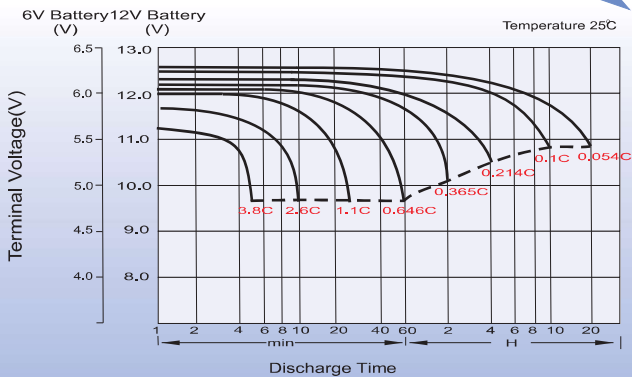
## Dimensions

### T6 Terminal

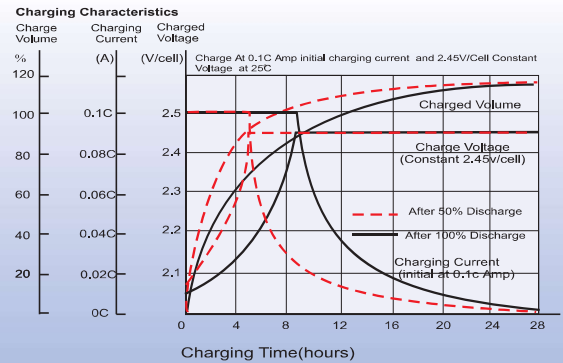
Unit: mm [inches]



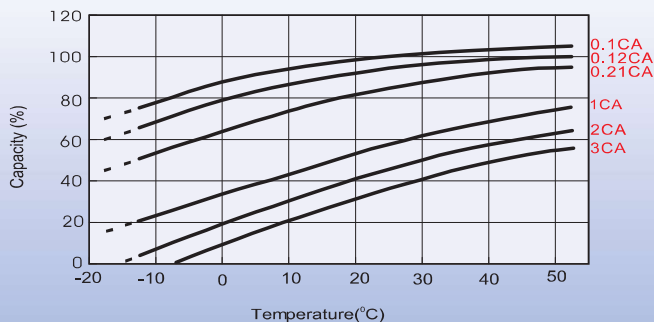
## Discharge Characteristics



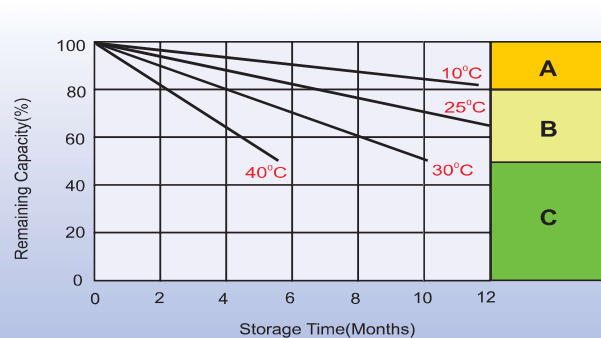
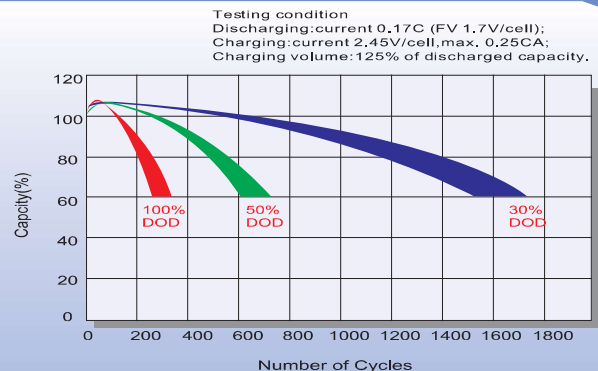
## Charging Characteristics (cycle use)



## Temperature Effects in Relation to Batter Capacity



## 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.

## Sales Office

### China sales office:

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