# LPC SERIES -Deep Cycle

## LPC12-50 (12V50AH)

## Specification

| | |
|---|---|
| Nomial Voltage | 12V |
| Nomial Capacity(10HR) | 50.0AH |
| Dimension | Length 257±3mm (10.11 inches)<br>Width 132±2mm (5.19 inches)<br>Container Height 200±2mm (7.87 inches)<br>Total Height (with Terminal) 200±2mm (7.87 inches) |
| Approx Weight | Approx 18.1 Kg (39.9 lbs) |
| Terminal | T6 |
| Container Material | ABS |
| Rated Capacity | 53.6 AH/2.68A (20hr ,1.80V/cell,25°C/77°F)<br>50.0 AH/5.50A (10hr,1.80V/cell,25°C/77°F)<br>43.9 AH/8.77A (5hr,1.75V/cell,25°C/77°F)<br>39.8 AH/13.3A (3hr,1.75V/cell,25°C/77°F)<br>32.3 AH/32.3A (1hr,1.60V/cell,25°C/77°F) |
| Max. Discharge Current | 600A (5s) |
| Internal Resistance | Approx 8.0mΩ |
| Operating Temp.Range | Discharge : -15～50°C (5～122°F)<br>Charge : 0～40°C (32～104°F )<br>Storage : -15～40°C (5～104°F) |
| Nominal Operating Temp. Range | 25±3°C (77±5°F ) |
| Cycle Use | Initial Charging Current less than 15.0A.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%<br>25°C ( 77°F ) 100%<br>0°C ( 32°F ) 86% |
| Self Discharge | Leoch LPC series batterys 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 | 73.2 | 61.6 | 53.8 | 38.7 | 30.8 | 25.0 | 15.5 | 12.1 | 9.80 | 7.96 | 6.95 | 5.67 | 4.72 | 2.66 |
| 1.80V/cell | 93.5 | 74.4 | 63.6 | 45.7 | 35.8 | 28.0 | 16.9 | 13.0 | 10.5 | 8.55 | 7.45 | 6.01 | 5.00 | 2.68 |
| 1.75V/cell | 102.8 | 81.3 | 68.4 | 47.4 | 37.1 | 29.3 | 17.6 | 13.3 | 10.7 | 8.77 | 7.65 | 6.11 | 5.05 | 2.71 |
| 1.70V/cell | 112.0 | 86.8 | 71.9 | 49.4 | 38.6 | 30.2 | 18.3 | 13.6 | 11.0 | 8.99 | 7.81 | 6.20 | 5.10 | 2.76 |
| 1.65V/cell | 120.9 | 92.3 | 76.4 | 52.1 | 39.6 | 31.2 | 18.8 | 14.2 | 11.4 | 9.2 | 7.98 | 6.30 | 5.21 | 2.79 |
| 1.60V/cell | 131.3 | 98.7 | 81.4 | 55.0 | 41.3 | 32.3 | 19.4 | 14.6 | 11.7 | 9.5 | 8.16 | 6.36 | 5.26 | 2.81 |

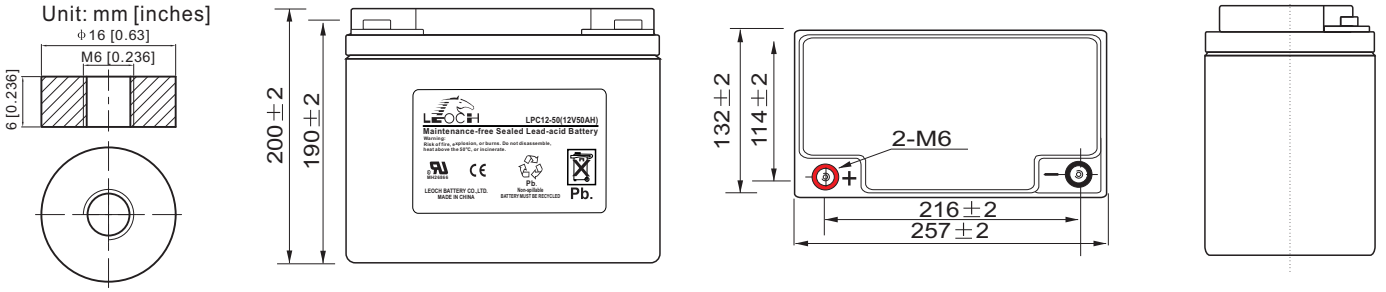
## Constant Power Discharge (Watts) at 25 °C (77°F )

| F.V/Time | 10min | 15min | 20min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.85V/cell | 136.6 | 116.1 | 102.6 | 74.4 | 59.5 | 48.5 | 30.2 | 23.6 | 19.2 | 15.6 | 13.7 | 11.2 | 9.3 | 5.31 |
| 1.80V/cell | 172.2 | 138.2 | 119.4 | 86.8 | 68.6 | 54.0 | 32.8 | 25.3 | 20.4 | 16.7 | 14.7 | 11.9 | 9.9 | 5.35 |
| 1.75V/cell | 186.9 | 149.5 | 127.4 | 89.6 | 70.9 | 56.2 | 33.9 | 25.7 | 20.8 | 17.1 | 15.0 | 12.1 | 10.0 | 5.40 |
| 1.70V/cell | 200.8 | 158.5 | 133.1 | 92.9 | 73.5 | 57.9 | 35.2 | 26.3 | 21.3 | 17.5 | 15.3 | 12.2 | 10.1 | 5.49 |
| 1.65V/cell | 215.2 | 167.4 | 140.8 | 97.6 | 75.1 | 59.6 | 36.0 | 27.4 | 22.0 | 18.0 | 15.6 | 12.4 | 10.3 | 5.56 |
| 1.60V/cell | 229.7 | 176.9 | 148.4 | 102.0 | 77.5 | 61.2 | 37.0 | 28.1 | 22.6 | 18.5 | 15.9 | 12.5 | 10.4 | 5.58 |

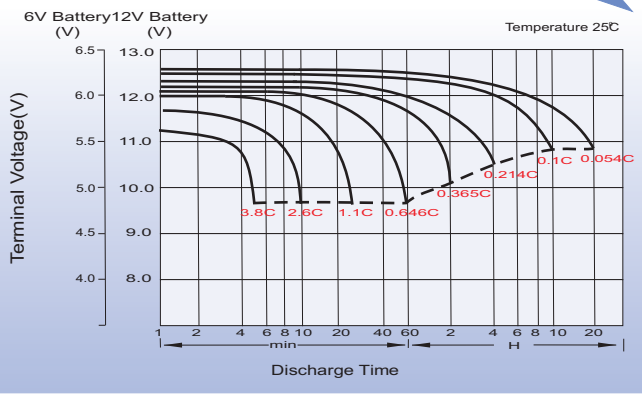
## Dimensions

### T6 Terminal

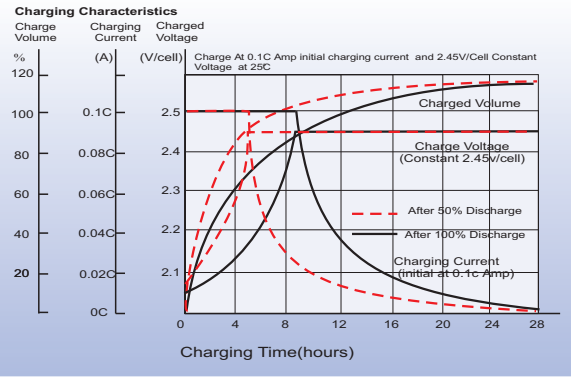
Unit: mm [inches]



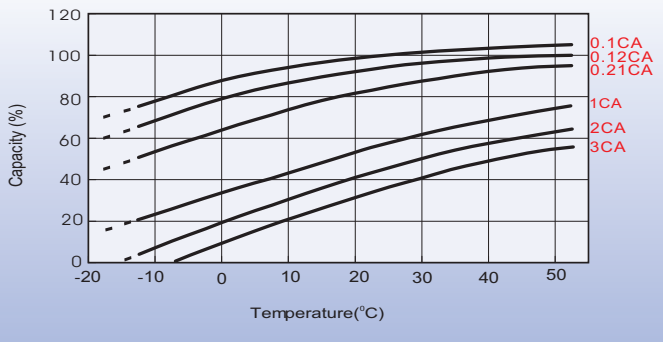

## Discharge Characteristics




## Charging Characteristics (cycle use)

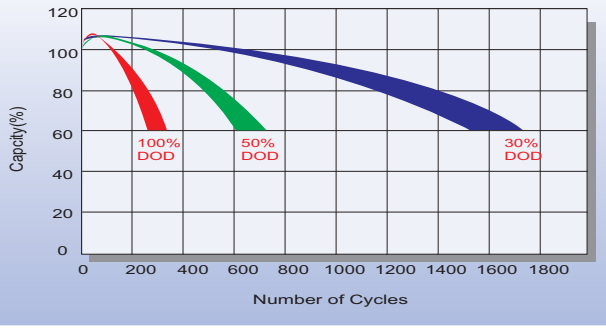


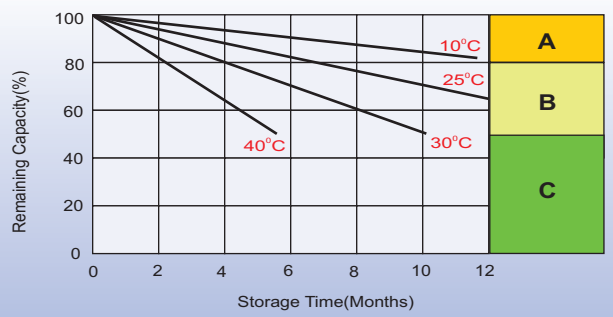

## Temperature Effects in Relation to Battery Capacity




## Cycle Life in Relation to Depth of Discharge

Testing condition
Discharging:current 0.17C (FV 1.7V/cell);
Charging:current 2.45V/cell,max. 0.25CA;
Charging volume:125% of discharged capacity.




## 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 limted current 0.25CA and constant volatge 2.25V/cell.
2.Charged for above 20hours at limted current 0.25CA and constant volatge 2.45V/cell.
3.Charged for 8~10hours at limted 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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