

# LPS SERIES-Solar Power

## LPS12-60FT (12V63.3AH)

### Specification

|                                  |  |                                |
|----------------------------------|--|--------------------------------|
| Nominal Voltage                  | 12V  |                                |
| Nominal Capacity(100HR)          | 63.3AH   |                                |
| Dimension                        | Length   | 277±2mm (10.91 inches)         |
|                                  | Width  | 106±2mm (4.17 inches)          |
|                                  | Container Height   | 222±2mm (8.74 inches)          |
|                                  | Total Height (with Terminal)   | 222±2mm (8.74 inches)          |
|                                  | Approx Weight  | Approx 17.3 Kg (38.2 lbs)      |
| Terminal                         | T6   |                                |
| Container Material               | ABS  |                                |
| Rated Capacity                   | 63.3AH/0.633A  | (100hr, 1.80V/cell, 25°C/77°F) |
|                                  | 57.8 AH/2.89A  | (20hr, 1.80V/cell, 25°C/77°F)  |
|                                  | 55.0 AH/5.50A  | (10hr, 1.80V/cell, 25°C/77°F)  |
|                                  | 48.0 AH/9.60A  | (5hr, 1.75V/cell, 25°C/77°F)   |
|                                  | 33.4 AH/33.4A  | (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<br>No limit on Initial Charging Current Voltage<br>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 LPS 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

- ◆ Green energy systems (solar, wind, hydro, etc)
- ◆ Solar power stations
- ◆ Telecommunications installations
- ◆ Measurement stations
- ◆ Pump systems
- ◆ Signal station
- ◆ Survey and Mapping system
- ◆ Emergency lighting
- ◆ Railway crossing
- ◆ Traffic lights
- ◆ Street lightening
- ◆ Lawn lamp
- ◆ Street signs
- ◆ SOS pillars
- ◆ Alarm installations
- ◆ Weekend cottage camping
- ◆ Caravans
- ◆ Boats or buoys



### Constant Current Discharge (Amperes) at 25 °C (77°F)

| F.V/Time   | 15min | 20min | 30min | 45min | 1h   | 2h   | 3h   | 4h   | 5h   | 8h   | 10h  | 20h  | 48h  | 100h  |
|------------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|-------|
| 1.85V/cell | 62.6  | 52.0  | 40.4  | 32.0  | 25.9 | 16.9 | 12.7 | 10.4 | 8.81 | 6.15 | 5.27 | 2.80 | 1.26 | 0.619 |
| 1.80V/cell | 69.4  | 57.2  | 43.6  | 34.0  | 27.3 | 17.9 | 13.4 | 10.9 | 9.25 | 6.46 | 5.50 | 2.89 | 1.28 | 0.633 |
| 1.75V/cell | 76.9  | 62.6  | 46.9  | 36.3  | 29.4 | 18.8 | 14.2 | 11.4 | 9.60 | 6.65 | 5.62 | 2.95 | 1.30 | 0.639 |
| 1.70V/cell | 84.1  | 68.4  | 51.5  | 37.9  | 31.1 | 19.8 | 14.9 | 11.9 | 9.99 | 6.90 | 5.80 | 3.01 | 1.32 | 0.647 |
| 1.65V/cell | 89.0  | 72.2  | 54.2  | 40.3  | 32.1 | 20.5 | 15.4 | 12.3 | 10.3 | 7.08 | 5.92 | 3.08 | 1.34 | 0.657 |
| 1.60V/cell | 97.6  | 78.4  | 57.6  | 41.7  | 33.4 | 21.3 | 15.9 | 12.7 | 10.7 | 7.27 | 6.06 | 3.15 | 1.36 | 0.663 |

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

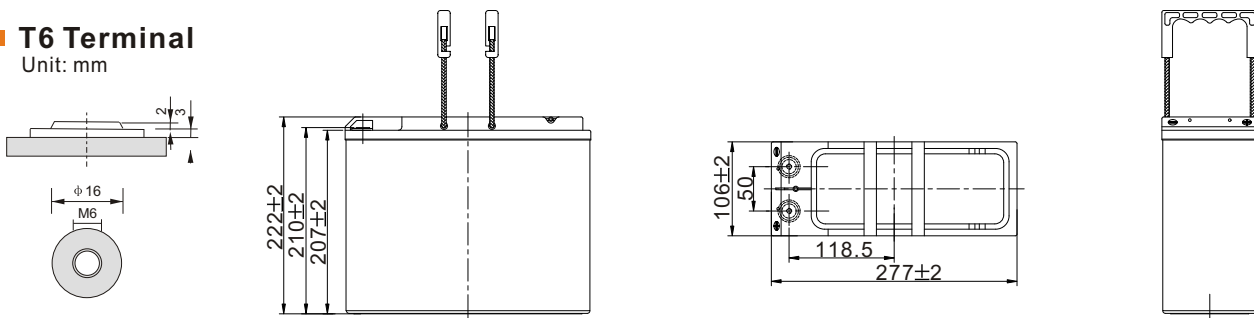
| F.V/Time   | 15min | 20min | 30min | 45min | 1h   | 2h   | 3h   | 4h   | 5h   | 8h   | 10h  | 20h  | 48h  | 100h  |
|------------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|-------|
| 1.85V/cell | 117.4 | 98.5  | 77.3  | 61.8  | 50.3 | 32.9 | 24.9 | 20.5 | 17.4 | 12.2 | 10.5 | 5.57 | 2.52 | 1.241 |
| 1.80V/cell | 128.4 | 106.8 | 82.2  | 64.8  | 52.6 | 34.8 | 26.1 | 21.3 | 18.1 | 12.8 | 10.9 | 5.74 | 2.55 | 1.263 |
| 1.75V/cell | 140.7 | 115.8 | 87.7  | 68.9  | 56.5 | 36.3 | 27.5 | 22.2 | 18.8 | 13.1 | 11.1 | 5.85 | 2.59 | 1.272 |
| 1.70V/cell | 151.6 | 125.6 | 95.8  | 71.7  | 59.5 | 38.1 | 28.8 | 23.1 | 19.5 | 13.6 | 11.5 | 5.96 | 2.62 | 1.287 |
| 1.65V/cell | 159.9 | 132.0 | 100.5 | 75.8  | 61.3 | 39.3 | 29.8 | 23.9 | 20.1 | 13.9 | 11.7 | 6.10 | 2.66 | 1.305 |
| 1.60V/cell | 171.7 | 141.3 | 105.7 | 77.8  | 63.1 | 40.7 | 30.6 | 24.5 | 20.7 | 14.3 | 12.0 | 6.23 | 2.70 | 1.314 |



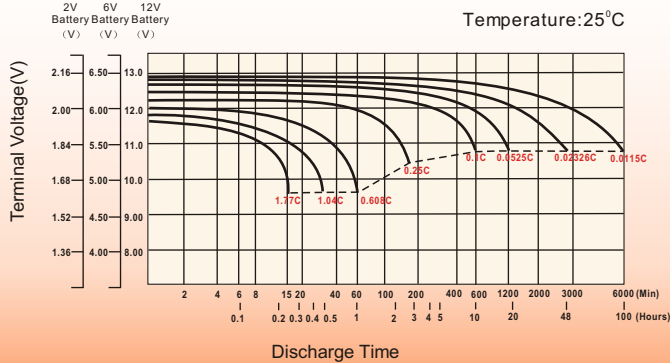
## Dimensions

### T6 Terminal

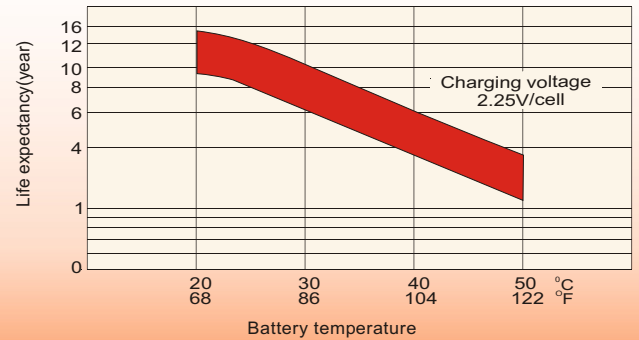
Unit: mm



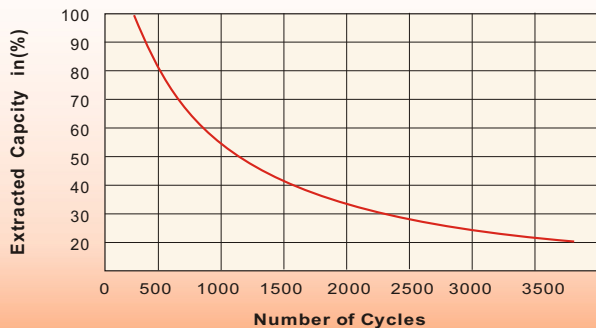
## Discharge Characteristics



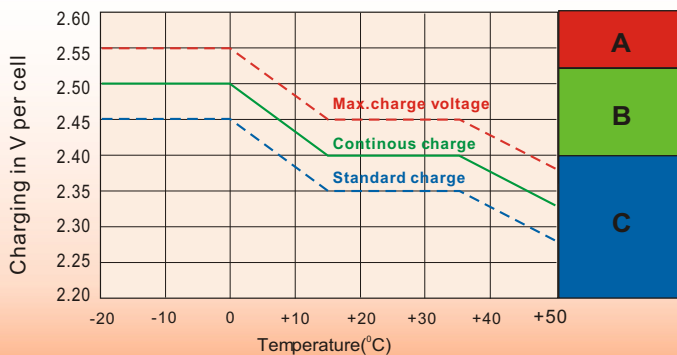
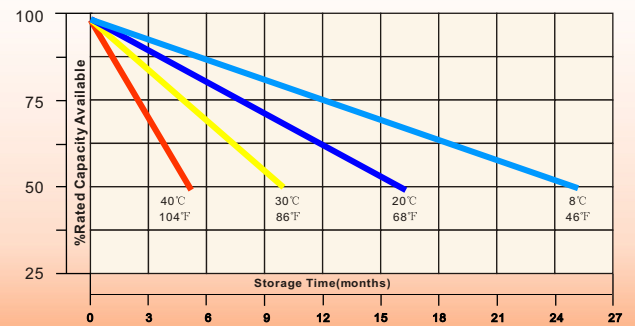
## Effect of Temperature on Long Term Float Life



## Cycle Service Life



## Self-Discharge at Different Temperatures



## Charge Mode

- A** With switch regulator (two-step controller) charge on curve max.charge voltage for max.2 hrs/day then switch over to continuous charge
- B** Standard charge without switching
- C** Boost charge (Equalizing charge with external generator) charge on curve continuous charge for max. 5 hrs/month, then switch over to curve Standard charge

## 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:

Add: 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 68416629  
Fax: +65 68443210  
Email: sales.sg@leoch.com

### North America sales office:

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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