

# LPG SERIES-GEL Battery

## LPG12-100 (12V96AH)

### Specification

|                                  |  |                               |
|----------------------------------|--|-------------------------------|
| Nominal Voltage                  | 12V  |                               |
| Nominal Capacity(20HR)           | 96.0AH   |                               |
| Dimension                        | Length   | 330±3mm (12.99 inches)        |
|                                  | Width  | 173±2mm (6.81 inches)         |
|                                  | Container Height   | 212±3mm (8.35 inches)         |
|                                  | Total Height (with Terminal)   | 218±3mm (8.58 inches)         |
| Approx Weight                    | Approx 31.0 kg (68.4lbs)   |                               |
| Terminal                         | T11  |                               |
| Container Material               | ABS  |                               |
| Rated Capacity                   | 96.0 AH/4.80A  | (20hr, 1.80V/cell, 25°C/77°F) |
|                                  | 90.0 AH/9.00A  | (10hr, 1.75V/cell, 25°C/77°F) |
|                                  | 80.0 AH/16.0A  | (5hr, 1.75V/cell, 25°C/77°F)  |
|                                  | 69.6 AH/23.2A  | (3hr, 1.75V/cell, 25°C/77°F)  |
|                                  | 55.0 AH/55.0A  | (1hr, 1.67V/cell, 25°C/77°F)  |
| Max. Discharge Current           | 1000A (5s)   |                               |
| Internal Resistance              | Approx 5.9mΩ   |                               |
| Operating Temp. Range            | Discharge  | -20~55°C (-4~131°F)           |
|                                  | Charge   | 0~40°C (32~104°F)             |
|                                  | Storage  | -20~50°C (-4~122°F)           |
| Nominal Operating Temp. Range    | 25±3°C (77±5°F)  |                               |
| Cycle Use                        | Initial Charging Current less than 24.0A. 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 LPG series batteries may be stored for up to 9 months at 25°C(77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter. |                               |



### Applications

- ◆ Telecommunications
- ◆ Solar system
- ◆ Wind power system
- ◆ Wheelchair
- ◆ Floor cleaning machines
- ◆ Golf trolley
- ◆ Boats



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

| F.V/Time   | 20min | 30min | 45min | 1h   | 2h   | 3h   | 4h   | 5h   | 6h   | 7h   | 8h   | 9h   | 10h  | 20h  |
|------------|-------|-------|-------|------|------|------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 84.6  | 66.4  | 50.7  | 42.4 | 26.9 | 20.5 | 17.0 | 14.7 | 12.3 | 10.9 | 9.8  | 8.96 | 8.47 | 4.61 |
| 1.80V/cell | 96.9  | 74.2  | 55.9  | 46.8 | 29.1 | 22.0 | 18.0 | 15.4 | 12.9 | 11.4 | 10.3 | 9.42 | 8.85 | 4.80 |
| 1.75V/cell | 108.9 | 81.6  | 60.4  | 50.1 | 30.9 | 23.2 | 18.9 | 16.0 | 13.3 | 11.8 | 10.6 | 9.7  | 9.00 | 4.90 |
| 1.70V/cell | 117.3 | 87.4  | 64.1  | 53.0 | 32.7 | 24.2 | 19.5 | 16.5 | 13.8 | 12.2 | 10.9 | 10.0 | 9.23 | 4.96 |
| 1.67V/cell | 122.1 | 90.8  | 66.4  | 55.0 | 33.6 | 24.9 | 20.0 | 16.8 | 14.0 | 12.3 | 11.1 | 10.1 | 9.34 | 5.01 |
| 1.60V/cell | 132.3 | 97.2  | 71.3  | 58.4 | 34.9 | 25.9 | 20.7 | 17.4 | 14.4 | 12.6 | 11.3 | 10.3 | 9.53 | 5.08 |

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

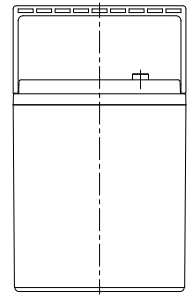
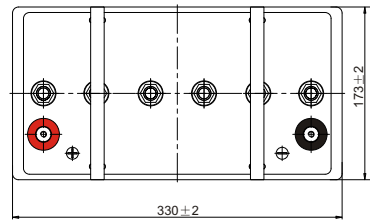
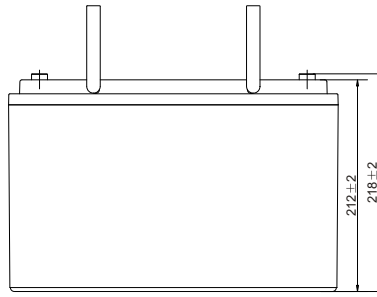
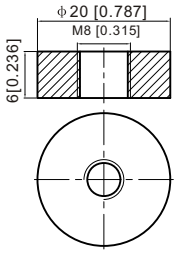
| F.V/Time   | 20min | 30min | 45min | 1h    | 2h   | 3h   | 4h   | 5h   | 6h   | 7h   | 8h   | 9h   | 10h  | 20h  |
|------------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 161.9 | 128.0 | 98.2  | 82.6  | 52.6 | 40.2 | 33.4 | 28.9 | 24.3 | 21.6 | 19.5 | 17.8 | 16.9 | 9.20 |
| 1.80V/cell | 183.0 | 141.6 | 107.5 | 90.7  | 56.6 | 42.9 | 35.3 | 30.3 | 25.4 | 22.5 | 20.4 | 18.7 | 17.6 | 9.57 |
| 1.75V/cell | 203.4 | 154.4 | 115.4 | 96.5  | 59.8 | 45.2 | 36.8 | 31.4 | 26.3 | 23.3 | 21.0 | 19.3 | 17.9 | 9.75 |
| 1.70V/cell | 216.8 | 163.9 | 121.7 | 101.6 | 63.1 | 46.9 | 37.9 | 32.3 | 27.1 | 24.0 | 21.6 | 19.7 | 18.3 | 9.86 |
| 1.67V/cell | 223.1 | 168.5 | 125.1 | 104.8 | 64.4 | 48.2 | 38.7 | 32.8 | 27.5 | 24.3 | 21.9 | 20.0 | 18.5 | 9.95 |
| 1.60V/cell | 239.1 | 178.7 | 133.4 | 110.7 | 66.7 | 49.9 | 40.1 | 33.8 | 28.1 | 24.7 | 22.2 | 20.3 | 18.9 | 10.1 |

Specifications subject to change without notice.

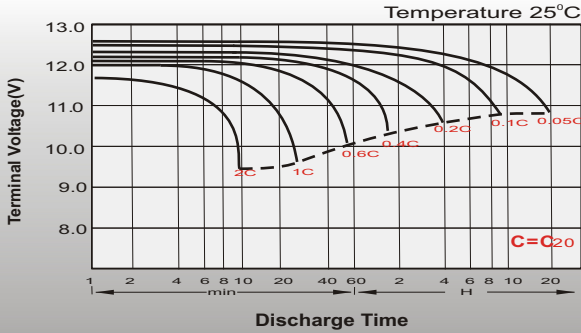
## Dimensions

### T11 Terminal

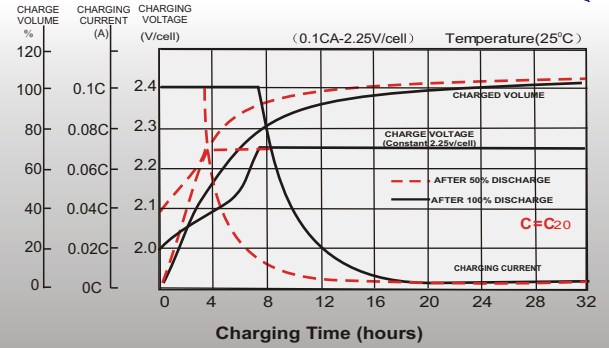
Unit: mm [inches]



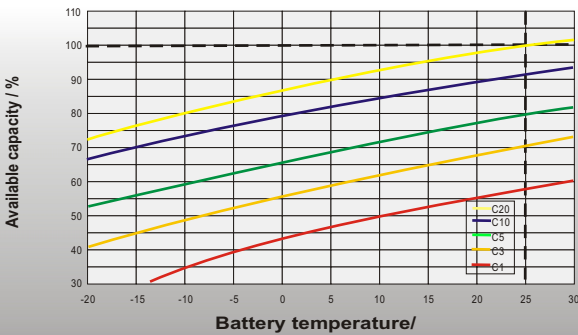
## Discharge Characteristics



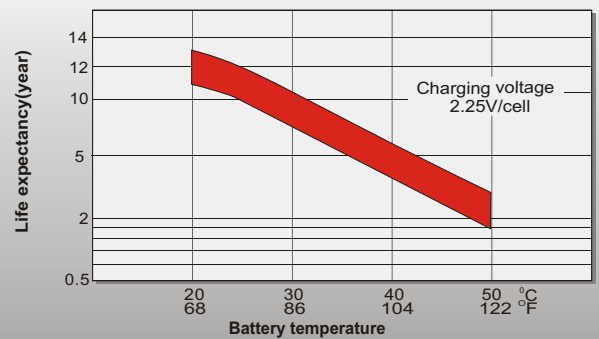
## Float Charging Characteristics



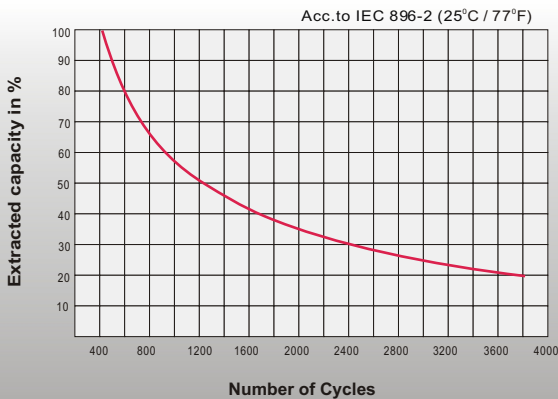
## Temperature Effects in Relation to Battery Capacity



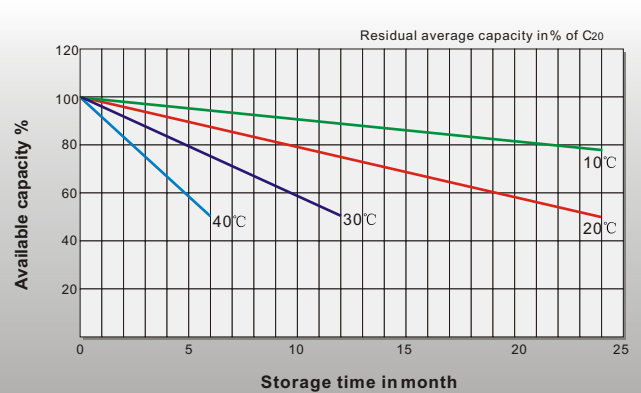
## Effect of Temperature on Long Term Float Life



## Cycle Life in Relation to Depth of Discharge



## General Relation of Capacity VS. Storage Time



## 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:

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