

# LPGS SERIES - TRUE Hybrid GEL Battery

## LPGS12-180(12V180AH)

### Specification

Nominal Voltage	12V
Nominal Capacity(10HR)	180.0AH
Dimensions	Length 532±3mm (20.9 inches)
	Width 207±3mm (8.15 inches)
	Container Height 214±3mm (8.42 inches)
	Total Height (with Terminal) 220±3mm (8.66 inches)
Approx Weight	Approx 54.0 kg (119.1lbs)
Terminal	T11
Container Material	ABS
Rated Capacity	185.4 AH/9.27A (20hr, 1.80V/cell, 25°C/77°F)
	180.0 AH/18.0A (10hr, 1.80V/cell, 25°C/77°F)
	153 AH/30.6A (5hr, 1.75V/cell, 25°C/77°F)
	132.9 AH/44.3A (3hr, 1.75V/cell, 25°C/77°F)
	107.5 AH/107.5A (1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	1800A (5s)
Internal Resistance	Approx 3.2mΩ
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 54.0A. Voltage 14.4V~15.0V at 25°C(77°F) Temp. Coefficient -30mV/°C
	No limit on Initial Charging Current Voltage 13.5V~13.8V at 25°C(77°F) Temp. Coefficient -20mV/°C
Standby Use	
Capacity affected by Temperature	40°C (104°F) 103%
	25°C (77°F) 100%
	0°C (32°F) 86%
Self Discharge	Leoch LPGS 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

- ◆ 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	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	228.2	194.0	162.3	128.2	97.4	80.6	51.2	39.8	32.7	27.8	24.2	19.7	16.7	9.00
1.80V/cell	287.3	231.0	189.0	147.6	110.5	89.6	55.7	42.8	34.8	29.9	26.0	21.0	18.0	9.27
1.75V/cell	322.2	257.5	207.5	157.3	116.9	94.8	58.4	44.3	36.0	30.6	26.7	21.4	18.2	9.36
1.70V/cell	355.3	278.2	220.7	166.0	122.8	99.0	61.2	45.8	37.1	31.4	27.3	21.7	18.3	9.54
1.65V/cell	379.7	292.9	232.2	173.8	126.4	102.5	62.9	47.5	38.2	32.1	27.9	22.0	18.5	9.63
1.60V/cell	415.6	315.8	249.3	184.7	133.7	107.5	65.2	49.2	39.1	32.8	28.5	22.3	18.8	9.72

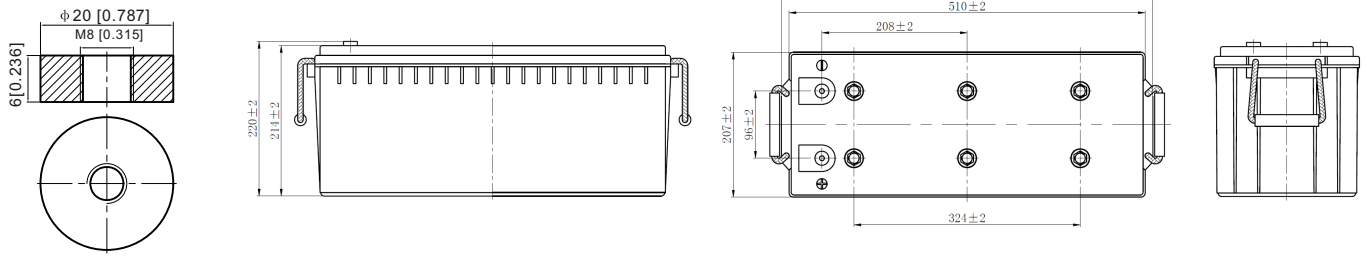
### Constant Power Discharge (Watts/cell) at 25 °C (77°F)

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	424.7	364.8	308.2	245.7	188.1	156.2	99.8	77.8	64.2	54.7	47.8	39.1	33.2	17.9
1.80V/cell	528.9	428.9	354.1	279.3	211.8	172.8	107.9	83.2	68.0	58.5	51.1	41.5	35.7	18.4
1.75V/cell	583.1	471.9	384.7	295.2	222.1	181.9	112.7	85.9	70.1	59.8	52.3	42.2	36.0	18.6
1.70V/cell	627.5	501.8	405.4	309.2	231.9	189.1	117.8	88.6	72.0	61.2	53.4	42.7	36.2	18.9
1.65V/cell	663.2	523.3	422.5	320.8	237.0	194.5	120.3	91.6	73.9	62.4	54.4	43.2	36.5	19.1
1.60V/cell	709.3	554.9	448.7	338.1	249.0	202.8	124.2	94.4	75.3	63.4	55.4	43.7	37.0	19.2

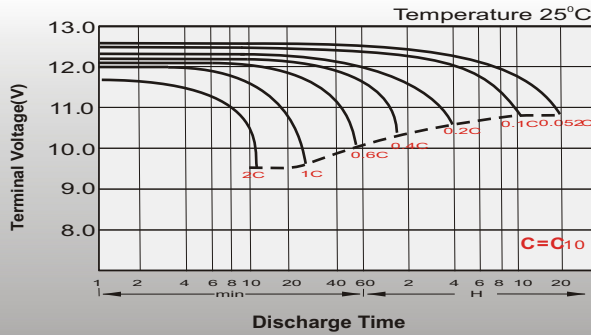
# Dimensions

## T11 Terminal

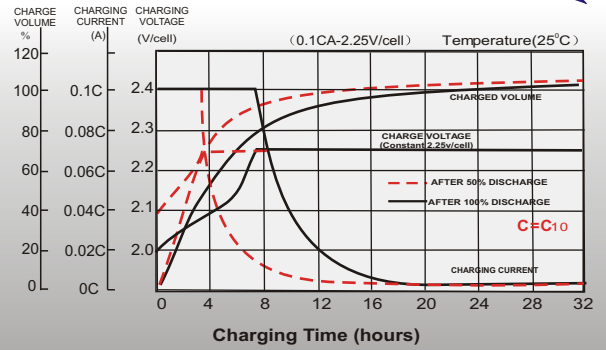
Unit: mm [inches]



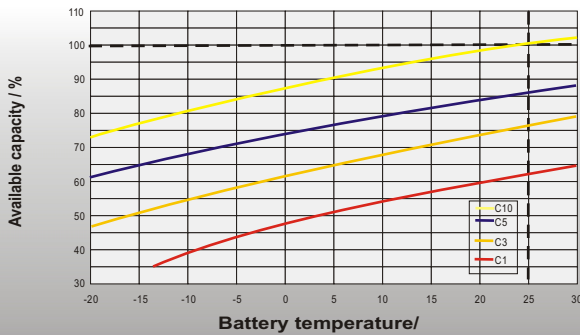
## Discharge Characteristics



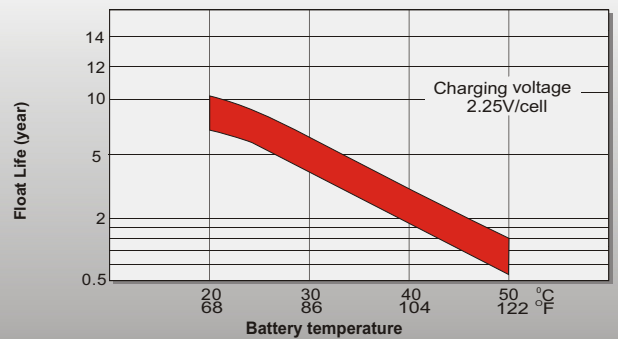
## Float Charging Characteristics



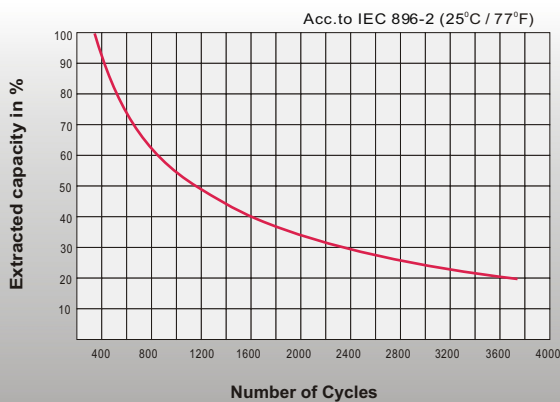
## Temperature Effects in Relation to Battery Capacity



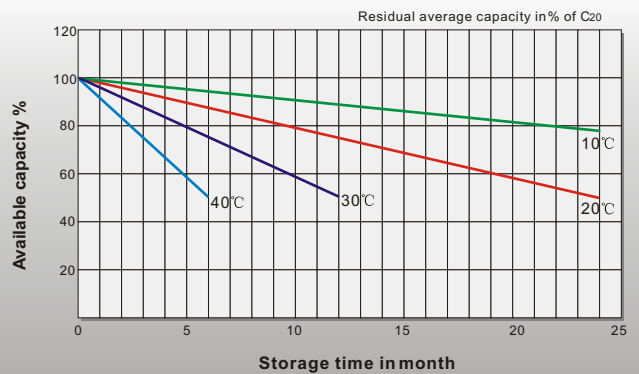
## Effect of Temperature on Long Term Float Life



## 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