

# LPS SERIES-Solar Power

## LPS12-100FT (12V103.0AH)

### Specification

Nominal Voltage	12V	
Nominal Capacity(100HR)	103.0AH	
Dimension	Length	508±3mm (20.0 inches)
	Width	110±2mm (4.33 inches)
	Container Height	238.5±2mm (9.39 inches)
	Total Height (with Terminal)	238.5±2mm (9.39 inches)
	Approx Weight	Approx 28.1 Kg (61.96 lbs)
Terminal	T13	
Container Material	ABS	
Rated Capacity	103.0 AH/1.03A	(100hr ,1.80V/cell,25°C/77°F)
	94.5AH/4.73A	(20hr ,1.80V/cell,25°C/77°F)
	90.0AH/9.00A	(10hr,1.80V/cell,25°C/77°F)
	78.5AH/15.7A	(5hr,1.75V/cell,25°C/77°F)
	54.7 AH/54.7A	(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 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	102.4	85.1	66.1	52.3	42.3	27.6	20.8	17.1	14.4	10.1	8.62	4.58	2.06	1.01
1.80V/cell	113.5	93.6	71.3	55.6	44.6	29.3	22.0	17.9	15.1	10.6	9.00	4.73	2.09	1.03
1.75V/cell	125.9	102.5	76.7	59.4	48.1	30.7	23.2	18.7	15.7	10.9	9.19	4.82	2.13	1.04
1.70V/cell	137.6	111.9	84.2	62.0	50.9	32.4	24.3	19.5	16.3	11.3	9.48	4.92	2.15	1.06
1.65V/cell	145.7	118.1	88.7	65.9	52.6	33.5	25.2	20.1	16.9	11.6	9.69	5.04	2.19	1.07
1.60V/cell	159.6	128.3	94.3	68.3	54.7	34.9	26.0	20.8	17.5	11.9	9.91	5.15	2.23	1.08

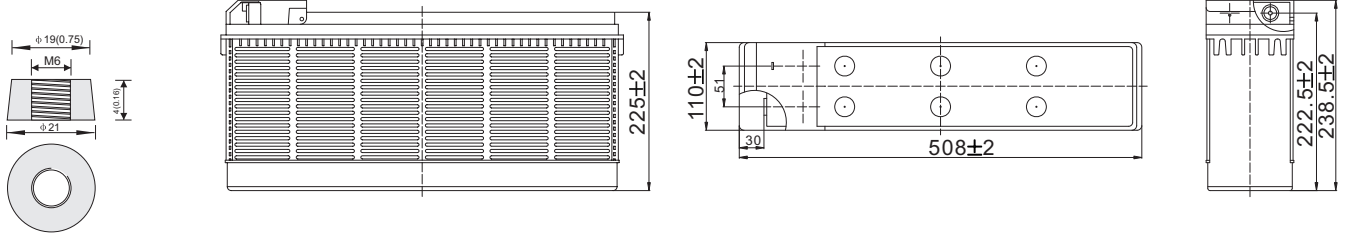
### Constant Power Discharge (Watts) at 25 °C (77°F)

F.V/Time	15min	20min	30min	45min	1h	2h	3h	4h	5h	8h	10h	20h	48h	100h
1.85V/cell	192.1	161.2	126.6	101.1	82.3	53.8	40.8	33.5	28.4	20.0	17.1	9.12	4.12	2.03
1.80V/cell	210.1	174.7	134.5	106.1	86.1	56.9	42.8	34.9	29.7	20.9	17.9	9.39	4.18	2.07
1.75V/cell	230.2	189.5	143.5	112.8	92.4	59.4	45.0	36.4	30.7	21.5	18.2	9.58	4.24	2.08
1.70V/cell	248.0	205.5	156.8	117.4	97.3	62.4	47.1	37.8	31.9	22.3	18.8	9.76	4.28	2.11
1.65V/cell	261.6	216.0	164.5	124.1	100.3	64.4	48.7	39.1	32.9	22.8	19.2	9.99	4.35	2.13
1.60V/cell	280.9	231.1	172.9	127.3	103.3	66.6	50.0	40.1	33.9	23.4	19.6	10.2	4.42	2.15

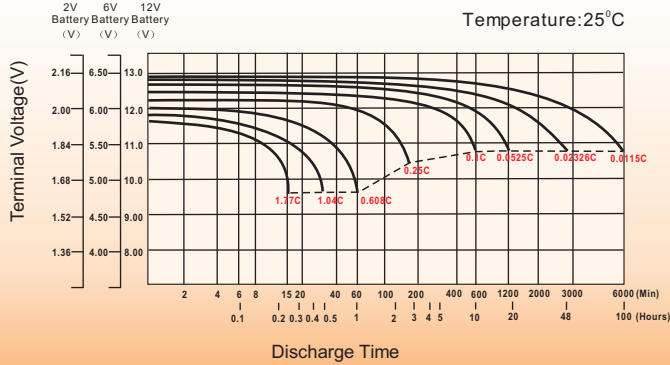
## Dimensions

### T13 Terminal

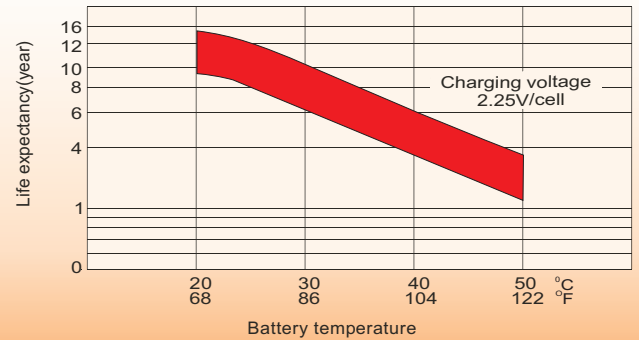
Unit: mm [inches]



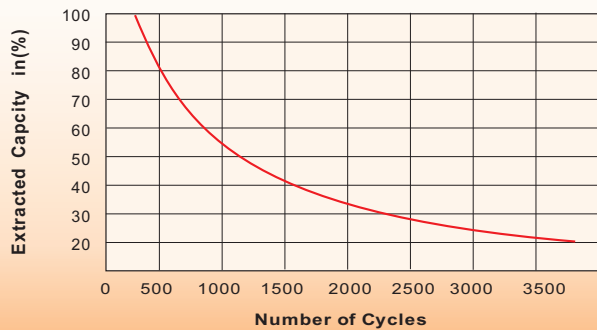
## Discharge Characteristics



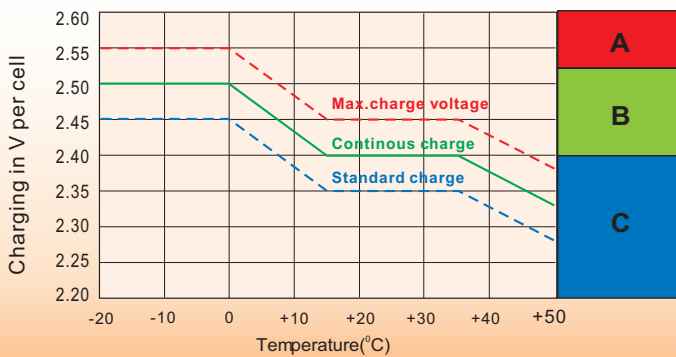
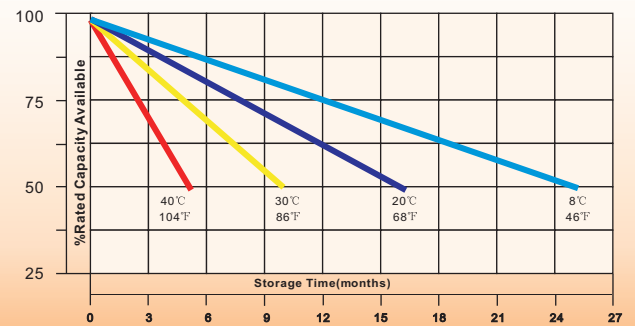
## Effect of Temperature on Long Term Float Life



## 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](mailto:export@leoch.com)  
[Http://www.leoch.com](http://www.leoch.com)

### North Americasales office:

Add: 19751 Descartes, Unit A,  
Foothill Ranch, CA 92610, USA  
Tel: 949-588-5853  
Fax: 949-588-5966  
E-mail: [sales@leoch.us](mailto:sales@leoch.us)  
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### Europe sales office:

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E-mail: [Sales.Europe@leoch.com](mailto:Sales.Europe@leoch.com)  
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