

# LPS SERIES-Solar Power

## LPS12-55 (12V57.5AH)

### Specification

Nominal Voltage	12V	
Nominal Capacity(100HR)	57.5AH	
Dimension	Length	257±3mm (10.11 inches)
	Width	132±2mm (5.19 inches)
	Container Height	200±2mm (7.87 inches)
	Total Height (with Terminal)	200±2mm (7.87 inches)
	Approx Weight	Approx 18.1 Kg (39.9 lbs)
Terminal	T6 / T10	
Container Material	ABS	
Rated Capacity	57.5AH/0.575A	(100hr, 1.80V/cell, 25°C/77°F)
	52.5AH/52.5A	(20hr, 1.80V/cell, 25°C/77°F)
	50.0AH/50.0A	(10hr, 1.80V/cell, 25°C/77°F)
	43.6AH/43.6A	(5hr, 1.75V/cell, 25°C/77°F)
	30.4AH/30.4A	(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)
	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 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%
	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	56.9	47.3	36.7	29.1	23.5	15.3	11.6	9.48	8.01	5.59	4.79	2.55	1.15	0.563
1.80V/cell	63.1	51.97	39.6	30.9	24.8	16.3	12.2	9.93	8.41	5.87	5.00	2.63	1.16	0.575
1.75V/cell	69.9	56.9	42.6	33.0	26.7	17.1	12.9	10.4	8.73	6.04	5.11	2.68	1.18	0.580
1.70V/cell	76.4	62.2	46.8	34.5	28.3	18.0	13.5	10.8	9.08	6.27	5.27	2.73	1.20	0.588
1.65V/cell	80.9	65.6	49.3	36.6	29.2	18.6	14.0	11.2	9.40	6.43	5.39	2.80	1.22	0.597
1.60V/cell	88.7	71.3	52.4	37.9	30.4	19.4	14.5	11.5	9.73	6.61	5.51	2.86	1.24	0.602

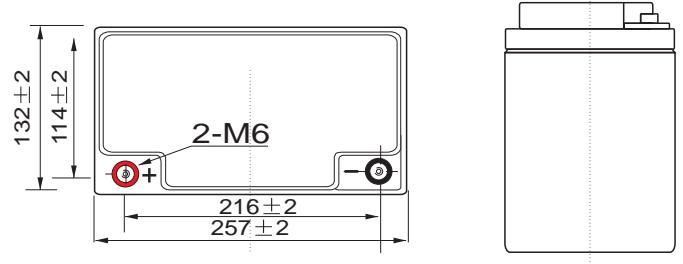
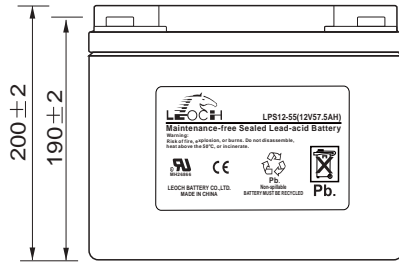
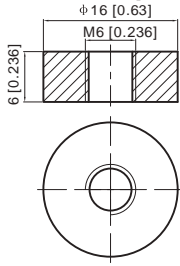
### Constant Power Discharge (Watts) at 25 °C (77°F)

F.V/Time	15min	20min	30min	45min	1h	2h	3h	4h	5h	8h	10h	20h	48h	100h
1.85V/cell	106.7	89.5	70.3	56.2	45.7	29.9	22.6	18.6	15.8	11.1	9.53	5.07	2.29	1.128
1.80V/cell	116.7	97.0	74.7	58.9	47.8	31.6	23.8	19.4	16.5	11.6	9.93	5.22	2.32	1.148
1.75V/cell	127.9	105.3	79.7	62.7	51.3	33.0	25.0	20.2	17.1	11.9	10.1	5.32	2.35	1.156
1.70V/cell	137.8	114.1	87.1	65.2	54.1	34.7	26.1	21.0	17.7	12.4	10.4	5.42	2.38	1.170
1.65V/cell	145.3	120.0	91.4	68.9	55.7	35.8	27.1	21.7	18.3	12.7	10.7	5.55	2.42	1.186
1.60V/cell	156.1	128.4	96.0	70.7	57.4	37.0	27.8	22.3	18.9	13.0	10.9	5.67	2.46	1.195

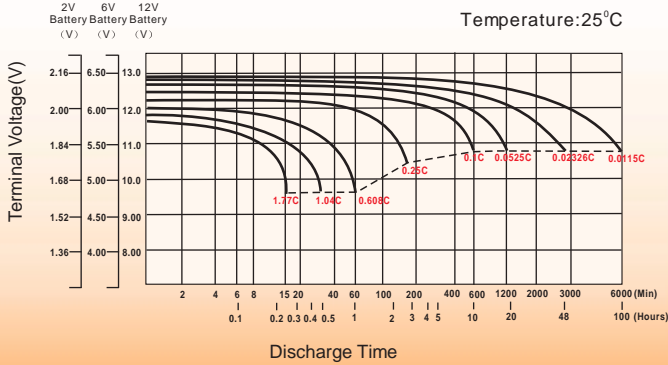
## Dimensions

### T6 Terminal

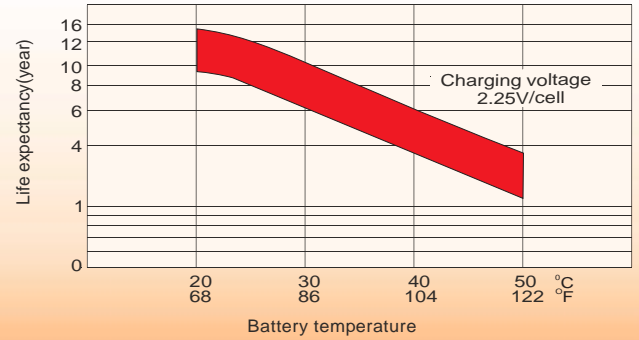
Unit: mm [inches]



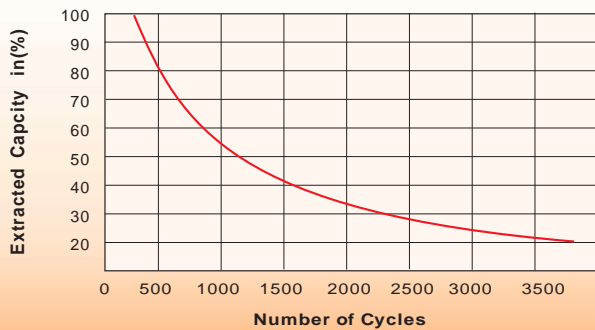
## Discharge Characteristics



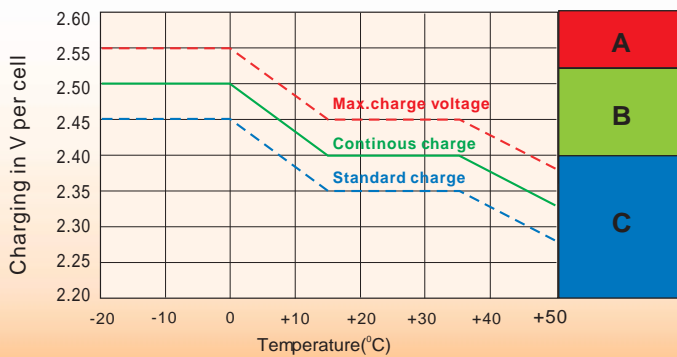
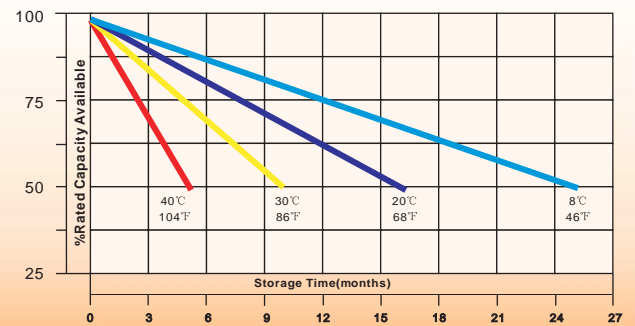
## Effect of Temperature on Long Term Float Life



## 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

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