

# LPS SERIES-Solar Power

## LPS12-170FT (12V173AH)

### Specification

Nominal Voltage	12V	
Nominal Capacity(100HR)	173.0AH	
Dimension	Length	551±2mm (21.69 inches)
	Width	110±2mm (4.33 inches)
	Container Height	287±2mm (11.30 inches)
	Total Height (with Terminal)	287±2mm (11.30 inches)
	Approx Weight	Approx 46.0 Kg (101.4 lbs)
Terminal	T6	
Container Material	ABS	
Rated Capacity	173.0 AH/1.73A	(100hr, 1.80V/cell, 25°C/77°F)
	157.6 AH/7.88A	(20hr, 1.80V/cell, 25°C/77°F)
	150.0 AH/15.0A	(10hr, 1.80V/cell, 25°C/77°F)
	131.0 AH/26.2A	(5hr, 1.75V/cell, 25°C/77°F)
	91.1 AH/91.1A	(1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	1500A (5s)	
Internal Resistance	Approx 3.5mΩ	
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	45.0A. 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	170.6	141.8	110.1	87.2	70.6	46.0	34.7	28.4	24.0	16.8	14.4	7.64	3.44	1.69
1.80V/cell	189.2	155.9	118.8	92.6	74.4	48.9	36.6	29.8	25.2	17.6	15.00	7.88	3.49	1.73
1.75V/cell	209.8	170.8	127.8	99.0	80.2	51.2	38.7	31.1	26.2	18.1	15.3	8.04	3.55	1.74
1.70V/cell	229.3	186.5	140.4	103.4	84.8	54.0	40.5	32.4	27.2	18.8	15.8	8.20	3.59	1.76
1.65V/cell	242.8	196.8	147.9	109.8	87.7	55.9	42.0	33.5	28.2	19.3	16.2	8.39	3.65	1.79
1.60V/cell	266.1	213.8	157.2	113.8	91.1	58.2	43.4	34.6	29.2	19.8	16.5	8.59	3.72	1.81

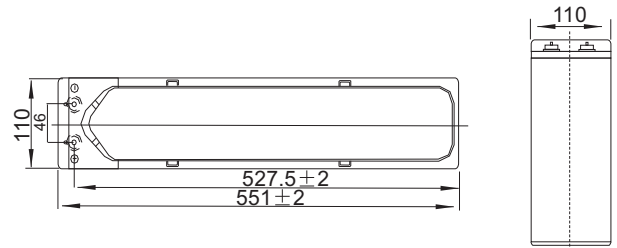
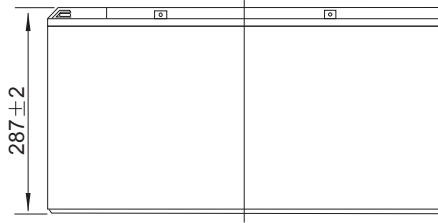
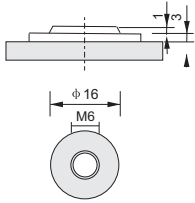
### Constant Power Discharge (Watts) at 25 °C (77°F)

F.V/Time	15min	20min	30min	45min	1h	2h	3h	4h	5h	8h	10h	20h	48h	100h
1.85V/cell	320.1	268.6	211.0	168.5	137.2	89.7	67.9	55.8	47.3	33.3	28.6	15.2	6.87	3.38
1.80V/cell	350.1	291.1	224.2	176.8	143.5	94.8	71.3	58.2	49.5	34.8	29.8	15.7	6.96	3.45
1.75V/cell	383.6	315.9	239.2	188.0	154.0	99.0	75.0	60.6	51.2	35.8	30.4	16.0	7.06	3.47
1.70V/cell	413.4	342.4	261.3	195.6	162.2	104.0	78.4	63.1	53.2	37.1	31.3	16.3	7.13	3.51
1.65V/cell	436.0	360.0	274.1	206.8	167.2	107.3	81.2	65.1	54.9	38.0	32.0	16.6	7.25	3.56
1.60V/cell	468.2	385.2	288.1	212.2	172.2	110.9	83.3	66.8	56.6	38.9	32.6	17.0	7.37	3.58

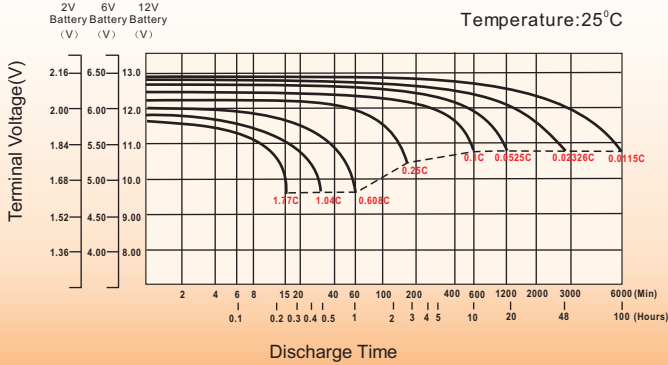
## Dimensions

### T6 Terminal

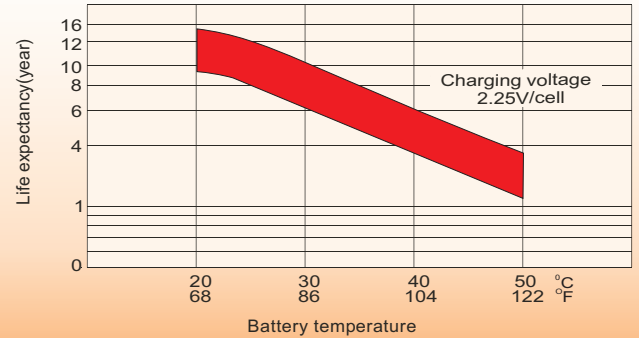
Unit: mm [inches]



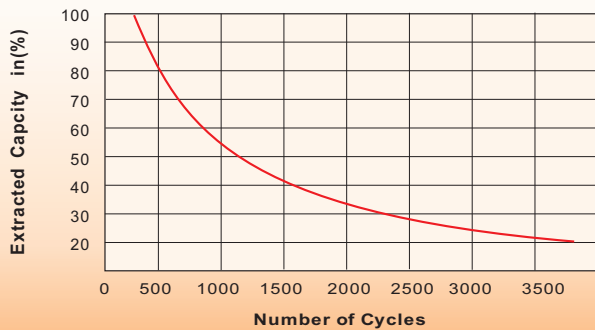
## Discharge Characteristics



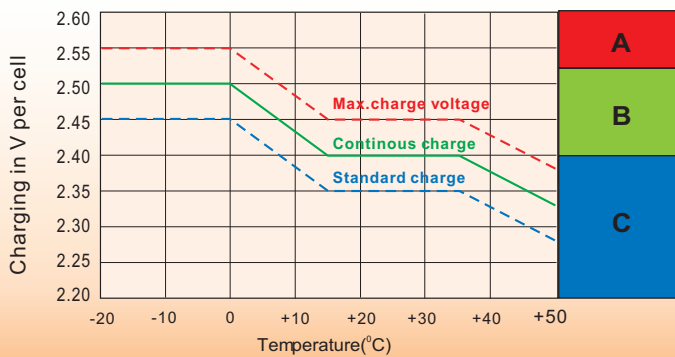
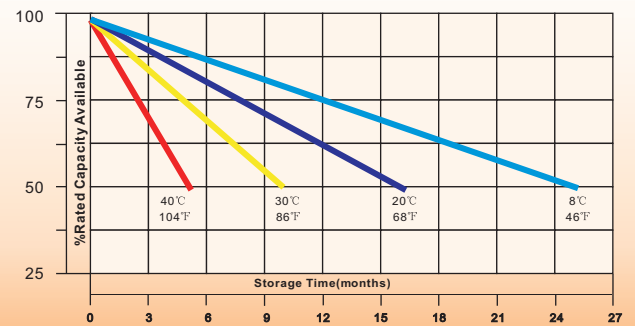
## Effect of Temperature on Long Term Float Life



## 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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