

# LPS SERIES-Solar Power

## LPS2-170 (2V173AH)

### Specification

Nominal Voltage	2V	
Nominal Capacity(100HR)	173.0AH	
Dimension	Length	170±2mm (6.69 inches)
	Width	98±2mm (3.86 inches)
	Container Height	205±3mm (8.07 inches)
	Total Height (with Terminal)	212±3mm (8.35 inches)
	Approx Weight	Approx 8.5 Kg (18.7 lbs)
Terminal	T7	
Container Material	ABS	
Rated Capacity	173.0AH/1.73A	(100hr, 1.80V/cell, 25°C/77°F)
	160.6 AH/8.03A	(20hr, 1.80V/cell, 25°C/77°F)
	150.0 AH/15.0A	(10hr, 1.80V/cell, 25°C/77°F)
	132.0AH/26.4A	(5hr, 1.75V/cell, 25°C/77°F)
	88.2 AH/88.2A	(1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	1200A (5s)	
Internal Resistance	Approx 1.1mΩ	
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 2.4V~2.5V at 25°C(77°F) Temp. Coefficient -5mV/°C	
	Standby Use No limit on Initial Charging Current Voltage 2.25V~2.3V at 25°C(77°F) Temp. Coefficient -3mV/°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
- ◆ Communication systems

Leoch battery is green battery, focus on the Environmental protection and Ecological protection, which well connect human being and environment into harmony. Continuous power supply for people, and being benign cycle back to the green environment.



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

F.V/Time	30min	45min	1h	2h	3h	4h	5h	8h	10h	20h	48h	100h
1.85V/cell	110.1	87.4	72.5	45.2	35.0	28.8	24.5	17.5	14.5	7.75	3.44	1.69
1.80V/cell	118.1	91.9	77.0	47.8	36.7	30.1	25.6	18.0	15.0	8.03	3.49	1.73
1.75V/cell	125.1	96.6	80.4	49.6	37.9	31.1	26.4	18.4	15.2	8.06	3.55	1.74
1.70V/cell	131.2	100.3	83.2	51.1	38.9	31.8	26.8	18.7	15.4	8.16	3.59	1.76
1.65V/cell	137.7	104.7	86.2	52.3	39.9	32.5	27.4	18.9	15.6	8.28	3.63	1.78
1.60V/cell	142.4	107.4	88.2	53.4	40.6	33.0	27.8	19.2	15.8	8.36	3.67	1.80

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

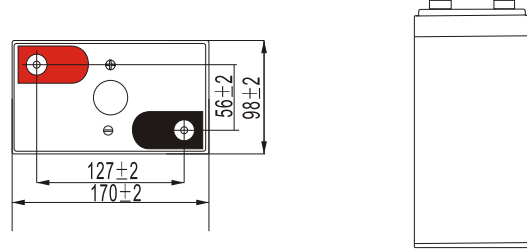
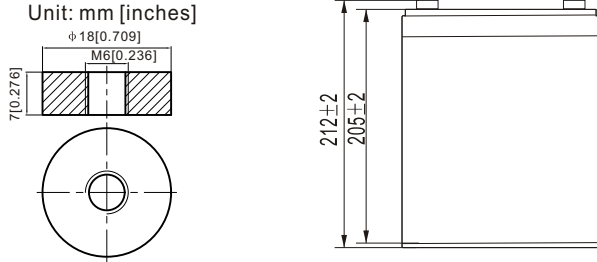
F.V/Time	30min	45min	1h	2h	3h	4h	5h	8h	10h	20h	48h	100h
1.85V/cell	210.4	168.0	140.3	88.0	68.4	56.5	48.3	34.7	28.9	15.4	6.85	3.38
1.80V/cell	223.9	175.5	148.2	92.5	71.3	58.9	50.2	35.7	29.8	16.0	6.94	3.44
1.75V/cell	235.3	183.5	153.9	95.6	73.5	60.6	51.5	36.3	30.2	16.0	7.04	3.47
1.70V/cell	244.8	189.1	158.5	98.1	75.2	61.7	52.3	36.8	30.5	16.2	7.12	3.51
1.65V/cell	254.9	196.2	163.2	99.9	76.7	62.8	53.2	37.2	30.9	16.4	7.20	3.55
1.60V/cell	261.0	199.5	165.9	101.5	77.6	63.4	53.7	37.6	31.3	16.6	7.27	3.58



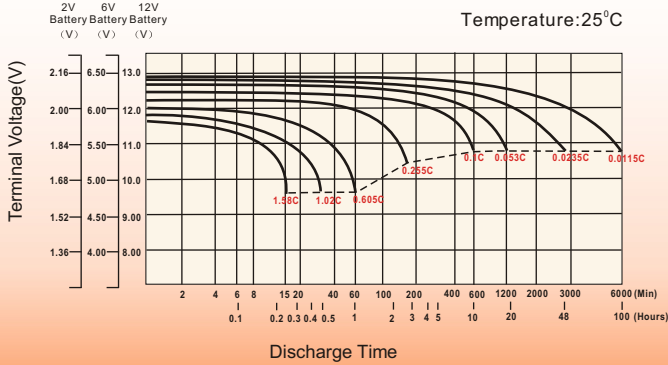
## Dimensions

### T7 Terminal

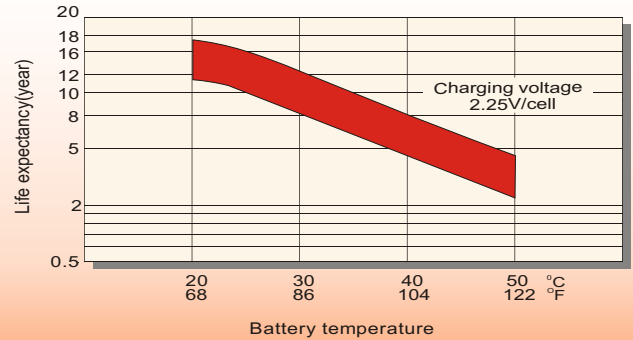
Unit: mm [inches]



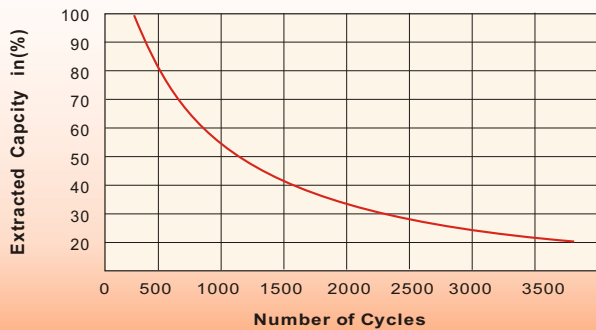
## Discharge Characteristics



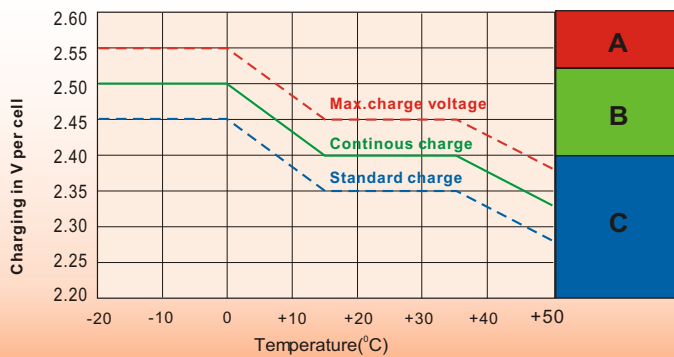
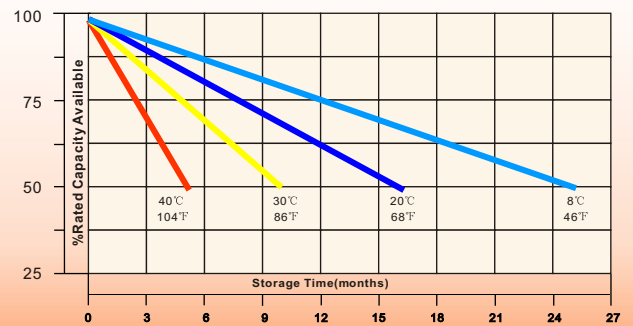
## Effect of Temperature on Long Term Float Life



## 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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