LPS SERIES-Solar Power

LPS12-50 (12V51.8AH)

Specification

Nomial Voltage	12V	
Nomial Capacity(100HR)	51.8AH	
Dimension	Length	197±2mm (7.76 inches)
	Width	165±2mm (6.50 inches)
	Container Height	170±2mm (6.69 inches)
	Total Height (with Terminal)	170±2mm (6.69 inches)
Approx Weight	Approx 14.5 Kg (32.0 lbs)	
Terminal	T6	
Container Material	ABS	
Rated Capacity	51.8AH/0.518A	(100hr ,1.80V/cell,25°C/77°F)
	47.2AH/2.36A	(20hr ,1.80V/cell,25°C/77°F)
	45.0 AH/4.50A	(10hr,1.80V/cell,25°C/77°F)
	39.2 AH/7.85A	(5hr,1.75V/cell,25°C/77°F)
	27.3 AH/27.3A	(1hr,1.60V/cell,25°C/77°F)
Max. Discharge Current	540A (5s)	
Internal Resistance	Approx 9.0mΩ	
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 13.5A.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 batterys 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	51.2	42.5	33.0	26.2	21.2	13.8	10.4	8.53	7.21	5.03	4.31	2.29	1.03	0.507
1.80V/cell	56.7	46.8	35.6	27.8	22.3	14.7	11.0	8.94	7.57	5.28	4.50	2.36	1.05	0.518
1.75V/cell	63.0	51.2	38.3	29.7	24.1	15.4	11.6	9.33	7.85	5.44	4.60	2.41	1.06	0.522
1.70V/cell	68.8	56.0	42.1	31.0	25.4	16.2	12.2	9.73	8.17	5.64	4.74	2.46	1.08	0.529
1.65V/cell	72.8	59.1	44.4	32.9	26.3	16.8	12.6	10.1	8.46	5.79	4.85	2.52	1.10	0.537
1.60V/cell	79.8	64.1	47.2	34.1	27.3	17.5	13.0	10.4	8.75	5.95	4.95	2.58	1.11	0.542

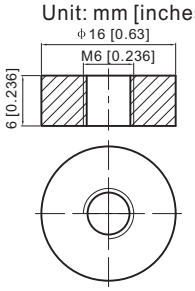
Constant Power Discharge (Watts) at 25 °C (77°F)

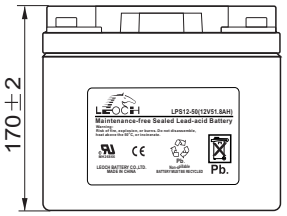
F.V/Time	15min	20min	30min	45min	1h	2h	3h	4h	5h	8h	10h	20h	48h	100h
1.85V/cell	96.0	80.6	63.3	50.5	41.2	26.9	20.4	16.7	14.2	10.0	8.57	4.56	2.06	1.015
1.80V/cell	105.0	87.3	67.2	53.0	43.0	28.4	21.4	17.5	14.8	10.5	8.94	4.70	2.09	1.034
1.75V/cell	115.1	94.8	71.7	56.4	46.2	29.7	22.5	18.2	15.3	10.7	9.12	4.79	2.12	1.041
1.70V/cell	124.0	102.7	78.4	58.7	48.7	31.2	23.5	18.9	15.9	11.1	9.40	4.88	2.14	1.053
1.65V/cell	130.8	108.0	82.2	62.0	50.2	32.2	24.4	19.5	16.5	11.4	9.60	4.99	2.18	1.067
1.60V/cell	140.5	115.6	86.4	63.7	51.7	33.3	25.0	20.0	17.0	11.7	9.79	5.10	2.21	1.075

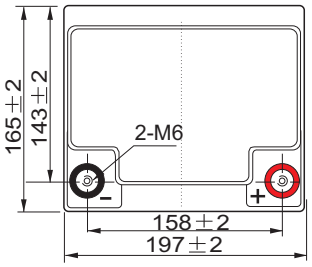
Dimensions

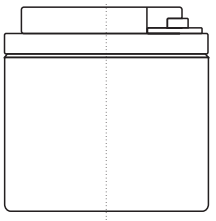
T6 Terminal

Unit: mm [inches]

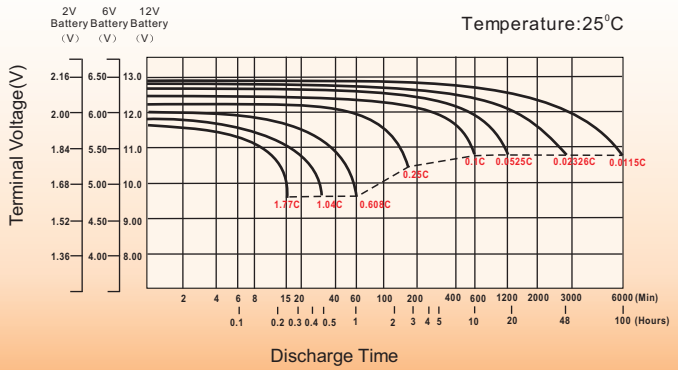




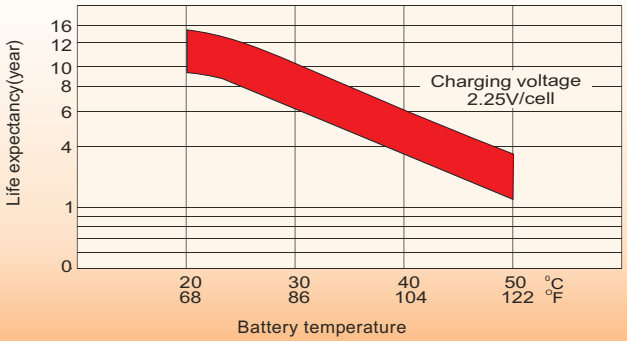




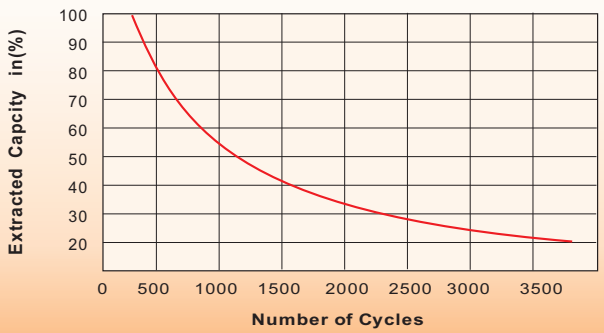
Discharge Characteristics



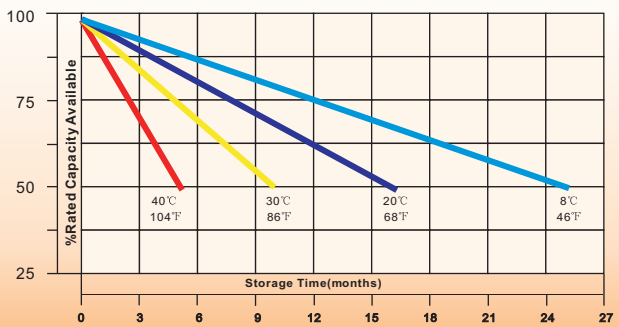
Effect of Temperature on Long Term Float Life

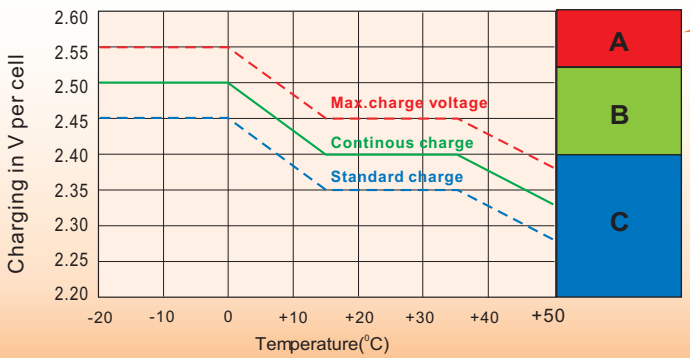


Cycle Service Life



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 continous charge

B Standard charge without switching

C Boost charge (Equalizing charge with external generator) charge on curve continous charge for max. 5 hrs/month, then switch over to curve Standard charge

Sales Office

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