

LPS SERIES-Solar Power

LPS12-40 (12V40AH)

Specification

Nominal Voltage	12V	
Nominal Capacity(100HR)	43.7AH	
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 13.2 Kg (29.1 lbs)	
Terminal	T6	
Container Material	ABS	
Rated Capacity	43.7 AH/0.437A	(100hr ,1.80V/cell,25°C/77°F)
	40.0 AH/2.00A	(20hr ,1.80V/cell,25°C/77°F)
	38.0 AH/3.80A	(10hr,1.80V/cell,25°C/77°F)
	33.2 AH/6.63A	(5hr,1.75V/cell,25°C/77°F)
	23.1 AH/23.1A	(1hr,1.60V/cell,25°C/77°F)
Max. Discharge Current	456A (5s)	
Internal Resistance	Approx 10.0mΩ	
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 11.4A. 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	43.2	35.9	27.9	22.1	17.9	11.6	8.79	7.20	6.09	4.25	3.64	1.93	0.87	0.428
1.80V/cell	47.9	39.5	30.1	23.5	18.8	12.4	9.27	7.55	6.39	4.46	3.80	2.00	0.88	0.437
1.75V/cell	53.2	43.3	32.4	25.1	20.3	13.0	9.79	7.88	6.63	4.59	3.88	2.04	0.90	0.441
1.70V/cell	58.1	47.3	35.6	26.2	21.5	13.7	10.3	8.22	6.90	4.76	4.00	2.08	0.91	0.447
1.65V/cell	61.5	49.9	37.5	27.8	22.2	14.2	10.6	8.50	7.14	4.89	4.09	2.13	0.93	0.454
1.60V/cell	67.4	54.2	39.8	28.8	23.1	14.7	11.0	8.77	7.39	5.02	4.18	2.18	0.94	0.458

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

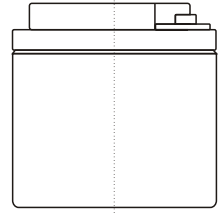
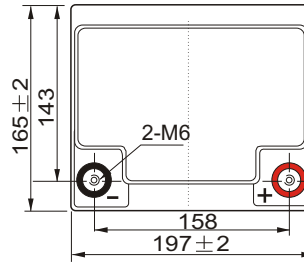
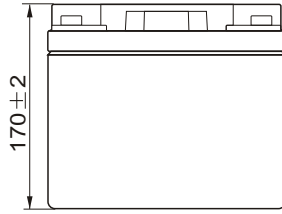
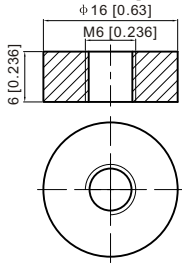
F.V/Time	15min	20min	30min	45min	1h	2h	3h	4h	5h	8h	10h	20h	48h	100h
1.85V/cell	81.1	68.0	53.4	42.7	34.8	22.7	17.2	14.1	12.0	8.44	7.24	3.85	1.74	0.86
1.80V/cell	88.7	73.8	56.8	44.8	36.4	24.0	18.1	14.7	12.5	8.82	7.55	3.97	1.76	0.87
1.75V/cell	97.2	80.0	60.6	47.6	39.0	25.1	19.0	15.4	13.0	9.07	7.70	4.04	1.79	0.88
1.70V/cell	104.7	86.7	66.2	49.6	41.1	26.4	19.9	16.0	13.5	9.40	7.94	4.12	1.81	0.89
1.65V/cell	110.5	91.2	69.4	52.4	42.4	27.2	20.6	16.5	13.9	9.63	8.11	4.22	1.84	0.90
1.60V/cell	118.6	97.6	73.0	53.8	43.6	28.1	21.1	16.9	14.3	9.86	8.27	4.31	1.87	0.91



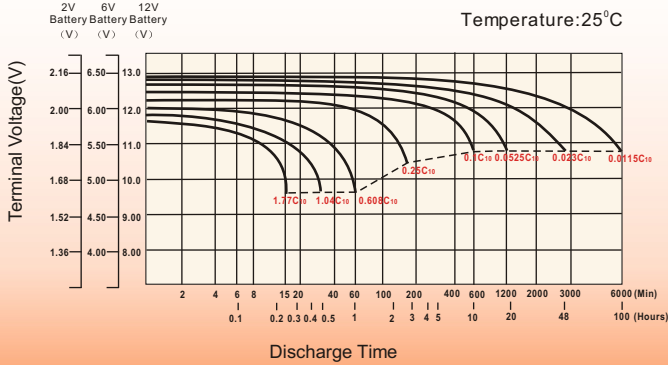
Dimensions

T6 Terminal

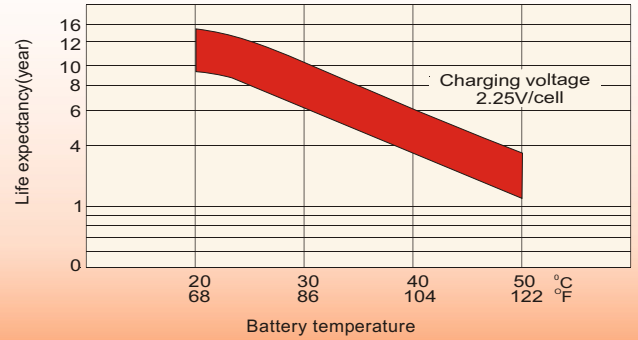
Unit: mm [inches]



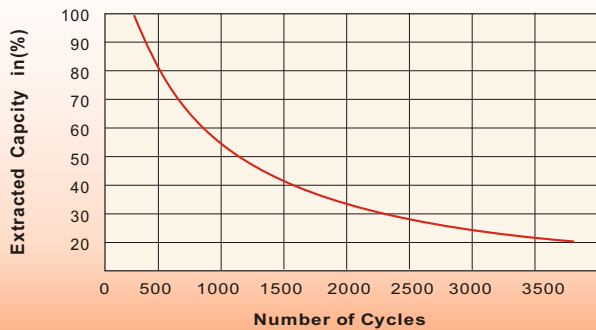
Discharge Characteristics



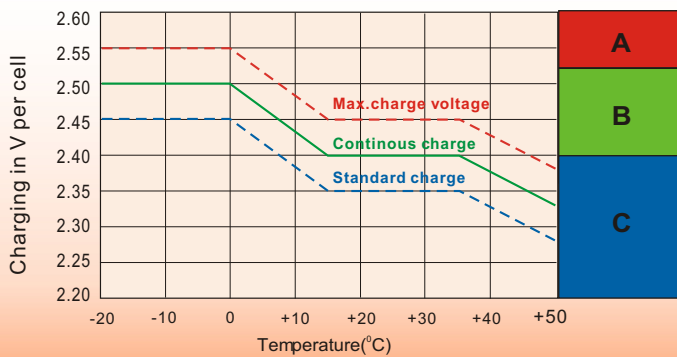
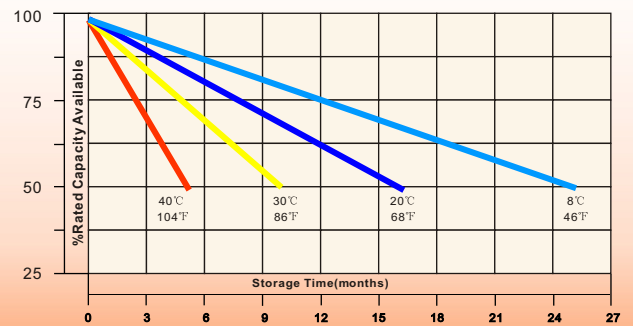
Effect of Temperature on Long Term Float Life



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

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