

# LPS SERIES-Solar Power

## LPS12-85FT (12V86.3AH)

### Specification

Nominal Voltage	12V	
Nominal Capacity(100HR)	86.3AH	
Dimension	Length	564±2mm (22.20 inches)
	Width	114±2mm (4.49 inches)
	Container Height	187±2mm (7.36 inches)
	Total Height (with Terminal)	187±2mm (7.36 inches)
	Approx Weight	Approx 26.0 Kg (57.3 lbs)
Terminal	T6	
Container Material	ABS	
Rated Capacity	86.3AH/0.863A	(100hr, 1.80V/cell, 25°C/77°F)
	78.7 AH/3.94A	(20hr, 1.80V/cell, 25°C/77°F)
	75.0 AH/7.50A	(10hr, 1.80V/cell, 25°C/77°F)
	65.5 AH/13.1A	(5hr, 1.75V/cell, 25°C/77°F)
	45.6 AH/45.6A	(1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	900A (5s)	
Internal Resistance	Approx 6.6mΩ	
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	22.5A. 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 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	85.3	70.9	55.1	43.6	35.3	23.0	17.4	14.2	12.0	8.39	7.19	3.82	1.72	0.845
1.80V/cell	94.6	78.0	59.4	46.3	37.2	24.5	18.3	14.9	12.6	8.80	7.50	3.94	1.74	0.863
1.75V/cell	104.9	85.4	63.9	49.5	40.1	25.6	19.3	15.6	13.1	9.06	7.66	4.02	1.77	0.871
1.70V/cell	114.6	93.3	70.2	51.7	42.4	27.0	20.3	16.2	13.6	9.40	7.90	4.10	1.79	0.882
1.65V/cell	121.4	98.4	74.0	54.9	43.8	27.9	21.0	16.8	14.1	9.65	8.08	4.20	1.83	0.895
1.60V/cell	133.0	106.9	78.6	56.9	45.6	29.1	21.7	17.3	14.6	9.91	8.26	4.29	1.86	0.903

### 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	160.1	134.3	105.5	84.2	68.6	44.9	34.0	27.9	23.7	16.7	14.3	7.60	3.44	1.69
1.80V/cell	175.1	145.6	112.1	88.4	71.7	47.4	35.6	29.1	24.7	17.4	14.9	7.83	3.48	1.72
1.75V/cell	191.8	157.9	119.6	94.0	77.0	49.5	37.5	30.3	25.6	17.9	15.2	7.98	3.53	1.73
1.70V/cell	206.7	171.2	130.6	97.8	81.1	52.0	39.2	31.5	26.6	18.5	15.7	8.13	3.57	1.75
1.65V/cell	218.0	180.0	137.1	103.4	83.6	53.7	40.6	32.6	27.5	19.0	16.0	8.32	3.63	1.78
1.60V/cell	234.1	192.6	144.1	106.1	86.1	55.5	41.7	33.4	28.3	19.5	16.3	8.50	3.68	1.79

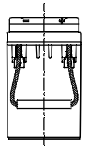
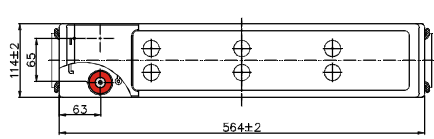
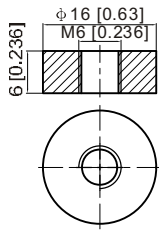
Specifications subject to change without notice.



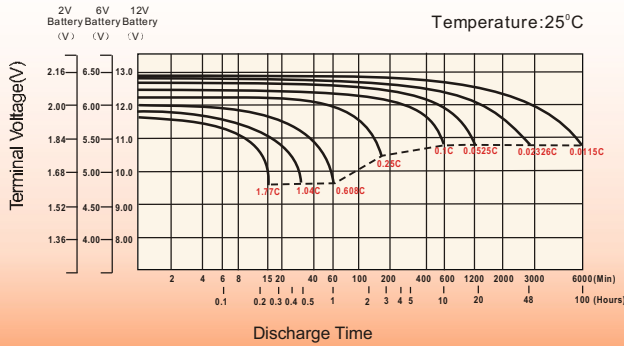
## Dimensions

### T6 Terminal

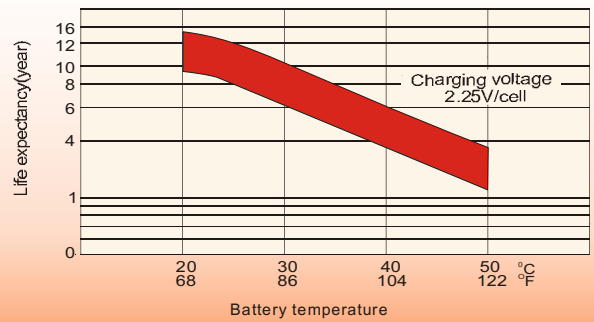
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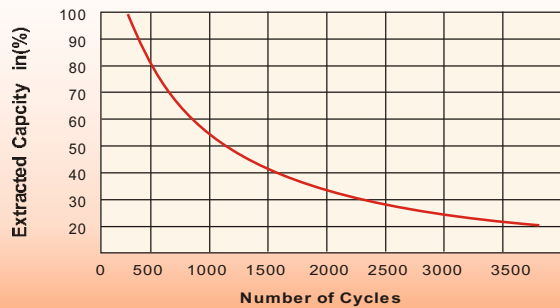
## Discharge Characteristics



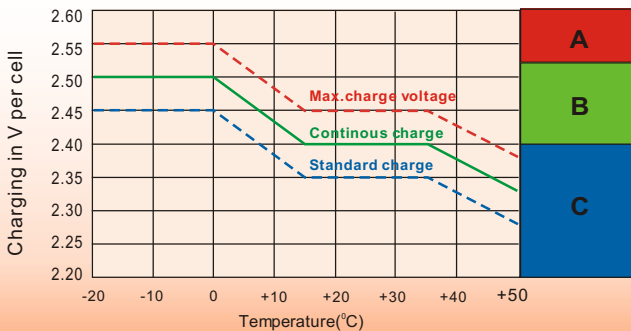
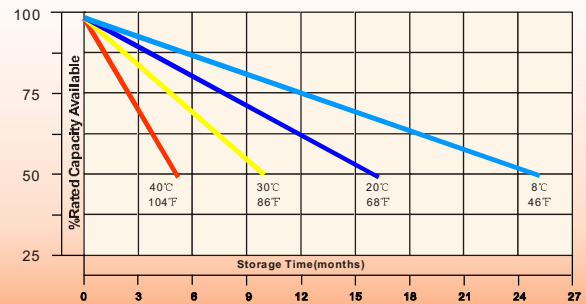
## Effect of Temperature on Long Term Float Life



## 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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