

# LPS SERIES-Solar Power

## LPS12-115 (12V110AH)

### Specification

Nominal Voltage	12V	
Nominal Capacity(100HR)	110.0AH	
Dimension	Length	305±3mm (12.01 inches)
	Width	168±2mm (6.61 inches)
	Container Height	207±3mm (8.15 inches)
	Total Height (with Terminal)	229±3mm (9.01 inches)
Approx Weight	Approx 31.5Kg (69.5 lbs)	
Terminal	T14 / T6	
Container Material	ABS	
Rated Capacity	110.0 AH/1.10A	(100hr, 1.80V/cell, 25°C/77°F)
	100.0 AH/5.0A	(20hr, 1.80V/cell, 25°C/77°F)
	95.2 AH/9.52A	(10hr, 1.80V/cell, 25°C/77°F)
	83.0 AH/16.6A	(5hr, 1.75V/cell, 25°C/77°F)
	57.9 AH/57.9A	(1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	1200A (5s)	
Internal Resistance	Approx 4.9mΩ	
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 30.0A. 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	108.3	90.0	69.9	55.4	44.8	29.2	22.0	18.0	15.3	10.7	9.12	4.85	2.18	1.07
1.80V/cell	120.1	99.0	75.4	58.8	47.2	31.0	23.2	18.9	16.0	11.2	9.52	5.00	2.22	1.10
1.75V/cell	133.2	108.4	81.1	62.9	50.9	32.5	24.5	19.8	16.6	11.5	9.73	5.10	2.25	1.11
1.70V/cell	145.6	118.4	89.1	65.7	53.8	34.3	25.7	20.6	17.3	11.9	10.0	5.20	2.28	1.12
1.65V/cell	154.1	125.0	93.9	69.7	55.7	35.5	26.7	21.3	17.9	12.3	10.3	5.33	2.32	1.14
1.60V/cell	168.9	135.7	99.8	72.3	57.9	37.0	27.6	22.0	18.5	12.6	10.5	5.45	2.36	1.15

### 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	203.2	170.6	133.9	107.0	87.1	57.0	43.1	35.4	30.1	21.1	18.1	9.65	4.36	2.15
1.80V/cell	222.3	184.9	142.3	112.2	91.1	60.2	45.2	37.0	31.4	22.1	18.9	9.94	4.42	2.19
1.75V/cell	243.6	200.6	151.8	119.4	97.8	62.8	47.6	38.5	32.5	22.7	19.3	10.1	4.48	2.20
1.70V/cell	262.4	217.4	165.9	124.2	103.0	66.1	49.8	40.0	33.7	23.5	19.9	10.3	4.53	2.23
1.65V/cell	276.8	228.6	174.0	131.3	106.2	68.1	51.5	41.3	34.9	24.1	20.3	10.6	4.61	2.26
1.60V/cell	297.3	244.6	183.0	134.8	109.4	70.4	52.9	42.4	35.9	24.7	20.7	10.8	4.68	2.28

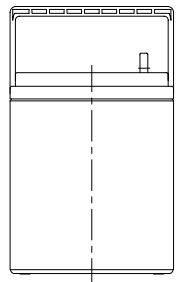
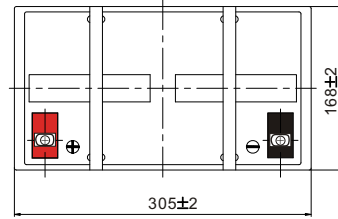
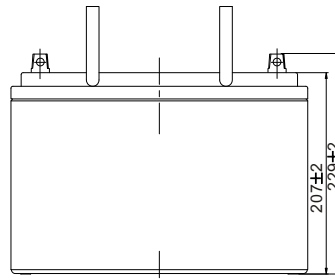
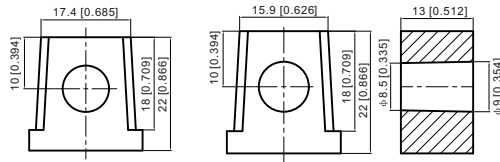
## Dimensions

### T14 Terminal

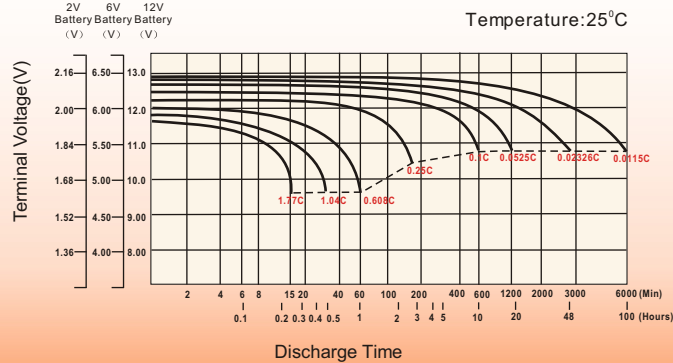
Unit: mm [inches]

#### T14-1 Positive

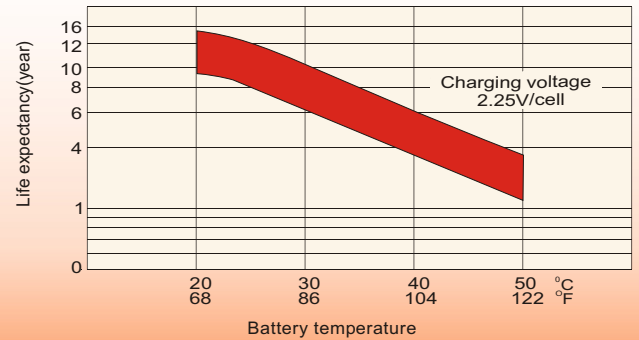
#### T14-2 Negative



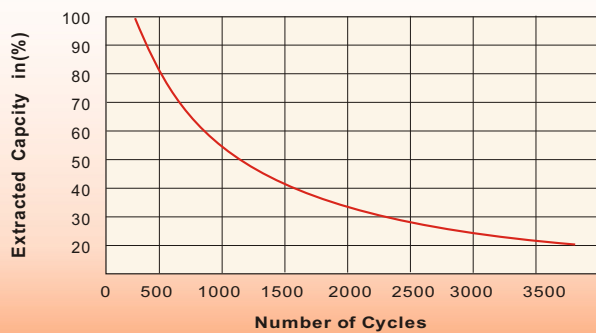
## Discharge Characteristics



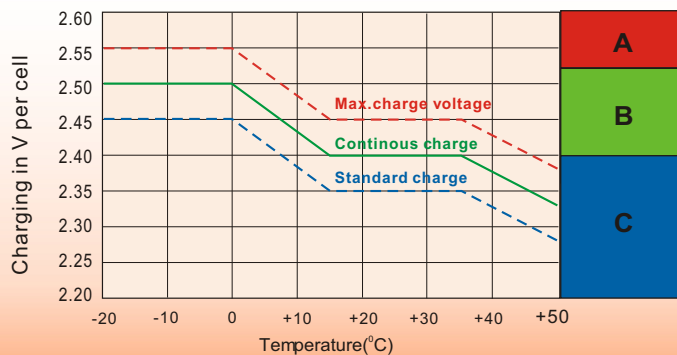
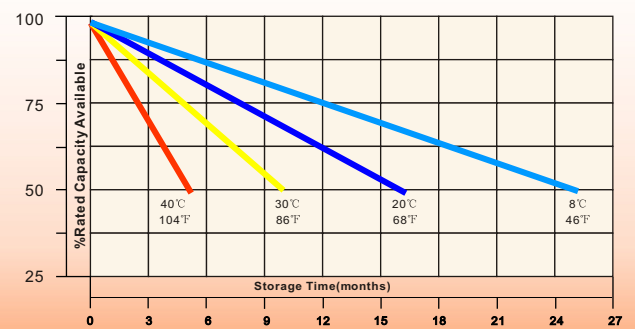
## Effect of Temperature on Long Term Float Life



## 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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