



# LPS SERIES-Solar Power

## LPS12-145FT (12V143.8AH)

### Specification

Nominal Voltage	12V	
Nominal Capacity(100HR)	143.8AH	
Dimension	Length	551±3mm (21.69 inches)
	Width	110±2mm (4.33 inches)
	Container Height	287±3mm (11.30 inches)
	Total Height (with Terminal)	287±3mm (11.30 inches)
Approx Weight	Approx 40.5 Kg (89.3 lbs)	
Terminal	T6	
Container Material	ABS	
Rated Capacity	143.8 AH/1.44A	(100hr, 1.80V/cell, 25°C/77°F)
	131.3 AH/6.56A	(20hr, 1.80V/cell, 25°C/77°F)
	125.0 AH/12.5A	(10hr, 1.80V/cell, 25°C/77°F)
	109.1 AH/21.8A	(5hr, 1.75V/cell, 25°C/77°F)
	75.9 AH/75.9A	(1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	1350A (5s)	
Internal Resistance	Approx 4.0mΩ	
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	37.5A. 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	142.2	118.1	91.8	72.7	58.8	38.3	28.9	23.7	20.0	14.0	12.0	6.36	2.86	1.41
1.80V/cell	157.6	129.9	99.0	77.2	62.0	40.8	30.5	24.8	21.0	14.7	12.5	6.56	2.91	1.44
1.75V/cell	174.9	142.3	106.5	82.5	66.9	42.7	32.2	25.9	21.8	15.1	12.8	6.70	2.96	1.45
1.70V/cell	191.0	155.4	117.0	86.2	70.6	45.0	33.8	27.0	22.7	15.7	13.2	6.83	2.99	1.47
1.65V/cell	202.3	164.0	123.3	91.5	73.1	46.6	35.0	28.0	23.5	16.1	13.5	6.99	3.04	1.49
1.60V/cell	221.7	178.1	131.0	94.8	75.9	48.5	36.2	28.8	24.3	16.5	13.8	7.16	3.10	1.51

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

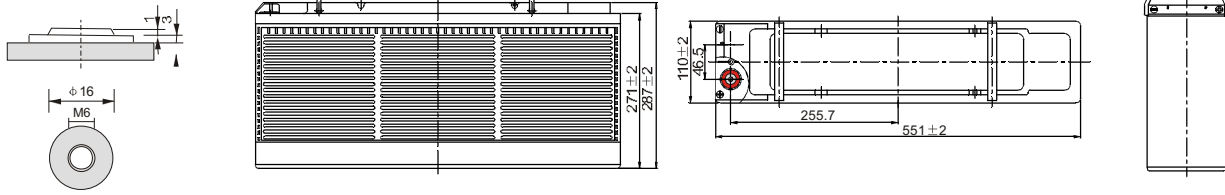
F.V/Time	15min	20min	30min	45min	1h	2h	3h	4h	5h	8h	10h	20h	48h	100h
1.85V/cell	266.8	223.8	175.8	140.4	114.4	74.8	56.6	46.5	39.5	27.8	23.8	12.7	5.73	2.82
1.80V/cell	291.8	242.6	186.8	147.3	119.6	79.0	59.4	48.5	41.2	29.0	24.8	13.0	5.80	2.87
1.75V/cell	319.7	263.2	199.3	156.7	128.4	82.5	62.5	50.5	42.6	29.8	25.3	13.3	5.88	2.89
1.70V/cell	344.5	285.4	217.7	163.0	135.2	86.7	65.4	52.5	44.3	30.9	26.1	13.6	5.95	2.92
1.65V/cell	363.4	300.0	228.4	172.3	139.3	89.4	67.7	54.3	45.8	31.7	26.7	13.9	6.05	2.96
1.60V/cell	390.2	321.0	240.1	176.9	143.5	92.4	69.4	55.7	47.1	32.4	27.2	14.2	6.14	2.99



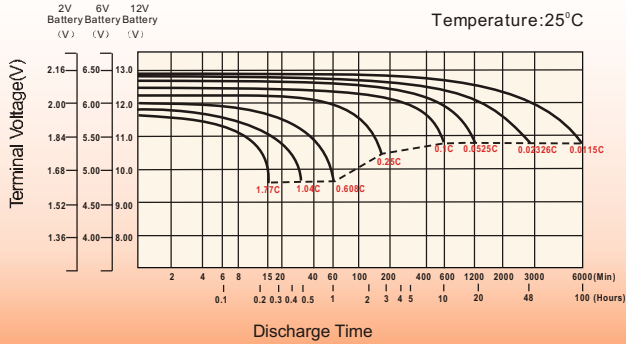
## Dimensions

### T6 Terminal

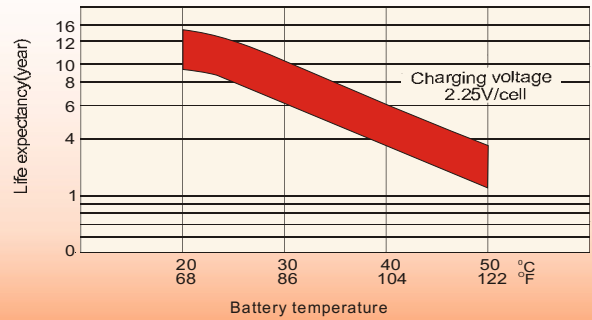
Unit: mm [inches]



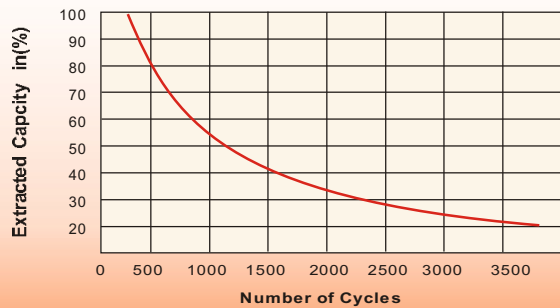
## Discharge Characteristics



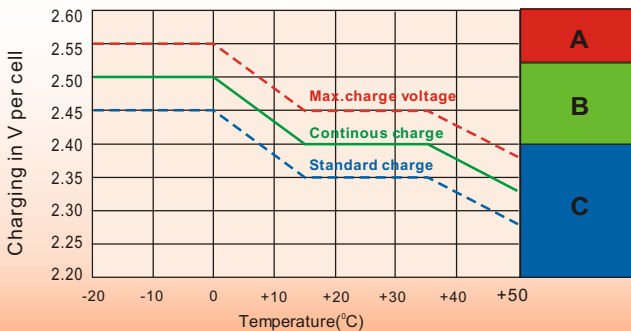
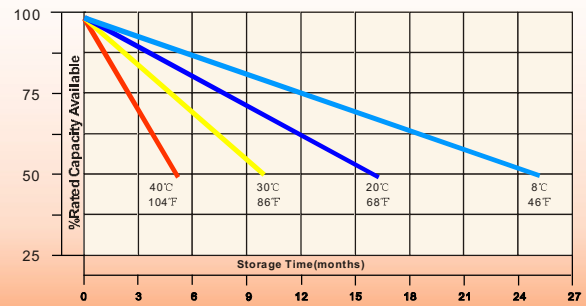
## Effect of Temperature on Long Term Float Life



## 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 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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