

LPS SERIES-Solar Power

LPS12-45FT (12V46AH)



Specification

Nominal Voltage	12V		
Nominal Capacity(100HR)	46.0AH		
Dimension	Length	277±3mm (10.91 inches)	
	Width	106±1mm (4.17 inches)	
	Container Height	222±3mm (8.74 inches)	
	Total Height (with Terminal)	222±3mm (8.74 inches)	
	Approx Weight	Approx 15.1 Kg (33.3 lbs)	
Terminal	T6		
Container Material	ABS		
Rated Capacity	46.0AH/0.46A	(100hr, 1.80V/cell, 25°C/77°F)	
	42.0AH/2.10A	(20hr, 1.80V/cell, 25°C/77°F)	
	40.0AH/4.00A	(10hr, 1.80V/cell, 25°C/77°F)	
	34.9AH/6.98A	(5hr, 1.75V/cell, 25°C/77°F)	
	24.3AH/24.3A	(1hr, 1.60V/cell, 25°C/77°F)	
Max. Discharge Current	480A (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 12.0A. 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	45.5	37.8	29.4	23.3	18.8	12.3	9.25	7.58	6.41	4.48	3.83	2.04	0.916	0.450
1.80V/cell	50.4	41.6	31.7	24.7	19.8	13.0	9.76	7.95	6.73	4.70	4.00	2.10	0.930	0.460
1.75V/cell	56.0	45.5	34.1	26.4	21.4	13.7	10.3	8.30	6.98	4.83	4.09	2.14	0.946	0.464
1.70V/cell	61.1	49.7	37.4	27.6	22.6	14.4	10.8	8.65	7.26	5.02	4.21	2.19	0.957	0.470
1.65V/cell	64.7	52.5	39.4	29.3	23.4	14.9	11.2	8.95	7.52	5.15	4.31	2.24	0.974	0.477
1.60V/cell	71.0	57.0	41.9	30.3	24.3	15.5	11.6	9.23	7.78	5.29	4.40	2.29	0.991	0.482

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	85.4	71.6	56.3	44.9	36.6	23.9	18.1	14.9	12.6	8.88	7.62	4.054	1.83	0.902
1.80V/cell	93.4	77.6	59.8	47.1	38.3	25.3	19.0	15.5	13.2	9.29	7.94	4.175	1.86	0.919
1.75V/cell	102.3	84.2	63.8	50.1	41.1	26.4	20.0	16.2	13.6	9.54	8.10	4.257	1.88	0.925
1.70V/cell	110.2	91.3	69.7	52.2	43.2	27.7	20.9	16.8	14.2	9.89	8.35	4.338	1.90	0.936
1.65V/cell	116.3	96.0	73.1	55.1	44.6	28.6	21.6	17.4	14.6	10.1	8.53	4.438	1.93	0.949
1.60V/cell	124.9	102.7	76.8	56.6	45.9	29.6	22.2	17.8	15.1	10.4	8.71	4.533	1.97	0.956

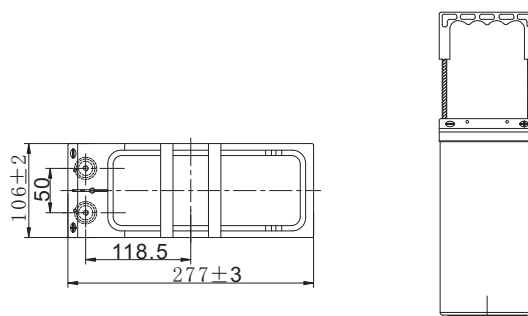
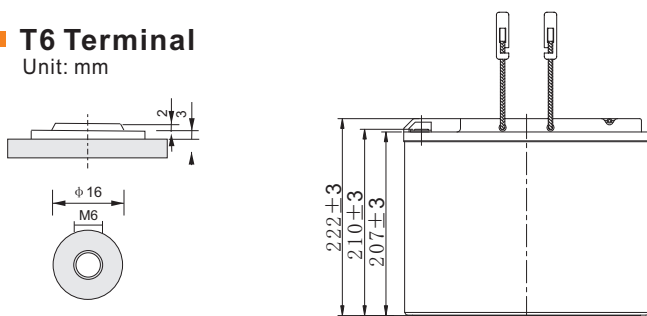
Specifications subject to change without notice.



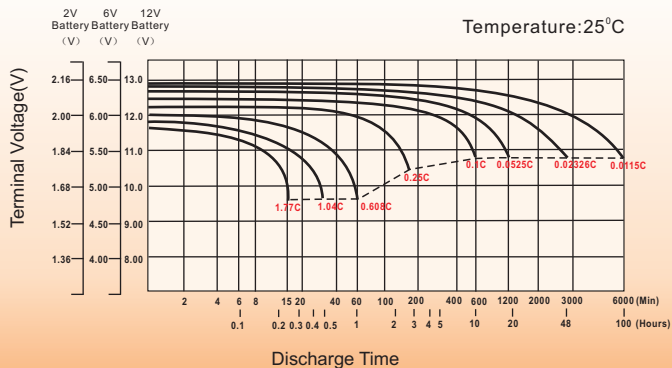
Dimensions

T6 Terminal

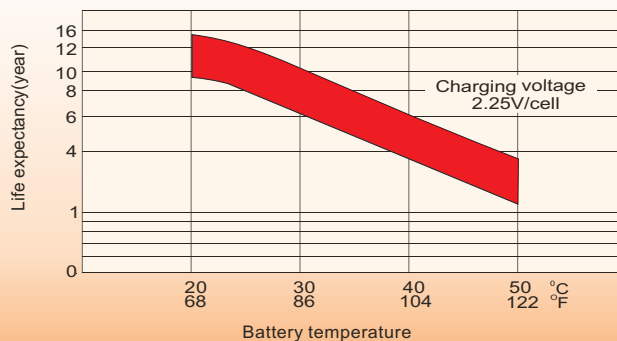
Unit: mm



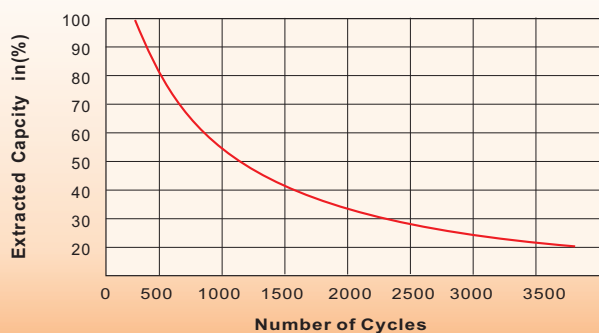
Discharge Characteristics



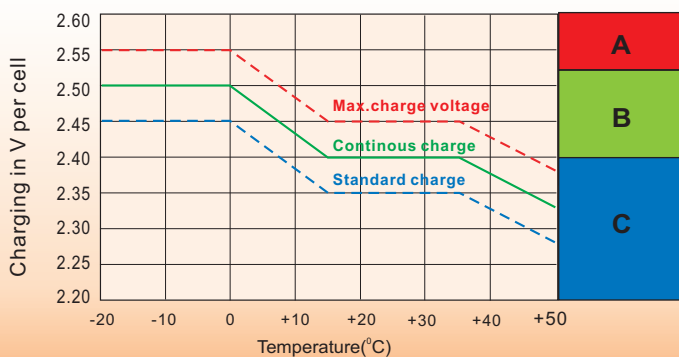
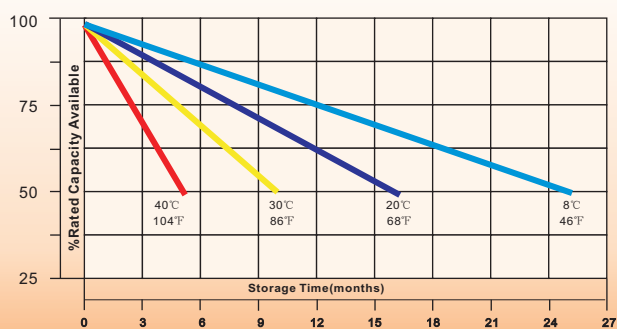
Effect of Temperature on Long Term Float Life



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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