

# LPX SERIES-High Rate / UPS

## LPX12-72 (12V, 237.7 WPC, 72.8AH)

### Specification

Nominal Voltage	12V
Watts/Cell(15min Rate)	237.7 Watts/Cell at 1.67V/cell
Dimension	Length 260±2mm (10.24 inches)
	Width 168±2mm (6.61 inches)
	Container Height 208±2mm (8.19 inches)
	Total Height (with Terminal) 214±2mm (8.43 inches)
	Approx Weight 22.5 kg (49.6 lbs)
Terminal	T6
Container Material	ABS to UL94-HB (Flame retardant UL94V-0 available)
Rated Capacity	74.4 AH/7.44A (10hr, 1.80V/cell, 25°C/77°F)
	72.8 AH/9.10A (8hr, 1.75V/cell, 25°C/77°F)
	65.5 AH/13.1A (5hr, 1.75V/cell, 25°C/77°F)
	56.7 AH/18.9A (3hr, 1.75V/cell, 25°C/77°F)
	46.2 AH/46.2A (1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	864A (5s)
Internal Resistance	Approx 6.6mΩ
Operating Temp. Range	Discharge : -20~60°C (-4~140°F)
	Charge : 0~50°C (32~122°F)
	Storage : -20~60°C (-4~140°F)
Nominal Operating Temp. Range	25±3°C (77±5°F)
Cycle Use	Initial Charging Current less than 21.6A. Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C
	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 LPX 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

- ◆ Uninterruptable Power Systems (UPS)
- ◆ High power backup supply
- ◆ Emergency power supply
- ◆ Critical DC Power Systems
- ◆ Critical Alarm Systems
- ◆ Security Surveillance Systems
- ◆ Emergency lighting
- ◆ Electric starting
- ◆ Railway signal back-up



### Constant Current Discharge (Amperes) at 25 °C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	123.9	105.8	89.6	76.5	59.1	44.8	36.3	22.9	17.5	14.3	12.2	10.7	8.6	7.18	3.81
1.80V/cell	162.7	129.0	104.4	87.0	65.2	48.4	39.4	24.2	18.3	15.0	12.8	11.2	8.9	7.44	3.87
1.75V/cell	181.3	140.2	113.3	93.1	69.2	51.1	41.1	25.1	18.9	15.4	13.1	11.4	9.1	7.51	3.94
1.70V/cell	196.9	150.0	120.7	98.1	72.9	53.6	42.7	25.8	19.3	15.8	13.3	11.6	9.2	7.59	3.97
1.67V/cell	217.6	163.4	129.2	104.8	76.4	55.7	44.2	26.5	19.9	16.1	13.6	11.8	9.3	7.69	4.01
1.60V/cell	229.4	172.3	136.0	109.4	79.5	57.8	46.2	27.3	20.5	16.5	13.9	12.0	9.4	7.77	4.05

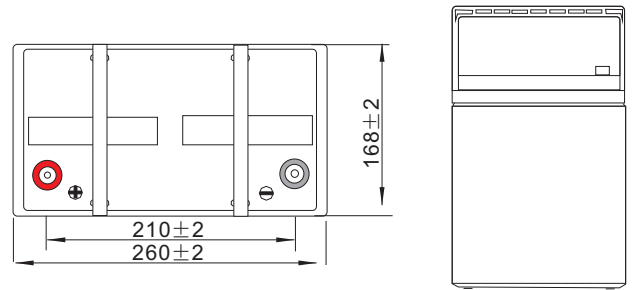
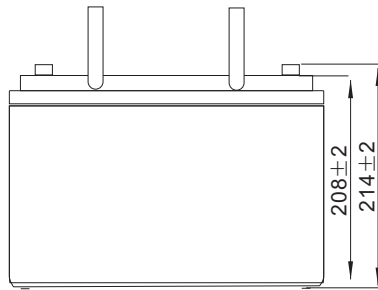
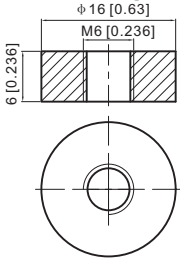
### Constant Power Discharge (Watts/cell) at 25 °C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	232.4	200.5	171.4	147.4	114.7	87.5	71.2	45.1	34.5	28.4	24.4	21.3	17.3	14.4	7.66
1.80V/cell	302.5	242.7	198.4	166.7	125.9	94.1	77.0	47.5	36.1	29.7	25.4	22.2	17.8	14.9	7.75
1.75V/cell	333.9	261.7	214.0	177.6	133.1	99.0	80.1	49.1	37.2	30.4	25.9	22.6	18.1	15.0	7.85
1.70V/cell	357.4	276.3	225.3	185.3	139.0	102.9	82.5	50.1	37.7	30.8	26.1	22.8	18.2	15.0	7.86
1.67V/cell	388.6	296.4	237.7	195.4	144.1	106.0	84.6	51.1	38.5	31.3	26.4	23.0	18.3	15.1	7.88
1.60V/cell	400.0	305.9	245.3	199.9	147.0	108.1	87.1	51.9	39.1	31.6	26.6	23.2	18.2	15.0	7.85

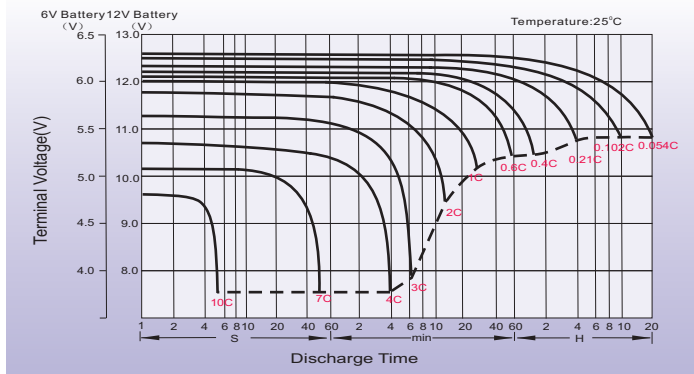
## Dimensions

### T6 Terminal

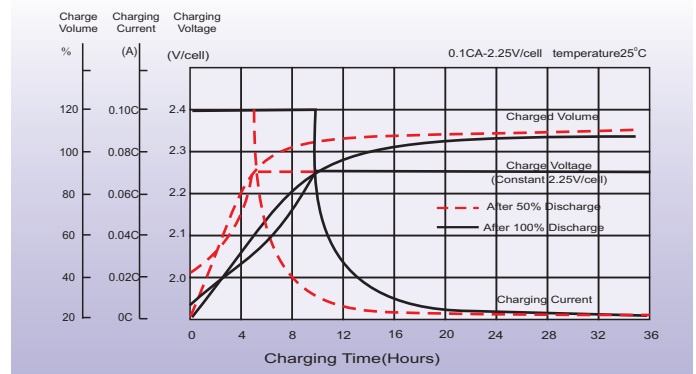
Unit: mm [inches]



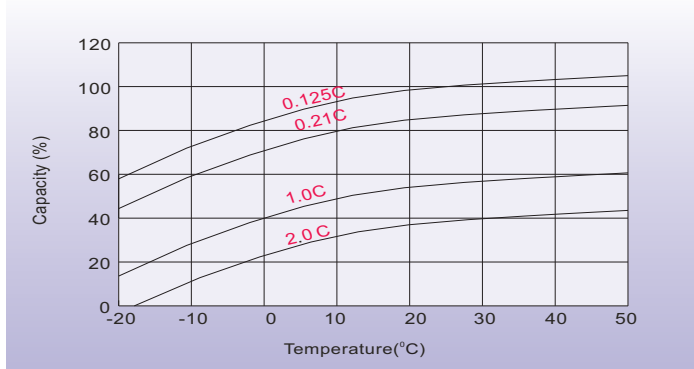
## Discharge Characteristics



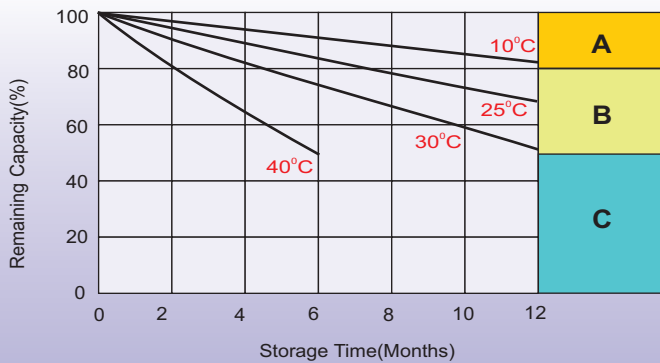
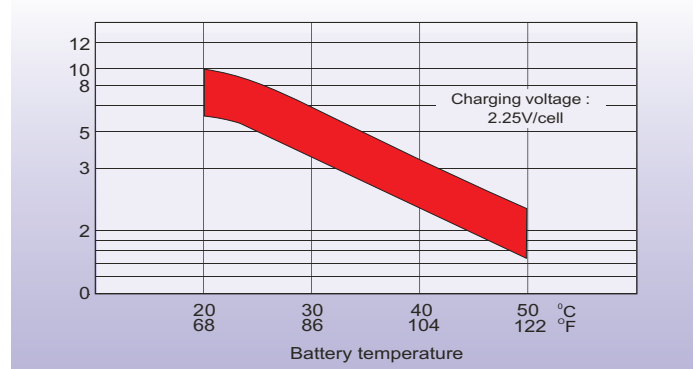
## Float Charging Characteristics



## Temperature Effects in Relation to Battery Capacity



## Effect of Temperature on Long Term Float Life



## Self Discharge Characteristics

- A** No supplementary charge required  
(Carry out supplementary charge before use if 100% capacity is required.)
- B** Supplementary charge required before use. Optional charging way as below:
  1. Charged for above 3 days at limited current 0.25CA and constant voltage 2.25V/cell.
  2. Charged for above 20 hours at limited current 0.25CA and constant voltage 2.45V/cell.
  3. Charged for 8-10 hours at limited current 0.05CA.
- C** Supplementary charge may often fail to recover the capacity.  
The battery should never be left standing till this is reached.

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