

# LPX SERIES-High Rate / UPS

## LPX12-120 (12V, 483.8 WPC, 121.6AH)

### Specification

Nominal Voltage	12V	
Watts/Cell(15min Rate)	483.8 Watts/Cell at 1.67V/cell	
Dimension	Length	408±3mm (16.06 inches)
	Width	177±2mm (6.97 inches)
	Container Height	225±3mm (8.86 inches)
	Total Height (with Terminal)	225±3mm (8.86 inches)
Approx Weight	Approx 37.6 kg (82.9 lbs)	
Terminal	T11	
Container Material	ABS to UL94-HB (Flame retardant UL94V-0 available)	
Rated Capacity	124.0 AH/12.4A	(10hr, 1.80V/cell, 25°C/77°F)
	121.6 AH/15.2A	(8hr, 1.75V/cell, 25°C/77°F)
	105.0 AH/21.0A	(5hr, 1.75V/cell, 25°C/77°F)
	93.90 AH/31.3A	(3hr, 1.75V/cell, 25°C/77°F)
	85.30 AH/85.3A	(1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	1300A (5s)	
Internal Resistance	Approx 4mΩ	
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 36A. 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 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	250.6	205.2	182.4	156.2	118.1	88.0	69.6	39.8	29.0	23.3	19.6	17.1	14.4	11.9	6.22
1.80V/cell	315.4	242.6	207.8	175.3	129.6	94.4	74.4	42.0	30.5	24.4	20.4	17.8	15.0	12.4	6.47
1.75V/cell	361.4	271.4	229.9	189.4	136.1	97.6	77.4	43.4	31.3	24.9	21.0	18.3	15.2	12.5	6.53
1.70V/cell	393.1	295.9	244.8	199.4	142.6	101.6	80.3	44.8	32.2	25.5	21.5	18.7	15.4	12.6	6.60
1.67V/cell	427.7	315.4	263.0	209.2	148.1	105.3	83.3	46.2	33.1	26.3	22.0	19.1	15.6	12.8	6.66
1.60V/cell	466.6	335.5	271.7	216.7	152.9	108.0	85.3	47.5	33.8	26.8	22.4	19.6	15.8	12.9	6.74

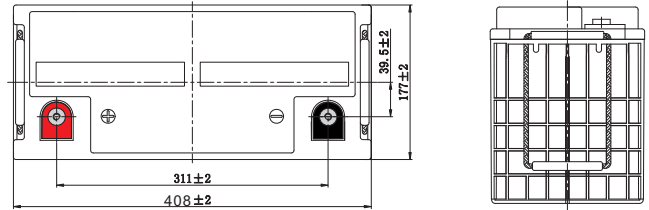
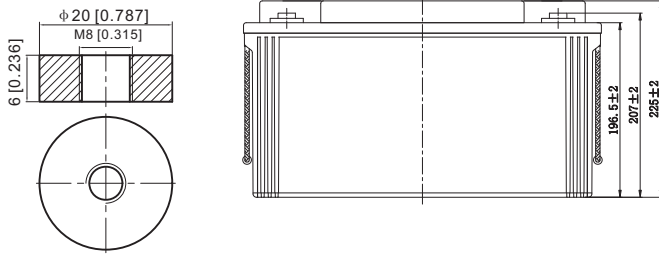
### Constant Power Discharge (Watts/cell) at 25 °C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	470.0	388.8	348.9	301.2	229.2	171.7	136.4	78.5	57.3	46.3	39.1	34.1	28.9	23.9	12.5
1.80V/cell	586.2	456.4	395.0	336.1	250.4	183.4	145.4	82.5	60.2	48.3	40.5	35.5	29.9	24.8	13.0
1.75V/cell	665.7	506.8	434.3	361.3	261.8	189.1	150.9	84.9	61.4	49.0	41.4	36.3	30.1	24.8	13.0
1.70V/cell	713.7	545.2	457.0	376.5	271.7	195.2	155.2	86.9	62.7	49.9	42.2	36.8	30.3	25.0	13.1
1.67V/cell	763.7	572.1	483.8	389.9	279.1	200.3	159.5	88.9	64.0	51.0	42.8	37.3	30.4	25.0	13.1
1.60V/cell	813.4	595.7	490.1	396.1	282.8	202.0	160.9	90.0	64.5	51.3	43.1	37.7	30.5	25.0	13.1

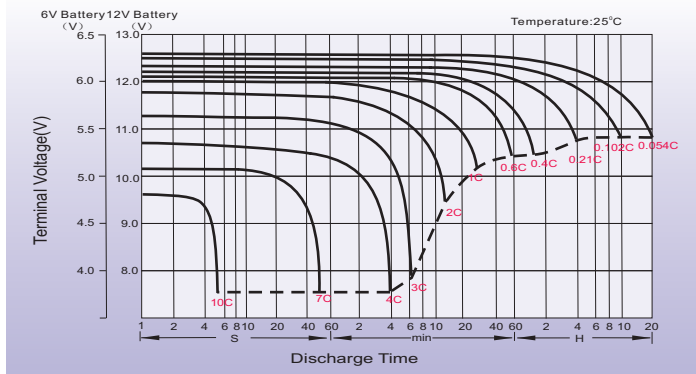
# Dimensions

## T11 Terminal

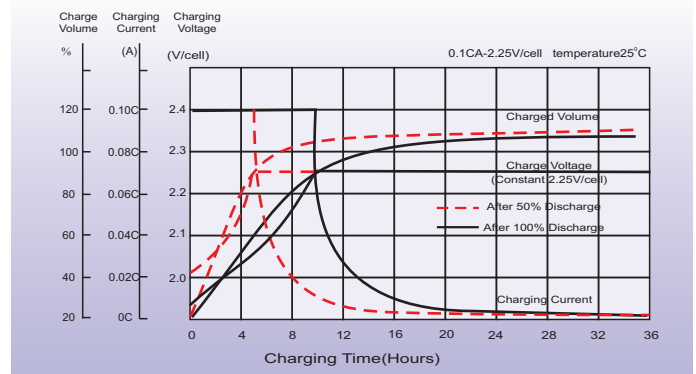
Unit: mm [inches]



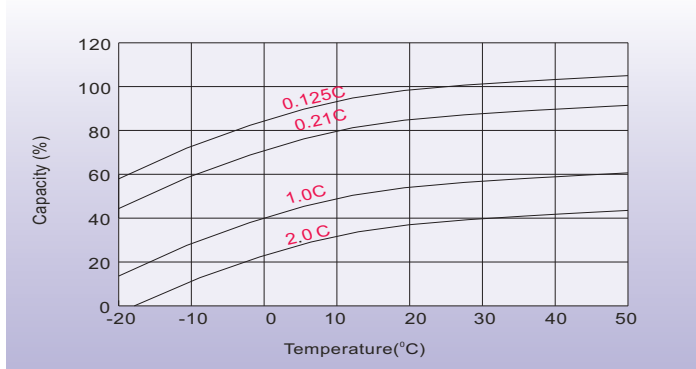
## Discharge Characteristics



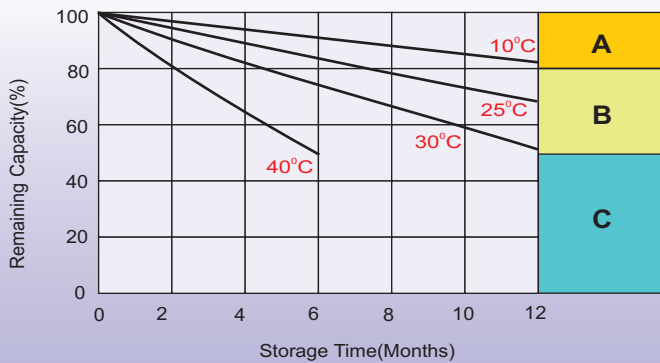
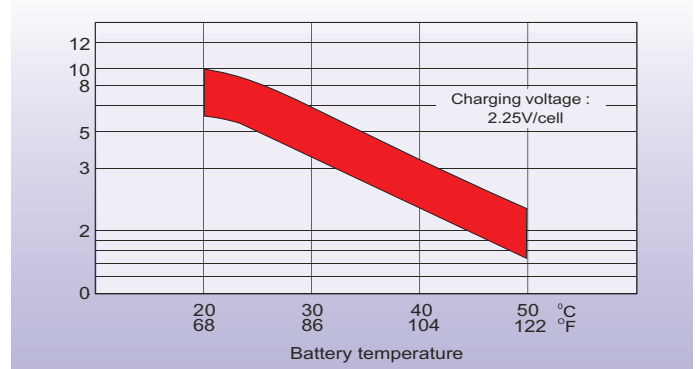
## Float Charging Characteristics



## 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.

## Sales Office

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