

# LPX SERIES-High Rate / UPS

## LPX12-35 (12V, 120.1 WPC, 33.8AH)

### Specification

Nominal Voltage	12V	
Watts/Cell(15min Rate)	120.1 Watts/Cell at 1.67V/cell	
Dimension	Length	195±2mm (7.68 inches)
	Width	130±2mm (5.12 inches)
	Container Height	164±2mm (6.46 inches)
	Total Height (with Terminal)	180±2mm (7.09 inches)
Approx Weight	Approx 10.5 kg (23.15 lbs)	
Terminal	T10	
Container Material	ABS to UL94-HB (Flame retardant UL94V-0 available)	
Rated Capacity	34.2 AH/3.42A	(10hr, 1.80V/cell, 25°C/77°F)
	33.8 AH/4.22A	(8hr, 1.75V/cell, 25°C/77°F)
	30.3 AH/6.06A	(5hr, 1.75V/cell, 25°C/77°F)
	26.6 AH/8.85A	(3hr, 1.75V/cell, 25°C/77°F)
	22.9 AH/22.9A	(1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	525A (5s)	
Internal Resistance	Approx 12mΩ	
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 10.0A. 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 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	69.5	55.5	48.9	41.7	31.5	23.4	18.8	11.1	8.31	6.77	5.74	5.03	4.07	3.35	1.72
1.80V/cell	79.9	62.3	52.9	44.7	33.2	24.6	19.8	11.5	8.61	6.97	5.93	5.18	4.16	3.42	1.76
1.75V/cell	89.1	68.3	56.7	47.6	34.8	25.7	20.5	11.9	8.85	7.16	6.06	5.28	4.22	3.46	1.78
1.70V/cell	100.3	73.3	60.7	50.0	36.6	26.7	21.3	12.3	9.14	7.34	6.19	5.38	4.27	3.50	1.80
1.67V/cell	109.5	78.9	63.7	52.5	38.2	27.8	22.1	12.7	9.39	7.53	6.33	5.48	4.35	3.56	1.81
1.60V/cell	118.3	83.7	67.1	54.6	39.6	28.8	22.9	13.2	9.60	7.69	6.45	5.58	4.41	3.61	1.83

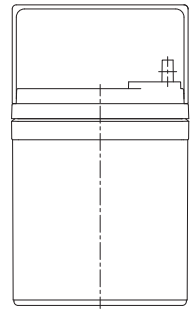
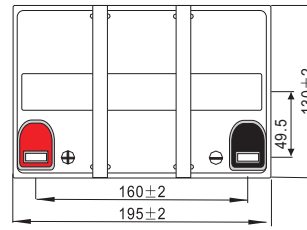
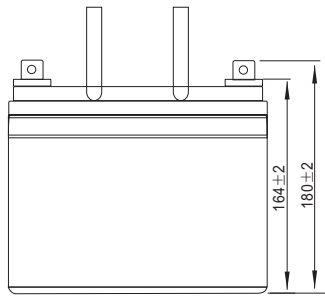
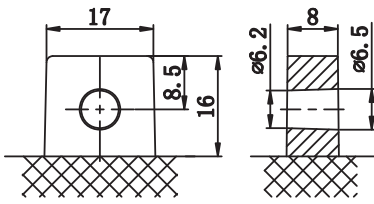
### Constant Power Discharge (Watts/cell) at 25 °C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	131.8	106.4	94.5	81.2	61.8	46.1	37.3	22.2	16.6	13.6	11.5	10.1	8.23	6.79	3.49
1.80V/cell	150.1	118.5	101.6	86.5	64.8	48.4	39.0	22.8	17.1	13.9	11.9	10.4	8.38	6.90	3.56
1.75V/cell	165.9	129.0	108.3	91.7	67.7	50.2	40.5	23.5	17.6	14.3	12.1	10.6	8.47	6.96	3.58
1.70V/cell	185.1	137.3	115.2	96.0	70.8	52.1	41.9	24.3	18.1	14.6	12.3	10.7	8.54	7.01	3.61
1.67V/cell	200.3	146.7	120.1	100.3	73.6	54.1	43.3	25.1	18.5	14.9	12.6	10.9	8.68	7.12	3.63
1.60V/cell	214.2	154.4	125.8	103.8	76.0	55.8	44.6	25.8	18.9	15.2	12.8	11.1	8.78	7.20	3.65

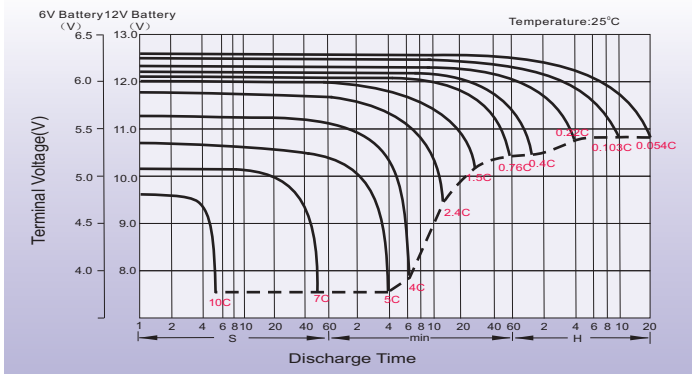
## Dimensions

### T10 Terminal

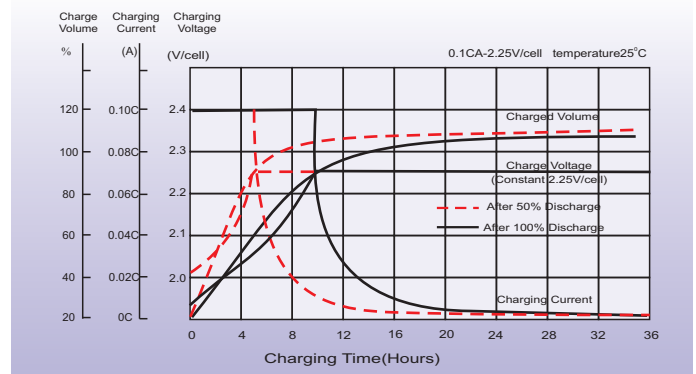
Unit: mm [inches]



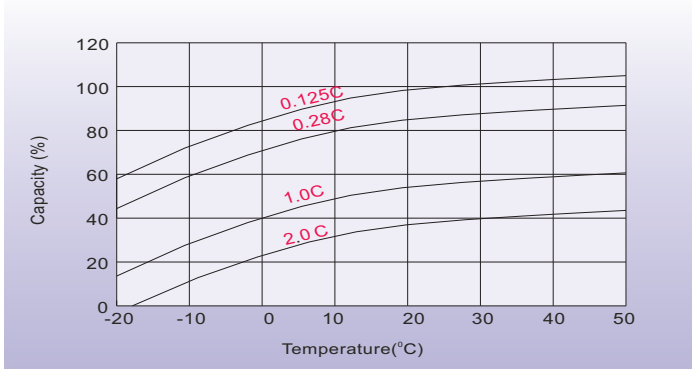
## Discharge Characteristics



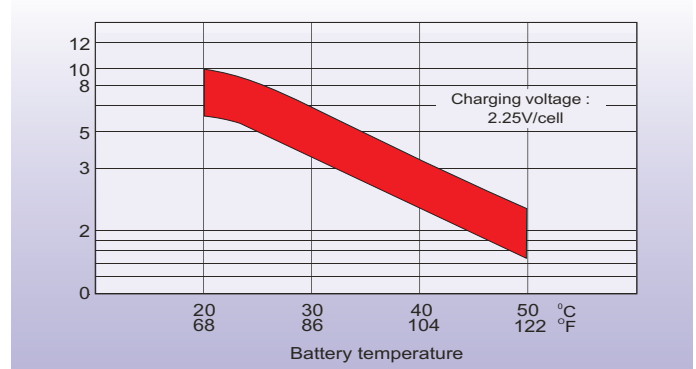
## Float Charging Characteristics



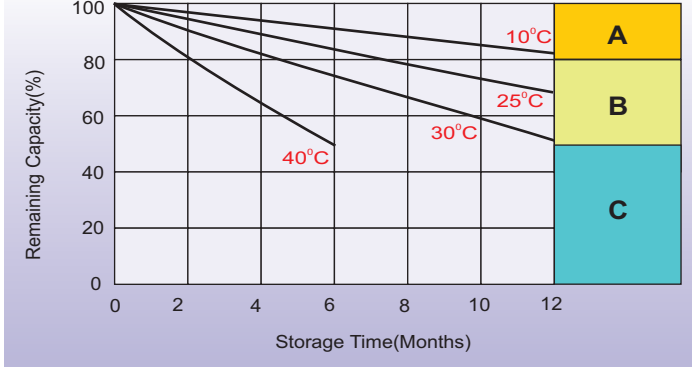
## Temperature Effects in Relation to Battery Capacity



## 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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