

LP SERIES-General Purpose

LP2-500 (2V500AH)

Specification

Nominal Voltage	2V	
Nominal Capacity(10HR)	500.0AH	
Dimensions	Length	240 ± 3mm (9.45 inches)
	Width	175 ± 2mm (6.89 inches)
	Container Height	330 ± 3mm (12.99 inches)
	Total Height (with Terminal)	350 ± 3mm (13.78 inches)
Approx Weight	Approx 29.3 kg (64.6lbs)	
Terminal	T11	
Container Material	ABS	
Rated Capacity	526.0 AH/26.3A	(20hr, 1.80V/cell, 25°C/77°F)
	500.0 AH/50.0A	(10hr, 1.80V/cell, 25°C/77°F)
	435.0 AH/87.0A	(5hr, 1.75V/cell, 25°C/77°F)
	378.0 AH/126.0A	(3hr, 1.75V/cell, 25°C/77°F)
	303.5 AH/303.5A	(1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	4000A (5s)	
Internal Resistance	Approx 0.6mΩ	
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 150.0A. Voltage 2.4V~2.5V at 25°C(77°F)Temp. Coefficient -5mV/°C	
	Standby Use No limit on Initial Charging Current Voltage 2.25V~2.3V at 25°C(77°F)Temp. Coefficient -3mV/°C	
Capacity affected by Temperature	40°C (104°F)	103%
	25°C (77°F)	100%
	0°C (32°F)	86%
Self Discharge	Leoch LP 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

- ◆ Tele-communication central station (wired or cellular)
- ◆ Power system communication, military communication, etc.
- ◆ Network communication including: data transmission, television signal transmission, etc.
- ◆ Uninterruptable Power System (UPS- for Telecom)



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

F.V/Time	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	383.4	304.0	249.5	149.9	115.8	95.1	81.0	70.8	57.0	47.8	25.3
1.80V/cell	411.4	319.8	265.0	158.1	121.5	99.4	84.4	73.9	59.2	50.0	26.3
1.75V/cell	435.6	336.3	276.5	164.7	126.0	102.8	87.0	75.7	60.3	50.5	26.5
1.70V/cell	457.1	349.0	286.2	169.5	129.3	105.0	88.5	77.0	61.3	51.0	26.8
1.65V/cell	479.5	364.2	296.5	174.6	132.2	107.3	90.4	78.3	62.1	51.7	27.1
1.60V/cell	496.0	374.0	303.5	178.8	135.0	108.8	91.7	79.4	62.9	52.3	27.4

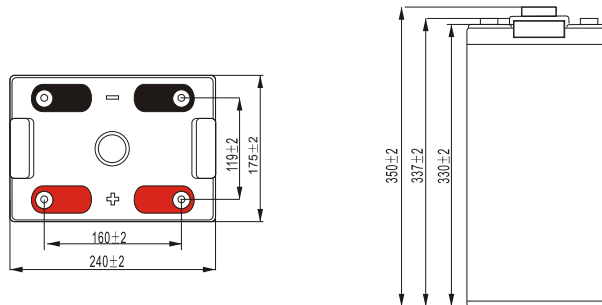
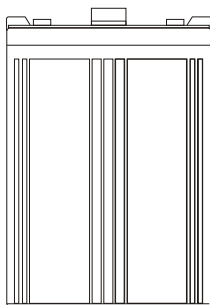
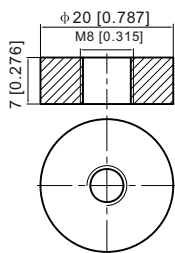
Constant Power Discharge (Watts) at 25 °C (77°F)

F.V/Time	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	732.7	584.5	482.6	291.5	226.4	186.6	159.6	139.8	113.1	95.0	50.4
1.80V/cell	779.9	610.9	509.7	306.1	236.3	194.2	165.5	145.5	117.1	99.3	52.2
1.75V/cell	819.6	638.6	529.5	317.5	244.4	200.2	170.1	148.5	119.1	100.2	52.6
1.70V/cell	852.7	658.0	545.2	325.5	250.0	203.7	172.5	150.8	120.8	101.1	53.1
1.65V/cell	887.8	682.8	561.6	333.8	254.3	207.4	175.6	153.0	122.2	102.2	53.7
1.60V/cell	909.2	694.7	570.9	339.6	258.4	209.3	177.4	154.6	123.5	103.2	54.3

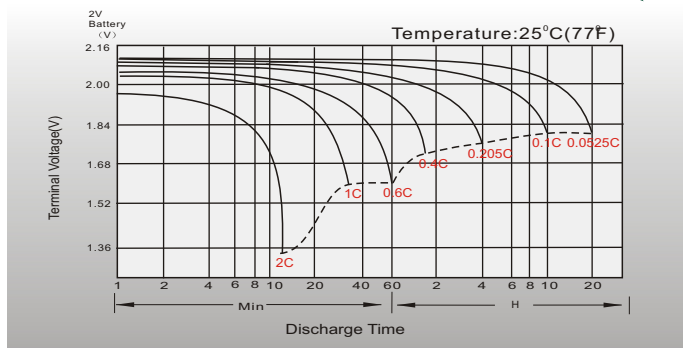
Dimensions

T11 Terminal

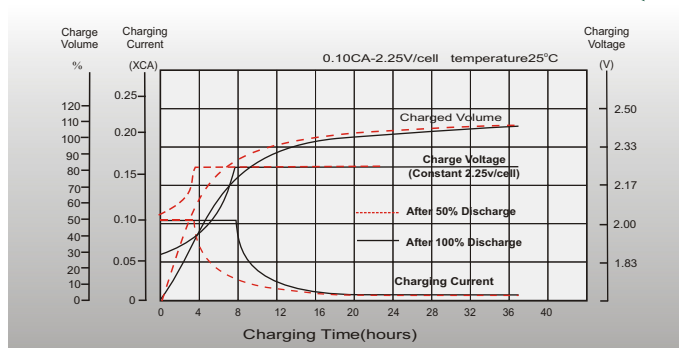
Unit: mm [inches]



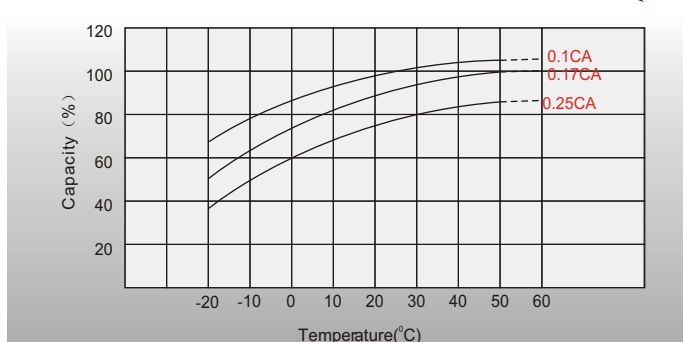
Discharge Characteristics



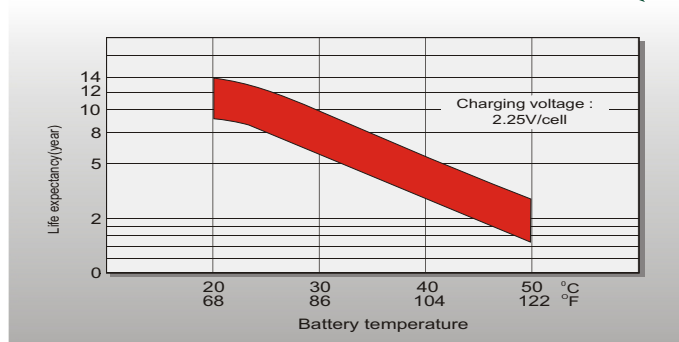
Float Charging Characteristics



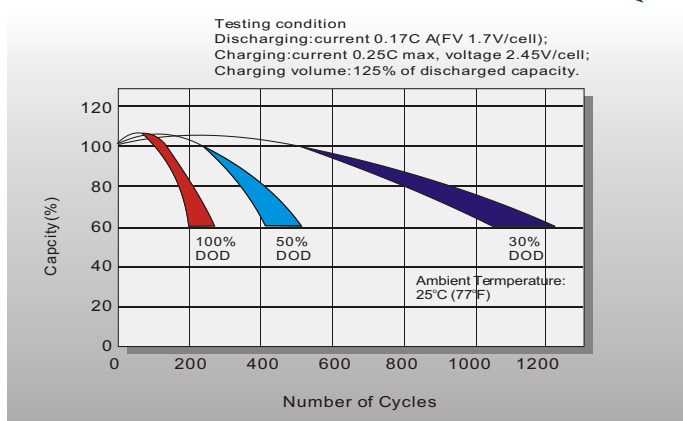
Temperature Effects in Relation to Battery Capacity



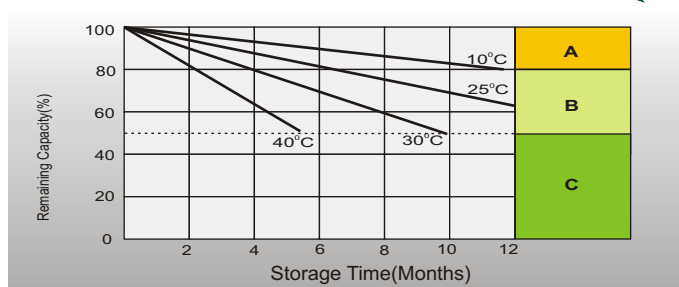
Effect of Temperature on Long Term Float Life



Cycle Life in Relation to Depth of Discharge



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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