

LP SERIES-General Purpose

491460212 (12V12AH)



Specification	
Nominal Voltage	12V
Nominal Capacity(20HR)	12.0AH
Dimension	Length 151 ± 1mm (5.95 inches)
	Width 98 ± 1mm (3.86 inches)
	Container Height 95 ± 1mm (3.74 inches)
	Total Height (with Terminal) 101 ± 1mm (3.98 inches)
Approx Weight	Approx 3.60 kg (7.94lbs)
Terminal	T1 / T2
Container Material	ABS
Rated Capacity	12.0 AH/0.60A (20hr, 1.80V/cell, 25 °C/77 °F)
	11.2 AH/1.12A (10hr, 1.80V/cell, 25 °C/77 °F)
	10.2 AH/2.04A (5hr, 1.75V/cell, 25 °C/77 °F)
	9.2 AH/3.06A (3hr, 1.75V/cell, 25 °C/77 °F)
	7.54AH/7.54A (1hr, 1.60V/cell, 25 °C/77 °F)
Max. Discharge Current	180A (5s)
Internal Resistance	Approx 14m Ω
Operating Temperature Range	Discharge : -15 ~ 50°C (5 ~ 122°F)
	Charge : 0 ~ 40°C (32 ~ 104°F)
Nominal Operating Temperature Range	Storage : -15 ~ 40°C (5 ~ 104°F)
	25 ± 3°C (77 ± 5°F)
Cycle Use	Initial Charging Current less than 3.6A. 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 LP series batteries may be stored for up to 6 months at 25°C (77°F) and then a refreshing charge is required. For higher temperatures the time interval will be shorter.

Applications

- ◆ All purpose
- ◆ Uninterruptable Power Supply(UPS)
- ◆ Electric Power System(EPS)
- ◆ Emergency backup power supply
- ◆ Emergency light
- ◆ Railway signal
- ◆ Aircraft signal
- ◆ Alarm and security system
- ◆ Electronic apparatus and equipment
- ◆ Communication power supply
- ◆ DC power supply
- ◆ Auto control system



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

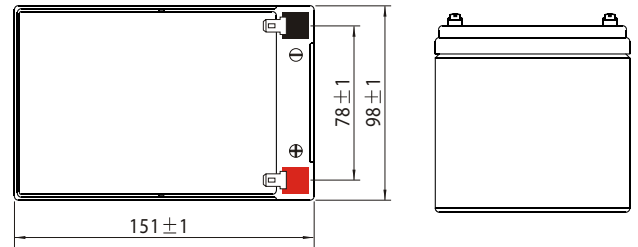
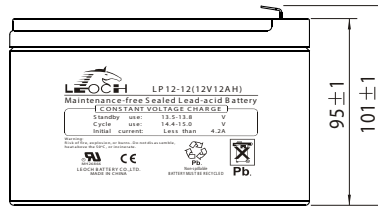
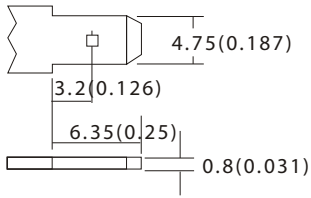
F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	22.9	17.5	14.5	12.6	9.72	7.16	6.03	3.57	2.79	2.27	1.85	1.61	1.30	1.08	0.594
1.80V/cell	30.7	22.4	17.6	14.9	11.5	8.33	6.76	3.90	3.00	2.42	1.99	1.72	1.37	1.12	0.600
1.75V/cell	34.6	24.6	19.2	16.0	11.9	8.64	7.07	4.04	3.06	2.48	2.04	1.77	1.40	1.15	0.606
1.70V/cell	38.1	26.9	20.5	16.8	12.4	8.99	7.29	4.14	3.15	2.54	2.09	1.81	1.42	1.17	0.617
1.65V/cell	42.0	29.0	21.8	17.8	13.1	9.21	7.46	4.20	3.28	2.63	2.15	1.85	1.44	1.19	0.625
1.60V/cell	46.3	31.5	23.3	19.0	13.8	9.60	7.54	4.38	3.38	2.71	2.22	1.89	1.45	1.21	0.629

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

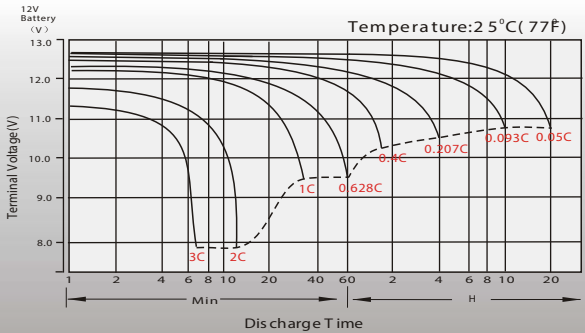
F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	41.8	32.4	27.1	23.7	18.5	13.8	11.6	6.93	5.44	4.44	3.63	3.16	2.56	2.14	1.18
1.80V/cell	55.5	40.9	32.3	27.6	21.5	15.9	13.0	7.51	5.82	4.71	3.88	3.37	2.71	2.21	1.19
1.75V/cell	61.2	44.3	34.9	29.4	22.2	16.3	13.5	7.76	5.91	4.80	3.97	3.46	2.75	2.26	1.20
1.70V/cell	65.6	47.1	36.7	30.7	22.9	16.9	13.9	7.94	6.06	4.92	4.06	3.52	2.78	2.31	1.22
1.65V/cell	71.3	50.4	38.7	32.3	24.0	17.2	14.1	8.01	6.29	5.07	4.16	3.59	2.82	2.35	1.23
1.60V/cell	76.8	53.5	40.8	34.1	25.2	17.8	14.2	8.31	6.45	5.21	4.28	3.65	2.84	2.37	1.24

Dimensions

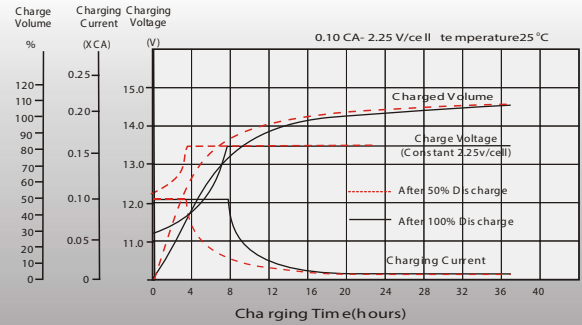
T1 Terminal Unit: mm [inches]



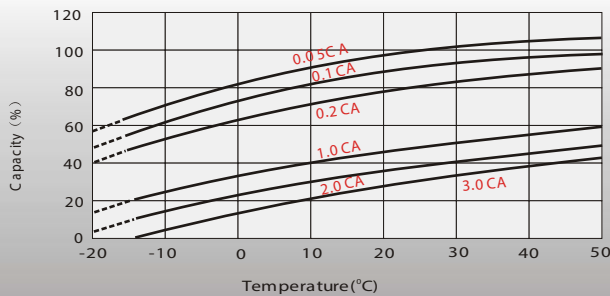
Discharge Characteristics



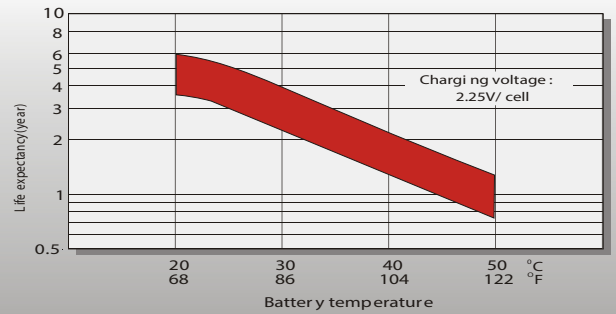
Float Charging Characteristics



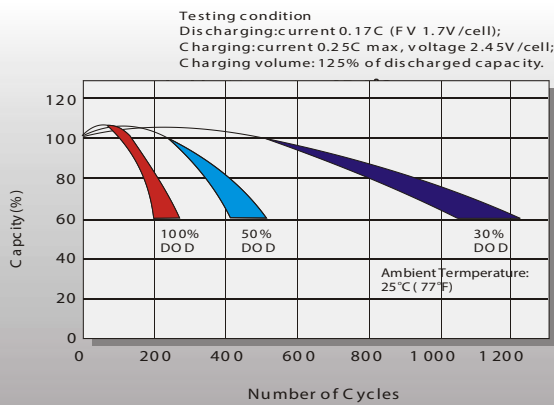
Temperature Effects in Relation to Battery Capacity



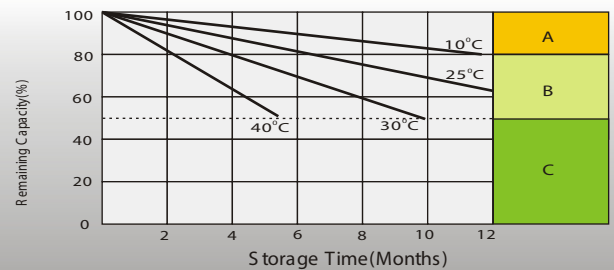
Effect of Temperature on Long Term Float Life



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 ways as below:
 - Charged for a above 3 days at limited current 0.25CA and constant voltage 2.25V/cell.
 - Charged for a above 20 hours at limited current 0.25CA and constant voltage 2.45V/cell.
 - Charged for 8 ~10 hours at limited current 0.05 CA.
- C** Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this is reached.