

LF Series Battery

LF series batteries are superior long life design with thick plates, special grid alloy and unique electrolyte, Which can extend battery life and give extra power output for common power backup system. Battery floating service life can target 10 years e at 25 C . Meet with IEC, BS,JIS and Eurobat standard,UL(MH62092),CE approved.

Application

- * Emergency Power System
- * Communication equipment
- * Telecommunication systems
- * Uninterruptible power supplies
- * Power tools
- * Alarm system
- * Marine equipment
- * Medical equipment
- * Fire and Security System



General Features

- * Heavy Duty Grid
- * Mechanized assembly
- * Non-spillable construction
- * High Reliability and Stability
- * Sealed and Maintenance-free
- * Long Life and low self-discharge design

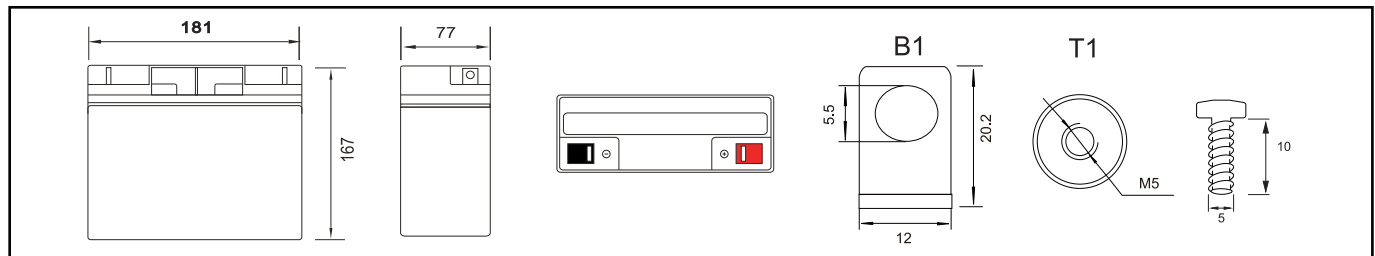
Construction

- * Positive Lead dioxide
- * Electrolyte Sulfuric acid
- * Separator Fiber glass
- * Container ABS(UL94-HB) / Flame Retardant ABS (UL94-V0)
- * Negative Lead
- * Safety Valve EPDR
- * Terminal Copper

Specification

Battery Model	Nominal Voltage		12V	
	Rated capacity (20 Hour rate)		20Ah	
	Cells Per battery		6	
Dimension	Length	Width	Height	Total Height
	181mm (7.12 inches)	77mm (3.03 inches)	158mm (6.22 inches)	167mm (6.57 inches)
Approx Weight	5.30kg (11.68lbs) ± 3%			
Capacity @ 25°C (77°F)	20 hour rate(1.02A,10.5V)	10 hour rate(1.91A,10.8V)	5 hour rate(3.58A,10.5V)	1 hour rate(12.60A,9.6V)
	20.4Ah	19.1Ah	17.9Ah	12.60Ah
Max.discharge current	270A (5 Sec.)			
Internal Resistance	Full charged at 25°C: Approx 11.5mΩ			
Capacity affected by Temp.(20 HR)	40°C (104°F)	25°C (77°F)	0°C (32°F)	-15°C (5°F)
	102%	100%	85%	65%
Self Discharge @25°C (77°F)	After 3 months storage		After 6 months storage	After 12 months storage
	91%		82%	64%
Charge method @25°C (77°F)	Cycle Use		Float Use	
	14.4-14.7V (Initial charging current less than 6A)		13.50-13.80V	

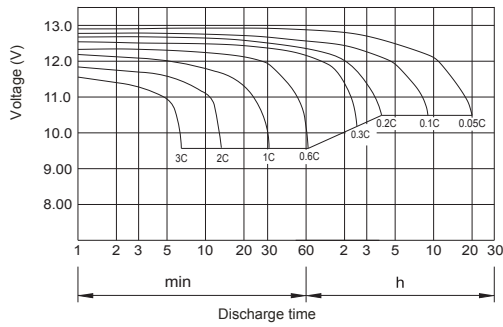
Outer dimension (mm)



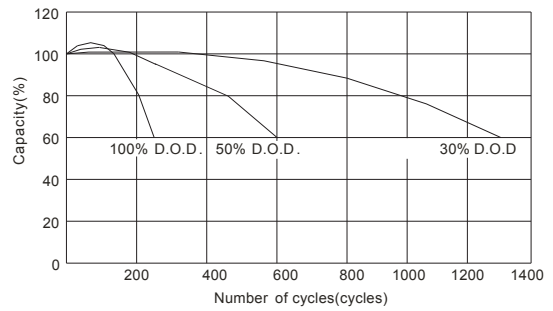
Terminal Type (mm)

Constant Current(Amp) and Constant Power(Watt) Discharge Table at 25°C (77°F)												
F.V/time	5MIN	10MIN	15MIN	30MIN	60MIN	90MIN	2HR	3HR	5HR	8HR	10HR	20HR
1.60V	74.800	51.032	38.600	20.660	12.600	9.222	7.446	5.304	3.620	2.485	2.023	1.121
	138.346	97.419	74.498	41.155	25.137	18.413	14.899	10.613	7.243	4.971	4.048	2.243
1.67V	66.406	47.623	36.595	20.219	12.509	9.130	7.409	5.276	3.600	2.464	1.992	1.065
	122.801	90.902	70.683	40.296	24.957	18.235	14.837	10.576	7.216	4.940	3.994	2.135
1.70V	62.862	45.919	35.692	20.042	12.417	9.121	7.391	5.263	3.599	2.439	1.967	1.036
	116.273	87.705	68.994	39.945	24.804	18.224	14.806	10.552	7.216	4.893	3.945	2.079
1.75V	56.893	43.212	34.189	19.689	12.235	9.003	7.344	5.230	3.580	2.432	1.950	1.020
	105.236	82.553	66.155	39.270	24.500	18.005	14.711	10.491	7.181	4.883	3.915	2.048
1.80V	50.830	40.304	32.785	19.247	12.143	8.939	7.298	5.202	3.570	2.411	1.919	0.986
	94.044	77.027	63.537	38.406	24.348	17.922	14.621	10.441	7.165	4.844	3.854	1.982
1.85V	44.768	37.397	31.081	18.718	11.961	8.838	7.233	5.156	3.550	2.380	1.887	0.953
	82.852	71.501	60.296	37.376	24.017	17.765	14.497	10.358	7.132	4.786	3.795	1.916

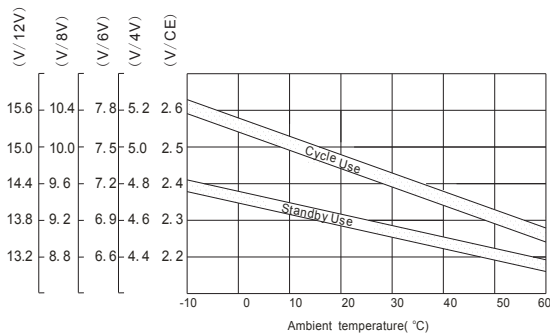
Discharge characteristic Curve



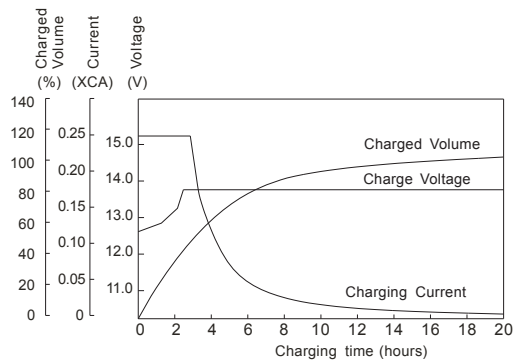
Cycle service life in relation to depth of discharge



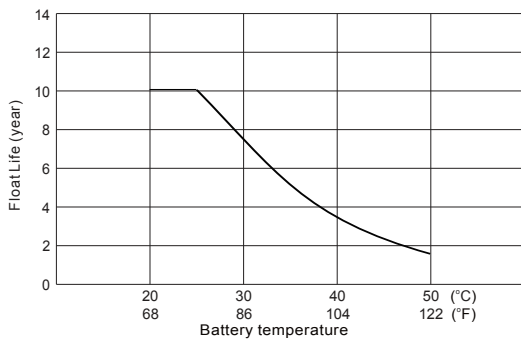
Relationship between charging voltage and temperature



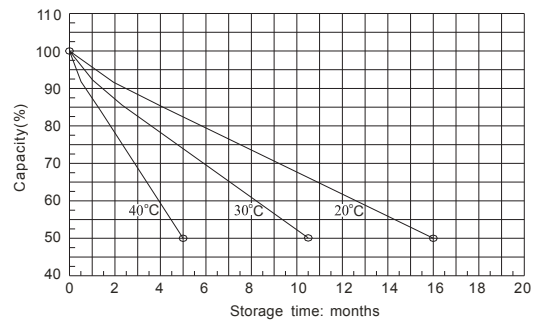
Constant voltage charging characteristic (0.25CA, at 25°C)



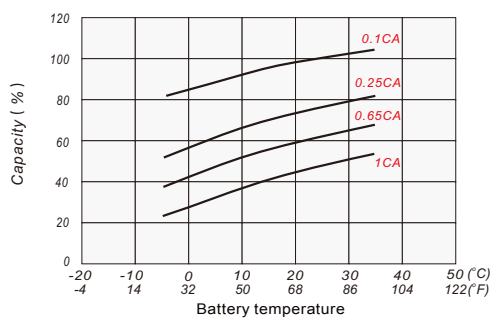
Temperature effects on float life



Self-discharge characteristic



Temperature Effects in Relation to Battery Capacity



Charge characteristic Curve for standby use

