

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

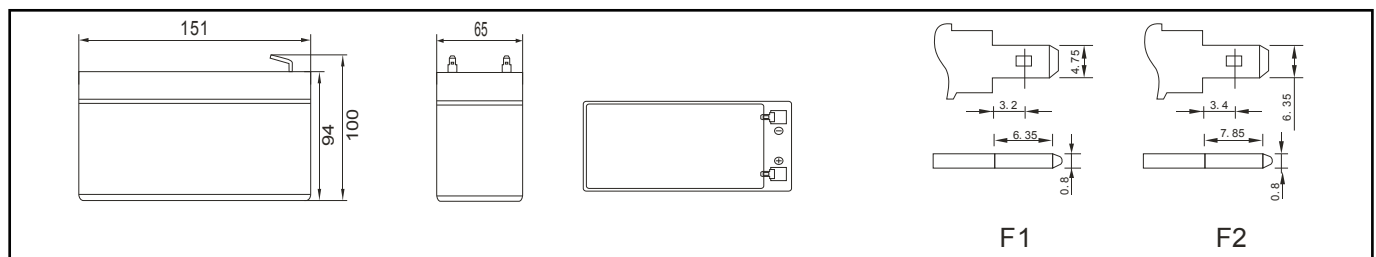
Construction

- * 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)		7.0Ah	
	Cells Per battery		6	
Dimension	Length	Width	Height	Total Height
	151mm (5.94 inches)	65mm (2.56 inches)	94mm (3.7 inches)	100mm (3.94 inches)
Approx Weight	2.0kg(4.41lbs) ± 3%			
Capacity @ 25°C (77°F)	20 hour rate(0.36A,10.5V)	10 hour rate(0.67A,10.5V)	3 hour rate(1.97A,10.8V)	1 hour rate(4.71A,9.6V)
	7.2Ah	6.7Ah	5.91Ah	4.71Ah
Max.discharge current	105A (5 Sec.)			
Internal Resistance	Full charged at 25°C (77°F) : Approx 28mΩ			
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	
	14.40-14.70V (Initial charging current less than 2.1A)		13.50-13.80V	

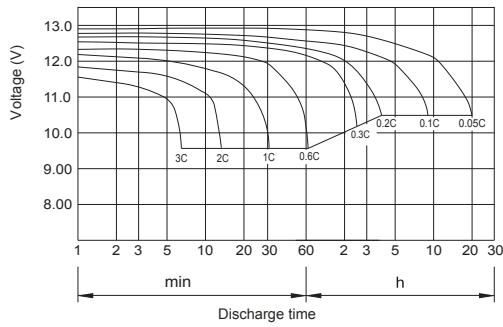
Outer dimension (mm)



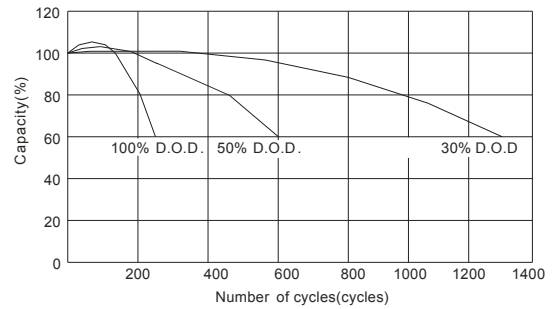
Terminal Type (mm)

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	27.300	18.774	14.200	7.870	4.710	3.447	2.833	2.018	1.377	0.854	0.695	0.396
	50.493	35.838	27.406	15.677	9.396	6.883	5.669	4.038	2.756	1.708	1.391	0.792
1.67V	24.236	17.519	13.462	7.702	4.676	3.413	2.819	2.008	1.370	0.847	0.684	0.376
	44.819	33.441	26.003	15.350	9.329	6.817	5.645	4.024	2.746	1.697	1.372	0.754
1.70V	22.943	16.892	13.130	7.635	4.642	3.410	2.812	2.003	1.369	0.838	0.676	0.366
	42.436	32.265	25.381	15.216	9.272	6.812	5.634	4.015	2.746	1.681	1.356	0.734
1.75V	20.764	15.897	12.577	7.500	4.573	3.365	2.794	1.990	1.362	0.836	0.670	0.360
	38.408	30.369	24.337	14.959	9.158	6.731	5.597	3.992	2.732	1.678	1.345	0.723
1.80V	18.552	14.827	12.061	7.332	4.539	3.341	2.777	1.979	1.358	0.828	0.659	0.348
	34.324	28.336	23.374	14.630	9.101	6.699	5.563	3.973	2.726	1.664	1.324	0.699
1.85V	16.339	13.757	11.434	7.130	4.471	3.304	2.752	1.962	1.351	0.818	0.648	0.336
	30.239	26.304	22.182	14.238	8.978	6.641	5.516	3.941	2.714	1.644	1.304	0.676

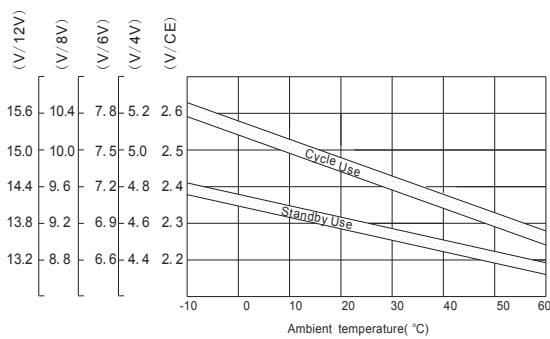
Discharge characteristic Curve



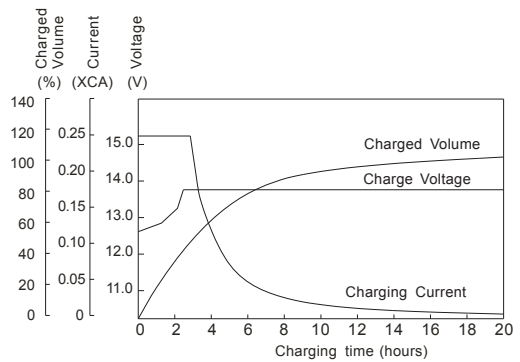
Cycle service life in relation to depth of discharge



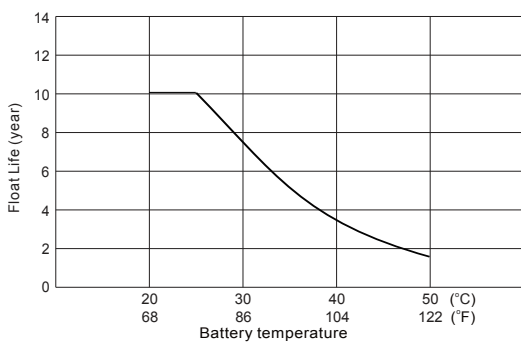
Relationship between charging voltage and temperature



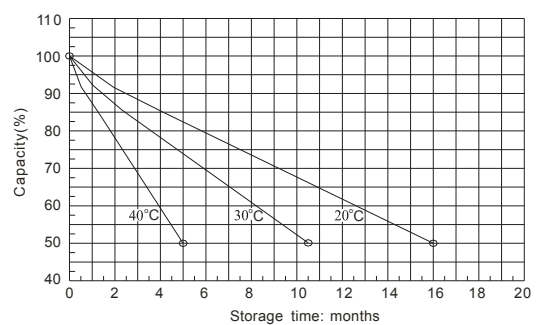
Constant voltage charging characteristic (0.25CA, at 25°C)



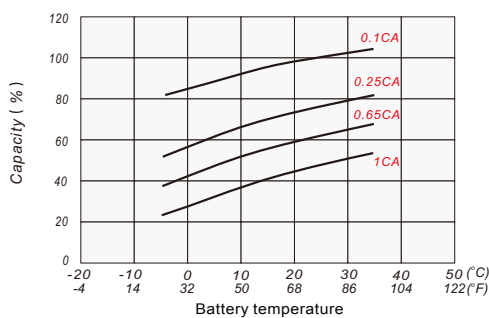
Temperature effects on float life



Self-discharge characteristic



Temperature Effects in Relation to Battery Capacity



Charge characteristic Curve for standby use

