

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

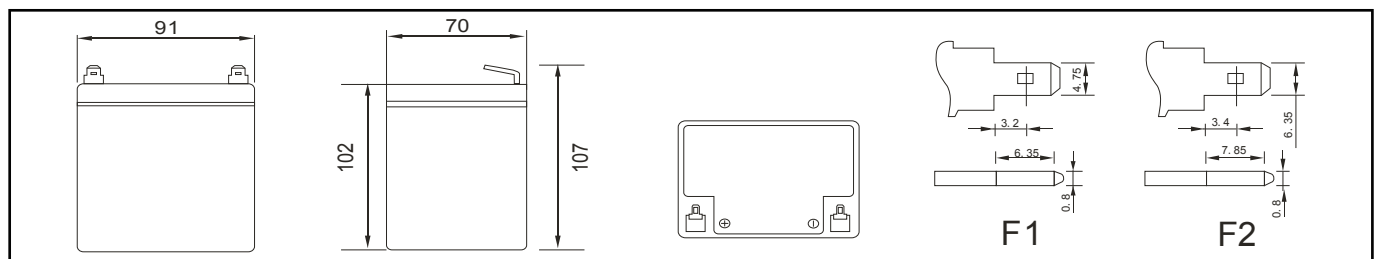
Construction

- * 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)		5.0Ah	
	Cells Per battery		6	
Dimension	Length	Width	Height	Total Height
	91mm (3.58 inches)	70mm (2.75 inches)	102mm (4.01 inches)	107mm (4.21 inches)
Approx Weight	1.41kg(3.10lbs) ± 3%			
Capacity @ 25°C (77°F)	20 hour rate(0.249A,10.5V)	10 hour rate(0.482A,10.8V)	5 hour rate(0.924A,10.5V)	1 hour rate(3.0A,9.6V)
	4.98Ah	9.64Ah	4.62Ah	3.0Ah
Max.discharge current	75A (5 Sec.)			
Internal Resistance	Full charged at 25°C (77°F) : Approx 36mΩ			
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 1.5A)		13.50-13.80V	

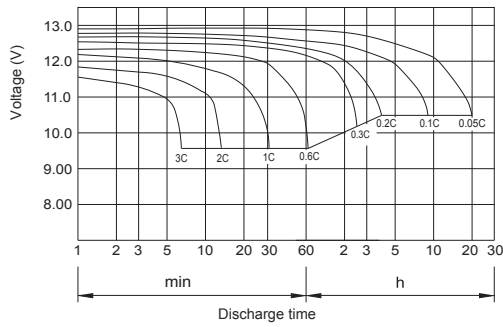
Outer dimension (mm)



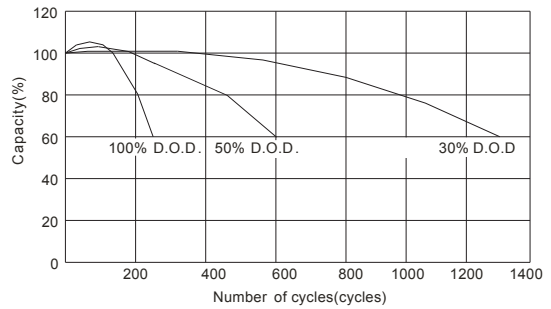
Terminal Type (mm)

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	16.500	11.502	8.700	5.120	3.000	2.196	1.922	1.369	0.934	0.624	0.508	0.274
	30.517	21.957	16.791	10.199	5.985	4.384	3.846	2.739	1.870	1.249	1.017	0.547
1.67V	14.648	10.734	8.248	5.011	2.978	2.174	1.912	1.362	0.929	0.619	0.501	0.260
	27.089	20.488	15.931	9.986	5.942	4.342	3.830	2.730	1.863	1.241	1.004	0.521
1.70V	13.867	10.350	8.045	4.967	2.957	2.172	1.908	1.359	0.929	0.613	0.494	0.253
	25.648	19.768	15.550	9.899	5.906	4.339	3.822	2.724	1.863	1.229	0.991	0.508
1.75V	12.550	9.739	7.706	4.879	2.913	2.143	1.896	1.350	0.924	0.611	0.490	0.249
	23.214	18.606	14.911	9.732	5.833	4.287	3.797	2.708	1.854	1.227	0.984	0.500
1.80V	11.213	9.084	7.389	4.770	2.891	2.128	1.884	1.343	0.922	0.606	0.482	0.241
	20.745	17.361	14.321	9.518	5.797	4.267	3.774	2.695	1.849	1.217	0.969	0.484
1.85V	9.875	8.429	7.005	4.639	2.848	2.104	1.867	1.331	0.916	0.598	0.474	0.233
	18.276	16.116	13.590	9.263	5.718	4.230	3.742	2.674	1.841	1.203	0.954	0.468

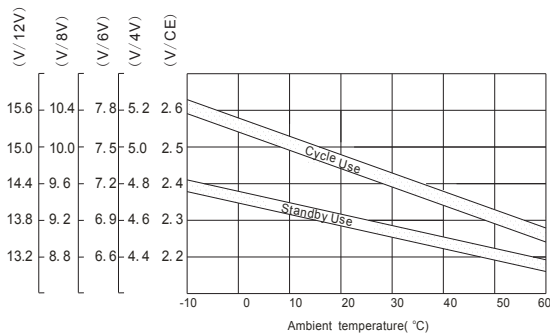
Discharge characteristic Curve



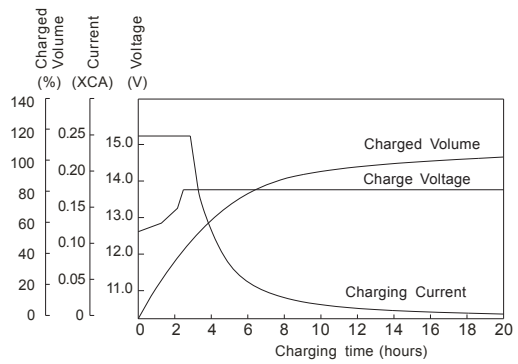
Cycle service life in relation to depth of discharge



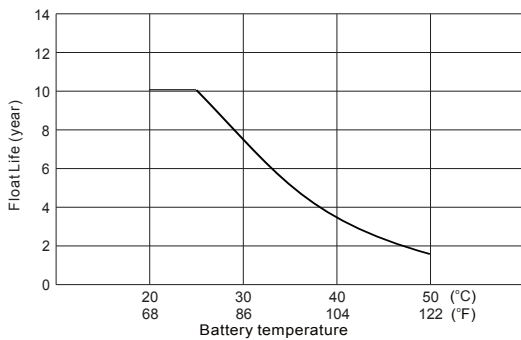
Relationship between charging voltage and temperature



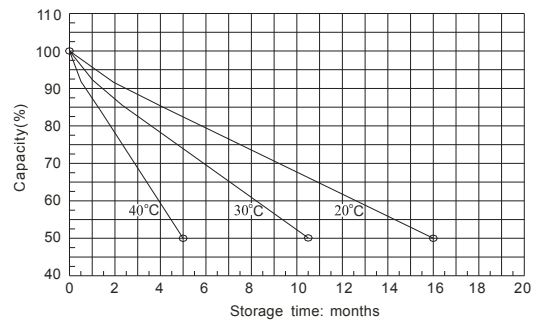
Constant voltage charging characteristic (0.25CA, at 25°C)



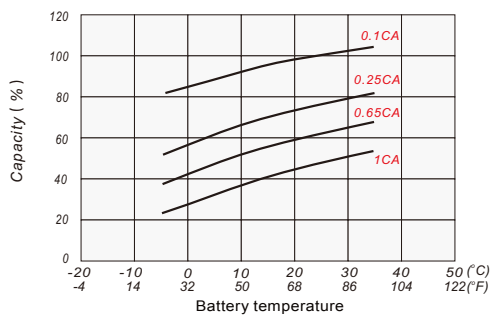
Temperature effects on float life



Self-discharge characteristic



Temperature Effects in Relation to Battery Capacity



Charge characteristic Curve for standby use

