

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

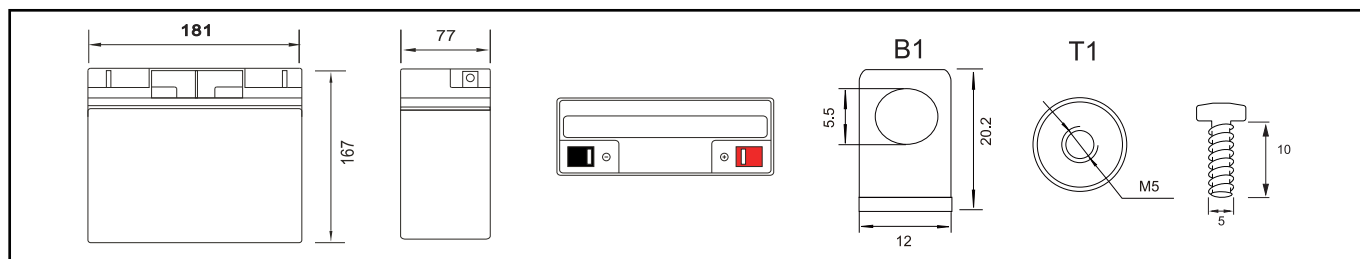
Construction

- * 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)		18Ah	
	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	5.00kg (11.02lbs) ± 3%			
Capacity @ 25°C (77°F)	20 hour rate(0.93A,10.5V)	10 hour rate(1.83A,10.8V)	5 hour rate(3.31A,10.5V)	1 hour rate(11.75A,9.6V)
	18.6Ah	18.3Ah	16.5Ah	11.7Ah
Max.discharge current	270A (5 Sec.)			
Internal Resistance	Full charged at 25°C: Approx 13mΩ			
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 5.4A)		13.50-13.80V	

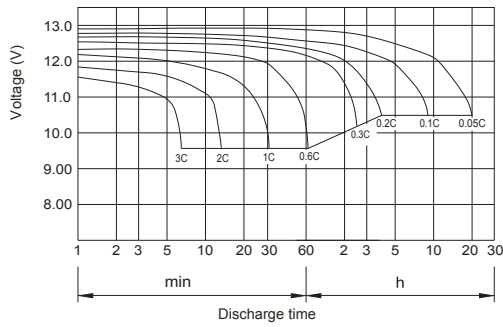
Outer dimension (mm)



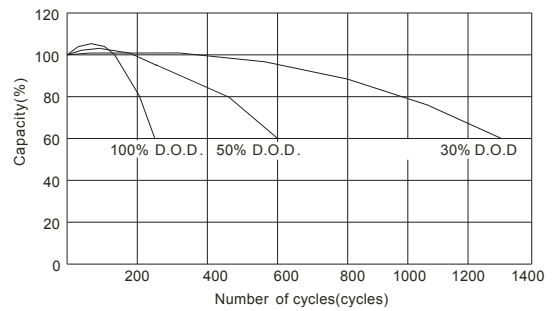
Terminal Type (mm)

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	63.100	44.422	33.600	18.700	11.750	8.600	6.891	4.909	3.350	2.370	1.930	1.022
	116.706	84.800	64.848	37.250	23.441	17.171	13.788	9.821	6.703	4.742	3.862	2.045
1.67V	56.019	41.455	31.855	18.300	11.665	8.514	6.857	4.883	3.331	2.350	1.900	0.971
	103.593	79.127	61.527	36.473	23.273	17.005	13.730	9.788	6.678	4.712	3.810	1.947
1.70V	53.029	39.971	31.069	18.141	11.580	8.506	6.840	4.871	3.331	2.326	1.876	0.945
	98.086	76.344	60.057	36.155	23.131	16.995	13.702	9.765	6.678	4.667	3.763	1.896
1.75V	47.994	37.615	29.760	17.821	11.409	8.395	6.797	4.840	3.313	2.320	1.860	0.930
	88.775	71.860	57.586	35.544	22.847	16.791	13.614	9.709	6.646	4.657	3.734	1.867
1.80V	42.880	35.084	28.538	17.421	11.324	8.336	6.754	4.814	3.304	2.300	1.830	0.899
	79.334	67.049	55.307	34.763	22.705	16.713	13.530	9.662	6.631	4.621	3.676	1.807
1.85V	37.766	32.553	27.055	16.942	11.154	8.242	6.694	4.771	3.285	2.270	1.800	0.869
	69.893	62.239	52.486	33.830	22.397	16.566	13.416	9.586	6.600	4.565	3.620	1.747

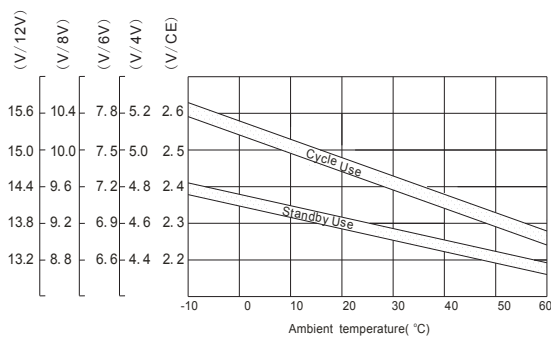
Discharge characteristic Curve



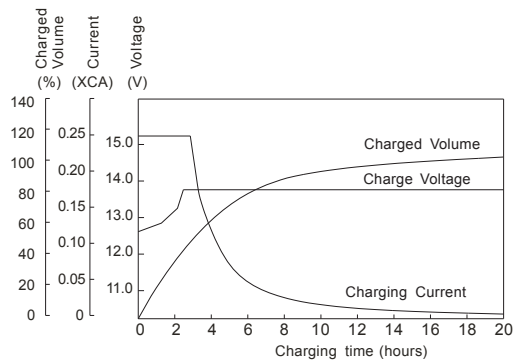
Cycle service life in relation to depth of discharge



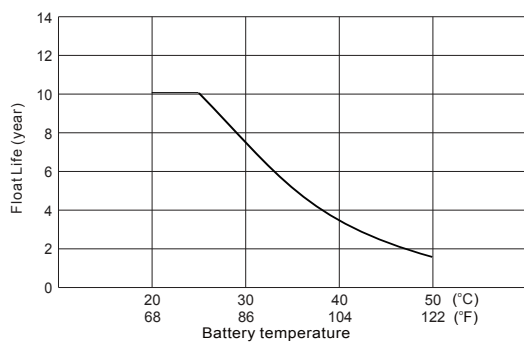
Relationship between charging voltage and temperature



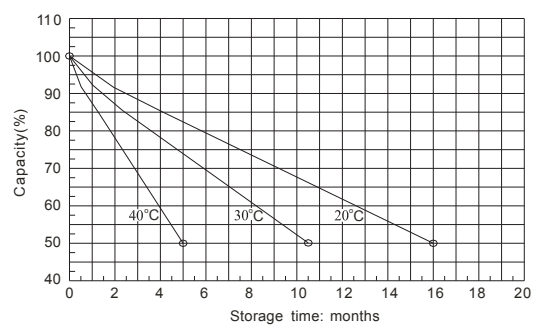
Constant voltage charging characteristic (0.25CA, at 25°C)



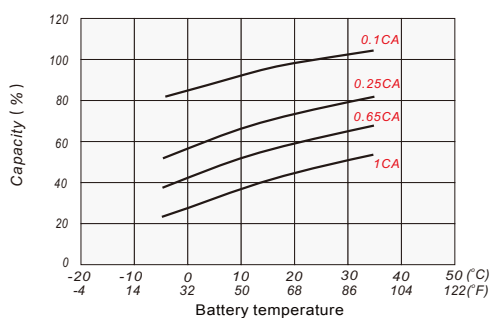
Temperature effects on float life



Self-discharge characteristic



Temperature Effects in Relation to Battery Capacity



Charge characteristic Curve for standby use

