

FEATURES

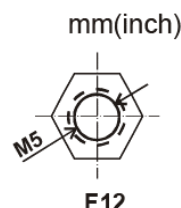
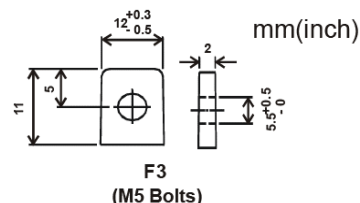
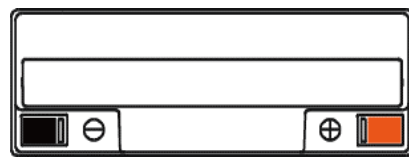
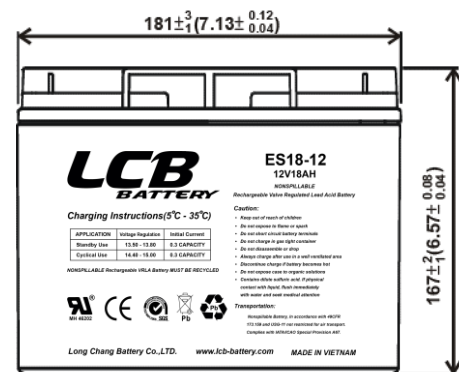
ES18-12 is a standby using battery with 3~5 years service life under normal float charge at 25°C. LCB batteries are rechargeable Seal Lead highly efficient, leak proof and maintenance free.

SPECIFICATION

Cell per unit	6	Ambient temperature	
Nominal Voltage (V)	12	Charge	0°C (32°F) to 40°C (104°F)
Nominal Capacity (Ah)	18Ah@ 20hour rate F.V(1.75/cell)	Discharge	-15°C (5°F) to 50°C (122°F)
Weight	Approx5.35kg(11.79Lbs.)	Storage	-15°C (5°F) to 40°C (104°F)
Internal Resistance (1KHz)	16mΩ	Max charge Current	
Max Discharge Current (5s)	180A	Max charge current	: 5.4A
Battery Life :	Stand by : 3~5 years	Cycle use :	Charge voltage: 14.4 to 15.0V
Terminal Type	NB(F3)/IT(F12)	Stand by :	Charge voltage: 13.50 to 13.80V
Container Material	ABS(Option : 94-HB & 94V-0 flame retardant case)		



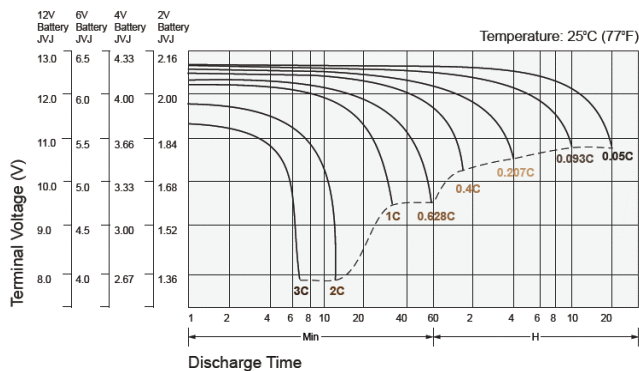
DIMENSIONS	Length	Width	Height	Total Height
Unit: mm	181±3	76±1	167±1	167±1
Unit: inch	7.13±0.12	2.99±0.04	6.57±0.04	6.57±0.04



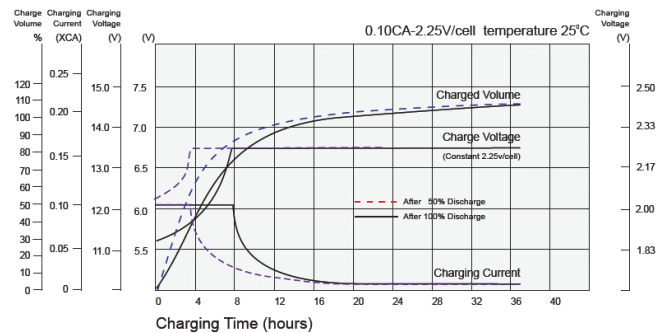
Constant current discharge characteristics Unit:A(25°C 77°F)										
F.V/Time	5MIN	15MIN	30MIN	60MIN	2HR	3HR	5HR	8HR	10HR	20HR
1.60V	64.8	31.5	21.0	11.0	6.30	5.00	3.20	2.10	1.70	0.97
1.67V	59.4	30.0	20.2	10.8	6.25	4.95	3.18	2.05	1.67	0.96
1.70V	54.0	28.9	19.8	10.5	6.05	4.89	3.12	2.05	1.66	0.95
1.75V	53.0	28.0	18.3	10.3	5.98	4.70	3.05	2.03	1.65	0.93
1.80V	52.0	28.5	17.7	9.8	5.90	4.61	3.01	1.97	1.60	0.92

Constant power discharge characteristics Unit:W(25°C 77°F)										
F.V/Time	5MIN	15MIN	30MIN	60MIN	2HR	3HR	5HR	8HR	10HR	20HR
1.60V	730	368	225	124.5	76.00	55.00	38.00	26.00	20.00	11.30
1.67V	680	345	219	120.0	73.00	54.40	37.50	25.80	19.70	11.20
1.70V	630	336	217	117.0	72.50	52.40	36.85	25.60	19.40	11.10
1.75V	600	325	216	115.0	71.60	51.20	36.50	25.20	19.00	11.00
1.80V	588	314	215	110.5	70.00	50.50	35.40	24.80	18.50	10.80

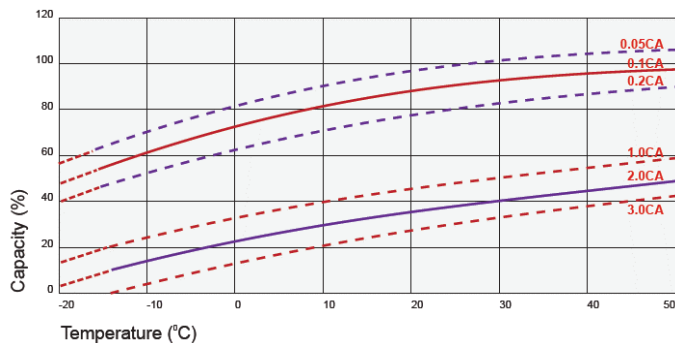
Battery Discharge Characteristics (25°C/77°F)



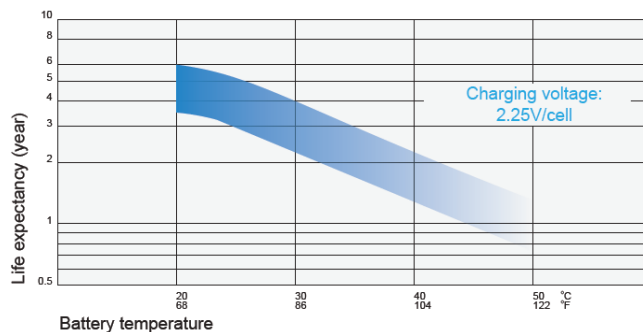
Battery Charge Characteristic for standby use



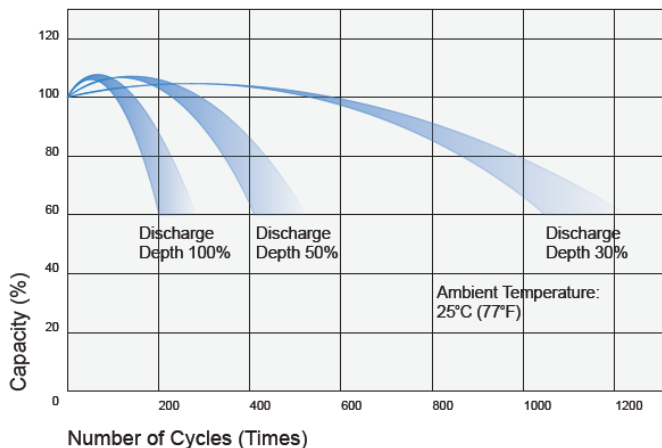
Temperature Effects in Relation to Battery Capacity



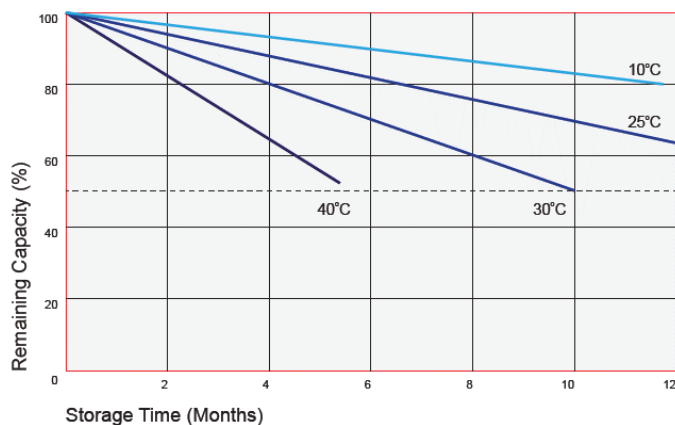
Temperature Effects on Long Term Float Life



Cycle Service Life



Self Discharge Characteristics



Charging Procedures

Application	Charge Voltage(V/cell)			Max. Charge Current
	Temperature	Set Point	Allowable Range	
Cycle Use	25°C(77°F)	2.45	2.40~2.50	0.25C
Standby	25°C(77°F)	2.275	2.25~2.30	

Discharge Current VS. Discharge Voltage

Final Discharge Voltage V/cell	1.75	1.70	1.65	1.60
Discharge Current (A)	0.2C > (A)	0.2C < (A)	0.5C < (A)	(A) > 1.0C
	< 0.5C	< 0.5C	< 1.0C	

Taiwan HQ: LONG CHANG BATTERY CO.,LTD	Vietnam Factory: SHENG CHANG TECH. CO., LTD
NO.336,Sec. 1, Yanco Rd. , Fenyuan Shiang, Changhua County 502, Taiwan(R.O.C.)	Lot I 1A –CN- My Phuoc Industrial II, Ben Cat District, Binh Duong Province, Vietnam
TEL:+886-49-2510088 Web: www.lcb.tw	TEL: +84-2743553577
FAX:+886-49-2510099 E-mail: lcb@lcb.tw	FAX: +84-2743553576