

FEATURES

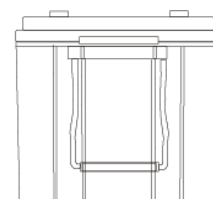
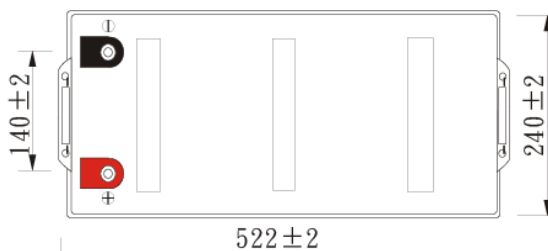
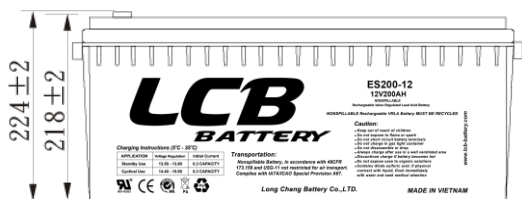
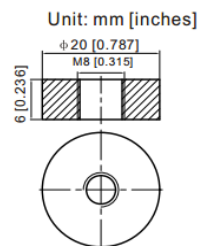
ES200-12 is a long lifegeneral purpose battery with 3-5 years service life under normal float charge at 25°C. LCB batteries are rechargeable Seal Lead highly efficient, leak proof and maintenance free.

SPECIFICATION

Cell per unit	6	Ambient temperature	
Nominal Voltage (V)	12	Charge	0°C (32°F) to 40°C (104°F)
Nominal Capacity (Ah)	200Ah @ 20hour rate F.V(1.75/Cell)	Discharge	-15°C (5°F) to 50°C (122°F)
Weight	Approx 58kg	Storage	-15°C (5°F) to 40°C (104°F)
Internal Resistance (1KHz)	<4mΩ	Max charge Current	
Max Discharge Current (5s)	1900A (5s)	Cycle use :	Max charge current : 55A
Battery Life :	Stand by : 3-5 years	Charge voltage:	14.4V to 15.0V
Terminal Type	IT(F17)	Stand by :	Charge voltage: 13.5V to 13.8V
Container Material	ABS(Option : 94-HB & 94V-0 flame retardant case)		



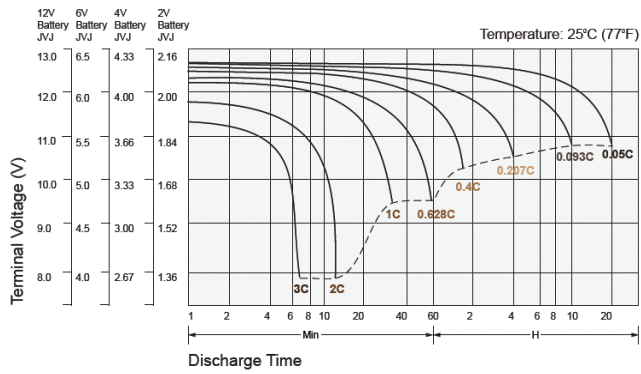
DIMENSIONS	Length	Width	Height	Total Height
Unit: mm	522±2	240±2	218±2	224±2
Unit: inch	20.55±0.08	9.45±0.09	8.58±0.08	9.21±0.08



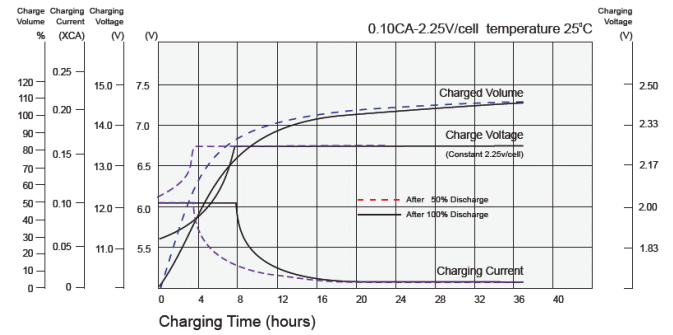
Constant current discharge characteristics Unit:A(25°C 77°F)										
F.V/Time	10MIN	15MIN	30MIN	60MIN	2HR	3HR	5HR	8HR	10HR	20HR
1.60V	460.0	342.0	204.0	122.0	72.0	57.00	37.30	25.10	20.80	10.80
1.67V	444.0	322.0	196.0	117.0	70.7	55.80	36.00	24.20	20.40	10.70
1.70V	411.0	302.0	189.0	114.0	68.0	53.50	35.20	23.80	20.20	10.50
1.75V	377.0	269.0	178.0	104.0	65.5	52.00	34.10	23.20	20.00	10.40
1.80V	343.0	230.0	155.0	95.0	60.1	50.60	32.10	22.90	19.00	10.30

Constant power discharge characteristics Unit:W/CELL(25°C 77°F)										
F.V/Time	10MIN	15MIN	30MIN	60MIN	2HR	3HR	5HR	8HR	10HR	20HR
1.60V	700	590.0	375.0	222.0	142.0	107.0	72.0	49.0	41.00	21.50
1.67V	650	577.0	363.0	217.0	138.0	103.0	70.2	48.4	40.20	21.40
1.70V	610	562.0	353.2	211.0	132.1	100.0	68.1	47.4	39.00	20.60
1.75V	580	550.0	332.0	201.2	130.0	98.0	67.2	46.8	38.20	20.00
1.80V	522	520.0	300.0	181.0	126.1	90.0	65.5	46.0	37.20	19.20

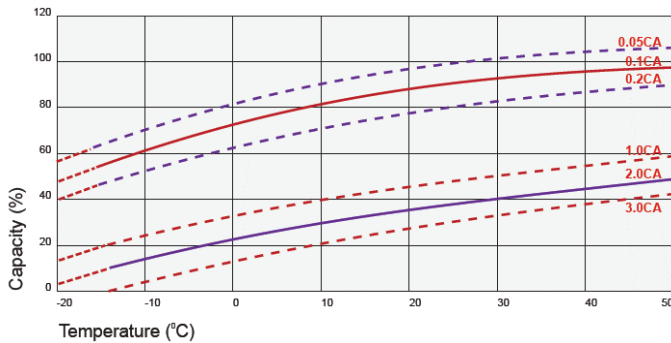
Battery Discharge Characteristics (25°C/77°F)



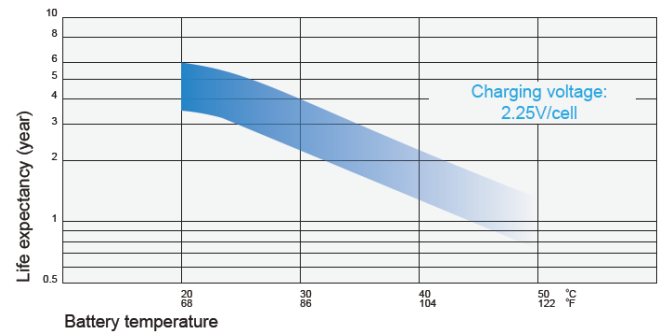
Battery Charge Characteristic for standby use



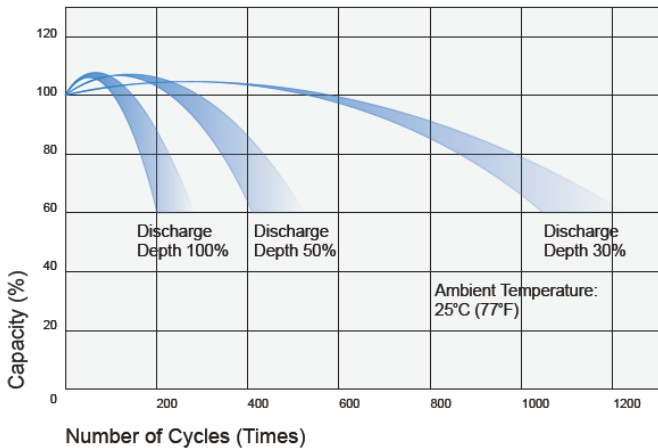
Temperature Effects in Relation to Battery Capacity



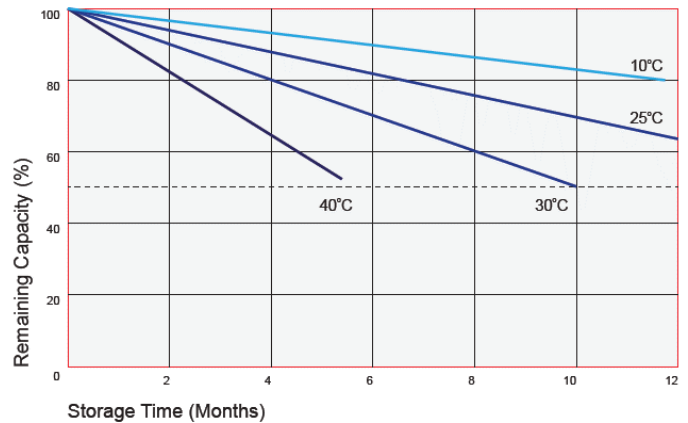
Temperature Effects on Long Term Float Life



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

NO.336,Sec. 1, Yanco Rd. , Fenyuan Shiang,
Changhua County 502, Taiwan(R.O.C.)

TEL:+886-49-2510088 Web: www.lcb.tw

FAX:+886-49-2510099 E-mail: lcb@lcb.tw

Vietnam Factory: SHENG CHANG TECH. CO., LTD

Lot I 1A -CN- My Phuoc Industrial II, Ben Cat District, Binh
Duong Province, Vietnam

TEL: +84-2743553577

FAX: +84-2743553576