



VRLA Rechargeable Battery

SP50-12

YOUR BEST POWER SOURCE SOLUTIONS

FEATURES

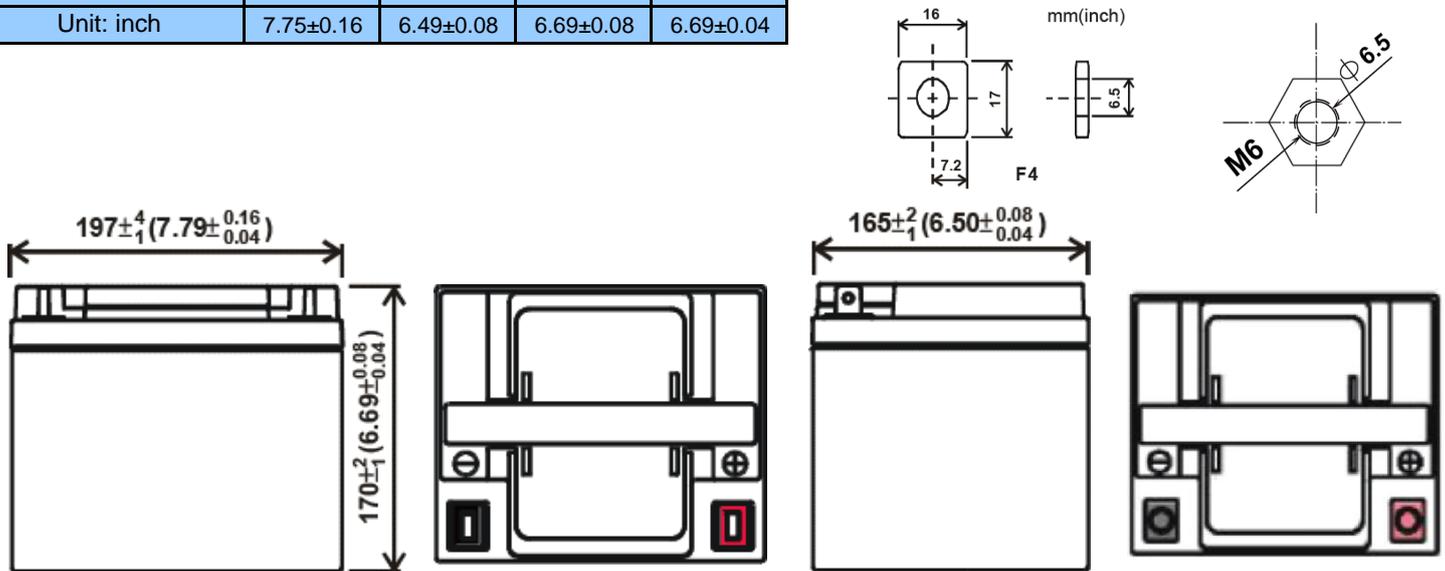
SP50-12 is a general purpose battery with 3~5 years service life under normal float charge at 25°C. LCB batteries are rechargeable Seal Lead highly efficient, leak proof and maintenance free.

SPECIFICATION

Cell per unit	6	Ambient temperature	
Nominal Voltage (V)	12	Charge	0°C (32°F) to 40°C (104°F)
Nominal Capacity (Ah)	50Ah @ 20hour rate F.V(1.75/Cell)	Discharge	-15°C (5°F) to 50°C (122°F)
Weight	Approx 14.80kg	Storage	-15°C (5°F) to 40°C (104°F)
Internal Resistance (1KHz)	9.0mΩ	Max charge Current	
Max Discharge Current (5s)	540A (5s)	Cycle use :	Max charge current : 15A
Battery Life :	Stand by :3~5 years	Charge voltage:	14.4V to 15.0V
Terminal Type	NB(F4)/IT(F8)	Stand by :	Charge voltage: 13.5V to 13.8V
Container Material	ABS(Option : 94-HB & 94V-0 flame retardant case)		



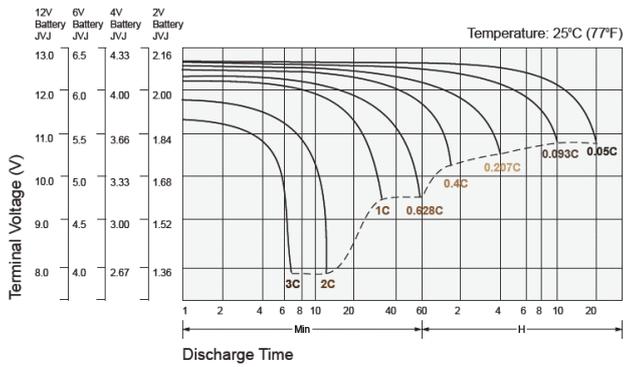
DIMENSIONS	Length	Width	Height	Total Height
Unit: mm	197±4	165±2	170±2	170±2
Unit: inch	7.75±0.16	6.49±0.08	6.69±0.08	6.69±0.04



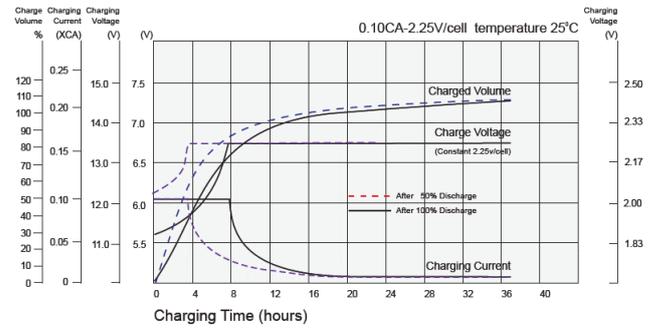
Constant current discharge characteristics Unit:A(25°C 77°F)										
F.V/Time	5MIN	15MIN	30MIN	60MIN	2HR	3HR	5HR	8HR	10HR	20HR
1.60V	211.86	91.97	55.64	31.14	18.17	12.55	8.71	5.57	4.86	2.48
1.67V	203.94	90.88	54.35	30.83	18.03	12.50	8.64	5.55	4.82	2.47
1.70V	197.01	89.10	53.86	30.55	17.89	12.41	8.58	5.52	4.77	2.46
1.75V	183.15	86.72	52.27	29.96	17.76	12.37	8.42	5.49	4.71	2.45
1.80V	164.34	83.66	50.19	29.09	17.43	12.03	8.18	5.46	4.60	2.41

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	2135.3	1037.5	619.7	363.3	212.9	152.5	105.93	77.45	58.01	31.68
1.67V	2038.2	1006.8	602.9	356.4	209.9	148.5	104.94	76.87	57.52	31.19
1.70V	1941.2	991.0	582.4	345.5	204.9	146.5	103.95	75.71	57.12	30.89
1.75V	1914.7	941.5	562.9	341.6	198.0	141.6	102.96	75.12	55.74	30.69
1.80V	1702.8	873.5	548.4	334.1	190.1	134.6	101.97	73.96	54.05	30.00

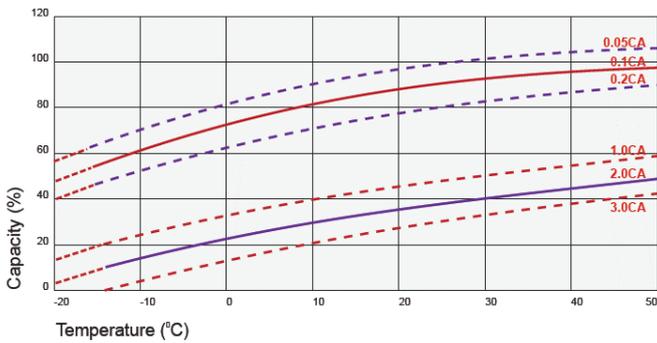
Battery Discharge Characteristics (25°C/77°F)



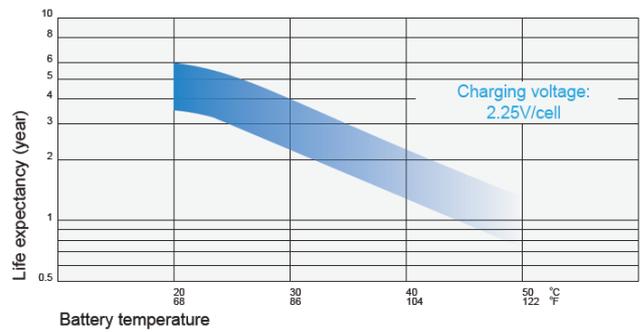
Battery Charge Characteristic for standby use



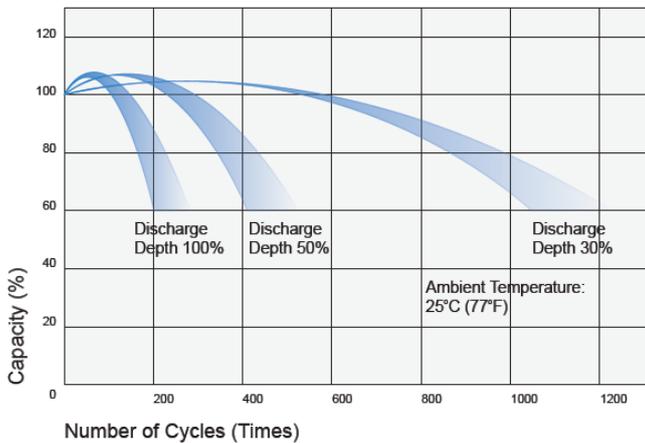
Temperature Effects in Relation to Battery Capacity



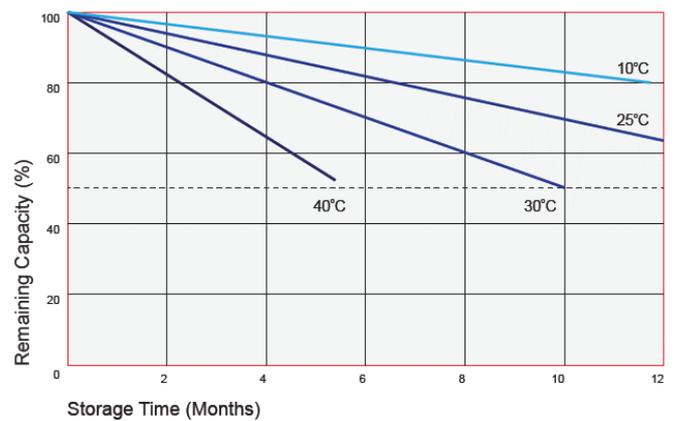
Temperature Effects on Long Term Float Life



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

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