



## Valve Regulated Lead-Acid Rechargeable Battery



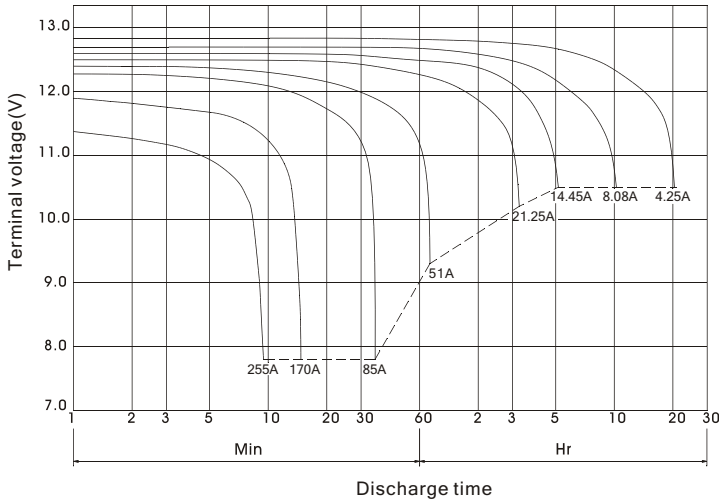
# BPL85-12

The battery is constructed by plates, separators, safety valves, flame arrestors and container. Since the electrolyte is held by a glass-mat separator and plates, the battery can be used in any direction and position (but upside-down should be avoided) without leakage.

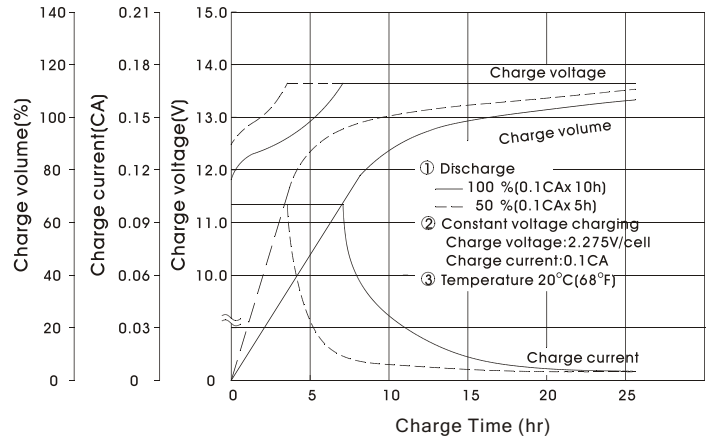
## PERFORMANCE SPECIFICATIONS

Nominal Voltage(V).....	12 volts(6cells in series)
Nominal Capacity(Ah)	
20 Hour rate F.V.(1.75V/cell) (4.25A to 10.50volts) .....	85.0Ah
10 Hour rate F.V.(1.75V/cell) (8.08A to 10.50volts) .....	80.8Ah
5 Hour rate F.V.(1.75V/cell) (14.45A to 10.50volts) .....	72.3Ah
1 Hour rate F.V.(1.55V/cell) (51.00A to 9.30volts) .....	51.0Ah
Approximate Weight.....	31.2kg(68.8lbs.)
Terminal	
Standard.....	Type B3
Optional.....	Type I2
Terminal Hardware Initial Torque.....	5.5 Nm $\pm$ 5%
Internal Resistance (Fully Charged Battery).....	$\leq$ 5m $\Omega$
Maximum Discharge Current For 5 sec.(A).....	850A
Maximum Charge Current(A).....	25.5A
Ambient Temperature	
Charge.....	0°C(32°F)~40°C(104°F)
Discharge.....	-20°C(-4°F)~50°C(122°F)
Storage.....	-20°C(-4°F)~40°C(104°F)
Case.....	ABS: UL 94-HB
Dimension(mm/inch)	
Length $\pm$ 2mm.....	329/12.95
Width $\pm$ 2mm.....	172/6.77
Container Height $\pm$ 2mm.....	215/8.46
Total Height $\pm$ 2mm.....	238/9.37
Application.....	UPS, Telecom, Golf-carts.

## BPL85-12 Battery discharge characteristics (25 °C/77 °F)



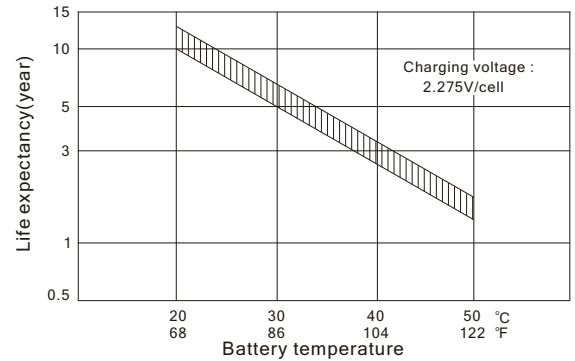
## Battery Charging Characteristics (Typical example of charge characteristic for the standby use)



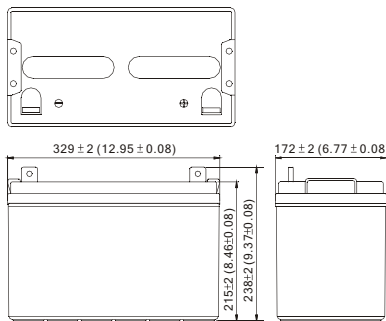
## Charging Procedure

Application	Charging method	Charging Voltage at 20°C (V/cell)	Temperature compensation coefficient of charging voltage (mV/°C/cell)	Max. charging current (CA)	Charging time 0.1CA, 20°C (h)		Temp (°C)
					100% discharge	50% discharge	
For standby power Source	Constant voltage & Constant current charging (with current restriction)	2.25~2.30	-3	0.3	24	20	0~40 (32~104°F)
For cycle service		2.40~2.50	-4	0.3	16	10	

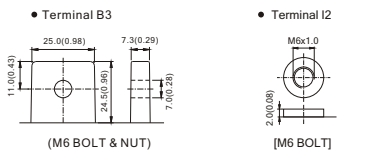
## Effect of Temperature on Long Term Float Life



## OUTER DIMENSIONS



## TERMINAL TYPE



## Constant power discharge characteristics at 25°C/77°F

Final Voltage VPC	Discharge time															
	5Min	7Min	10Min	15Min	20Min	30Min	45Min	1Hr	1.5Hr	2Hr	3Hr	4Hr	5Hr	8Hr	10Hr	20Hr
1.60V	3245	2827	2434	1839	1535	1167	857.6	628.8	459.5	341.0	257.0	205.5	174.8	117.6	97.45	51.27
1.65V	3051	2696	2367	1802	1509	1156	850.1	622.3	455.4	338.1	255.7	204.9	174.8	117.6	97.45	51.27
1.70V	2816	2547	2291	1761	1480	1139	838.8	614.5	450.8	334.8	254.4	204.2	174.2	117.3	97.19	51.14
1.75V	2584	2354	2161	1683	1421	1115	822.6	604.0	443.8	330.6	251.8	202.3	173.5	116.8	96.67	51.00
1.80V	2389	2180	2000	1586	1343	1074	795.9	585.8	431.5	322.1	246.6	198.6	170.9	115.1	95.24	49.84
1.85V	2131	1969	1770	1434	1249	1011	754.0	561.6	414.5	311.1	239.5	193.2	166.7	112.2	92.81	48.84
1.90V	1880	1720	1530	1279	1123	919	689.7	517.1	383.3	290.9	225.1	184.1	157.6	106.1	87.78	46.20

## Constant current discharge characteristics at 25°C/77°F

Final Voltage VPC	Discharge time															
	5Min	7Min	10Min	15Min	20Min	30Min	45Min	1Hr	1.5Hr	2Hr	3Hr	4Hr	5Hr	8Hr	10Hr	20Hr
1.60V	318	264	224	167	138	103.3	75.5	52.8	38.5	28.4	21.4	17.1	14.6	9.80	8.12	4.27
1.65V	299	252	218	164	136	102.3	74.8	52.3	38.1	28.2	21.3	17.1	14.6	9.80	8.12	4.27
1.70V	276	238	211	160	133	100.8	73.8	51.6	37.7	27.9	21.2	17.0	14.5	9.77	8.10	4.26
1.75V	250	220	199	153	128	98.6	72.4	50.8	37.1	27.5	21.0	16.9	14.5	9.74	8.08	4.25
1.80V	225	202	182	143	121	95.1	70.1	49.2	36.1	26.8	20.5	16.5	14.2	9.59	7.94	4.15
1.85V	197	179	160	127	110	88.8	66.0	46.8	34.5	25.9	20.0	16.1	13.9	9.35	7.73	4.07
1.90V	169	154	136	112	98	79.9	60.0	43.1	31.9	24.2	18.8	15.3	13.1	8.84	7.71	3.85



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