

# Valve regulated lead-acid battery



*Powering Business Worldwide*



# BP Series

## For General Use



### SPECIFICATIONS

Model	Voltage (V)	Nominal Capacity (Ah)				Weight Kg(lbs)	Terminal				Dimension				MAX Discharge Current For 5 sec (A)	MAX Charge Current (A)
		20hr	10hr	5 hr	1 hr		Standard		Optional		MM(INCH)					
							Type	Posi	Type	Posi	L	W	H	TH		
BP10-4	4	10.0	9.50	8.50	6.00	1.31(2.89)	T1	3	T2		101(3.98)	50(1.97)	94(3.70)	100(3.94)	150.0	3.00
BP1.0-6	6	1.0	0.95	0.85	0.60	0.25(0.55)	T1	1			51(2.01)	42(1.65)	51(2.01)	56(2.20)	15.0	0.30
BP1.2-6	6	1.2	1.14	1.02	0.72	0.30(0.66)	T1	2			97(3.82)	25(0.98)	51(2.01)	56(2.20)	18.0	0.36
BP3-6	6	3.0	2.85	2.55	1.80	0.65(1.43)	T1	2	T2		134(5.28)	34(1.34)	60(2.36)	66(2.60)	45.0	0.90
BP4-6	6	4.0	3.80	3.40	2.40	0.85(1.87)	T1	1	T2		70(2.76)	47(1.85)	101(3.98)	106(4.17)	60.0	1.20
BP4.5-6	6	4.5	4.28	3.83	2.70	0.91(2.01)	T1	1	T2		70(2.76)	48(1.89)	102(4.02)	107(4.21)	67.5	1.35
BP5-6	6	5.0	4.75	4.25	3.00	0.95(2.09)	T1	1	T2		70(2.76)	48(1.89)	102(4.02)	107(4.21)	75.0	1.50
BP7-6	6	7.0	6.65	5.95	4.20	1.26(2.78)	T1	2	T2		151(5.94)	34(1.34)	94(3.70)	100(3.94)	105.0	2.10
BP8-6	6	8.0	7.60	6.80	4.80	1.35(2.98)	T1	2	T2		151(5.94)	34(1.34)	94(3.70)	100(3.94)	120.0	2.40
BP8-6V	6	8.0	7.60	6.80	4.80	1.55(3.42)	T1	14	T2		98(3.86)	56(2.20)	118(4.65)	118(4.65)	120.0	2.40
BP10-6	6	10.0	9.50	8.50	6.00	1.90(4.19)	T1	2	T2		151(5.94)	50(1.97)	94(3.70)	100(3.94)	150.0	3.00
BP12-6	6	12.0	11.40	10.20	7.20	1.98(4.37)	T1	2	T2		151(5.94)	50(1.97)	94(3.70)	100(3.94)	180.0	3.60
BP13-6S	6	13.0	12.35	11.05	6.50	2.50(5.51)	T3	10			108(4.25)	71(2.80)	140(5.51)	140(5.51)	30.0	3.90
BP13-6H	6	13.0	12.35	11.05	6.50	2.50(5.51)	H	11			108(4.25)	71(2.80)	140(5.51)	140(5.51)	30.0	3.90
BP33-6	6	33.0	31.35	28.05	19.80	6.00(13.23)	B1	7	T2	6	181(7.13)	76(2.99)	166(6.54)	166(6.54)	225.0	9.90
BP180-6	6	180.0	171.0	153.0	108.0	28.8(63.5)	B9	19	I3		260(10.24)	171(6.73)	220(8.66)	244(9.61)	800	54.0
BP220-6	6	220.0	209.0	187.0	132.0	33.2(73.2)	I3	19			244(9.61)	190(7.48)	275(10.83)	275(10.83)	800	66.0
BP1.2-12	12	1.2	1.14	1.02	0.72	0.59(1.30)	T1	4			97(3.82)	45(1.77)	53(2.09)	59(2.32)	18.0	0.36
BP2.3-12	12	2.3	2.19	1.96	1.38	0.94(2.07)	T1	2			178(7.01)	34(1.34)	60(2.36)	65(2.56)	34.5	0.69
BP3-12	12	3.0	2.85	2.55	1.80	1.30(2.87)	T1	4	T2		134(5.28)	67(2.64)	60(2.36)	66(2.60)	45.0	0.90
BP3.6-12	12	3.6	3.42	3.06	2.16	1.32(2.91)	T1	4	T2		134(5.28)	67(2.64)	60(2.36)	66(2.60)	54.0	1.08
BP4-12	12	4.0	3.80	3.40	2.40	1.67(3.68)	T1	3	T2		90(3.54)	70(2.76)	102(4.02)	106(4.17)	60.0	1.20
BP4.5-12	12	4.5	4.28	3.83	2.70	1.84(4.06)	T1	3	T2		90(3.54)	70(2.76)	102(4.02)	106(4.17)	67.5	1.35
BP5-12	12	5.0	4.75	4.25	3.00	1.80(3.97)	T1	3	T2		90(3.54)	70(2.76)	102(4.02)	106(4.17)	75.0	1.50
BP7-12	12	7.0	6.65	5.95	4.20	2.54(5.60)	T2	5	T1		151(5.94)	65(2.56)	93(3.66)	98(3.86)	105.0	2.10
BP7.5-12	12	7.5	7.13	6.38	4.50	2.65(5.84)	T2	5	T1		151(5.94)	65(2.56)	94(3.70)	100(3.94)	112.5	2.25
BP8-12	12	8.0	7.60	6.80	4.80	2.65(5.84)	T2	5	T1		151(5.94)	65(2.56)	94(3.70)	100(3.94)	120.0	2.40
BP10-12	12	10.0	9.50	8.50	6.00	3.30(7.28)	T2	5	T1		151(5.94)	65(2.56)	112(4.41)	116(4.57)	150.0	3.00
BP12-12	12	12.0	11.40	10.20	7.20	3.94(8.69)	T2	5	T1		151(5.94)	98(3.86)	94(3.70)	98(3.86)	180.0	3.60
BP17-12	12	17.0	16.15	14.45	10.20	6.15(13.65)	B1	7	T2.I1	6	181(7.13)	76(2.99)	166(6.54)	166(6.54)	255.0	5.10
BP20-12	12	20.0	19.00	17.00	12.00	6.35(14.00)	B1	7	T2.I1	6	181(7.13)	76(2.99)	166(6.54)	166(6.54)	300.0	6.00
BP26-12	12	26.0	24.70	22.10	15.60	9.40(20.73)	B1	7	T2.I1	9	175(6.89)	166(6.54)	125(4.92)	125(4.92)	390.0	7.80
BP28-12	12	28.0	26.60	23.80	16.80	9.60(21.17)	B1	7	T2.I1	9	175(6.89)	166(6.54)	125(4.92)	125(4.92)	420.0	8.40
BP28-12D	12	28.0	26.60	23.80	16.80	9.12(20.11)	TP	15	I1		165(6.50)	125(4.92)	175(6.89)	175(6.89)	420.0	8.40
BP33-12(S)	12	33.0	31.35	28.05	19.80	11.25(24.81)	B7	8			195(7.68)	129(5.08)	155(6.10)	179(7.05)	495.0	9.90
BP33-12(H)	12	33.0	31.35	28.05	19.80	11.25(24.81)	B7	8	I2		210(8.27)	129(5.08)	168(6.61)	179(B7) 168(I2) (7.05) (6.81)	495.0	9.90
BP33-12(F)	12	33.0	31.35	28.05	19.80	11.25(24.81)	B7	8	I2		195(7.68)	129(5.08)	168(6.61)	179(B7) 168(I2) (7.05) (6.81)	495.0	9.90
BP35-12(S)	12	35.0	33.25	29.75	21.00	11.45(25.25)	B7	8			195(7.68)	129(5.08)	155(6.10)	179(7.05)	525.0	10.50
BP35-12(H)	12	35.0	33.25	29.75	21.00	11.45(25.25)	B7	8	I2		210(8.27)	129(5.08)	168(6.61)	179(B7) 168(I2) (7.05) (6.81)	525.0	10.50
BP35-12(F)	12	35.0	33.25	29.75	21.00	11.45(25.25)	B7	8	I2		195(7.68)	129(5.08)	168(6.61)	179(B7) 168(I2) (7.05) (6.81)	525.0	10.50

# BP Series

## For General Use



### SPECIFICATIONS

Model	Voltage (V)	Nominal Capacity (Ah)				Weight Kg(lbs)	Terminal				Dimension MM(INCH)				MAX Discharge Current For 5 sec (A)	MAX Charge Current (A)
		20hr	10hr	5 hr	1 hr		Standard		Optional		L	W	H	TH		
							Type	Posi	Type	Posi						
BP40-12	12	40.0	38.00	34.00	24.00	14.30(31.53)	B2	7	I1,I2		197(7.76)	165(6.50)	171(6.73)	171(6.73)	600.0	12.00
BP65-12	12	65.0	61.75	55.25	39.00	22.40(49.38)	B5	15	I2		350(13.78)	166(6.54)	174(6.85)	174(6.85)	650.0	19.50
BP90-12	12	90.0	85.50	76.50	54.00	30.80(67.90)	B3	15	I2		329(12.95)	172(6.77)	215(8.46)	238(B3) (9.37) 218.5(I2) (8.60)	800.0	27.00
BP100-12	12	100.0	95.00	85.00	60.00	32.7(72.10)	B3	15	I2		329(12.95)	172(6.77)	215(8.46)	238(B3) (9.37) 218.5(I2) (8.60)	800.0	30.00
BP120-12	12	120.0	114.0	102.0	72.00	39.50(87.10)	B4	18	I2		407(16.02)	173(6.81)	210(8.27)	239(9.41)	800.0	36.00
BP160-12	12	160.0	152.0	136.0	96.00	51.20(112.9)	B9	8	I3		483(19.02)	171(6.73)	240(9.45)	240(9.45)	800.0	48.00
BP200-12	12	200.0	190.0	170.0	120.0	61.50(135.6)	B9	13	I3		522(20.55)	202(7.95)	216(8.50)	240(B9) (9.45) 220(I3) (8.66)	800.0	60.00
BP230-12	12	230.0	218.5	195.5	138.0	72.50(159.8)	B9	13	I3		522(20.55)	240(9.45)	216(8.50)	240(B9) (9.45) 220(I3) (8.66)	800.0	69.00

Remark: (1) BP33-12(S).BP35-12(S) Standard Type (2) BP33-12(F).BP35-12(F) Finger Type (3) BP33-12(H).BP35-12(H) Handle Type

# BC Series

## For General Use



### SPECIFICATIONS

Model	Voltage (V)	Nominal Capacity (Ah)				Weight Kg(lbs)	Terminal				Dimension MM(INCH)				MAX Discharge Current For 5 sec (A)	MAX Charge Current (A)
		20hr	10hr	5 hr	1 hr		Standard		Optional		L	W	H	TH		
							Type	Posi	Type	Posi						
BC7-12	12	7.0	6.65	5.95	4.20	2.20(4.85)	T2	5	T1		151(5.94)	65(2.56)	94(3.70)	100(3.94)	105.0	2.10
BC12-12	12	12.0	11.40	10.20	7.20	3.35(7.39)	T2	5			151(5.94)	98(3.86)	94(3.70)	98(3.86)	180.0	3.60
BC17-12	12	17.0	16.15	14.45	10.20	5.62(12.39)	B1	7	T2,I1	6	181(7.13)	76(2.99)	166(6.54)	166(6.54)	255.0	5.10
BC28-12	12	28.0	26.60	23.80	16.80	7.90(17.42)	B1	7	T2,I1	6	175(6.89)	166(6.54)	125(4.92)	125(4.92)	420.0	8.40
BC35-12(S)	12	35.0	33.25	29.75	21.00	9.60(21.16)	B7	8			195(7.68)	129(5.08)	155(6.10)	179(7.05)	350.0	10.50
BC35-12(H)	12	35.0	33.25	29.75	21.00	9.60(21.16)	B7	8	I2		210(8.27)	129(5.08)	168(6.61)	179(B7) (7.05) 168(I2) (6.61)	350.0	10.50
BC35-12(F)	12	35.0	33.25	29.75	21.00	9.60(21.16)	B7	8	I2		195(7.68)	129(5.08)	168(6.61)	179(B7) (7.05) 168(I2) (6.61)	350.0	10.50
BC42-12	12	42.0	39.90	35.70	25.20	12.2(26.90)	B2	8	I1,I2		197(7.76)	165(6.50)	171(6.73)	171(6.73)	600.0	12.00
BC65-12	12	65.0	61.75	55.25	39.00	20.0(44.09)	B5	15	I2		350(13.78)	166(6.54)	174(6.85)	174(6.85)	650.0	19.50
BC75-12	12	75.0	71.25	63.75	45.00	20.2(44.53)	B5	15	I2		350(13.78)	166(6.54)	174(6.85)	174(6.85)	750.0	22.50
BC100-12	12	100.0	95.0	85.0	60.0	28.5(62.8)	B3	15	I2		329(12.95)	172(6.77)	215(8.46)	238(B3) (9.37) 218.5(I2) (8.60)	800.0	25.00
BC120-12	12	120.0	114.0	102.0	72.0	35.0(77.16)	B4	18	I2		407(16.02)	173(6.81)	210(8.27)	239(9.41)	800.0	36.00
BC160-12	12	160.0	152.0	136.0	96.0	45.0(99.21)	B9	8	I3		483(19.02)	171(6.73)	240(9.45)	240(9.45)	800.0	48.00
BC200-12	12	200.0	190.0	170.0	120.0	55.2(121.7)	B9	13	I3		522(20.55)	202(7.95)	216(8.50)	240(B9) (9.45) 220(I3) (8.66)	800.0	60.00
BC230-12	12	230.0	218.5	195.5	138.0	62.4(137.6)	B9	13	I3		522(20.55)	240(9.45)	216(8.50)	240(B9) (9.45) 220(I3) (8.66)	800.0	69.00

Remark: (1) BC35-12(S) Standard Type (2) BC35-12(F) Finger Type (3) BC35-12(H) Handle Type



# HR Series

## For High Rate Use



### SPECIFICATIONS

Model	Voltage (V)	Nominal Capacity (Ah)		Weight Kg(lbs)	Terminal				Dimension				MAX Discharge Current For 5 sec (A)	MAX Charge Current (A)
		15Min Rate W/Cell	10Hr Rate Ah		Standard		Optional		MM(INCH)					
					Type	Posi	Type	Posi	L	W	H	TH		
HR9-6	6	36.0	8.0	1.40(3.09)	T2	2	T1		151(5.94)	34(1.34)	94(3.70)	100(3.94)	120	2.40
HR4-12	12	16.0	3.5	1.40(3.09)	T1	4	T2		134(5.28)	67(2.64)	60(2.36)	66(2.60)	52.5	1.05
HR5.5-12	12	22.0	5.0	1.80(3.97)	T1	3	T2		90(3.54)	70(2.76)	102(4.02)	106(4.17)	75.0	1.50
HR5.8-12	12	23.0	5.3	1.88(4.15)	T1	3	T2		90(3.54)	70(2.76)	102(4.02)	106(4.17)	79.5	1.59
HR6-12	12	24.0	5.5	2.10(4.63)	T1	5	T2		151(5.94)	51(2.01)	94(3.70)	100(3.94)	82.5	1.65
HR8-12	12	32.0	7.0	2.60(5.73)	T2	5	T1		151(5.94)	65(2.56)	94(3.70)	100(3.94)	105	2.10
HR9-12	12	36.0	8.0	2.75(6.06)	T2	5	T1,B0		151(5.94)	65(2.56)	94(3.70)	100(3.94)	120	2.40
HR12-12	12	48.0	11.0	3.95(8.71)	B0	5			151(5.94)	98(3.86)	94(3.70)	106(4.17)		3.30
HR15-12	12	60.0	13.0	4.20(9.26)	T2	5	T1		151(5.94)	98(3.86)	94(3.70)	98(3.86)	180	3.90
HR19-12	12	76.0	17.0	5.78(12.74)	B1	7	I1,I2		181(7.13)	76(2.99)	166(6.54)	166(6.54)	255	5.10
HR22-12	12	88.0	20.0	6.50(14.33)	B1	7	T2,I1	6	181(7.13)	76(2.99)	166(6.54)	166(6.54)	300	6.00
HR33-12	12	132.0	31.0	10.00(22.05)	B1	7	T2,I1	9	175(6.89)	166(6.54)	125(4.92)	125(4.92)	390	9.30
HR40-12(S)	12	160.0	38.0	12.10(26.68)	B7	8			195(7.68)	129(5.08)	155(6.10)	179(7.05)	495	11.40
HR40-12(H)	12	160.0	38.0	12.10(26.68)	B7	8	I2		210(8.27)	129(5.08)	168(6.61)	179(B7)(7.05) 168(I2)(6.61)	495	11.40
HR40-12(F)	12	160.0	38.0	12.10(26.68)	B7	8	I2		195(7.68)	129(5.08)	168(6.61)	179(B7)(7.05) 168(I2)(6.61)	495	11.40
HR50-12	12	200.0	48.0	15.30(33.74)	B2	7	I1,I2		197(7.76)	165(6.50)	171(6.73)	171(6.73)	600	14.40
HR75-12	12	300.0	73.0	24.75(54.57)	B5	15	I2		350(13.78)	166(6.54)	174(6.85)	174(6.85)	650	21.90

Remark: (1) HR40-12(S) Standard Type (2) HR40-12(H) Handle Type (3) HR40-12(F) Finger Type

# SH Series

## For High Rate Use



### SPECIFICATIONS

Model	Voltage (V)	Nominal Capacity (Ah)		Weight Kg(lbs)	Terminal				Dimension				MAX Discharge Current For 5 sec (A)	MAX Charge Current (A)
		15Min Rate W/Cell	20Hr Rate Ah		Standard		Optional		MM(INCH)					
					Type	Posi	Type	Posi	L	W	H	TH		
SH4.5-12	12	18	4.5	1.53(3.37)	T1	3	T2		90(3.54)	70(2.76)	102(4.02)	106(4.17)	67.5	1.35
SH4.5-12L	12	18	4.5	1.63(3.59)	T1	5	T2		151(5.94)	51(2.01)	94(3.70)	100(3.94)	67.5	1.35
SH7-12	12	28	6.3	2.22(4.89)	T2	5	T1		151(5.94)	65(2.56)	94(3.70)	100(3.94)	99.0	2.10

# HRL Series

## For High Rate, Long Life Standby Use



### SPECIFICATIONS

Model	Voltage (V)	Nominal Capacity (Ah)		Weight Kg(lbs)	Terminal				Dimension				MAX Discharge Current For 5 sec (A)	MAX Charge Current (A)
		15Min Rate W/Cell	10Hr Rate Ah		Standard		Optional		MM(INCH)					
					Type	Posi	Type	Posi	L	W	H	TH		
HRL5.5-12	12	22.0	5.0	1.80(3.97)	T1	3	T2		90(3.54)	70(2.76)	102(4.02)	106(4.17)	75.0	1.50
HRL5.8-12	12	23.0	5.3	1.88(4.15)	T1	3	T2		90(3.54)	70(2.76)	102(4.02)	106(4.17)	79.5	1.59
HRL8-12	12	32.0	7.0	2.60(5.73)	T2	5	T1		151(5.94)	65(2.56)	94(3.70)	100(3.94)	105	2.10
HRL9-12	12	36.0	8.0	2.75(6.06)	T2	5	T1,B0		151(5.94)	65(2.56)	94(3.70)	100(3.94)	120	2.40
HRL15-12	12	60.0	13.0	4.20(9.26)	T2	5	T1		151(5.94)	98(3.86)	94(3.70)	98(3.86)	180	3.90
HRL22-12	12	88.0	20.0	6.50(14.33)	B1	7	T2,I1	6	181(7.13)	76(2.99)	166(6.54)	166(6.54)	300	6.00
HRL33-12	12	132.0	31.0	10.00(22.05)	B1	7	T2,I1	9	175(6.89)	166(6.54)	125(4.92)	125(4.92)	390	9.30
HRL40-12(S)	12	160.0	38.0	12.10(26.68)	B7	8			195(7.68)	129(5.08)	155(6.10)	179(7.05)	495	11.40
HRL40-12(H)	12	160.0	38.0	12.10(26.68)	B7	8	I2		210(8.27)	129(5.08)	168(6.61)	179(B7)(7.05) 168(I2)(6.61)	495	11.40
HRL40-12(F)	12	160.0	38.0	12.10(26.68)	B7	8	I2		195(7.68)	129(5.08)	168(6.61)	179(B7)(7.05) 168(I2)(6.61)	495	11.40
HRL50-12	12	200.0	48.0	15.30(33.74)	B2	7	I1,I2		197(7.76)	165(6.50)	171(6.73)	171(6.73)	600	14.40
HRL75-12	12	300.0	73.0	24.75(54.57)	B5	15	I2		350(13.78)	166(6.54)	174(6.85)	174(6.85)	650	21.90
HRL215-12	12	860.0	205.0	66.0(145.50)	I3	13	I4		522(20.55)	202(7.95)	218(8.58)	221.5(8.72)		61.50

Remark: (1) HRL40-12(S) Standard Type (2) HRL40-12(H) Handle Type (3) HRL40-12(F) Finger Type

# EB Series

## For Electrical Vehicle Use



### SPECIFICATIONS

Model	Voltage (V)	Nominal Capacity (Ah)		Weight Kg(lbs)	Terminal				Dimension				MAX Discharge Current For 5 sec (A)	MAX Charge Current (A)
		2Hr Rate	20Hr Rate		Standard		Optional		MM(INCH)					
					Type	Posi	Type	Posi	L	W	H	TH		
EB12-12	12	10.0	12.0	4.30(9.48)	T2	5			151(5.94)	98(3.86)	94(3.70)	98(3.86)	180	3.6
EB14-12N	12	12.0	14.0	4.59(10.12)	T2	5			151(5.94)	98(3.86)	96.5(3.80)	102(4.02)	210	4.2
EB20-12	12	15.0	20.0	6.45(14.22)	B1	7	I1	6	181(7.13)	76(2.99)	166(6.54)	166(6.54)	300	6.0
EB24-12	12	20.0	24.0	7.35(16.20)	BE	6			183(7.20)	77(3.03)	170(6.69)	170(6.69)	360	7.2
EB24-12N	12	20.0	24.0	7.64(16.84)	BE	6			183(7.20)	77(3.03)	170(6.69)	170(6.69)	360	7.2
EB50-12	12	40.0	50.0	16.5(36.38)	I2	7			197(7.76)	165(6.50)	171(6.73)	171(6.73)	750	15.0
EB80-12	12	64.0	80.0	25.5(56.22)	I2	8			260(10.24)	168(6.61)	215(8.46)	215(8.46)	800	24.0

# EP Series

## For High Cycle Use



### SPECIFICATIONS

Model	Voltage (V)	Nominal Capacity (Ah)			Weight Kg(lbs)	Terminal				Dimension MM(INCH)				MAX Discharge Current For 5 sec (A)	MAX Charge Current (A)
		20Hr Rate	5Hr Rate	30Min Rate		Standard		Optional		L	W	H	TH		
						Type	Posi	Type	Posi						
EP7-12	12	7.0	5.95	3.5	2.60(5.73)	T2	5	T1		151(5.94)	65(2.56)	93(3.66)	98(3.86)	105	2.10
EP12-12	12	12.0	10.20	6.0	4.20(9.26)	T2	5	T1		151(5.94)	98(3.86)	94(3.70)	98(3.86)	180	3.60
EP17-12	12	17.0	14.45	8.5	6.20(13.67)	B1	7	T2,I1	6	181(7.13)	76(2.99)	166(6.54)	166(6.54)	255	5.10
EP26-12	12	26.0	22.10	13.0	9.60(21.17)	B1	7	T2,I1	9	175(6.89)	166(6.54)	125(4.92)	125(4.92)	390	7.80
EP28-12	12	28.0	23.80	14.0	9.70(21.39)	B1	7	T2,I1		175(6.89)	166(6.54)	125(4.92)	125(4.92)	420	8.40
EP33-12(S)	12	33.0	28.05	16.5	11.50(25.36)	B7	8			195(7.68)	129(5.08)	155(6.10)	179(7.05)	495	9.90
EP33-12(H)	12	33.0	28.05	16.5	11.50(25.36)	B7	8	I2		210(8.27)	129(5.08)	168(6.61)	179(B7)(7.05) 168(I2)(6.61)	495	9.90
EP33-12(F)	12	33.0	28.05	16.5	11.50(25.36)	B7	8	I2		195(7.68)	129(5.08)	168(6.61)	179(B7)(7.05) 168(I2)(6.61)	495	9.90
EP40-12	12	40.0	34.00	20.0	14.60(32.19)	B2	7	I1,I2		197(7.76)	165(6.50)	171(6.73)	171(6.73)	600	12.00
EP65-12	12	65.0	55.25	32.5	22.80(50.30)	B5	15	I2		350(13.78)	166(6.54)	174(6.85)	174(6.85)	650	19.50
EP80-12	12	80.0	68.00	40.0	31.20(68.80)	B3	15	I2		329(12.95)	172(6.77)	215(8.46)	238(B3)(9.37) 218.5(I2)(8.60)	800	24.00
EP100-12	12	100.0	85.00	50.0	40.00(88.20)	B4	18	I2		407(16.02)	173(6.81)	210(8.27)	239(9.41)	800	30.00

Remark: (1) EP33-12(S) Standard Type (2) EP33-12(H) Handle Type (3) EP33-12(F) Finger Type

# EVP Series

## For High Power, High Cycle Use



### SPECIFICATIONS

Model	Voltage (V)	Nominal Capacity (Ah)			Weight Kg(lbs)	Terminal				Dimension MM(INCH)				MAX Discharge Current For 5 sec (A)	MAX Charge Current (A)
		20Hr Rate	5Hr Rate	30Min Rate		Standard		Optional		L	W	H	TH		
						Type	Posi	Type	Posi						
EVP7-12	12	7.0	5.95	4.37	2.75(6.06)	T2	5	T1		151(5.94)	65(2.56)	94(3.70)	100(3.94)	105	2.10
EVP12-12	12	12.0	10.20	7.50	4.20(9.26)	T2	5	T1		151(5.94)	98(3.86)	94(3.70)	98(3.86)	180	3.60
EVP20-12	12	20.0	17.00	12.5	6.60(14.55)	B1	7	T2,I1	6	181(7.13)	76(2.99)	166(6.54)	166(6.54)	300	6.00
EVP26-12	12	26.0	22.10	16.3	10.00(22.05)	B1	7	T2,I1	9	175(6.89)	166(6.54)	125(4.92)	125(4.92)	390	7.80
EVP35-12(S)	12	35.0	29.75	21.9	12.50(27.56)	B7	8			195(7.68)	129(5.08)	155(6.10)	179(7.05)	525	10.50
EVP35-12(H)	12	35.0	29.75	21.9	12.50(27.56)	B7	8	I2		210(8.27)	129(5.08)	168(6.61)	179(B7)(7.05) 168(I2)(6.61)	525	10.50
EVP35-12(F)	12	35.0	29.75	21.9	12.50(27.56)	B7	8	I2		195(7.68)	129(5.08)	168(6.61)	179(B7)(7.05) 168(I2)(6.61)	525	10.50
EVP44-12	12	44.0	37.40	27.5	15.50(34.18)	B2	7	I1,I2		197(7.76)	165(6.50)	171(6.73)	171(6.73)	600	13.20
EVP70-12	12	70.0	59.50	43.8	25.00(55.13)	B5	15	I2		350(13.78)	166(6.54)	174(6.85)	174(6.85)	650	21.00

Remark: (1) EVP35-12(S) Standard Type (2) EVP35-12(H) Handle Type (3) EVP35-12(F) Finger Type

# BPL Series

## For Long Life Standby Use



### SPECIFICATIONS

Model	Voltage (V)	Nominal Capacity (Ah)			Weight Kg(lbs)	Terminal				Dimension MM(INCH)				MAX Discharge Current For 5 sec (A)	MAX Charge Current (A)
		20hr Rate	5 hr Rate	30 Min Rate		Standard		Optional		L	W	H	TH		
					Type	Posi	Type	Posi							
BPL170-6	6	170	144.5	85.0	29.2(64.4)	B9	19	I3		260(10.24)	171(6.73)	220(8.66)	244(9.61)	800	51.0
BPL210-6	6	210	178.5	105.0	33.2(73.2)	I3	19			244(9.61)	190(7.48)	275(10.83)	275(10.83)	800	63.0
BPL3.3-12	12	3.3	2.81	1.65	1.35(2.98)	T1	4	T2		134(5.28)	67(2.64)	60(2.36)	66(2.60)	49.5	0.99
BPL7-12	12	7.0	5.95	3.50	2.60(5.73)	T2	5	T1		151(5.94)	65(2.56)	93(3.66)	98(3.86)	105	2.10
BPL7.5-12	12	7.5	6.38	3.75	2.70(5.95)	T2	5	T1		151(5.94)	65(2.56)	94(3.70)	100(3.94)	112.5	2.25
BPL12-12	12	12.0	10.20	6.00	4.10(9.04)	T2	5	T1		151(5.94)	98(3.86)	94(3.70)	98(3.86)	180	3.60
BPL17-12	12	17.0	14.45	8.50	6.15(13.56)	B1	7	T2.11	6	181(7.13)	76(2.99)	166(6.54)	166(6.54)	255	5.10
BPL20-12	12	20.0	17.00	10.00	6.40(14.11)	B1	7	T2.11	6	181(7.13)	76(2.99)	166(6.54)	166(6.54)	300	6.00
BPL26-12	12	26.0	22.10	13.00	9.60(21.17)	B1	7	T2.11	9	175(6.89)	166(6.54)	125(4.92)	125(4.92)	390	7.80
BPL28-12	12	28.0	23.80	14.00	9.70(21.39)	B1	7	T2.11	9	175(6.89)	166(6.54)	125(4.92)	125(4.92)	420	8.40
BPL33-12(S)	12	33.0	28.05	16.50	11.50(25.36)	B7	8			195(7.68)	129(5.08)	155(6.10)	179(7.05)	495	9.90
BPL33-12(H)	12	33.0	28.05	16.50	11.50(25.36)	B7	8	I2		210(8.27)	129(5.08)	168(6.61)	179(B7)(7.05) 168(I2)(6.61)	495	9.90
BPL33-12(F)	12	33.0	28.05	16.50	11.50(25.36)	B7	8	I2		195(7.68)	129(5.08)	168(6.61)	179(B7)(7.05) 168(I2)(6.61)	495	9.90
BPL40-12	12	40.0	34.00	20.00	14.60(32.19)	B2	7	I1.12		197(7.76)	165(6.50)	171(6.73)	171(6.73)	600	12.00
BPL65-12	12	65.0	55.25	32.50	22.70(50.05)	B5	15	I2		350(13.78)	166(6.54)	174(6.85)	174(6.85)	650	19.50
BPL80-12	12	80.0	68.0	40.0	26.8(59.1)	I2	7			260(10.24)	168(6.61)	215(8.46)	215(8.46)	800	24.00
BPL85-12	12	85.0	72.25	42.50	31.20(68.80)	B3	15	I2		329(12.95)	172(6.77)	215(8.46)	238(B3)(9.37) 218.5(I2)(8.60)	800	25.50
BPL95-12	12	95.0	80.80	47.50	33.20(73.20)	B3	15	I2		329(12.95)	172(6.77)	215(8.46)	238(B3)(9.37) 218.5(I2)(8.60)	800	28.50
BPL110-12	12	110.0	93.50	55.00	40.00(88.20)	B4	18	I2		407(16.02)	173(6.81)	210(8.27)	239(9.41)	800	33.00
BPL150-12	12	150.0	127.5	75.00	51.80(114.2)	B9	8	I3		483(19.02)	171(6.73)	240(9.45)	240(9.45)	800	45.00
BPL210-12	12	210.0	178.5	105.0	73.20(161.4)	B9	13	I3		522(20.55)	240(9.45)	216(8.50)	240(B9)(9.45) 220(I3)(8.66)	800	63.00

Remark: (1) BPL33-12(S) Standard Type (2) BPL33-12(H) Handle Type (3) BPL33-12(F) Finger Type

# SHR Series

## For High Rate Use



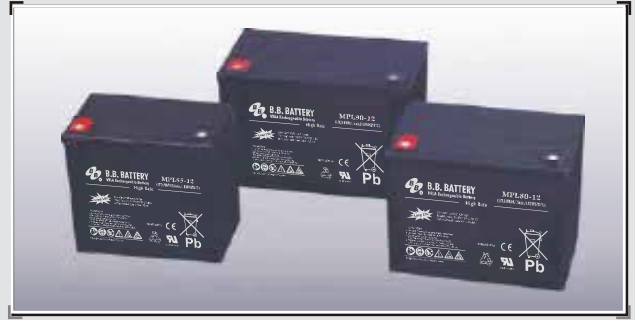
### SPECIFICATIONS

Model	Voltage (V)	Nominal Capacity (Ah)		Weight Kg(lbs)	Terminal				Dimension MM(INCH)				MAX Discharge Current For 5 sec (A)	MAX Charge Current (A)
		15Min Rate W/Cell	10Hr Rate Ah		Standard		Optional		L	W	H	TH		
				Type	Posi	Type	Posi							
SHR10-6	6	40.0		1.41(3.11)	T2	2	T1		151(5.94)	34(1.34)	94(3.70)	100(3.94)	130	2.7
SHR3.6-12	12	13.0	2.8	0.93(2.05)	T2	5			102(4.02)	48(1.89)	65.5(2.58)	70.5(2.78)	45	1.0
SHR7-12	12	27.0	5.8	1.84(4.06)	T2	3	T1		90(3.54)	70(2.76)	102(4.02)	106(4.17)	90	1.8
SHR7.5-12	12	30.0	6.8	2.05(4.25)	T1	5	T2		151(5.94)	51(2.01)	94(3.70)	100(3.94)	105	2.1
SHR10-12	12	40.0	8.8	2.70(5.95)	T2	5	T1,B0		151(5.94)	65(2.56)	94(3.70)	100(3.94)	130	2.7
SHR12100W	12		8.8	2.85(6.28)	T2	5	T1,B0		151(5.94)	65(2.56)	94(3.70)	100(3.94)	150	3.0



# MPL Series

For High Rate, Long Life Standby Use



## SPECIFICATIONS

Model	Voltage (V)	Nominal Capacity (Ah)		Weight Kg(lbs)	Terminal				Dimension				MAX Charge Current (A)
		15Min Rate W/Cell	10Hr Rate Ah		Standard		Optional		MM(INCH)				
					Type	Posi	Type	Posi	L	W	H	TH	
MPL55-12(S)	12	220.0	53.0	17.8(39.25)	B5	8	I2		228(8.98)	139(5.47)	200(7.87)	224(B5) (8.82) 207(I2) (8.15)	15.90
MPL55-12(H)	12	220.0	53.0	17.8(39.25)	B5	8	I2		228(8.98)	139(5.47)	200(7.87)	224(B5) (8.82) 207(I2) (8.15)	15.90
MPL80-12(S)	12	320.0	78.0	26.0(57.33)	B5	8	I2		261(10.28)	173(6.81)	200(7.87)	224(B5) (8.82) 207(I2) (8.15)	23.40
MPL80-12(H)	12	320.0	78.0	26.0(57.33)	B5	8	I2		261(10.28)	173(6.81)	200(7.87)	224(B5) (8.82) 207(I2) (8.15)	23.40
MPL90-12(S)	12	360.0	88.0	29.8(65.71)	B3	8	I2		306(12.05)	173(6.81)	200(7.87)	230(B3) (9.06) 207(I2) (8.15)	26.40
MPL90-12(H)	12	360.0	88.0	29.8(65.71)	B3	8	I2		306(12.05)	173(6.81)	200(7.87)	230(B3) (9.06) 207(I2) (8.15)	26.40
MPL110-12(S)	12	440.0	108.0	34.3(75.62)	B3	8	I2		330(12.99)	173(6.81)	212(8.35)	241(B3) (9.49) 218(I2) (8.59)	32.40
MPL110-12(H)	12	440.0	108.0	34.3(75.62)	B3	8	I2		330(12.99)	173(6.81)	212(8.35)	241(B3) (9.49) 218(I2) (8.59)	32.40
MPL135-12	12	540.0	130.0	41.1(90.60)	I3	8			344(13.54)	173(6.81)	270.5(10.65)	277(10.91)	39.00
MPL155-12	12	620.0	150.0	45.5(100.3)	I3	8			344(13.54)	173(6.81)	270.5(10.65)	277(10.91)	45.00

Remark: (1) (S) Standard Type (2) (H) Handle Type

# FTB Series

Front Terminal For Telecom Use



## SPECIFICATIONS

Model	Voltage (V)	Nominal Capacity (Ah)			Weight Kg(lbs)	Terminal				Dimension				MAX Discharge Current For 5 sec (A)	MAX Charge Current (A)
		10hr Rate	8hr Rate	1hr Rate		Standard		Optional		MM(INCH)					
						Type	Posi	Type	Posi	L	W	H	TH		
FTB100-12 (central degassing)	12	102.0	100.0	66.0	36.8(81.13)	I2	17			394(15.51)	110(4.33)	287(11.30)	287(11.30)	800	25
FTB100-12	12	102.0	100.0	66.0	36.8(81.13)	I2	17			394(15.51)	110(4.33)	285(11.22)	285(11.22)	800	25
FTB105-12	12	107.0	105.0	69.3	34.5(76.06)	I2	17			518(20.40)	109(4.29)	230(9.06)	230(9.06)	800	26.3
FTB110-12	12	112.2	110.0	72.9	41.1(90.6)	L1	17			560(22.05)	125(4.92)	230(9.06)	230(9.06)	800	27.5
FTB125-12	12	127.5	125.0	82.5	46.4(102.3)	L1	17			560(22.05)	125(4.92)	255(10.04)	255(10.04)	800	31.3
FTB155-12 (central degassing)	12	159.0	155.0	102.1	55.4(122.1)	I3	17			560(22.05)	125(4.92)	290(11.42)	303(11.93)	800	38.8
FTB155-12	12	159.0	155.0	102.1	55.4(122.1)	I3	17			560(22.05)	125(4.92)	290(11.42)	290(11.42)	800	38.8
FTB180-12 (central degassing)	12	184.6	180.0	117.3	59.0(130.1)	I3	17			560(22.05)	125(4.92)	320(12.60)	333(13.11)	800	45.0
FTB180-12	12	184.6	180.0	117.3	59.0(130.1)	I3	17			560(22.05)	125(4.92)	320(12.60)	320(12.60)	800	45.0



# MSB Series

## For Telecom Use



### SPECIFICATIONS

Model	Voltage (V)	Nominal Capacity (Ah)			Weight Kg(lbs)	Terminal				Dimension				MAX Discharge Current For 5 sec (A)	MAX Charge Current (A)
		10Hr Rate	3Hr Rate	1Hr Rate		Standard		Optional		MM(INCH)					
						Type	Posi	Type	Posi	L	W	H	TH		
MSB-200	2	200	150	110	<b>16.0(35.3)</b>	B6		I3		<b>173(6.81)</b>	111(4.37)	329(12.95)	357(14.06)	900	<b>50</b>
MSB-300	2	300	225	165	<b>21.2(46.7)</b>	B6		I3		<b>171(6.73)</b>	151(5.94)	330(12.99)	358(14.09)	1350	<b>75</b>
MSB-400	2	400	300	220	<b>31.5(69.4)</b>	B6		I3		<b>211(8.31)</b>	176(6.92)	329(12.95)	<b>357(14.06)</b>	1760	<b>100</b>
MSB-500	2	500	375	275	<b>36.0(79.4)</b>	B6		I3		<b>241(9.49)</b>	172(6.77)	331(13.03)	359(14.13)	2200	<b>125</b>
MSB-600	2	600	450	330	<b>46.0(101.4)</b>	B6		I3		<b>301(11.86)</b>	175(6.89)	331(13.03)	359(14.13)	2640	<b>150</b>
MSB-800	2	800	600	440	<b>63.0(138.9)</b>	B6		I3		<b>410(16.14)</b>	175(6.89)	330(12.99)	358(14.09)	3200	<b>200</b>
MSB-1000	2	1000	750	550	<b>72.0(158.7)</b>	B6		I3		<b>475(18.70)</b>	175(6.89)	328(12.91)	356(14.02)	4000	<b>250</b>
MSB-1500	2	1500	1125	825	<b>128.0(282.2)</b>	B6				<b>400(15.75)</b>	350(13.78)	341(13.43)	369(14.53)	6000	<b>375</b>
MSB-2000	2	2000	1500	1100	<b>153.0(337.3)</b>	B6				<b>490(19.29)</b>	350(13.78)	343(13.50)	371(14.61)	7000	<b>500</b>
MSB-3000	2	3000	2250	1650	<b>215.0(473.9)</b>	B6				<b>710(27.95)</b>	353(13.90)	341(13.43)	369(14.53)	9000	<b>750</b>

# MSU Series

## For Telecom Use



### SPECIFICATIONS

Model	Voltage (V)	Nominal Capacity (Ah)			Weight Kg(lbs)	Terminal				Dimension				MAX Discharge Current For 5 sec (A)	MAX Charge Current (A)
		10Hr Rate	3Hr Rate	1Hr Rate		Standard		Optional		MM(INCH)					
						Type	Posi	Type	Posi	L	W	H	TH		
MSU-200	2	200	150	110	<b>13.5(29.8)</b>	B6		I3		<b>173(6.81)</b>	111(4.37)	329(12.95)	357(14.06)	900	<b>50</b>
MSU-300	2	300	225	165	<b>19.0(41.9)</b>	B6		I3		<b>171(6.73)</b>	151(5.94)	330(12.99)	358(14.09)	1350	<b>75</b>
MSU-400	2	400	300	220	<b>24.5(54.0)</b>	B6		I3		<b>174(6.85)</b>	174(6.85)	330(12.99)	360(14.17)	1760	<b>100</b>
MSU-500	2	500	375	275	<b>30.8(67.9)</b>	B6		I3		<b>211(8.31)</b>	176(6.92)	329(12.95)	357(14.06)	2200	<b>125</b>
MSU-600	2	600	450	330	<b>36.3(80.0)</b>	B6		I3		<b>241(9.49)</b>	172(6.77)	331(13.03)	359(14.13)	2640	<b>150</b>
MSU-800	2	800	600	440	<b>45.0(99.2)</b>	B6		I3		<b>301(11.86)</b>	175(6.89)	331(13.03)	359(14.13)	3200	<b>200</b>
MSU-1000	2	1000	750	550	<b>60.5(133.4)</b>	B6		I3		<b>410(15.79)</b>	175(6.89)	330(12.99)	358(14.09)	4000	<b>250</b>
MSU-1200	2	1200	900	660	<b>71.5(157.6)</b>	B6		I3		<b>475(18.70)</b>	175(6.89)	328(12.91)	356(14.02)	4800	<b>300</b>
MSU-2000	2	2000	1500	1100	<b>131.0(288.8)</b>	B6				<b>400(15.75)</b>	350(13.78)	341(13.43)	369(14.53)	7000	<b>500</b>
MSU-3000	2	3000	2250	1650	<b>190.0(418.9)</b>	B6				<b>710(27.95)</b>	353(13.90)	341(13.43)	369(14.53)	9000	<b>750</b>

# BPX Series

## For General Use



### SPECIFICATIONS

Model	Voltage (V)	Nominal Capacity (Ah)				Weight Kg(lbs)	Terminal				Dimension				MAX Discharge Current For 5 sec (A)	MAX Charge Current (A)			
		20hr	10hr	5 hr	1 hr		Standard		Optional		MM(INCH)								
							Type	Posi	Type	Posi	L	W	H	TH					
BPX7-12	12	7.0	6.65	5.95	4.20	2.35(5.18)	T2	5	T1					151(5.94)	65(2.56)	93(3.66)	98(3.86)	105.0	2.10

# RT Series

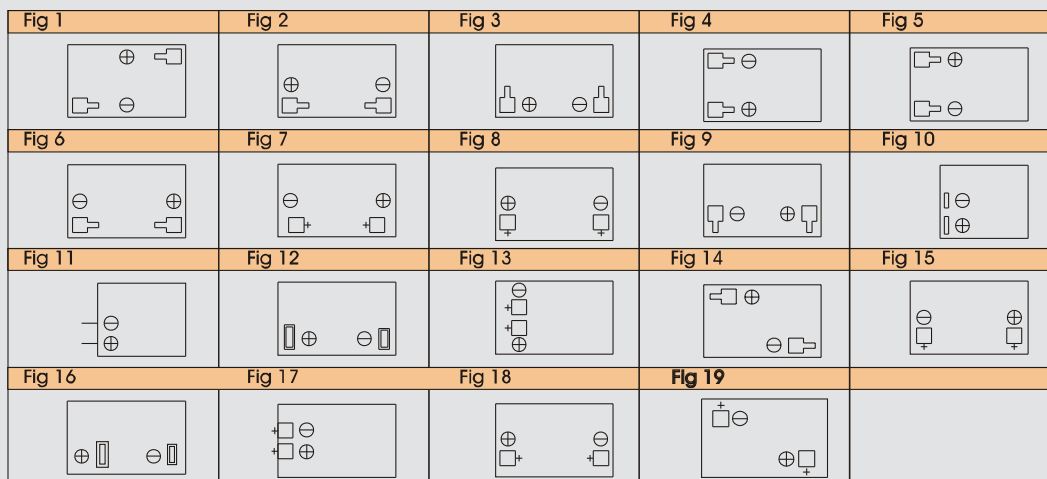
## For Recess Terminal Use



### SPECIFICATIONS

Model	Voltage (V)	Nominal Capacity (Ah)				Weight Kg(lbs)	Terminal				Dimension				MAX Discharge Current For 5 sec (A)	MAX Charge Current (A)
		20hr	10hr	5 hr	1 hr		Standard		Optional		MM(INCH)					
							Type	Posi	Type	Posi	L	W	H	TH		
BP4.5-12RT	12	4.5	4.28	3.83	2.70	1.78(3.92)	RT	12		16	140(5.51)	48(1.89)	102(4.02)	104(4.09)	67.5	1.35
BP5-12RT	12	5.5	5.23	4.68	3.30	1.85(4.08)	RT	12		16	140(5.51)	48(1.89)	102(4.02)	104(4.09)	82.5	1.65
BP7-12RT	12	7.0	6.65	5.95	4.20	2.40(5.29)	RT	12		16	140(5.51)	48(1.89)	126(4.96)	128(5.04)	105.0	2.10

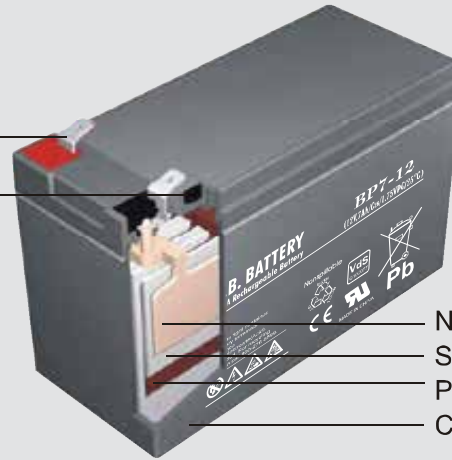
### TERMINAL POSITION



## A SAMPLE OF CONSTRUCTION OF B.B. BATTERY

- \* Standard case material is flame retardant to UL94-HB.
- \* FR option case material is flame retardant to UL94-V0.
- \* Flame Retardant (V-0) container is available for all models.

Terminal  
Safety Valve



Negative plate  
Separator  
Positive plate  
Container

Components	Type	Retainer type
Plate		Paste type
Container, Cover		ABS or PP
Separator		Glass fiber
Electrolyte		Sulfuric Acid
Safety Valve		Rubber

### TERMINAL TYPE mm (inch)

<b>T1</b>		<b>T2</b>		<b>T3</b>	
<b>RT</b>		<b>H</b>		<b>L1</b>	
<b>I1</b>		<b>I2</b>		<b>I3</b>	
<b>B0</b>		<b>B1</b>		<b>B2</b>	
<b>B3</b>		<b>B4</b>		<b>B5</b>	
<b>B6</b>		<b>B7</b>		<b>B8</b>	
<b>B9</b>		<b>BE</b>		<b>TP</b>	

Eaton's electrical business is a global leader with expertise in power distribution and circuit protection; backup power protection; control and automation; lighting and security; structural solutions and wiring devices; solutions for harsh and hazardous environments; and engineering services. Eaton is positioned through its global solutions to answer today's most critical electrical power management challenges.

Eaton is a power management company with 2014 sales of \$22.6 billion. Eaton provides energy-efficient solutions that help our customers effectively manage electrical, hydraulic and mechanical power more efficiently, safely and sustainably. Eaton has approximately 102,000 employees and sells products to customers in more than 175 countries.

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