



## VRLA Rechargeable Battery

# BPS90-12 (BPS90-12FR)

### FEATURES

- Maintenance free(no water topping-up required)
- No free acid(Non-spillable battery)
- Can be used in any orientation(excluding used inverted)
- Flame-arrestor is installed to ensure safety
- Carry handles for easy installation
- Absorbent Glass Mat technology for efficient gas recombination

### APPLICATION

- UPS
- Golf-Carts
- Telecom

### SPECIFICATIONS

Nominal Voltage	12V	
Nominal Capacity	20 Hour Rate (4.50A, 10.5V)	90.0 Ah
	10 Hour Rate (8.55A, 10.5V)	85.5 Ah
	5 Hour Rate (15.30A, 10.5V)	76.5 Ah
	1 Hour Rate (54.00A, 9.3V)	54.0 Ah
Approx. Weight	30.8Kg(67.90lbs.)	
Terminals	B3 (Fitting M6 bolt & nut) I2 is optional	
Max. Discharge Current	800 A (5 sec.)	
Max. Charge Current	27 A	
Operating Temperature Range	Charge	0°C~40°C(32°F~104°F)
	Discharge	-20°C~50°C(-4°F~122°F)
	Storage	-20°C~40°C(-4°F~104°F)
Self Discharge	< 3% per month (25°C)	
Internal Resistance	≤ 5m Ω (Fully Charged )	



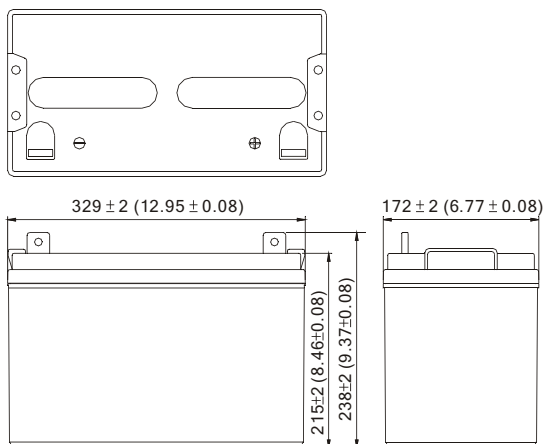
### CONTAINER MATERIAL

- BPS90-12:  
ABS: UL 94-HB (Dark gray color)
- BPS90-12FR:  
ABS: UL 94-V0 (Light gray color)

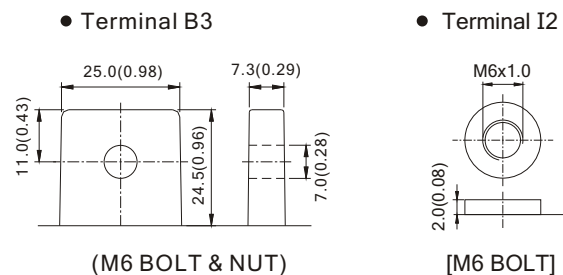
 ISO 9001	 ISO 14001
 UL	 CE
<ul style="list-style-type: none"> <li>● IEC60896</li> <li>● GB/T 19638</li> </ul>	<ul style="list-style-type: none"> <li>● JIS C 8704</li> </ul>

### OUTER DIMENSIONS mm(inch)

Length (L)	Width (W)	Container Height (H)	Total Height (TH)
329±2.0(12.95±0.08)	172±2.0(6.77±0.08)	215±2.0(8.46±0.08)	238±2.0(9.37±0.08)

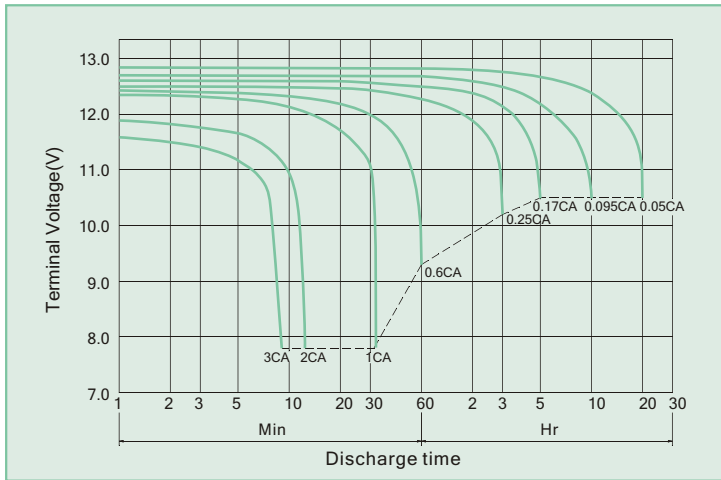


### TERMINAL TYPE

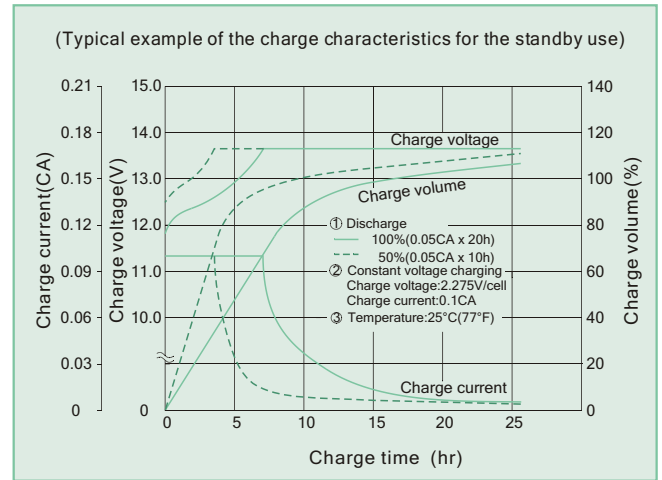


Terminal Hardware Initial Torque: B3,I2(5.5Nm±5%)

**BPS90-12 (BPS90-12FR) discharge characteristics (25°C /77°F)**



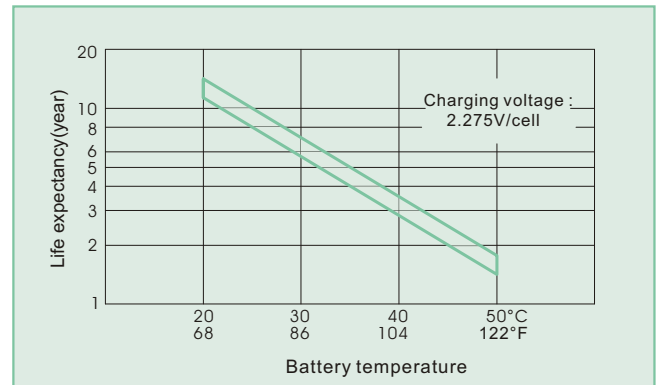
**Battery Charging Characteristics**



**Charging Procedure**

Application	Charging method	Charging Voltage at 25°C (V/cell)	Temperature compensation coefficient of charging voltage (mV/°C /cell)	Max. charging current (CA)	Charging time 0.1CA, 25°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**



**Constant power discharge characteristics at 25 °C/77 °F Unit: W**

F.V. (V/cell) \ Discharge Time	10 Min	15 Min	30 Min	1 Hr	3 Hr	5 Hr	10 Hr	20 Hr
1.80V	2300	1877	1142	655.0	262.3	180.9	101.08	53.19
1.75V	2491	1963	1186	674.7	267.6	183.6	102.60	54.00
1.70V	2581	2024	1213	686.8	270.0	184.6	103.11	54.28
1.65V	2643	2071	1230	695.0	271.9	185.2	103.42	54.43
1.60V	2696	2112	1242	702.0	273.5	185.8	103.42	54.43

**Constant current discharge characteristics at 25 °C/77 °F Unit: A**

F.V. (V/cell) \ Discharge Time	10 Min	15 Min	30 Min	1 Hr	3 Hr	5 Hr	10 Hr	20 Hr
1.80V	205.3	166.1	96.8	55.04	21.86	15.07	8.42	4.43
1.75V	222.4	173.7	100.5	56.70	22.30	15.30	8.55	4.50
1.70V	230.4	179.1	102.8	57.71	22.50	15.38	8.59	4.52
1.65V	240.3	183.2	104.2	58.41	22.66	15.44	8.62	4.54
1.60V	249.6	186.9	105.3	58.99	22.79	15.48	8.62	4.54

All data shall be changed without prior notice, BB reserves the right to explain and update the information contained hereinto.

A/0 REV. Aug. 2009

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