



## VRLA Rechargeable Battery

# BPS4-12 (BPS4-12FR)

### FEATURES

- Maintenance free(no water topping-up required)
- No free acid(Non-spillable battery)
- Can be used in any orientation(excluding used inverted)
- Absorbent Glass Mat technology for efficient gas recombination

### APPLICATION

- UPS
- Toy-Cars
- Fans
- Electronic Doorbells

### SPECIFICATIONS

Nominal Voltage	12V	
Nominal Capacity	20 Hour Rate (200mA, 10.5V)	4.0 Ah
	10 Hour Rate (380mA, 10.5V)	3.8 Ah
	5 Hour Rate (680mA, 10.5V)	3.4 Ah
	1 Hour Rate (2400mA, 9.3V)	2.4 Ah
Approx. Weight	1670g(3.68lbs.)	
Terminals	T1 (Faston Tab 187) T2 is optional	
Max. Discharge Current	60 A (5 sec.)	
Max. Charge Current	1.2 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	≤45mΩ (Fully Charged )	



### CONTAINER MATERIAL

- BPS4-12:  
ABS: UL 94-HB (Dark gray color)
- BPS4-12FR:  
ABS: UL 94-V0 (Light gray color)

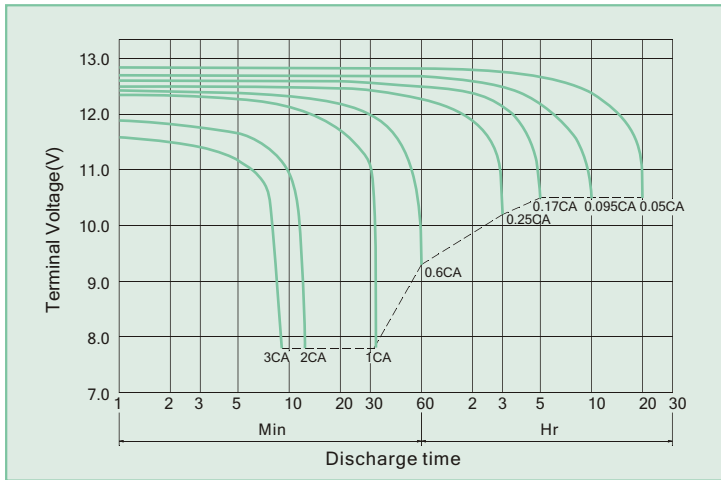
 <b>ISO 9001</b>	 <b>ISO 14001</b>
 <b>UL</b> MH19884	 <b>CE</b> C4M20310-2474-E-16
<ul style="list-style-type: none"> <li>● IEC61056</li> <li>● GB/T 19639</li> </ul>	<ul style="list-style-type: none"> <li>● JIS C 8702</li> </ul>

OUTER DIMENSIONS mm(inch)	Length (L)	Width (W)	Container Height (H)	Total Height (TH)
	90±1.5(3.54±0.06)	70±1.5(2.76±0.06)	102±1.5(4.02±0.06)	106±2.0(4.17±0.08)

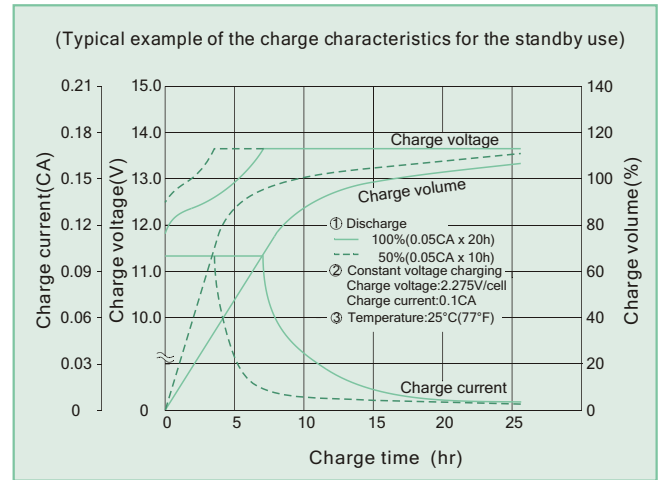
### TERMINAL TYPE

- Terminal T1
  - 3.2(0.13)
  - 4.75(0.19)
  - 6.35(0.25)
  - 0.8(0.03)
- Terminal T2
  - 3.4(0.13)
  - 6.35(0.25)
  - 7.85(0.31)
  - 0.8(0.03)

**BPS4-12 (BPS4-12FR) discharge characteristics (25°C /77°F)**



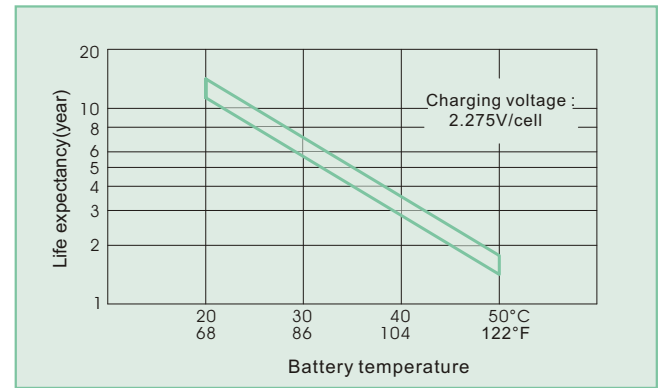
**Battery Charging Characteristics**



**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	5 Min	10 Min	15 Min	30 Min	1 Hr	3 Hr	5 Hr	10 Hr	20 Hr
1.80V	144.6	106.5	85.3	50.76	29.11	11.66	8.039	4.493	2.364
1.75V	167.4	115.3	89.2	52.69	29.99	11.89	8.160	4.560	2.400
1.70V	177.9	119.5	92.0	53.90	30.52	12.00	8.205	4.583	2.412
1.65V	185.8	122.4	94.1	54.65	30.89	12.08	8.233	4.596	2.424
1.60V	192.0	124.8	96.0	55.20	31.20	12.16	8.258	4.596	2.424

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

F.V. (V/cell) \ Discharge Time	5 Min	10 Min	15 Min	30 Min	1 Hr	3 Hr	5 Hr	10 Hr	20 Hr
1.80V	13.03	9.37	7.42	4.30	2.446	0.972	0.670	0.374	0.197
1.75V	15.36	10.15	7.76	4.47	2.520	0.991	0.680	0.380	0.200
1.70V	16.32	10.52	8.00	4.57	2.565	1.000	0.684	0.382	0.201
1.65V	17.05	10.77	8.18	4.63	2.596	1.007	0.686	0.383	0.202
1.60V	17.61	10.99	8.35	4.68	2.622	1.013	0.688	0.383	0.202

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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