



VRLA Rechargeable Battery

BPS28-12 (BPS28-12FR)

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
- Electronic Medical Equipment
- Wheelchairs
- Golf-Carts
- Lawn Mowers

SPECIFICATIONS

Nominal Voltage	12V	
Nominal Capacity	20 Hour Rate (1400mA, 10.5V)	28.0 Ah
	10 Hour Rate (2660mA, 10.5V)	26.6 Ah
	5 Hour Rate (4760mA, 10.5V)	23.8 Ah
	1 Hour Rate (16800mA,9.3V)	16.8 Ah
Approx. Weight	9600g(21.17lbs.)	
Terminals	B1 (Fitting M5 bolt & nut) , T2 and I1 are optional	
Max. Discharge Current	420 A (5 sec.)	
Max. Charge Current	8.4 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	≤10mΩ (Fully Charged)	



CONTAINER MATERIAL

- BPS28-12:
ABS: UL 94-HB (Dark gray color)
- BPS28-12FR:
ABS: UL 94-V0 (Light gray color)

 ISO 9001	 ISO 14001
 UL	 CE
<ul style="list-style-type: none"> ● IEC61056 ● GB/T 19639 	<ul style="list-style-type: none"> ● JIS C 8702

OUTER DIMENSIONS mm(inch)	Length (L)	Width (W)	Container Height (H)	Total Height (TH)
	175±1.5(6.89±0.06)	166±1.5(6.54±0.06)	123±1.5(4.84±0.06)	125±1.5(4.92±0.06)

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TERMINAL TYPE

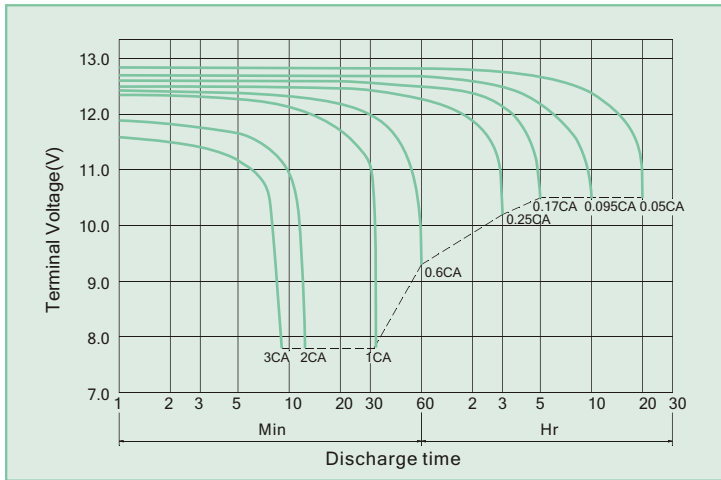
● Terminal B1

● Terminal T2

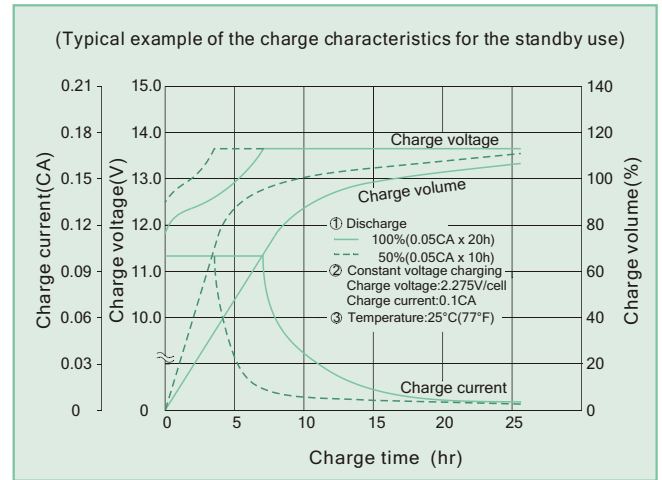
● Terminal I1

Terminal Hardware Initial Torque:
B1(2.5Nm±5%),I1(4.0Nm±5%)

BPS28-12 (BPS28-12FR) discharge characteristics (25°C /77°F)



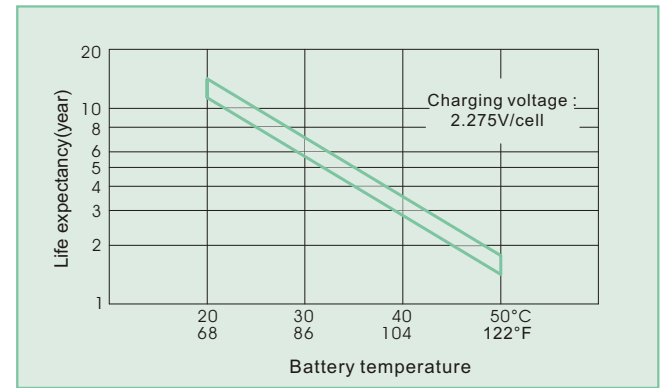
Battery Charging Characteristics



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	1012	745	597	355	203.8	81.6	56.3	31.45	16.55
1.75V	1172	807	625	369	209.9	83.2	57.1	31.92	16.80
1.70V	1245	836	644	377	213.7	84.0	57.4	32.08	16.88
1.65V	1301	856	659	383	216.2	84.6	57.6	32.18	16.93
1.60V	1344	874	672	386	218.4	85.1	57.8	32.18	16.93

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	91.2	65.6	51.9	30.1	17.12	6.80	4.69	2.621	1.379
1.75V	107.5	71.1	54.3	31.3	17.64	6.94	4.76	2.660	1.400
1.70V	114.2	73.6	56.0	32.0	17.96	7.00	4.79	2.673	1.407
1.65V	119.3	75.4	57.3	32.4	18.17	7.05	4.80	2.681	1.411
1.60V	123.3	76.9	58.4	32.7	18.35	7.09	4.82	2.681	1.411

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

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