



## VRLA Rechargeable Battery

# BC28-12 (BC28-12FR)

### 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	7900g(17.42lbs.)	
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	≤ 14mΩ (Fully Charged )	



### CONTAINER MATERIAL

- BC28-12:  
ABS: UL 94-HB (Dark gray color)
- BC28-12FR:  
ABS: UL 94-V0 (Light gray color)

 ISO 9001	 ISO 14001
 MH19884 UL	 C4M20310-2474-E-16 CE
 TS 1352-2 EN 60896-21	<ul style="list-style-type: none"> <li>● IEC61056</li> <li>● JIS C 8702</li> <li>● GB/T 19639</li> </ul>

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)

### TERMINAL TYPE

● Terminal B1

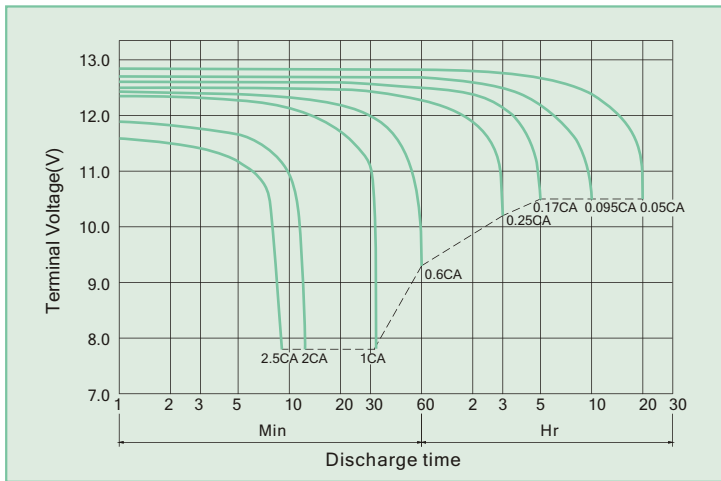
[M5 BOLT & NUT]

● Terminal T2

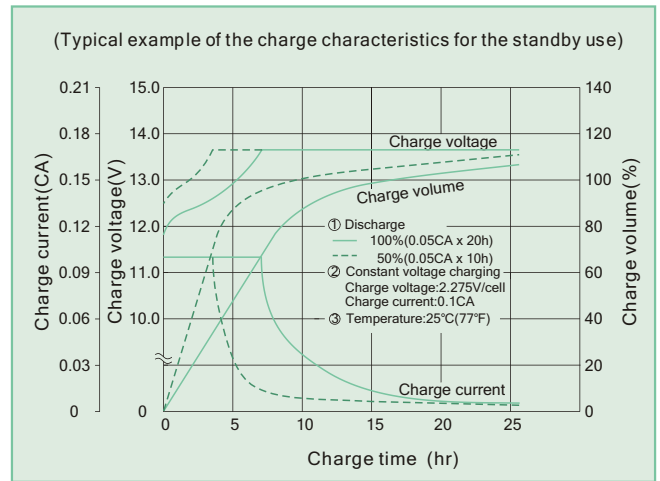
● Terminal I1

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

**BC28-12 (BC28-12FR) discharge characteristics (25°C/77°F)**



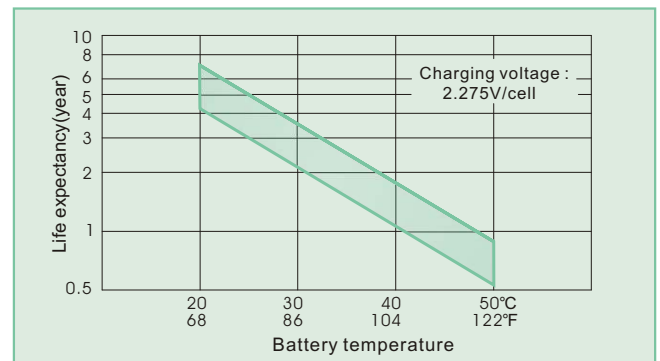
**Battery Charging Characteristics**



**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	703.7	573.8	468.5	317.3	199.7	81.60	56.27	31.47	16.53
1.75V	790.5	621.5	489.9	329.6	205.7	83.27	57.13	31.93	16.80
1.70V	865.3	642.9	504.7	337.1	209.4	84.00	57.40	32.07	16.87
1.65V	904.3	659.3	516.6	341.8	211.9	84.53	57.60	32.20	16.93
1.60V	934.2	672.6	526.7	345.3	214.1	85.13	57.80	32.20	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	64.1	51.7	41.9	27.1	16.8	6.80	4.67	2.60	1.33
1.75V	73.3	56.1	43.8	28.2	17.3	6.93	4.73	2.67	1.40
1.70V	80.2	58.1	45.1	28.9	17.6	7.00	4.80	2.67	1.40
1.65V	85.4	60.6	46.2	29.3	17.8	7.07	4.80	2.67	1.40
1.60V	89.9	62.9	47.1	29.5	18.0	7.07	4.80	2.67	1.40

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

To Sader A/0 REV. Nov. 2010

**USA:**  
B&B BATTERY(USA) INC.  
6415 RANDOLPH ST.COMMERCE, CA,90040 U.S.A.  
TEL:1-323-278-1900.1-800-278-8599  
FAX:1-323-278-1268  
E-Mail:sales@bb-battery.com

**CHINA FACTORY:**  
B.B. BATTERY CO., LTD.  
CHENG DONG TRIAL AREA,HUANG GANG,  
RAOPING, GUANG DONG,CHINA,515700  
TEL:86-768-7601001-2  
FAX:86-768-7601469  
E-Mail:maggy@bb-battery.com

**EUROPE:**  
B&B BATTERY(EUROPE) B.V.  
SUITE 8, HAAKSBERGWEG 33, 1101  
BP AMSTERDAM,THE NETHERLANDS  
TEL: 31-30-3200190  
MOBILE: 886-933896989  
E-Mail: gary@bb-battery.com

**HONG KONG:**  
B&B BATTERY(Hong Kong) Co.  
TEL:852-2311-4918  
FAX:852-2739-1182  
E-Mail:bbhk@hkstar.com

**JAPAN:**  
B&B BATTERY(JAPAN) CO., LTD.  
1375-11 NARAHARA-MACHI,HACHIOJI,  
TOKYO 193-0803,JAPAN.  
TEL:81-426-25-6375  
FAX:81-426-25-6375  
E-Mail:miyata@bb-battery.com

**TAIWAN:**  
B.B. BATTERY(TAIWAN) CO., LTD.  
TEL:886-6-502-5150  
FAX:886-6-589-8087  
E-Mail:kevin@bb-battery.com