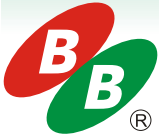




Measures Technology Values Innovation



## VRLA Rechargeable Battery

# BC7-12 (BC7-12FR)

### 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
- Laboratory Equipment
- Power Packs
- Toy-Cars
- Fishing Lights



### SPECIFICATIONS

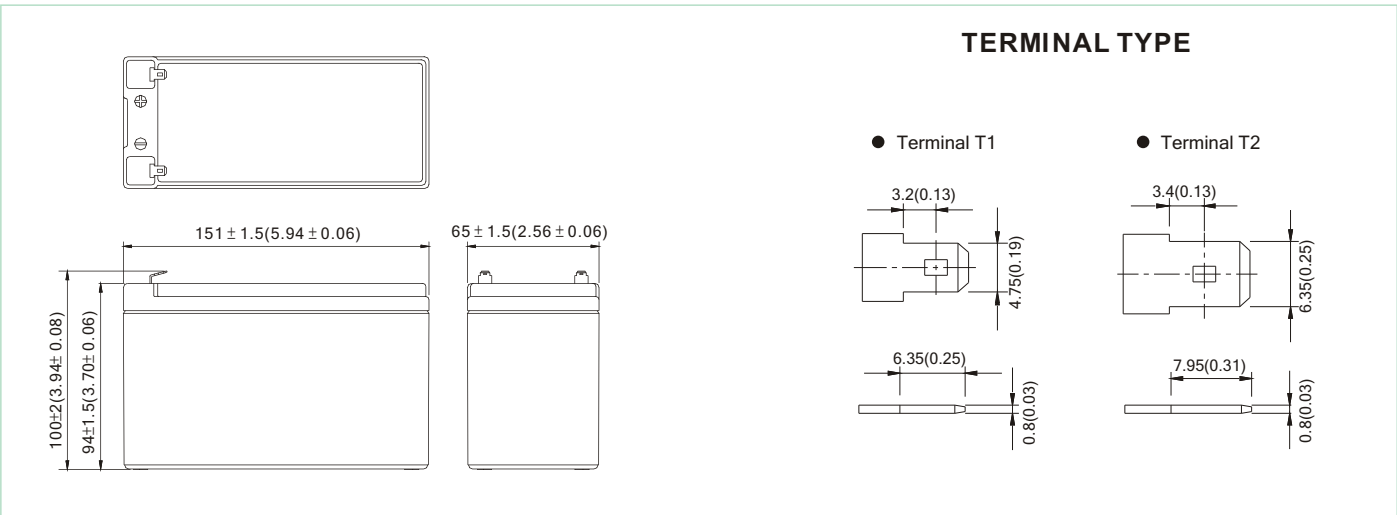
|                             |                                    |                        |
|-----------------------------|------------------------------------|------------------------|
| Nominal Voltage             | 12V                                |                        |
| Nominal Capacity            | 20 Hour Rate (350mA, 10.5V)        | 7.00 Ah                |
|                             | 10 Hour Rate (665mA, 10.5V)        | 6.65 Ah                |
|                             | 5 Hour Rate (1190mA, 10.5V)        | 5.95 Ah                |
|                             | 1 Hour Rate (4200mA, 9.30V)        | 4.20 Ah                |
| Approx. Weight              | 2200g(4.85lbs.)                    |                        |
| Terminals                   | T2 (Faston Tab 250) T1 is optional |                        |
| Max. Discharge Current      | 105 A (5 sec.)                     |                        |
| Max. Charge Current         | 2.1 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         | ≤25mΩ (Fully Charged)              |                        |

### CONTAINER MATERIAL

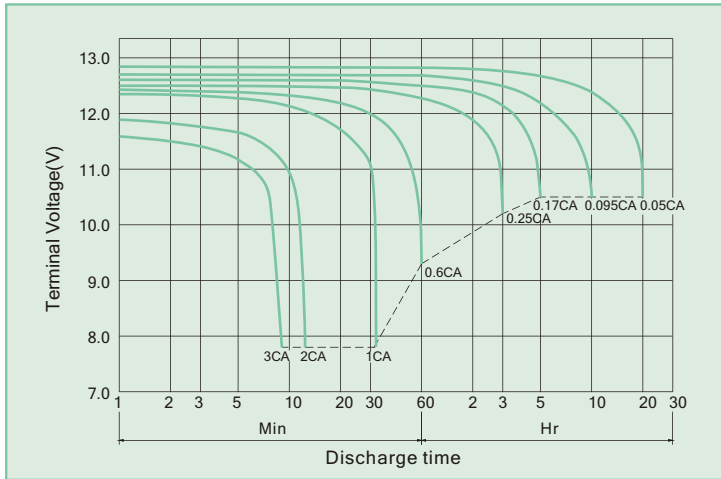
- BC7-12:  
ABS: UL 94-HB (Dark gray color)
- BC7-12FR:  
ABS: UL 94-V0 (Light gray color)

|                   |                              |
|-------------------|------------------------------|
| <br>ISO 9001      | <br>ISO14001                 |
| <br>MH19884<br>UL | <br>C4M20310-2474-E-16<br>CE |
| ● IEC61056        | ● JIS C 8702                 |
| ● GB/T 19639      |                              |

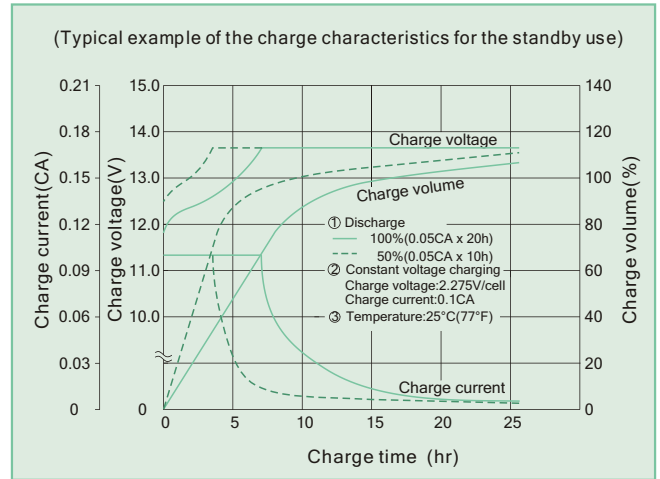
| OUTER DIMENSIONS mm(inch) | Length (L)         | Width (W)         | Container Height (H) | Total Height (TH)  |
|---------------------------|--------------------|-------------------|----------------------|--------------------|
|                           | 151±1.5(5.94±0.06) | 65±1.5(2.56±0.06) | 94±1.5(3.70±0.06)    | 100±2.0(3.94±0.08) |



### BC7-12 (BC7-12FR) discharge characteristics (25°C/77°F)



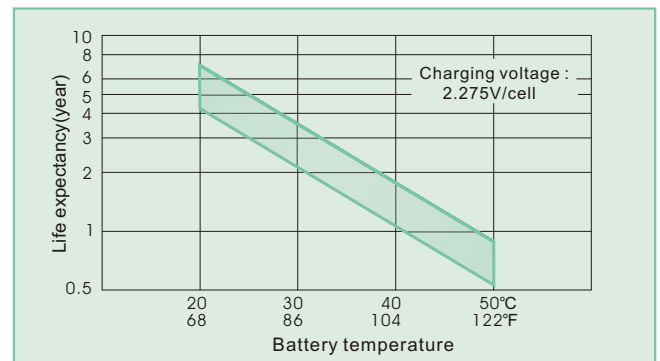
### Battery Charging Characteristics



### 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<br>(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                          | 253   | 186    | 149    | 88.8   | 50.9 | 20.40 | 14.07 | 7.86  | 4.14  |
| 1.75V                          | 293   | 202    | 156    | 92.2   | 52.5 | 20.81 | 14.28 | 7.98  | 4.20  |
| 1.70V                          | 311   | 209    | 161    | 94.3   | 53.4 | 21.00 | 14.36 | 8.02  | 4.22  |
| 1.65V                          | 325   | 214    | 165    | 95.6   | 54.1 | 21.15 | 14.41 | 8.04  | 4.24  |
| 1.60V                          | 336   | 218    | 168    | 96.6   | 54.6 | 21.27 | 14.45 | 8.04  | 4.24  |

### 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                          | 22.8  | 16.4   | 13.0   | 7.53   | 4.28 | 1.70 | 1.172 | 0.655 | 0.345 |
| 1.75V                          | 26.9  | 17.8   | 13.6   | 7.81   | 4.41 | 1.73 | 1.190 | 0.665 | 0.350 |
| 1.70V                          | 28.6  | 18.4   | 14.0   | 7.99   | 4.49 | 1.75 | 1.196 | 0.668 | 0.352 |
| 1.65V                          | 29.8  | 18.8   | 14.3   | 8.11   | 4.54 | 1.76 | 1.201 | 0.670 | 0.353 |
| 1.60V                          | 30.8  | 19.2   | 14.6   | 8.19   | 4.59 | 1.77 | 1.204 | 0.670 | 0.353 |

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

A/0 REV. September, 2010

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