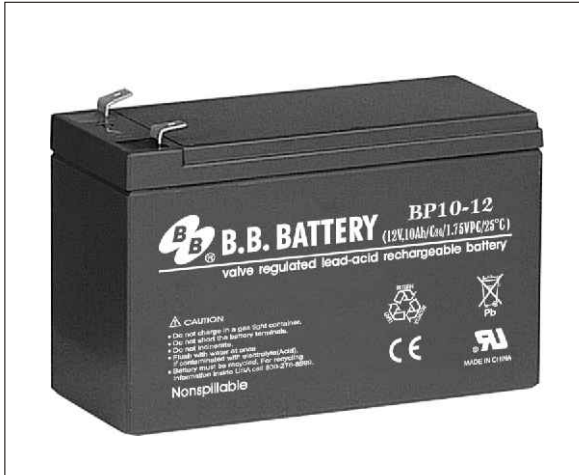




# Valve Regulated Lead-Acid Rechargeable Battery



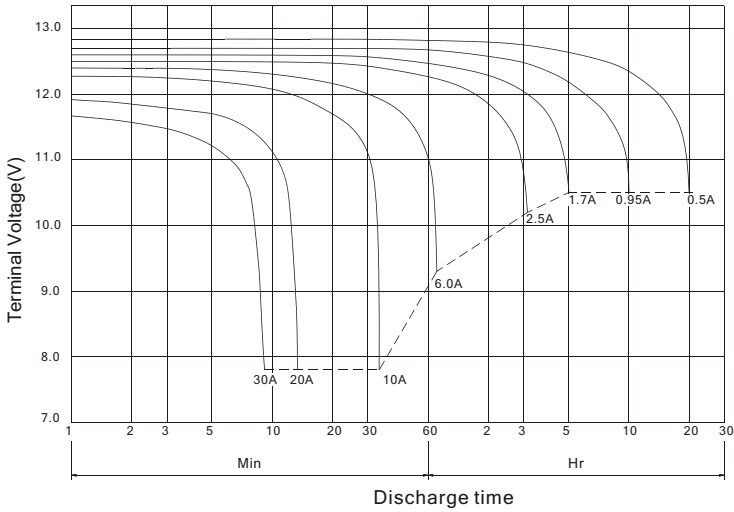
## BP10-12

The battery is constructed by plates, separators, safety valves and container. Since the electrolyte is held by a glass-mat separator and plates, the battery can be used in any direction and position without leakage.

### PERFORMANCE SPECIFICATIONS

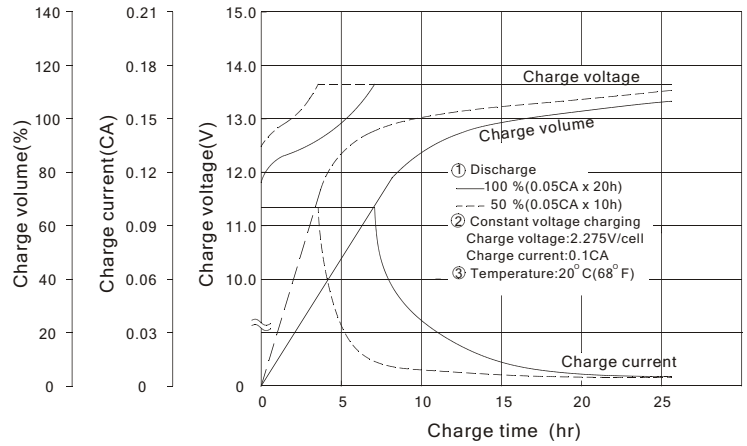
|   |                            |
|---|----------------------------|
| Nominal Voltage(V).....   | 12 volts(6cells in series) |
| Nominal Capacity(AH)  |                            |
| 20 hour rate F.V.(1.75V/cell)( 500mA to 10.50volts) .....                                       | 10.0A.H.                   |
| 10 hour rate F.V.(1.75V/cell)( 950mA to 10.50volts).....  | 9.50A.H.                   |
| 5 hour rate F.V.(1.75V/cell)( 1700mA to 10.50volts) .....                                       | 8.50A.H.                   |
| 1 hour rate F.V.(1.55V/cell)( 6000mA to 9.30volts).....   | 6.00A.H.                   |
| Approximate Weight.....   | 3300g(7.28bs.)             |
| Terminal  |                            |
| Standard.....   | Type T2                    |
| Optional.....   | Type T1                    |
| Internal Resistance (Fully Charged Battery).....  | <25mΩ                      |
| Maximum Discharge Current For 5 sec.(A).....  | 150A                       |
| Maximum Charge Current(A).....  | 3.00A                      |
| Ambient Temperature   |                            |
| Charge.....   | 0°C(32°F)~40°C(104°F)      |
| Discharge.....  | -20°C(-4°F)~50°C(122°F)    |
| Storage.....  | -20°C(-4°F)~40°C(104°F)    |
| Vibration test:   |                            |
| Frequency: 16.7HZ   |                            |
| Amplitude: 4mm  |                            |
| Vibrate the battery horizontally or vertically for 60 minutes. The battery have no abnormality. |                            |
| Case.....   | ABS                        |
| Dimension(mm/inch)  |                            |
| Length           ±1.5mm.....  | 151/5.95                   |
| Width           ±1.5mm.....   | 65/2.56                    |
| Container Height ±1.5mm.....  | 112/4.41                   |
| Total Height   ±2mm.....  | 116/4.57                   |
| Application.....  | UPS, Laboratory Equipment. |

## BP10-12 Battery discharge characteristics (25°C/77°F)



## Battery Charging Characteristics

(Typical example of the charge characteristics for the standby use)

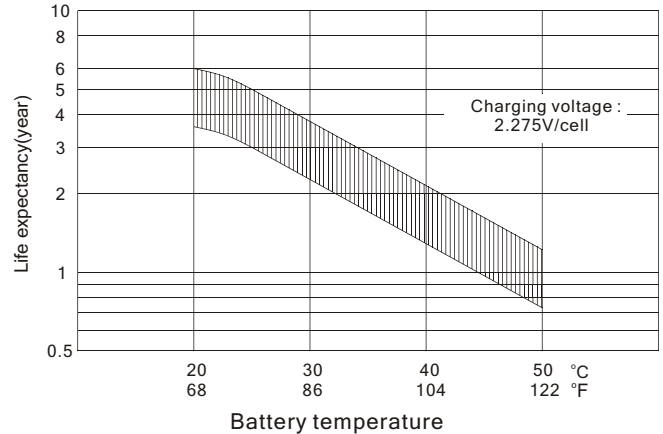


## Charging Procedure

| Application              | Charging method   | Charging Voltage at 20°C (V/cell) | Temperature compensation coefficient of charging voltage (mV/°C/cell) | Max. charging current (CA) | Charging time 0.1CA, 20°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            |                    |

\*Temperature compensation of charging voltage is not needed, when using the batteries within 5°C to 35°C range.

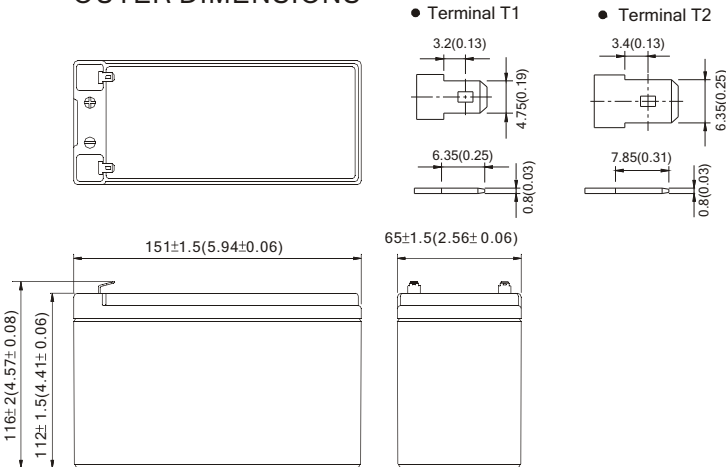
## Effect of Temperature on Long Term Float Life



## TERMINAL TYPE

mm(inch)

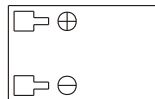
## OUTER DIMENSIONS



## Constant power discharge characteristics at 25°C/77°F

| Final Voltage | Discharge time          |       |       |       |       |       |       |       |      |
|---------------|-------------------------|-------|-------|-------|-------|-------|-------|-------|------|
|               | 5Min                    | 10Min | 15Min | 30Min | 1Hr   | 3Hr   | 5Hr   | 10Hr  | 20Hr |
|               | Battery output power(W) |       |       |       |       |       |       |       |      |
| 10.80V        | 361.6                   | 266.2 | 213.3 | 126.9 | 72.78 | 29.15 | 20.10 | 11.23 | 5.88 |
| 10.50V        | 418.5                   | 288.3 | 223.1 | 131.8 | 74.97 | 29.73 | 20.40 | 11.40 | 6.00 |
| 10.20V        | 444.7                   | 298.8 | 222.5 | 134.8 | 76.31 | 30.00 | 20.51 | 11.46 | 6.03 |
| 9.90V         | 464.6                   | 305.9 | 235.3 | 136.7 | 77.23 | 30.21 | 20.58 | 11.49 | 6.04 |
| 9.60V         | 480.0                   | 312.0 | 240.0 | 138.0 | 78.00 | 30.39 | 20.64 | 11.49 | 6.04 |

## TERMINAL POSITION



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