



## Maintenance-Free Rechargeable Sealed Lead-Acid Battery



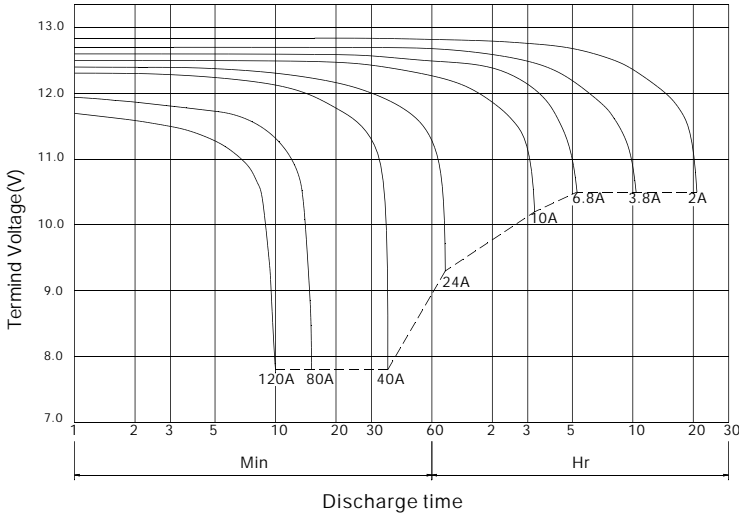
# BP40-12

The battery is composed of positive plates, negative plates. AGM separators. Electrolyte is contained in absorbent glass-mat separators, safety valves, gas-tight ABS cover and container. Leak-proof regardless of which direction or position the battery is being used

### PERFORMANCE SPECIFICATIONS

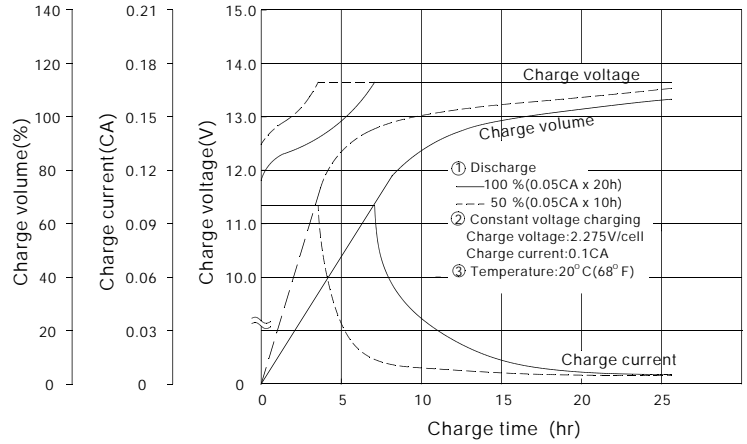
|   |  |
|---|--|
| Nominal Voltage(V).....   | 12 volts(6cells in series)   |
| Nominal Capacity(AH)  |  |
| 20 hour rate F.V.(1.75V/cell) (2000mA to 10.50volts) .....                                      | 40A.H.   |
| 10 hour rate F.V.(1.75V/cell) (3800mA to 10.50volts) .....                                      | 38A.H.   |
| 5 hour rate F.V.(1.75V/cell) (6800mA to 10.50volts) .....                                       | 34A.H.   |
| 1 hour rate F.V.(1.55V/cell) (24000mA to 9.30volts).....  | 24A.H.   |
| Approximate Weight.....   | 14300g(31.53lbs.)  |
| Terminal  |  |
| Standard.....   | Type B2  |
| Optional.....   | Type I1  |
| Internal Resistance (Fully Charged Battery).....  | <8m Ω  |
| Maximum Discharge Current For 5 sec.(A).....  | 600A   |
| Maximum Charge Current(A).....  | 12A  |
| 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.....  | 197/7.76   |
| Width           ±1.5mm.....   | 165/6.50   |
| Container Height ±1.5mm.....  | 171/6.73   |
| Total Height   ±1.5mm.....  | 171/6.73   |
| Application.....  | Wheelchairs, Lawn Mowers, Electronic Medical Equipment, UPS, Golf-Carts. |

## BP40-12 Battery discharge characteristics (25°C/77°F)



## BATTERY CHARGING CHARACTERISTICS

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

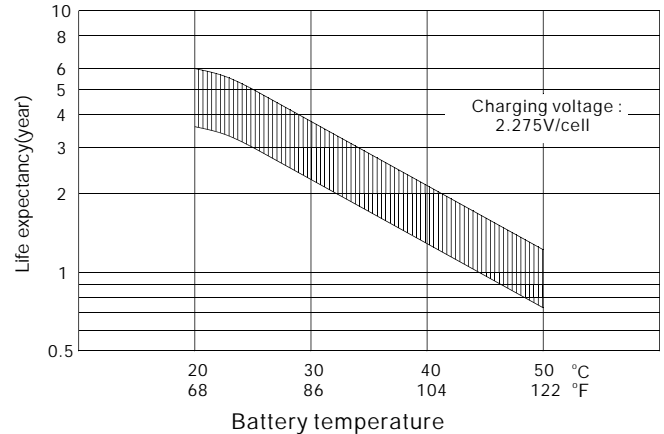


### Charging Procedure

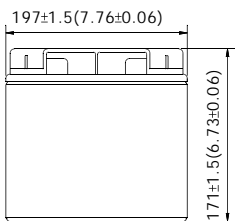
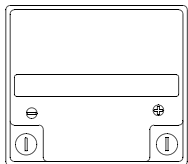
| Application              | Charging method   | Charging Voltage at 20°C (V/cell) | Temperature compensation coefficient of charging voltage (mV/°C/cell) | Max. charging current (CA) | Charging time 0.1CA, 20°C (h) |               | Temp (°C)       |
|--------------------------|---|-----------------------------------|---|----------------------------|-----------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

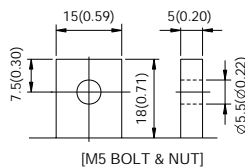


### OUTER DIMENSIONS



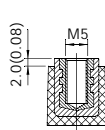
### TERMINAL TYPE

● Terminal B2



[M5 BOLT & NUT]

● Terminal I1

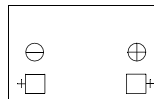


[M5 BOLT & NUT]

### 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        | 1446.2                  | 1064.6 | 853.2 | 507.6 | 291.12 | 116.59 | 80.39 | 44.93 | 23.49 |
| 10.50V        | 1673.9                  | 1153.4 | 892.4 | 526.9 | 299.86 | 118.93 | 81.60 | 45.60 | 24.00 |
| 10.20V        | 1778.5                  | 1194.9 | 920.0 | 539.0 | 305.25 | 120.00 | 82.05 | 45.83 | 24.11 |
| 9.90V         | 1858.4                  | 1223.5 | 941.2 | 546.5 | 308.91 | 120.83 | 82.33 | 45.96 | 24.17 |
| 9.60V         | 1920.0                  | 1248.0 | 960.0 | 552.0 | 312.00 | 121.56 | 82.58 | 45.96 | 24.17 |

### TERMINAL POSITION



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