



# Valve Regulated Lead-Acid Rechargeable Battery



## HR5.8-12

(23W/Cell 15Min Rate)

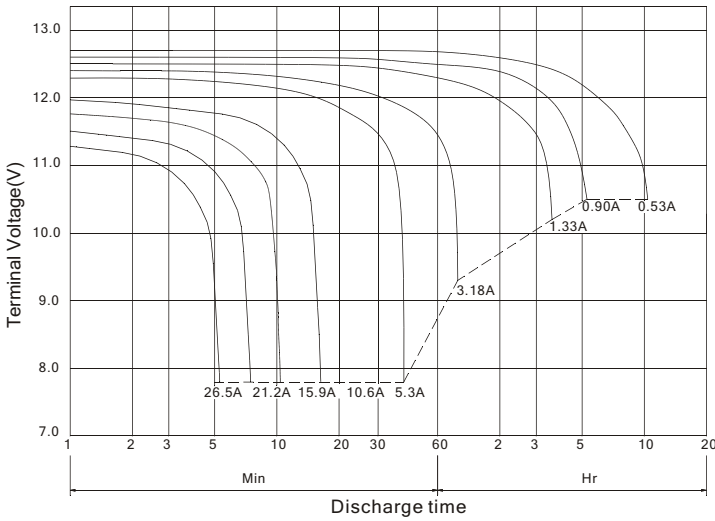
For High Rate Discharge

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

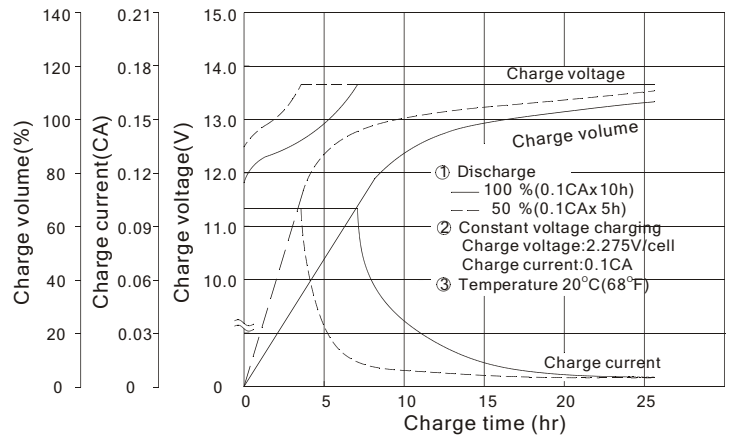
|   |  |
|---|--|
| Nominal Voltage(V).....   | 12 volts(6cells in series)                       |
| Nominal Capacity(Ah)  |  |
| 10 Hour rate F.V.(1.75V/cell) (0.53A to 10.50volts) .....                                       | 5.30Ah   |
| 15 Min rate F.V.(1.30V/cell) (138W to 7.80volts) .....  | 2.90Ah   |
| Approximate Weight .....  | 1880g(4.15lbs.)                                  |
| Terminal  |  |
| Standard.....   | Type T1  |
| Optional.....   | Type T2  |
| Internal Resistance (Fully Charged Battery).....  | <23mΩ  |
| Maximum Discharge Current For 5 sec.(A).....  | 79.5A  |
| Maximum Charge Current(A).....  | 1.59A  |
| 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.....  | 90/3.54  |
| Width           ±1.5mm.....   | 70/2.76  |
| Container Height ±1.5mm.....  | 102/4.02   |
| Total Height   ±2mm.....  | 106/4.17   |
| Application.....  | UPS, Fishing Lights, Emergency Lights, Toy-Cars. |

## HR5.8-12 Battery discharge characteristics (25°C/77°F)

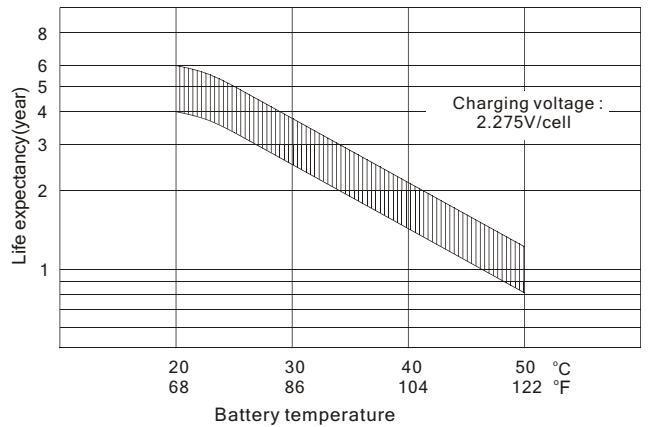


## Battery Charging Characteristics

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



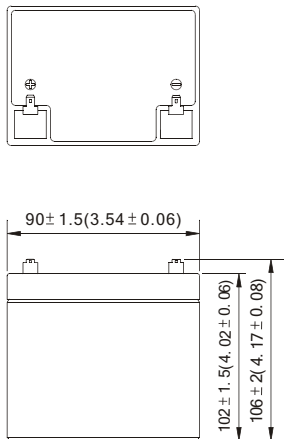
## Effect of Temperature on Long Term Float Life



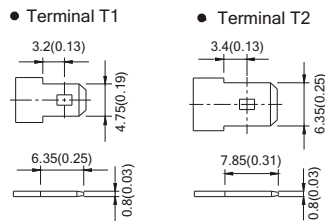
## Charging Procedure

| 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            |                 |

## OUTER DIMENSIONS



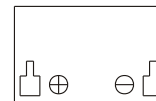
## TERMINAL TYPE



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

| Final Voltage | Discharge time |       |       |       |       |       |       |       |
|---------------|----------------|-------|-------|-------|-------|-------|-------|-------|
|               | 5Min           | 10Min | 15Min | 20Min | 30Min | 40Min | 50Min | 60Min |
| 10.80V        | 237.8          | 162.4 | 117.6 | 100.3 | 76.3  | 58.0  | 48.5  | 42.7  |
| 10.20V        | 284.2          | 181.3 | 127.9 | 106.3 | 79.5  | 60.2  | 50.0  | 43.6  |
| 9.60V         | 304.5          | 190.7 | 133.7 | 110.2 | 81.2  | 61.6  | 51.0  | 44.4  |
| 9.00V         | 313.2          | 194.3 | 136.6 | 111.9 | 82.2  | 62.4  | 51.6  | 44.8  |
| 8.40V         | 319.0          | 196.9 | 138.2 | 113.0 | 82.8  | 62.8  | 52.1  | 45.1  |
| 7.80V         | 321.9          | 198.7 | 139.2 | 113.7 | 83.3  | 63.1  | 52.3  | 45.2  |

## TERMINAL POSITION



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