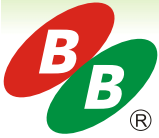




Measures Technology Values Innovation



# VRLA Rechargeable Battery

## HRC1234W

### FEATURES

- Maintenance free(no water topping-up required)
- No free acid(Non-spillable battery)
- Can be used in any orientation(excluding used inverted)
- The battery is designed for high rate usage
- Its design life is up to 5 years in floating application
- Absorbent Glass Mat technology for efficient gas recombination
- The power density at 5 min~15min discharging rate is 30% higher than BP series



### APPLICATION

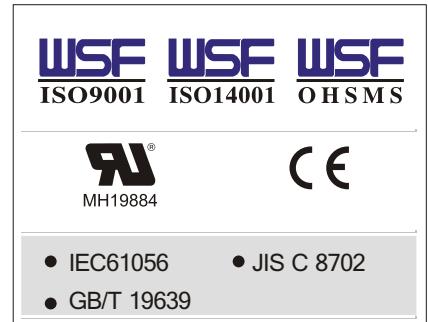
- UPS
- Laboratory Equipment
- Power Packs

### SPECIFICATIONS

|                             |                                    |                        |
|-----------------------------|------------------------------------|------------------------|
| Nominal Voltage             | 12V                                |                        |
| Nominal Capacity            | 20 Hour Rate (450mA, 10.5V)        | 9.00 Ah                |
|                             | 10 Hour Rate (800mA, 10.5V)        | 8.00 Ah                |
|                             | 15 Min Rate (204W, 10.2V)          | 4.25 Ah                |
| Approx. Weight              | 2500g(5.51lbs.)                    |                        |
| 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         | ≤20mΩ (Fully Charged )             |                        |

### CONTAINER MATERIAL

- Standard: ABS( UL 94-HB)  
Model Name: HRC1234W
- Optional: Flame Retardant ABS(UL 94-V0)  
Model Name: HRC1234WFR

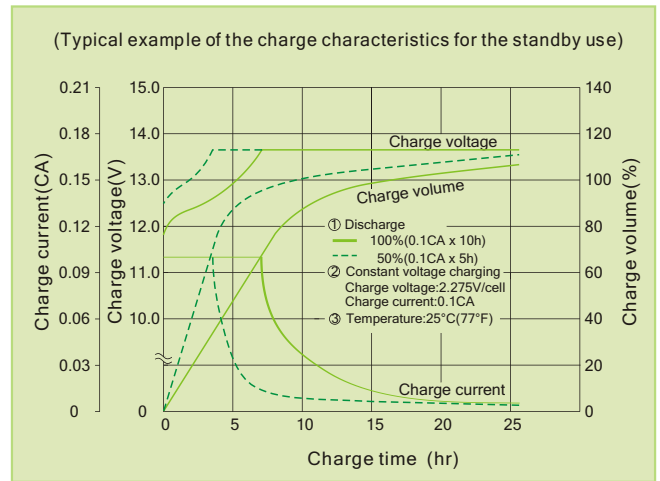
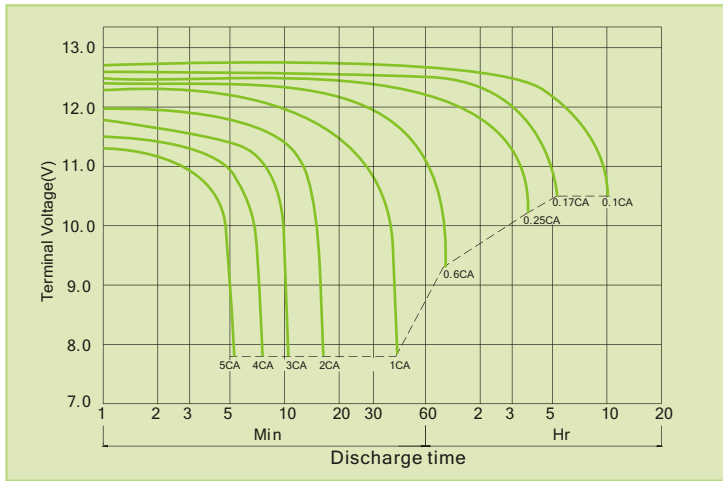


| OUTER DIMENSIONS mm(inch) | Length (L) | Width (W)          | Container Height (H) | Total Height (TH) |
|---------------------------|------------|--------------------|----------------------|-------------------|
|                           |            | 151±1.5(5.94±0.06) | 65±1.5(2.56±0.06)    |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



**HRC1234W (HRC1234WFR) discharge characteristics (25°C/77°F)**

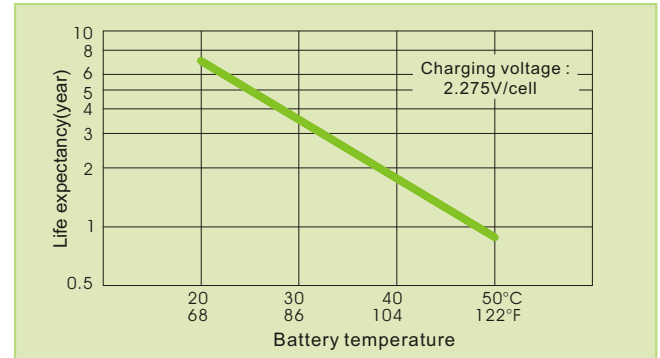
**Battery Charging Characteristics**



**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        |   |                                   |   |                            | 16                            | 10            |                    |

**Effect Of Temperature On Long Term Float Life**



**Constant power discharge characteristics at 25 °C/77 °F Unit: W**

| Discharge F.V. | Discharge Time | 5 Min | 10 Min | 15 Min | 20 Min | 30 Min | 40 Min | 50 Min | 60 Min | 120 Min |
|----------------|----------------|-------|--------|--------|--------|--------|--------|--------|--------|---------|
|                |                | 10.8V | 360.8  | 250.9  | 187.6  | 155.7  | 118.4  | 92.0   | 77.5   | 70.3    |
| 10.2V          | 431.2          | 280.0 | 204.1  | 164.9  | 123.3  | 95.5   | 80.0   | 72.0   | 39.1   |         |
| 9.6V           | 462.0          | 294.6 | 213.3  | 171.0  | 126.0  | 97.8   | 81.7   | 73.2   | 39.6   |         |
| 9.0V           | 475.2          | 300.2 | 218.0  | 173.7  | 127.6  | 98.9   | 82.6   | 73.9   | 39.9   |         |
| 8.4V           | 484.0          | 304.2 | 220.5  | 175.3  | 128.5  | 99.6   | 83.3   | 74.4   | 40.0   |         |
| 7.8V           | 488.4          | 306.9 | 222.2  | 176.4  | 129.2  | 100.1  | 83.8   | 74.6   | 40.1   |         |

**Constant current discharge characteristics at 25 °C/77 °F Unit: A**

| Discharge F.V. | Discharge Time | 5 Min | 10 Min | 15 Min | 20 Min | 30 Min | 40 Min | 50 Min | 60 Min | 120 Min |
|----------------|----------------|-------|--------|--------|--------|--------|--------|--------|--------|---------|
|                |                | 10.8V | 32.22  | 22.01  | 16.25  | 13.35  | 10.04  | 7.74   | 6.48   | 5.86    |
| 10.2V          | 39.20          | 24.56 | 17.66  | 14.14  | 10.45  | 8.03   | 6.69   | 6.00   | 3.26   |         |
| 9.6V           | 42.00          | 25.84 | 18.47  | 14.67  | 10.68  | 8.22   | 6.83   | 6.10   | 3.30   |         |
| 9.0V           | 43.20          | 26.33 | 18.87  | 14.90  | 10.81  | 8.31   | 6.91   | 6.16   | 3.33   |         |
| 8.4V           | 44.00          | 26.68 | 19.09  | 15.03  | 10.89  | 8.37   | 6.97   | 6.20   | 3.34   |         |
| 7.8V           | 44.40          | 26.92 | 19.23  | 15.13  | 10.95  | 8.42   | 7.01   | 6.22   | 3.34   |         |

All data and artworks shall be changed without prior notice, BB reserves the right to explain and update the information contained hereinto.  
For operation, please refer to the instruction from technical manual.

